"Dissecting Bioethics," edited by Tuija Takala and Matti Häyry, welcomes contributions on the conceptual and theoretical dimensions of bioethics.

The section is dedicated to the idea that words defined by bioethicists and others should not be allowed to imprison people's actual concerns, emotions, and thoughts. Papers that expose the many meanings of a concept, describe the different readings of a moral doctrine, or provide an alternative angle to seemingly self-evident issues are therefore particularly appreciated.

The themes covered in the section so far include dignity, naturalness, public interest, community, disability, autonomy, parity of reasoning, symbolic appeals, and toleration.

All submitted papers are peer reviewed. To submit a paper or to discuss a suitable topic, contact Tuija Takala at tuija.takala@helsinki.fi.

Immortal Fetuses

DANIELA CUTAŞ

In this article I look at two imaginary examples with the purpose of challenging some of the underlying intuitions that affect our views on immortality. I argue that if it ever becomes possible to make our future children immortal, to refuse to do so would be wrong. Similarly, if one day we found out that we were carrying immortal fetuses we should not try to make them mortal. The argument in both cases relies on the view that condemning our offspring to a limited life-span would harm them in ways that, in the normal conditions of parenthood, we agree are not desirable (or even permissible). And conversely, making our children immortal or allowing them to stay immortal would empower them and increase their range of meaningful choices in the future while not denying them death if they desire it.

I propose two unlikely (for the time being) and (as far as I know) unprecedented occurrences, in which a pregnant woman finds out (a) that the fetus she is carrying is immortal or (b) that something can be easily done to her mortal fetus to make it immortal. In short, the article is about the ethics of our choices in face of accidental immortality and the ethics of engineering immortality into our offspring before birth.[1] I think the usefulness of such thought experiments consists not only in that we may, who knows, find ourselves facing decisions of this kind sometime in the future, but also in their potential to clarify some of the ethical implications of immortality and immortality-related decisions. Most of the existing literature on immortality revolves around life extension treatments and, as such, can steer our thinking away

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from the issue of immortality itself. The problems in the life extension debates tend to have more to do with costs, distribution, justice, or personal views ("would I personally enjoy immortality or would it bore me?") than with immortality as such.

The main aim of this article is to see what my imaginary cases can tell us about our deep attitudes toward immortality and about what would be the "right" (or rational) conduct should certain conditions occur. I use the terms "right" and "rational" in the sense of logically coherent rationality functioning toward the best interest of the child. The criterion of the best interest of the offspring is generally accepted nowadays as an important ingredient of parental responsibility.

The meaning of the word "immortal" that I use in this article is that of the state of an organism that does not develop old-age-related conditions and does not die of old age, but is not invulnerable (i.e., it can die of other causes). This is also the sense in which it is used in the context of life extension, which constitutes the usual framework for the contemporary debate on the ethics of immortality.

In the interest of making my arguments clear I often refer to the mother as the decisionmaker. This should not be taken to mean that I suggest that the mothers are the only legitimate decisionmakers in such matters (to the detriment of, for instance, fathers). As a matter of fact, in several instances, I bring in the first- and second-person perspectives with that of the mother, so as to involve myself and the reader in the decisionmaking process. The problem is not only what a woman should do should she find herself in such and such a situation, but what should any of us do (thus universalizing the perspective).

Two Scenarios: The Immortal Fetus and the Mortal Fetus

I start by proposing two possible scenarios:

- Scenario A, in which a woman finds out that the fetus she is carrying is immortal and the doctor asks her whether or not to perform a procedure in order to make it mortal, and
- Scenario B, in which the fetus she is carrying is mortal and the doctor asks her whether or not to perform a procedure in order to make it immortal.

Let us assume that both procedures carry minimal risk and are very likely to lead to the intended result. Let us also assume that the science of fighting aging has not otherwise progressed very much; thus we do not have reasons to believe that these children will be able to choose immortality later in life. Let us also assume that these are unique or extremely rare situations.

Scenario A

In scenario A, in which you discover that the fetus you are carrying is immortal, assuming that you want to continue the pregnancy, you have two options. If you do nothing, you will give birth to an immortal human being. Alternatively, you can have a procedure performed that will make the fetus mortal. Let us investigate what it would mean to pick the first option. Some opponents of immortality[2] might argue that by birthing an immortal child you explicitly allow the transgression of human nature, which, they would argue, is inherently wrong,[3] whereas others could claim that an immortal child, someone so more likely

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than anyone else to be around for a really long time, would impose yet another toll on global overpopulation,[4] and yet others might point to a series of other undesirable effects forewarned by various opponents of immortality. You could, of course, reply that this being an exceptional situation (as it is in this example), the toll on overpopulation would be imperceptible. However, given the general importance of this consideration and the precedent that this would set in case it also happened to other people, I will return to this question later. With the claim that an immortal fetus transgresses the human nature, the problem is that some of those holding this view also think that tampering with fetuses (or aborting them) is inherently wrong. For those who hold both views, doing nothing would constitute allowing something inherently wrong to happen, but preventing this would also be wrong.

Let us now look at the situation from another viewpoint. By having decided to carry the immortal fetus to term, you have given your child the option of a limitless future. If, later on, the child decides that she does not wish to live forever, she can choose to die. There is nothing in our example that condemns her to live forever, should she not wish to do so, and further, she is not condemned to death in the way all of us are. She may not have the option of dying of old age, but she is not invulnerable and can die of other causes. Arguably she has more options than any other living human being. If she wishes not to be immortal, she can choose immediate death or perhaps develop a more complicated method of ending her life, thus correcting your decision. For instance, she could use a strategy such as that suggested by Tom Kirkwood in the epilogue of his book *Time of Our Lives*[5] of becoming a Timed One, by having some slow self-destructing device installed. Such a device could be programmed to cause death at some uncertain point in the future. This point could be more or less as predictable as the natural death of mortals is.

It can, however, also be argued that the claim that immortal children are "condemned to live forever"[6] is relative to the beliefs of the offspring. The child can, for instance, grow up to believe that taking positive measures to end one's own life is wrong. In this case the child might not have the option of suicide, but this is consistent with such views that she could not blame her parents for not taking the decision to make her mortal when she was a fetus either. However, this potential outcome is different from that of having a limited life span and having preferred an unlimited one. The difference lies in the number of available options. In the latter case, she simply would not have the option of immortality, whereas in the former, she would have immortality with the possibility of dying, even if this is a choice she does not wish to make (assuming, of course, an environment where personal beliefs such as crude "pro-life" stances are freely chosen and not imposed on people).

Another point that could be made in support of not making the child mortal is that by choosing not to interfere, one only lets things happen and, thus, is not morally responsible for the outcome. This is a stance often taken by people with strong religious views. Another way of describing this position is to put forth a distinction between acts and omissions,[7] and to claim that one is not responsible for that which one has not actively done. However, choosing not to intervene is also an act, an act of choosing between possible alternatives and, as with

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any choice, it has its motivations and entails corresponding responsibilities for its outcomes. Therefore, choosing not to take immortality away from the fetus is a choice for which the mother is responsible.

Some people believe that genetic interventions on the unborn that are not directly in their interests (thus any interventions that are not straightforwardly therapeutic) are wrong.[8] One of the key dilemmas in the example here is whether a mortality-causing intervention is in the interest of the unborn or against it. The parents can sincerely believe that the experience and unusualness of immortality would be a harm to their offspring. The mother can foresee the possibilities of the child experiencing anxiety and distress for being different, and perhaps discrimination and disapproval by her mortal contemporaries. Various religious beliefs could also play a part (for example, by having an immortal child she might attract the anger of God, which, of course, would be bad for the child).

The second option in scenario A is to opt for the procedure that would render the fetus mortal. By doing this, we would explicitly make the child "natural" in the sense that the child would be mortal just like everyone else, and not an "unnatural" immortal. We would have seen to it that the child does not have to confront the choice of whether to keep being immortal or not (unless it also becomes possible, during her lifetime, to defeat deadly aging in adults). The problem is that in scenario A the fetus is naturally immortal; no one has interfered with it to make it immortal; this is how it naturally is. Depending on whether "natural" is defined as "not man-made" or "how things usually are," the fetus' immortality can be seen as either natural or unnatural. And to complicate things even further, to make the fetus natural in the how-things-usually-are sense of the word, we would have to do an unnatural act in that we would have to interfere with the natural course of events. If anything, this brief analysis on the notion of "naturalness" shows us that arguments from naturalness cannot easily solve the problem we are facing.[9]

The strongest argument against choosing to make the child mortal is that this choice can very well be described as deliberately condemning one's own child to death.[10] Let us assume that I somehow have the option of "programming" the fetus I am carrying to be able to reach a given life span, but not more than that given life span. If I do not make the choice, the future child will be immortal. Opponents of immortality would probably argue that I should pick 120 years, at the most. Most of them do not claim that we already live too long lives; rather, their proposed "age limit" is usually set at the upper limits of what humans have reached so far. Other people might say that picking an age would be like installing a time bomb into my child. What if I picked 40 or 50 years as the age my child will reach? What if someone had a choice between having her or his child suffer from, say, Huntington's chorea (or indeed some other disease which would only strike at some point during adulthood) or not? Would we think that it is morally indifferent what that person chooses?

Deadlines

Let us have a closer look at the above possibility and assume that someone is confronted with the choice of whether a given embryo should or should not be affected by a disease that will kill the resulting child approx-

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imately at the age of 50. Would the opponents of immortality argue that the choice is morally indifferent? Or perhaps they might claim that we are morally required to refuse to cure the disease when it is possible to do so or to engineer it into a healthy embryo? In any case the resulting people would in our example, arguably, benefit from 40 to 50 years of "normal" healthy lives. And if we are asked to take seriously the threat of overpopulation and the "gray planet," there could even be societal benefits in giving birth to people with such limited life spans. Further, one could argue that the natural death of old age usually comes with pain and progressive degradation of the body and mind, so it is not necessarily the case that dying of Huntington's chorea, for example, is any more humiliating or painful than dying of conditions brought about by old age. The main difference between the two is that the dying of old-age-related diseases happens later in life. Why, then, do we think that engineering diseases into people or not curing them when we have the means to do so is wrong? Is it only that the quantity of life is less than what on average people now expect to live?

It is unlikely that even the opponents of immortality would suggest that it is either morally acceptable or morally indifferent to insert a disease into a healthy embryo. But how exactly is this different from inserting mortality into immortal embryos? Why is drawing the line, say, at 120 years acceptable, but not at 50 years?

The quality of life for the elderly has tremendously improved in the developed world in the past few decades. And even if old age might be in some ways less satisfying than youth, most of us wish to live it. People live active lives far beyond retirement; our families, friends, hobbies, and sometimes professional careers, too, continue to make our lives worthwhile. For most of us there remain things that we would wish to learn, places we would like to visit, and experiences we would like to have. In addition, many people are looking forward to the freedom of no longer been tied by parental responsibilities or the time constraints set by their jobs, to finally have the time and, they hope, also money to do what they always wanted to do. Because of these and other reasons, most of us do not think it would be good if our lives ended, say, at the age of 50, and consequently, would object to the suggestion that there is nothing wrong in having a shorter life. If we, then, think that the experience of being 50, 60, 70, and even 80 years old is worth having, it is consistent to say that the experience of being 120, 130, 140, and 150 can also be worth having. Naturally some of the aspects of living a really long life might be less satisfying: the loss of one's mortal partner, one's friends, and one's offspring to death, or struggling with societal changes that one cannot keep up with. Other aspects, instead, could be more satisfying, such as getting rid of one's mortal partner to death, meeting new people, spending time with one's great-great-great-grandchildren, sharing the experience of a really long life, and enjoying the wider range of choices unavailable in past years. If we do not consider ending our lives when we are 80 or 90 (provided that we are reasonably healthy) but are yet to suffer from illnesses related to old age, it may be naïve or altogether unfair to decree that life at 200 years of age is not good to live. In short, if it is bad that people die at 50 because of lost years of good living (knowing that there are meaningful experiences that we can have after that age), I cannot see why we should think that there is

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no harm in not experiencing, for instance, the age of 200 (with good reasons to assume that we would have meaningful lives at that age also).

Scenario B

We now turn to the scenario B, where the mother is carrying a mortal fetus, but for whom there exists a simple procedure that would make the resulting child immortal. Let us first consider the option of making the child immortal. This would arguably cause the child to transgress human nature. In the language of "naturalness" this would be a situation where a "natural" fetus is made "unnatural" by "unnatural" means. However, unless we wish to challenge, say, modern medicine as a whole, and to celebrate natural diseases, it is unclear whether something normative can be deduced from this description. The main difference between not choosing to render the fetus immortal in scenario B and not rendering it mortal in scenario A is that the achievement of immortality in scenario B would be brought about by the purposeful action to cause immortality. This takes us back to the question of whether we are equally responsible for our acts and omissions. However, if my argument in scenario A is correct, and making the choice, whichever that is, is an act in itself, then the responsibilities are similar in both cases.

The alternative option in this scenario is to leave the fetus as it is. This would, as far as we know, foreclose its chances of ever achieving immortality. From the point of view of mortality the child would be like everyone else. She would age like everyone else, and she would die most probably before she reaches 100 years of age. If, at some point of her life, she becomes aware of the choice offered to us when she was a fetus, she might question the choice made. We could argue in return that even if she herself might not have been a threat to global overpopulation, allowing her to become immortal would have been selfish of us and that, even more importantly, could have set a dangerous precedent and that therefore it was decided to keep her mortal. Or we could argue from the viewpoint of her best interest and maintain that being immortal would have been boring and that she could have experienced anxiety because she would have been different from everyone else. I would assume that the child in our example would not be too convinced by our arguments. She could point out that parents are generally expected to give their children the best possible opportunities and are not considered immoral in giving their children more potential to flourish, if they can, and that sacrificing her immortality for the sake of others might not have been called for. She could emphasize that it is not usually seen as morally acceptable for parents to sacrifice their children for the sake of others even when the sacrifice would really be worthwhile for identifiable others (for instance, their organs and tissues could save many lives). Regarding her possible boredom and anxiety, the child might think that she, herself, would be the best judge of her own emotions. Had we decided differently, and assuming that the child is not of the view that taking one's own life is always wrong, she would now be in a position to make the choice between mortality and immortality herself. Further, even if she believed that taking her own life would be wrong, it would still be uncertain whether she could complain had we made the other choice. Of course, the child could also be happy to be mortal, and if this

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were the situation, our decision could be seen as having been a right one. But if she is not happy being a mortal, then she was harmed by the choice made. If she had been made immortal, but was not happy with her current condition, the option of death would still be open for her. Therefore, I would argue, it would have been in the interests of the child that we had opted for her immortality.

Immortality for All: An Afterthought

In the above I have discussed the possibility of immortality through rare and isolated cases in an attempt to better understand our intuitions about immortality per se. I hope to have shown that in these cases the choice that made the resulting child immortal would have been the right one. I would like to end this article with some open-ended thoughts on immortality more generally.

How would our thinking change if these were not unique incidents? What if because of some freak accident all children conceived from today onward would be immortal? Should we fight to find a cure to immortality? Would this be the best way to combat overpopulation, or should we start thinking of imposing one-child policies or other measures to restrict reproduction so that people do not produce too many immortals? Should we sterilize (some, or most of) our immortal babies? In what sense would human nature be under threat if all future humans were immortal? Would some of our core values (whatever they may be) be under threat and, if they were, what sort of actions should we take to preserve them?

We can continue our thought experiment further and assume that the accident not only makes all future children immortal, but that it also makes all currently living people immortal. Would that change our answer to the questions above? Would there be more pressing questions that we should find answers to?

Conclusion

In this article I have shown that in the two scenarios, A and B, the rational parental option is to have an immortal child (by leaving the fetus immortal as it is, in scenario A, or by rendering it immortal, in scenario B). In the scenarios it was assumed that these were unique events, but if immortality were to become more widely spread, the issues become more complicated. It is, however, not at all clear that we should forsake immortality even if this course of events were to take place. As long as immortality would not come about as "promethean" (inescapable) immortality, it is clear that deciding not to allow it to our offspring can be against their interests and thus can be an example of less than responsible parenthood. Whether or not we should forsake immortality for societal reasons is another issue, but it is not clear that societal reasons are strong enough to justify us to condemn our offspring to death when we can avoid it.

Notes

1. I owe the idea of engineering immortality into embryos to John Harris; see his Intimations of immortality: The ethics and justice of life-extending therapies. In: Freeman MDA, ed. *Current Legal Problems*, vol. 55. Oxford: Oxford University Press; 2002:66. My argument is altogether not far from Feinberg's idea of allowing the future child an "open future." See Feinberg J. *Freedom and Fulfilment: Philosophical Essays*. Princeton: Princeton University Press; 1992.
2. Sometimes referred to as "apologists," "quietists," "thanatophiles," or "deathists." The

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proponents of immortality are referred to as "prolongevitists" or "life extensionists." The first category has among its representatives authors such as Daniel Callahan, Francis Fukuyama, and Leon Kass, and the latter is represented by authors such as Arthur Caplan, John Harris, Aubrey de Grey, and Tom Kirkwood.

3. For example, someone who adheres to the ideas developed by Francis Fukuyama in his book *Our Posthuman Future: Consequences of the Biotechnology Revolution*. London: Profile; 2002:101.
4. For example, in the style of Leon Kass; see his *Life, Liberty and the Defense of Dignity*. San Francisco: Encounter Books; 2002:257–76 (chap. 9: L'Chaim and its limits. Why not immortality?).
5. Kirkwood T. *Time of Our Lives. The Science of Human Ageing*. London: Weidenfield & Nicholson; 1999:243–56.
6. I thank an anonymous reviewer of the journal for pointing this out to me.
7. For literature on acts and omissions, see, for instance, Rachels J. Active and passive euthanasia. *New England Journal of Medicine* 1975;292(2):78–80; Weinryb E. Omissions and responsibility. *The Philosophical Quarterly* 1980;30:1–18; Harris J. *Violence and Responsibility*. London: Routledge & Kegan Paul, 1980; Hall J. Acts and omissions. *The Philosophical Quarterly* 1989;39(157):399–408; Kuhse H. Euthanasia. In: Singer P. *A Companion to Ethics*. Oxford: Blackwell; 1993; and Takala T. Acts and omissions. In: Ashcroft RE, Dawson A, Draper H, McMillan J, eds. *Principles of Health Care Ethics*, 2nd ed. Chichester: John Wiley & Sons Ltd.; 2007:273–6.
8. See Habermas J. *The Future of Human Nature*. Cambridge: Polity Press; 2003:chaps. 2, 6. According to Habermas, by intervening in the genome of our offspring, we create a type of (unidirectional, essence-determining) unequal relationship for which there is no precedent, due to which humans would cease to be "persons of equal birth." Of course there may be a problem here for our case, as by not making the fetus mortal we already allow such inequality to arise; however, what Habermas stresses is the wrongness of creating the determining, unilateral relationship, and not seeing to it that fetuses are made to be of equal birth if they were not so naturally—plus the latter deed would undermine the equal birth anyway.
9. See, for example, Takala T. (Im)morality of (Un)naturalness. *Cambridge Quarterly of Healthcare Ethics* 2004;13:15–9.
10. Of course, as an anonymous reviewer has pointed out, in the same way it can be said of any parent that by reproducing she "condemns [her] own child to death." However, the case is significantly not the same, as in reproduction where the option of immortality does not exist parents offer their offspring as much life as they can. The fact that life has an end is not the responsibility of parents as long as there is nothing they can do to make it endless. Also, they can justify their option in giving life anyway by the fact that if life is a benefit, then some benefit is better than no benefit, and one can always hope that death will eventually be defeated and the life of the respective offspring eventually saved.

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