

Justification for Stem Cell Research Considering Embryos Have Some Moral Status

Elizabeth Ingram

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INTRODUCTION

Our ethical commitments and moral values are evolving rapidly in response to advancements in technology. Embryonic stem cell research (ESCR) has the potential to create breakthrough treatments for incurable human diseases but only by a process that destroys human embryos. The arguments regarding whether the destruction of embryos in ESCR is justified rely on establishing the moral status of human embryos. Most arguments conclude either that human embryos have moral status equal to that of developed humans and ESCR is morally impermissible, or that human embryos have no moral status even as organisms distinct from humans. Alternatively, Lawrence J. Nelson argues embryos have some moral status that grants them the right to be respected in ESCR and other research during which they might be harmed or destroyed. This essay argues in favor of Nelson's position supporting embryos having a moral status that does not condemn ESCR.

I. Background: Positions of an Embryo's Moral Status

Lawrence J. Nelson argues that human embryos have some moral status and conditionally supports ESCR.¹ They assert that human embryos have moral status because they are alive, they have a special relationship with the humans that constitute them (donors), and they are valued by sincere moral authorities. They also argue that, like all living things, embryos have some inherent good.² Embryos have distinct characteristics from humans precluding moral status equal to humans. Nelson reasons embryo destruction or harm is permissible only if they are respected as organisms with some moral status and used as needed for substantial reasons, for example, advancing our understanding of, and creating effective treatment for, untreatable diseases to improve human quality of life.

II. Counterarguments

a. Embryos and Humans Have Equal Moral Status precluding ESCR

Positions against ESCR generally argue human embryos have equal moral status to humans which automatically condemns ESCR as a process that violates human rights. According to deontological ethics, granting embryos equal moral status to humans also grants embryos should never be used as a means to some end as they are in ESCR.³ However, the utilitarian approach argues that while embryos may have moral status equal to humans, the potential good of ESCR outweighs the harm of using and sacrificing those embryos. This argument benefits from the less identifiable potential of ESCR versus the easily identified harm. Also, some

are concerned the use of embryos in ESCR may lead to the devaluing or demoralization of human life. Accepting the utilitarian view leads to the slippery slope argument where justifying harming embryos for research if it has potentially good outcomes could also justify research that harms humans. If the moral status of humans and embryos were equal, ESCR also violates the Kantian imperative to treat humans as ends in themselves rather than using them as a means to an end. Therefore, ESCR is unethical despite the potentially good outcomes.

b. Embryos Have No Moral Status Making ESCR Permissible

Those arguing that embryos have no moral status generally base their arguments on the distinguishing characteristics between developed humans and human embryos. Differences include possession of cortical function and consciousness, having an interest in being protected from harm, and having autonomy.⁴ Having personal interests is important because those interests are what is protected when preserving human rights, and rights are derived from moral status.⁵ Furthermore, consciousness is necessary for having personal interests to be protected and for beings to perceive physical or emotional harm, and thus be harmed and protected from it.

c. Distinguishing characteristics do not preclude moral status

Dr. Geoffrey Chu, a proponent of equal moral status, criticizes these distinctions and how they are used to justify ESCR. They identify problems with arguments denying embryos have any moral status but does not sufficiently argue for embryos having equal moral status to humans.⁶ First, Chu criticizes the use of distinguishing characteristics between humans and embryos to determine moral status. Some research facilities find ESCR to be morally permissible for a period of up to fourteen days, because they determine⁷ rights attach *after* this period, which Chu explains is another unfortunate arbitrary definition of who is human. Chu admits distinctions such as cortical function and self-awareness are useful descriptions but argues they do not explain how human embryos are not persons or otherwise lacking equal moral status to developed humans. For example, cortical function cannot define moral worth because severely intellectually impaired humans lack cortical function, but they are not considered to have less moral worth than humans without impairment. Similarly, comatose patients lack brain function like human embryos, but comatose patients have the same moral status as those who are awake. Chu also notes it is simply inaccurate to equivocate living embryos to dead cadavers. By explaining how some characteristics used to distinguish human embryos to developed humans are arbitrary, Chu concludes these arbitrary characterizations lead to inappropriate judgments about moral status.

Second, Chu argues creating and using embryos for ESCR without consent of the embryos is unethical. Some embryos are created for ESCR directly and some are created during in vitro fertilization (IVF) for the purpose of implantation. Creating embryos for IVF is controversial because more embryos are produced than will be implanted, and non-implanted embryos can be donated to ESCR or discarded. If the reason that overproduction of embryos in IVF is unethical is that the excess embryos are wasted, ESCR is a worthy use.⁸ Although there are no ethical or legal rights assigned to embryos, many argue embryos deserve rights because they have the *potential* to develop into humans.

III. Analysis: Supporting Nelson's Contention that Embryos have Some Moral Status

a. Nelson: Embryos Have Some Moral Status

The appropriate uses of a human embryo, according to Nelson, include pursuing research which harms human embryos only when it is intended to improve human life, such as research aimed at understanding and treating diseases. Because their position does not rely on removing all moral status from embryos, it has a sufficient justification for morally permitted ESCR. By acknowledging embryos have some moral status and that humans have a higher status, Nelson recognizes an ethical boundary which permits the use and destruction of embryos for research without supporting the use or destruction of humans for research or other

purposes with some potential good. Also, acknowledging embryos have some moral status unequal to humans prevents the use of embryos for research from violating Kant's humanity imperative, as neither humans nor beings with equal moral status to humans are being used as a means to some end.

b. Distinguishing Characteristics are Useful in Determining Moral Status

While distinctions such as brain activity, personhood, or personal interests do not justify an organism's moral status, they are useful for recognizing an organism's rights in different circumstances.⁹ We usually have the right to be autonomous, but when we lose the capacity to be autonomous, we rely on those assigned to make our decisions without our moral status changing¹⁰. These distinguishing characteristics are not useful for determining moral status, but Nelson uses morally relevant characteristics which justify why embryos have some moral status.

c. Response to arguments that embryos have potential to become humans

Nelson acknowledges embryos only have the potential to become fully developed humans with equal moral status if they are implanted in a womb where they are intended to develop. Embryos used in ESCR do *not* have the potential to develop into born persons because they are not to be implanted.¹¹ Roy Perrett adds "The fact that persons have certain rights does not by itself entail that *potential* persons have those rights too. On the contrary, it is often the case that a potential X does not have the rights of an actual X: Prince Charles is presently a potential king, but this does not now give him the rights of an actual king."¹² Perrett concludes, "there is no reason to suppose it is intrinsically wrong to kill a potential person,"¹³ and the argument from potentiality does not justify embryos having equal rights to humans.

IV. Why ESCR Should Be Pursued: ASC and iPSC Are Not Replacements

One suggested alternative to ESCR is using adult stem cells (ASC) which occur naturally in developed humans. While ASC can differentiate as needed, as embryonic stem cells (ESC) do, without the ethical issues of ESC, ASC do not multiply as readily as ESC. Because ASC do not grow easily outside of the body, they have limited therapeutic use and cannot replace ESCR.

The other suggested alternative is induced pluripotent stem cells (iPSC) which are reprogrammed adult cells. To be pluripotent means that cells, like ESC, can be manipulated to multiply into any kind of cell making them very useful for treatment of an array of cellular loss diseases.¹⁴ However, the process for iPSC through nuclear reprogramming is not efficient or effective enough to be a replacement for ESCR. Additionally, ESCR promises breakthroughs in how we understand human biology and diseases which ASC and iPSC cannot offer.

V. ESCR is a valuable tool that respects the partial moral status of embryos

Embryos have some moral status ensuring them the right to be respected as a living organism with morally relevant connections to the humans that constitute them with moral worth recognized by moral authorities. The partial moral status allows conditional use of embryos for substantial reasons like research.

Using Nelson's philosophical reasoning acknowledging embryos as organisms distinct from humans and not potential humans, the problems of violating Kant's imperative against using humans as means to an end and the possible slippery slope of permitting destructive research on embryos leading to permitting harmful or destructive research on humans are avoided. Some distinguishing characteristics are morally relevant and help identify embryos as having some moral status and some moral rights, albeit not equal to humans. Although it remains controversial, ESCR should be pursued as long as there is no sufficient alternative that matches the potential for understanding human biology and treating human disease.

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- ¹³ Perrett, "Taking life and the argument from potentiality."

¹⁴ Wilson, Kitchener D., and Joseph C. Wu. "Induced pluripotent stem cells." *Jama* 313, no. 16 (2015): 1613-1614.