

The Ethics of Using Embryonic Stem Cells*

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Abstract: The ethics of the use of embryonic stem cells can be determined in three stages. First, the ethical framework needs to be established. For this purpose, a renewed form of moral realism should replace the logically-flawed utilitarianism that is widely used in discussions today. Second, the ontological status of the embryos from which stem cells are removed needs to be determined. An approach that sees embryos as personal bodies offers a middle way between the polar traditions that see embryos either as mere human tissue or as full human persons. Finally, particular ethical obligations can be deduced. It is ethical to use embryos surplus to the needs of assisted reproduction in research whose purpose is to enhance life substantially where appropriate consent is obtained and the bodily material not utilised in research is disposed of respectfully but not otherwise.

THEOLOGY IS ALWAYS A MATTER OF BIOGRAPHY and my biography has been about a constant conversation between life in the secular world and contemporary academic theology. That life has taken me into the worlds of the law and business, universities and schools, hospitals and medical research institutions. The sort of theology that arises from this exchange demands a theological knowledge in harmony with the fundamentals of modern physics, biology, history and psychology. It is ecumenical and interfaith, believing that no tradition has a mortgage on truth but that all contribute to it. It is not a theology that takes a leap of faith where reason fears to tread. But it is a theology that thinks that much of the value of living a fully human life has been lost from modern thought – and that it is the role of contemporary theology to engage in a conversation to help that thought recover what it lost when it rightly purged itself of the authoritarian and uncritical beliefs that, sadly, linger still in many parts of the contemporary Church.

In this essay, which emerges from that conversation between secular life and contemporary theology, I want to step through three questions

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in order to determine the shape of our ethical response to the use of embryonic stem cells:

- First, what type of ethics are we to apply?
- Second, what is the ontological status of the embryos from which stem cells are removed?
- Third, what are the ethical obligations that emerge, given our determination about the type of ethics we are to apply and the ontological status of the embryos?

It is important not to short-cut this discussion and go straight to the question of the obligations surrounding embryonic stem cells, as so much discussion tends to do. We need first to think about the ethical methodology and key philosophical assumptions, such as what is the nature of a person, because there are distinct and incompatible ways of thinking about these issues and, critically, the type of thinking we apply will largely determine the answer we arrive at. If we do not resolve what some might see as preliminary issues, then it is unlikely there will be genuine debate at all but rather only the assertion and counter-assertion of conclusions. The only way to resolve this type of exchange is political, not rational. When it come to issues where it is claimed that fundamental human rights are at stake this is an unsound way to form public policy. In this discussion, therefore, I want to reverse the normal priority and consider first the key questions of ethical methodology.

WHAT TYPE OF ETHICS SHOULD WE USE?

We need to start with the question, what type of ethics should we use? In this discussion I want to consider two broad possibilities – utilitarianism and moral realism – because they represent the main positions in the current public debate over the use of embryonic stem cells.

Utilitarianism

Some form of utilitarianism is probably the most widely, though usually unconsciously, used approach to ethics in the western world. It is an approach that, simply put, says “choose the option which brings the greatest good to the greatest number” or “choose the option that brings about the greatest happiness” or perhaps, more accurately, “the morally right choice is the one that will bring a better proportion of benefit to harms than other available choices”.¹ A utilitarian approach will hold that embryonic stem cell research is ethical if the good that comes from it outweighs the harm. We should note that for the utilitarian whether or not embryos are persons will not be determinative

1. See John Finnis, *Fundamentals of Ethics* (Washington DC: Georgetown University Press, 1983) 86.

because the good brought from the destruction of some people could be outweighed by the benefit brought for others. Utilitarian judgements, for example, licensed the intentional killing of the innocent civilians of Hiroshima and Nagasaki on the basis that fewer lives would be lost by forcing the Japanese government to surrender through a demonstration of the power of the atomic bomb than if a land invasion were attempted.

While utilitarianism is widely used and is attractive for its apparent ease of use, it suffers from deep logical flaws. These flaws are important to point out because many of the major figures in bioethical debates, like Peter Singer, base their arguments on this type of reasoning. Here I want to point out just one of those fatal flaws.

The omniscience flaw arises because utilitarianism determines which course of action is ethical by comparing the likely consequences of the different alternatives on offer. The problem is that you would need to be not just omniscient but omniscient in a determinist universe to know what these consequences will be. We are very limited both by our capacity to see into the future and by our capacity to know the breadth of impact that even a simple decision might have. One of the insights of chaos theory, which is popularly talked about in terms of the beating of a butterfly's wings in one part of the world causing a hurricane in another part, is that, in a world of complex interrelated physical and human systems, predicting the consequence of even a simple action is extremely difficult.

In the case of the use of embryonic stem cells, it is impossible to determine whether the medical good that is likely to come from the use of these cells would outweigh the contribution that knowledge from this research might make to development of the genetic technologies that would permit the creation of the type of "Brave New World" that few today would want to set us on the path towards creating. The ambiguity becomes all the greater if one of the choices is between the use of embryo stem cells and the residual stem cells in adult bodies. It may be that the refusal to allow the use of embryo stem cells will accelerate the discovery of ways to use adult cells to the same ends while reducing the likelihood that we will produce a "Brave New World". The problem is that it is impossible to know. Since on topics like this we are able to paint many plausible different future scenarios, this type of ethics offers no logical way of resolving the issue.

Moral Realism

An alternative way to make ethical decisions is to use a form of moral realism. Ethics, according to this approach, is the reasonable pursuit of what is genuinely humanly fulfilling in community with others. The reason for the use of the word realism is that it is the reality of human

nature and our existence that sets the boundaries on what human fulfilment is and on how it can be reasonably pursued. It is our human nature that means we find fulfilment in features of life like our friendships with others, exercising our physical skills, enjoying beauty, and being healthy. Similarly, it is the nature of existence, such as that we have limited time and energy and that the world has limited resources, that gives rise to requirements such as that we should cooperate with others, make and sustain commitments and be efficient.

In its most contemporary form, moral realism represents the fusion of the Aristotelian tradition of ethics, which asks what must we do to ensure human flourishing and fulfilment in a community, and the Kantian tradition, which asks what practical reason – the reason we use to make decisions – requires of us. What may be of particular interest here is that foremost amongst its current expositors is the Australian legal philosopher, long resident in Oxford, John Finnis. The focus of this type of ethics is a careful inquiry into the intention behind our decisions. It asks whether what we intend by our decisions is the reasonable pursuit of what is humanly fulfilling.

Central to this approach is the recognition that our intentional choices shape our character. If our intention is constantly to care for others, our character will become a caring one because our ways of thinking and feeling become aligned around taking such action.

When we consider the use of embryonic stem cells our focus will be upon the intention of the researcher in her interactions with these embryos, whether in using cells from existing stem cell lines, extracting stem-cells from embryos or creating embryos from which to exact these cells. To understand her intention, the next step must be an inquiry into the ontological status of the embryos she is dealing with. We need to ask, what is the nature of these embryos?

WHAT IS THE ONTOLOGICAL STATUS OF EMBRYOS?

In Western culture there are two broad traditions about the ontological status of embryos. In their strongest forms one tradition sees these cells as mere human tissue and, in the other, that they are a human person.

Embryos are Human Tissue

The contemporary idea that embryos are merely human tissue has its origins in Enlightenment. This movement placed rationality at the centre of the definition of what it was to be a person. Those, like Peter Singer, who stand in this tradition call on Enlightenment philosophers such as John Locke and his definition of a person as “A thinking intel-

ligent being that has reason and reflection and can consider itself as itself, the same thinking thing, in different times and places."²

Although the idea that it was rationality that distinguished humans from animals is deeply rooted in the Western tradition – a tradition that itself is no longer sustainable – in the work of Locke and contemporaries a significant shift had occurred. The shift was from the notion that if it was *in the nature* of a creature to possess rationality and self-consciousness then it was a person, to the idea that it was *the current possession* of rationality and self-consciousness that defined the person. Therefore, while a foetus might have been judged to be a person because the capability for rationality and self-consciousness was part of its nature, now it was no longer to be judged a person because it did not actually possess those qualities.

Such thought takes its place comfortably in the modern analytic tradition of philosophy that seeks to define things by the properties they possess. To such a turn of mind, it is unambiguous that an adult is a person and so the point to start the definition of a person is related to the properties which an adult possesses, like autonomy, self-consciousness and rationality. From such a standpoint, the claim that a foetus is a person appears, at best, strained and the claim that an embryo is a person, simply wrong. What is intuitively appealing about this position is that, peering down a microscope, there appears to be a considerable difference between a collection of apparently identical cells and a fully-functioning adult.

Embryos are Human Persons

The counterpoint to the view that embryos are simply human tissue is the tradition, which has been developed and shaped by Christian theology, that sees embryos as human persons. What Christian theology does is to define the nature of an entity in a different way to Enlightenment thought – by what we might call a narrative ontology. So rather than an entity being defined by the properties it possesses *at a point in time*, the entity is defined in terms of the properties it possesses *in relation to time*. In post-Enlightenment thought, space has come to have a primacy over time, whereas in Christian theology time has a priority over space. Consider the situation of genetically identical twins at an early stage in their developments – the entities in themselves possess no properties by which we can distinguish them. Post-Enlightenment thought will distinguish them by space related properties – the one on the left, the one the right and it will hold that in almost all meaningful senses they are identical. Christian theology will

2. Singer, *Practical Ethics* (Cambridge/New York: Cambridge University Press, 1979) 87, quoting Locke.

deny that they are identical at all. It will distinguish them by observing that in relation to time they are very different because both are on unique historical trajectories.

It is useful to understand the background to this very different epistemological priority – the priority of time over space. It begins in the Hebrew and Greek scriptures. We might start with the understanding of God we find here. When God first reveals God's self to Moses in the burning bush, the words attributed to God have the dual meaning "I am who I am and I will be who I will be" (Exod 3:14). The future of God was as important to the nature of God as God's present. At a community level, the identity of the people of Israel is defined by their history and, especially, its central event, the Exodus from slavery into the promised-land. When they sing of who they are in the Psalms, they do so by recounting their history.

At an individual level, it is the historical relationship with God that is definitive of a person's identity. In the prophet Jeremiah we find "Before I formed you in the womb I knew you, and before you were born I consecrated you" (Jer 1:5); in Psalm 139, "For it was you who formed my inward parts; you knit me together in my mother's womb" (v. 13); in the prophet Isaiah, "The Lord called me before I was born, while I was in my mother's womb he named me" (Isa 49:1). In these Hebrew Scriptures the unborn child is treated as a particular person. They are able to speak about their life in the womb in the first person "I". The infancy narratives of the Gospels of Matthew and Luke point to a similar understanding in the Greek scriptures. In the annunciation stories (Matt 1:18-25; Luke 1:8-20; 1:26-38) the person who will or has come to be as a result of the power of the Holy Spirit is identified as a particular person. When it comes to the person of Jesus, his identity is established not by any powers he possesses – they are treated merely as signs – but by his historical role as the Messiah.

From this data, Christian theology recognised that time was actually central to the definition of what something was. Whatever judgement one passes about the data it used to establish that insight, it stands as an important corrective to contemporary thought that, in so many ways, marginalises and denies the integral time-boundedness of everything. We should note that Christian theology has not been entirely alone in modern times in emphasising the importance of time. It was Martin Heidegger – who interestingly was well-schooled in theology – who took Being (existence) and Time as the two critical reference points for understanding the nature of what it is to be human.

It is on the basis of the history of an entity being central to the definition of what the entity is that we can make the philosophical form of the argument that embryos are persons. However, we cannot leave

theology's contribution to this discussion here because it is only in the last two hundred years that it has become normal for theologians to claim that this type of logic results in the claim that personhood begins at conception. Prior to that, Thomas Aquinas' view that a fertilised egg began to grow as an animal and only later became a human when animated by a soul tended to shape thought on this subject. It was not until 1887 that Pope Leo XIII listed this view as an error.

Behind Aquinas' view is the theological anthropology that a person is the indivisible unity of a body and human soul – a term which we could translate today as a “mind”. Given contemporary knowledge of how integrally related the bodily brain and the mind are, there is much to be said for this account. We need to be clear that this anthropology does not involve a belief in an immortal soul – Christian hope rests rather on a notion of resurrection, which is that mind and body will be recreated in some radically new form. In many ways, an account of the person that sees her as an indivisible unity of mind and body is a more satisfactory definition of what it is to be a person than one that focuses on the mind alone. It would seem clear that such a unity does not exist until the point in the life of the foetus that mental events start to occur.

However, the view of, especially Catholic, theologians post-Leo XIII has been that the body is ensouled at conception. This is a difficult argument to sustain. We know enough about embryonic biology to have reason to think we can account for its development solely through bio-chemical processes. We do not need to posit any other entity. What is more, there is no obvious means by which an immaterial reality – like the mind – could exist in an embryo because there is no physical mechanism to support it. For a soul to exist at this stage it would need to be supported by some other immaterial means, which while not logically impossible if you believe in God, is a far more complex explanation, and one for which there is no evidence, than the simpler, and therefore preferable explanation, that the mind or soul evolves with the development of the brain.

Embryos are Personal Bodies

If we combine the two perspectives – first, that an entity is defined by a reference to time, which means that an embryo's nature is in part defined by the personal history of which it will be a part; and, second, the understanding that an embryo is not yet a human person – what this suggests is that an embryo is a personal body. We might get a better sense of what this means by looking to the other end of life. When a person is dead we still treat his or her body with respect. It is not suddenly simply human tissue. We expect that consent will have been obtained from the person prior to their death if we want to use her

body in medical research or her organs for transplantation. What we are recognising is that this body is an integral part of the person and that the nature of it is defined in terms of it being a part of that person. We see the importance of the reference to time as integral to understanding the nature of this entity. As an aside, we may note that the way we treat dead bodies provides a good example of the continuing prevalence in our culture of this insight from Christian theology.

The conclusion that embryos are personal bodies offers a middle way between the claim that they are merely human tissue and that they are a human person. The claim that an embryo is simply human tissue has strength because the mental element that is an integral part of what it is to be a person is missing, and it is weak because as a definition it fails to make reference to that central feature of reality, namely time. On the other hand, the view that embryos are human persons runs against the fact that an embryo is purely biological.

WHAT ARE OUR ETHICAL OBLIGATIONS RELATING TO THE USE OF EMBRYONIC STEM CELLS?

The answer to the question, what are the ethics of using human embryonic stem cells, is therefore a sub-set of the question of what are our obligations towards personal bodies. If we are to apply contemporary moral realism to this question, we need to begin with the basic obligation of such an ethic that we should never intentionally harm a person. Never intentionally harming a person means never to make harming a person the object and purpose of what we are doing. We should note here that this type of ethics makes substantial use of the distinction between what we intend by our actions and the side-effects we accept. For example, in the administering of a therapeutic drug our intention is to assist the patient, while we accept that there may be some unpleasant side-effects of using the drug. Those side-effects are certainly not something we seek or desire for the patient and if we have any way of avoiding them we will. There is a difference between our responsibility for what we intend and what we accept. We must always intend to do that which advances human fulfilment – it must always be our intention to help, never to harm the patient. Whereas, in the case of side-effects, our responsibility is to ensure that it is reasonable to accept them. In the case of administering a drug, the common way to determine whether or not accepting the side-effects is reasonable is to inform the patient about them and ask for his judgement. Fortunately, this distinction between intention and side-effects is still well understood in the law and much of medicine – but often less well amongst those captured by utilitarian thought in which all the consequences of act, intended or unintended, are morally equivalent.

The question we now need to ask is: What harm can we do to a personal body? The central feature of such a body is, quite simply, that it is personal, by which we mean that is the unique bodily dimension of a human person. In virtue of its being a unique and integral part of a human person, a moral realist perspective holds that we should never intentionally harm it. What this means is that the core ethical obligations towards personal bodies are, first, that we should never depersonalise them, namely, treat them in a way that removes or denies their uniqueness, and secondly, that they should always be treated as ends in themselves, never as the mere means to some other end.

This duty not to depersonalise or instrumentalise bodies takes its place as part of the wider duty not to depersonalise or instrumentalise human life. The horrors of the previous century, which continue into this one, should give us particular cause to be wary of breaching this duty. At the core of the great evils of genocide, ethnic cleansing and the intentional bombing of innocent civilians, which occurred on both sides of the Second World War and since, in Vietnam and other places, has been a breach of this duty. The importance of mentioning these grave evils here is that it emphasises that the choices we make about the use of human embryos are in fact of the utmost significance for the future shape of our society. One of the core and vital features of the moral realist tradition is that it points out the consequences for our character of the decisions we make. What this does is to say that we cannot confine the impact of the moral choices we make to the particular spheres in which we make them.

To consider whether this duty is breached in the case of the use of embryonic stem cells we need to consider separately the different sources of embryos for such work.

First, we should consider embryos that are surplus to the needs of assisted reproduction – of which there are currently over 65,000 in Australia. According to the analysis I have outlined, these embryos are personal bodies. When a researcher extracts a cell from such a body, her specific intention could be to remove a cell for the purpose of enhancing human life, whether through research using the cell or through its use in the development of some form of therapy. At present, the removal of this cell will destroy the embryo. However, the destruction of the embryo need not be part of the researcher's intention at all. This is clear because, if the embryo survived, the researcher's purpose would in no way have been thwarted. In other words, its destruction is not part of her purpose: what she is seeking to bring about, by her actions.

The question then is whether accepting the death of this personal body is an ethically acceptable side-effect of her action. Even moral theologians with a very strong pro-life stance accept that there are times

when the death of a person can be fairly accepted as the side-effect of a good intention. For example, in the case of an ectopic pregnancy, it is judged fair to accept the death of an embryo that is the consequence of its removal from the fallopian tube in order to save the mother's life. The purpose of the embryo's removal was not to destroy it, indeed if there was a way to save it that would be considered preferable.

Accepting the destruction of a personal body in order to extract stem-cells from embryos that are surplus to the requirements of assisted reproduction could be ethical. The final determination of the question hinges on whether it is fair to accept the death of this body as a side effect of the extraction of the stem cells. In this case, the classic test of fairness probably takes a form like this:

If there were no possibility of my ever gaining a brain, or perhaps thinking of the end of life – of ever regaining any higher order brain function – would I be prepared to undergo a medical procedure aimed at creating life-saving knowledge and therapies but which would result in my death?

It would seem that someone could reasonably make this judgement. In the case of such a personal body, the people in the position to make this judgement are the embryo's parents. To give such consent, the parents really need to be able to answer "yes" to this fairness test. Any system that sought the consent of parents should get them to think through the decision in these terms.

If the decision to extract these stem cells is made, then the material from the body that has been killed in the process should be treated with the respect due to a personal body. It would be appropriate to bury such material in a cemetery or to ensure that it was cremated and the ashes spread on the ground people set aside for these purposes. Taking the bodiliness of embryos seriously in these ways is a good reminder to researchers that they should approach such research with the utmost ethical seriousness and not with the kind of clinical routine or casualness that some do.

The second category of embryos that we need to consider are those specifically created for research or therapy. They could be created through the fertilisation of an egg with sperm or through nuclear transfer of a somatic cell into an egg. It is useful to focus on the later type of embryo creation and its likely use for therapeutic purposes. This type of cloning could be used to create cells or even organs to transfer into a patient to help deal with the problems of rejection. The problem is that the intention in creating such an embryo involves both instrumentalising and depersonalising the body. The precise purpose in creating this body is to use it for someone else's good and, what is more,

to do so in a way that specifically intends to deny its uniqueness. The aim of such a procedure is to ensure that this body is not unique either genetically or historically – it is destined not for independent existence but for inclusion into another body. Its body is certainly not valued as an end in itself because the sole purpose of its creation is to be used by another body.

It might be suggested that this is similar to organ transplantation. The critical difference is that ethical organ transplantation represents the gift of something inherently valued by one person to another. Where organ transplantation is recognised as unethical is precisely at the point where the body is instrumentalised. That is why, rightly, there is a ban on the sale of human organs.

The instrumental nature of these entities is acutely highlighted in the report of the (Australian) House of Representatives Standing Committee on Legal and Constitutional Affairs in *Human Cloning*.³ It observes that the nature of the artificial creation of these bodies means that they are unlikely to have parents in any meaningful sense. Any of these bodies that go unused will remain in the possession of the laboratory that created them and the only sensible category that they will have is as the laboratory's property.

There are some who will be surprised at this concern about the use of biological material in an instrumentalised way. That surprise arises because the whole field in which this work occurs is shaped by some problematic paradigms that relate to the joining of two words that should never really have been joined – “bio” and “technology”. Technology refers to the tools and instruments humans create to do work for them. When we add the prefix “bio” we suggest that we are using the biological as a tool for human purposes. There is danger enough in such a mindset as environmentalists will readily point out – it is the mindset that lies behind seeing the biological life of the planet as a resource to be used for human purposes.

Balanced against this view is the moral realist outlook that fulfilment in human life arises when we learn to live well within the fundamental limits of what it is to be human. That does not mean that we do not fight against the limiting effects of disease and the like – to the contrary – but it does mean that we should take care not to turn that struggle into a fight against, or a denial of mortality itself – at the point we do that, we start to deny what it is to be human, which by its very nature is a recipe for unhappiness. In a similar way, we have to learn to live within

3. *Human cloning: scientific, ethical and regulatory aspects of human cloning and stem cell research* (<http://www.aph.gov.au/house/committee/laca/humancloning/contents.htm>), para. 7.119.

the biological limits of our planet. Merely because we have the power to dominate the biosphere, even for good ends like growing more food, does not mean that we should do it. At some point, we have to accept that such dominance denies our fundamental relationship with other creatures on the planet. Similarly, in the sphere of genetic research, the capacity to do it, even for apparently good purposes, needs to be subjected to scrutiny in order to determine whether in doing so we are, almost in spite of ourselves, denying what it is to be human.

There is a third category of material that we also need to consider if we are seeking to establish some sort of map of how we should respond to the use of embryonic stem-cells: namely, stem cells that are the product of existing stem cell lines. These stem cell lines may or may not have been created ethically. The ethics of their creation is not, however, determinative of the ethics of their use because the intention of the researcher using these cells does not extend to the original acts involved in obtaining them, which may have included the unethical destruction of embryos. It is not part of his or her intention that these unethical acts occurred. Where the ethical question arises is again in the case of the side-effects. If a side-effect of using these cells, or for that matter any other medical product or knowledge by ethical means, is to encourage those unethical practices to continue then it is likely that the seriousness of this side-effect would make it unethical to use the cells. However, if as is more likely, the use of these cells offers further demonstration that the existing stem-cell lines are quite sufficient for research purposes then there would not seem to be anything unethical about using them. Even those who thought that the derivation of stem cells from so called surplus embryos was wrong could use them in research on this basis.

What I hope this essay has done is to suggest that the process of public policy formulation should involve a far more explicit exploration and discussion of the type of ethics we use to decide these issues and the reasoning behind our conclusions on the nature of embryos. I also hope that it has shown that the type of ethical position usually associated with the blanket opposition to the use of embryonic material for research and therapy does not necessarily lead to that conclusion at all. Finally, I hope this essay illustrates that the theological tradition derided in ignorance by many secular philosophers and commentators may carry in it insights that are still of real value and capable of use in secular thought. At its best, contemporary theology enables us to have a conversation with the wisdom and knowledge of other ages in order to help us solve the most challenging questions of our time.