

Newcastle University e-prints

Date deposited: 18th June 2010

Version of file: Author, final

Peer Review Status: Peer-reviewed

Citation for published item:

Deckers J. [Why current UK legislation on embryo research is immoral. How the argument from lack of qualities and the argument from potentiality have been applied and why they should be rejected.](#) *Bioethics* 2005,19 3 251-271.

Further information on publisher website:

<http://eu.wiley.com/> (Website)

Publishers copyright statement:

This paper was originally published by Wiley-Blackwell, 2005 and can be viewed (with permissions) from the URL below:

<http://dx.doi.org/10.1111/j.1467-8519.2005.00440.x>

Always use published version when citing.

Use Policy:

The full-text may be used and/or reproduced and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not for profit purposes provided that:

- A full bibliographic reference is made to the original source
- A link is made to the metadata record in Newcastle E-prints
- The full text is not changed in any way.

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

**Robinson Library, University of Newcastle upon Tyne, Newcastle upon Tyne. NE1
7RU. Tel. 0191 222 6000**

WHY CURRENT UK LEGISLATION ON EMBRYO RESEARCH IS
IMMORAL. HOW THE ARGUMENT FROM LACK OF QUALITIES AND
THE ARGUMENT FROM POTENTIALITY HAVE BEEN APPLIED AND
WHY THEY SHOULD BE REJECTED¹

This is the author's version of the paper published in:

Bioethics 19 (2005, 3) 251-271.

Available at: <http://www3.interscience.wiley.com/cgi-bin/fulltext/118697080/PDFSTART>

Jan Deckers

Institute of Health and Society , The Medical School

University of Newcastle , Newcastle-upon-Tyne, NE2 4HH, UK

tel. 0044 1912227394

email: jan.deckers@ncl.ac.uk

Abstract:

On 22 January 2001, the UK became the first country to approve of embryonic stem cell research by passing the Human Fertilisation (Research Purposes) Regulations 2001, which legislated new research purposes for which early embryos can be used in addition to those approved by the Human Fertilisation and Embryology Act 1990. Legal advisory committees, most notably the Chief

¹ I am grateful for helpful criticisms on a previous draft by Derek Bell, Stephen Clark, and two

Medical Officer's Expert Group and the House of Lords' Select Committee, have offered various reasons, which can also be found in the ethics literature, to justify this change. Those examined here are the views that: 1. early embryos lack relevant qualities (or 'the argument from lack of qualities') and 2. early embryos only have a potentiality to become humans with moral status (or 'the argument from potentiality'). The validity of these arguments is questioned and a case is made for egalitarian speciesism. Embryos have moral status (used here in the restricted sense of the status possessed by all members of the class of beings which deserve the greatest moral significance in equal measure). They have more value than the value that should be assigned to nonhuman beings from the start of fertilisation. Current UK legislation on embryo research is immoral.

INTRODUCTION

On 22 January 2001, the UK changed its legal position on embryo research by passing the Human Fertilisation (Research Purposes) Regulations 2001.² It became the first country to approve of embryonic stem cell research and

anonymous reviewers.

² The term 'embryo' will be used to refer to the 'human embryo' and to refer to early human lives from the beginning of fertilisation onwards until the eighth week of development. The term 'early embryo' will be used to refer to any embryo below the age of fourteen days.

‘therapeutic cloning’. Two legal advisory committees have been most directly involved with this change: the Chief Medical Officer’s Expert Group (charged by the UK Government with assessing the anticipated benefits, risks, and alternatives of new areas of research using embryos) and the House of Lords’ Select Committee (appointed to consider and report on the issues connected with stem cell research and human cloning arising from the new Regulations). Within their reports, several arguments can be found aimed at justifying the position that the value of the early embryo can be outweighed by research. Two of these arguments will be challenged here: 1. early embryos lack relevant qualities (the argument from lack of qualities); 2. early embryos only have a potentiality to become humans with moral status (the argument from potentiality). These arguments will be considered within the wider ethics literature. I shall argue that the present legal situation cannot justifiably be maintained, and propose a case for egalitarian speciesism. This is the view that all members of the human species have ‘moral status’ because of their species membership, and that they have more value than the value that should be ascribed to members of other species. The notion of ‘moral status’ refers here to the status possessed by every member within the class of beings which deserve the greatest degree of respect in equal measure. Embryos attain such status from the start of fertilisation, that is: before their genetic identity has been created.

THE LEGAL SITUATION

The Human Fertilisation and Embryology (Research Purposes) Regulations came into force in the UK in early 2001, adding new purposes for which embryos can be used for research, aimed mainly at the development of treatments for ‘serious disease’.³ This includes the growing field of stem cell research, which may involve ‘therapeutic cloning’ or the creation of embryos by somatic cell nuclear transfer. Apart from the stress on tackling ‘serious disease’, the new Regulations do not provide further justification for why the decision to extend the purposes for which embryos can be used was made. The reason why less serious disease would not fall within the remit of what is legally acceptable is also left unexplained. Further justification, however, can be found in the Chief Medical Officer’s Expert Group’s Report with the title ‘Stem Cell Research: Medical Progress with Responsibility’, the conclusions of which have been embraced by the Government and by the new Regulations.⁴ It states that embryonic stem cell research may proceed because

³ *Statutory Instrument 2001 No. 188. The Human Fertilisation and Embryology (Research Purposes) Regulations 2001*. Norwich. The Stationery Office Limited.

⁴ Chief Medical Officer’s Expert Group (Reviewing the Potential of Developments in Stem Cell Research and Cell Nuclear Replacement to Benefit Human Health). 2000. *Stem Cell Research: Medical Progress with Responsibility*. London: Department of Health; Department of Health. 2000. *Government Response to the Recommendations Made in the Chief Medical*

of the ‘great potential to relieve suffering and treat disease’.⁵ More recently, this view was echoed in the House of Lords’ Select Committee’s Report with the title ‘Stem Cell Research. Report From the Select Committee’.⁶ Early embryos are deemed to lack moral status as their value can be outweighed by the pursuit to find cures for serious disease. This assumption is supported in a number of different ways, two of which will be scrutinised in this paper.

EARLY EMBRYOS LACK RELEVANT QUALITIES (THE ARGUMENT FROM LACK OF QUALITIES)

The argument from lack of qualities is the view that early embryos lack moral status as they lack the necessary qualities for having such status. Within these reports, these qualities are the capacities necessary for thought, action, communication, and sentience. I shall argue that attempts to understand the current UK legal stance in terms of the early embryo’s presumed lack of capacities for thought, action, and communication fail to explain and justify

Officer’s Expert Group Report ‘Stem Cell Research: Medical Progress with Responsibility’.
Norwich. The Stationery Office Limited.

⁵ Chief Medical Officer’s Expert Group. *Stem Cell Research: Executive Summary: conclusion no 24-25 and recommendation no 1.*

⁶ House of Lords. 2002. *Stem Cell Research. Report From the Select Committee.* Published by Authority of the House of Lords. London. The Stationery Office Limited: section 4.21 and recommendation no 7.

the legal situation adequately, and that the historical context in which these documents are situated reveals the importance of sentience. However, as an elaborate argument for the importance of this quality is missing, I shall also examine the position of Bonnie Steinbock, who has recently defended the moral relevance of sentience in the context of discussing embryo research, arriving at conclusions very similar to these reports’.

The House of Lords’ Select Committee claims that ‘the basic arguments for respect are focused on (...) beings able to think, act, and communicate’.⁷ There are three problems with this view. Firstly, one could question if infants possess these capacities, which is what the Committee in fact does.⁸ It explicitly states that ‘capacities to act are lacking (...) in infants’ and excludes infants from personhood (which is assigned to ‘beings able to think, act, and communicate’).⁹ The logical conclusion of such a position would be to allow for infanticide.¹⁰ My view is that such a restrictive view should not be

⁷ House of Lords. *Stem Cell Research*: section 4.7.

⁸ An anonymous referee of an earlier version of this paper remarked correctly that infant thought, action, and communication cannot be ruled out with certainty.

⁹ House of Lords. *Stem Cell Research*: section 4.7.

¹⁰ See for example M. Tooley. 1998. In Defense of Abortion and Infanticide. In *The Abortion Controversy. 25 Years After Roe v. Wade. A Reader*. Pojman and Beckwith, ed. Second Edition. Belmont. Wadsworth:209-233:231: Infanticide is defended on the basis that an infant may not be ‘capable of possessing the concept of a continuing subject of experiences and other mental states’.

accepted. Infanticide is rightly outlawed. On this point, the Committee agrees, arguing that respect is rightly ‘extended’ to infants.¹¹ Yet this raises the question of why the Committee dismisses considering such an extension to early embryos. Secondly, as some nonhumans may possess qualities enabling them to ‘think, act, and communicate’, the logical conclusion would be that they should be ascribed more value than human infants. In the final section, I shall argue that this conclusion is unacceptable. Thirdly, as not only embryos below the age of fourteen days, but also older embryos fail to ‘think, act, and communicate’ according to the Committee, the logical conclusion would be to allow for research on all embryos. Hence, the argument fails to establish why the Committee supports the legally imposed fourteen day limit. This implies that its ultimate justification for denying moral status to early embryos must lie elsewhere.

A clue for where this might be is provided when the Committee writes that the fourteen day limit for research ‘has an objective justification insofar as it represents the stage at which the primitive streak, the precursor of the development of the nervous system, begins to appear’, a stage before which (as claimed in a preceding section) ‘there can be no sentience’.¹² The view that

¹¹ House of Lords. *Stem Cell Research*: section 4.7.

¹² House of Lords. *Stem Cell Research*: section 4.22 and 4.2 (d); Other reasons that are provided for the relevance of the appearance of the primitive streak are that it would mark the start of the embryo’s individuality and the start of a continuity in the embryo’s identity. These

early embryos do not have moral status because they lack the quality of sentience is more widely accepted than the view that they lack such status on the basis of their inability to ‘think, act, and communicate’. Even though the Chief Medical Officer’s Expert Group does not specify which characteristics embryos should possess in order to have moral status, it is likely that also for this Group the presumed absence of sentience may have influenced its opinion that early embryos do not have such status. The gradualist position which is adopted, or the view that the ‘respect owed to developing human life is regarded as increasing in proportion to the degree of development of the embryo’, suggests that the early embryo’s presumed lack of sentience contributes at least partly to her or his relatively undeveloped stage.¹³ This interpretation gains force because of the Group’s stated intention not to revisit the issues discussed by the Committee of Inquiry into Human Fertilisation and Embryology (better known as the Warnock Committee).¹⁴ While the ultimate justification for the Warnock Committee’s support of embryo research is unclear, its Report suggests the relevance of the view that ‘the embryo is incapable of feeling pain’.¹⁵ This interpretation is supported by Mary

are addressed extensively in my ‘Why Eberl is Wrong’. Unpublished manuscript under review by *Bioethics*.

¹³ Chief Medical Officer’s Expert Group. *Stem Cell Research*: section 4.2.

¹⁴ M. Warnock. 1985. *A Question of Life. The Warnock Report on Human Fertilisation and Embryology*. Oxford. Blackwell.

¹⁵ Warnock. *A Question of Life*:65 (paragraph 11.20).

Warnock's introduction to her publication of this Report, where she identifies the absence of 'pain to the embryo' as a contributing factor to the majority's support for embryo research.¹⁶

Because of the legal attention which sentience has enjoyed as a quality for deciding moral considerability, I shall discuss the position of Bonnie Steinbock, one of the most prominent ethicists who has proposed such a view in the context of recent debate on embryo research. Her account will be evaluated as a putative defence of current UK legislation. An important difference, however, is that Steinbock's account would justify research on embryos over the age of fourteen days, given her claim that embryos are insentient at least up to the age of twelve weeks (and, perhaps, even up to twenty to twenty-four weeks).¹⁷ Steinbock is an exponent of what she calls the 'interest view' or the view that only beings that have interests 'count morally', and that only sentient beings (that is, beings with the capacity to experience pain or pleasure) have interests.¹⁸ Steinbock writes that her interest view does

¹⁶ Warnock. *A Question of Life*:xv.

¹⁷ B. Steinbock. 2001. Respect for Human Embryos. In *Cloning and the Future of Human Embryo Research*. Lauritzen, ed. Oxford. Oxford University Press:21-33:26; B. Steinbock. 1999. Why Most Abortions Are Not Wrong. In *Bioethics for Medical Education*. (Advances in Bioethics:5) Edwards and Bittar, eds. Stamford, Connecticut. Jai Press:245-267:247-249.

¹⁸ Steinbock. Respect for Human Embryos:23; B. Steinbock. 1996. *Life Before Birth. The Moral and Legal Status of Embryos and Fetuses*. New York/Oxford. Oxford University Press:5,9.

not imply that one is therefore allowed to treat embryos in whichever way one pleases. Early gestation fetuses can only be aborted for good reasons, ‘such as not wanting to bear a child’, and not all forms of embryo research should be allowed.¹⁹ She argues that, just as one should have respect for dead bodies, so one should also have a certain respect for embryos, even though both dead bodies and embryos are without moral status.²⁰ As symbols of human life, embryos are claimed to have symbolic value. Hence, Steinbock does not support what she calls ‘frivolous or trivial’ research on embryos, arguing that it ‘should be limited to research likely to result in significant benefit to people, as only such research demonstrates respect’.²¹ This is on a par with the notion of ‘serious disease’ in the Human Fertilisation (Research Purposes) Regulations 2001 and the Chief Medical Officer’s Expert Group’s view that ‘the benefits of the proposed research’ must be ‘weighed against the respect due to the embryo’.²² What is unlikely to result in significant benefits must be prohibited as such research fails to show respect.

A number of objections can be raised against Steinbock’s account. Firstly, even if early embryos lack the capacity to feel pain, it is not clear why this should imply that they lack moral status. Some people with rare forms of

¹⁹ Steinbock. *Why Most Abortions Are Not Wrong*:249.

²⁰ Steinbock. *Respect for Human Embryos*:29.

²¹ Steinbock. *Respect for Human Embryos*:30.

disease, people in comatose states, and people under the influence of anaesthetics may also lack the capacity to feel pain. Yet it is clearly not right to conclude that they therefore lack moral status. Steinbock recognises this, but states that while a temporarily unconscious person may have a desire not to be killed that has been expressed in the past, insentient fetuses cannot be said to have this desire.²³ Steinbock either abandons or supplements her earlier defence of hedonic utilitarianism here as this statement implies that it is no longer (merely) the capacity to feel pain that determines whether or not one has moral status. Instead, she suggests that the reason why we should not kill people resides in their having a desire not to be killed. In other words, Steinbock adopts preference utilitarianism here. The House of Lords' Select Committee's position that respect befalls 'beings able to think (...) and communicate' may perhaps be understood in terms of a capacity to form or state preferences.²⁴ Since embryos do not have preferences enabling them to take an interest in life, killing them would be fairly unproblematic. Steinbock acknowledges, however, that some things may be in our interest, even if we are not interested in them or take an interest in them (e.g. 'foregoing tobacco'), and then examines whether or not we should assume that life is in the interest

²² Chief Medical Officer's Expert Group. *Stem Cell Research: Executive Summary: Conclusion no 17.*

²³ Steinbock. *Why Most Abortions Are Not Wrong*:252.

²⁴ House of Lords. *Stem Cell Research*: section 4.7.

of embryos.²⁵ She concludes that embryos cannot have an interest in life as only sentient beings can have interests: 'A nonsentient fetus cannot be said to want anything, and so cannot be said to want not to be killed'.²⁶ Only beings that actually can be said to have preferences or that have stated them in the past would have an interest in life. The problem with this view is that it is by no means straightforward that sentient fetuses have preferences. The presence of sentience as such may not warrant the conclusion that they have a preference in the avoidance of pain. Even if we grant that the latter is implied by the former, killing anaesthetised fetuses would still be allowed, unless it could be argued that once the fetus becomes sentient he or she also gains preferences other than the preference to avoid pain. Steinbock provides no such argument. Instead, she tries to justify the difference between insentient and sentient fetuses by claiming that only the latter have a biographical life, for which the memory of past experiences would be essential. Faced with the possible objection that 'most people have very few memories about anything that occurred before the ages of four or five', she replies that 'most of us are convinced that we are the same individuals we were when very young'.²⁷ Steinbock recognises the weakness of her account, yet fails to develop 'a more

²⁵ Steinbock. *Why Most Abortions Are Not Wrong*:252-253.

²⁶ Steinbock. *Why Most Abortions Are Not Wrong*:252.

²⁷ Steinbock. *Why Most Abortions Are Not Wrong*:253.

(...) sophisticated' account that is 'not entirely dependent on memory'.²⁸ At the same time, she insists that a biological continuity account is insufficient as she claims that it would lead to the absurd and unacceptable conclusion that contraception is as problematic as abortion, given that the physical history of the embryo goes back to the gametes which formed him or her.²⁹ Steinbock fails to see that the physical continuity which exists between an embryo and an adult is different in kind from the physical continuity which exists between an adult and the gametes which conjoined to originate her or him, and that this difference is morally significant. This point will be developed in the following section, where I argue that Steinbock fails to distinguish between active and passive potentiality.

Secondly, Steinbock's concession that 'getting enough sleep, eating moderately, and foregoing tobacco might be in the interest of a person who has no interest in following such a regime' supports, in spite of her denial, the view that 'beings incapable of taking an interest in anything (...) have a good of their own'.³⁰ The fact that Steinbock lists these things, rather than others (e.g. eating plastic), indicates that she recognises that some things simply are in our interests, irrespective of whether or not we prefer things to be that way. The reason why foregoing tobacco is in the interest of adults is not because

²⁸ Steinbock. *Why Most Abortions Are Not Wrong*:254.

²⁹ Steinbock. *Why Most Abortions Are Not Wrong*:254-255.

³⁰ Steinbock. *Why Most Abortions Are Not Wrong*:252,263.

adults prefer things to be that way, but because it damages their health and may kill. This is why embryos also benefit from avoiding tobacco, and the question of whether or not embryos can prefer to avoid tobacco is simply irrelevant. Steinbock shows some awareness here of the problems of preference utilitarianism, yet fails to abandon it. In the final section, I shall return to this issue, arguing that embryos, even if it is granted that they may not be able to take an interest in life, have an interest in life.

Thirdly, the advisory bodies supporting present UK law claim, as Steinbock does, that the embryo is worthy of some respect.³¹ Yet as no positive account of what such respect is based on is provided, one is left wondering if this implies tacit acceptance of Steinbock's claim that 'while early abortion is not the psychological equivalent of contraception, it is morally closer to contraception than to homicide'.³² What they fail to see is that, if there is hardly any difference between gametes and embryos, their concern about frivolous or trivial research must be accompanied by a similar concern for the loss of sperm in frivolous sexual play. Their lack of concern for gametes (which could also be regarded as symbols of life) shows that their position is inconsistent. Their focus on the qualities which are lacking in embryos obscures what positively distinguishes them from gametes.

³¹ Chief Medical Officer's Expert Group. *Stem Cell Research*: section 4.26; House of Lords. *Stem Cell Research*: section 4.23.

³² Steinbock. *Why Most Abortions Are Not Wrong*:248.

Fourthly, and related to the previous point, the question could be asked if one can really demonstrate respect for embryos by limiting research to that which is claimed to have the potential to yield great benefits. One could defend this view by employing the arguments put forward by Michael Meyer and Lawrence Nelson, who draw on the work of Mary Anne Warren to assess the respect due to the embryo. Warren's position is that the moral value of embryos is weak, as she claims that entities with moral agency, sentience, and ecological significance have more moral value than entities which lack one, two, or all three.³³ On this basis, Meyer and Nelson argue that an attitude of respect can be compatible with destroying what one respects, an example being the Japanese practice of '*mizuko kuyo*' in which women perform a number of rituals to commemorate their aborted fetuses.³⁴ The problem with this view is that it is difficult to see how respect - the first meaning of which is 'deferential esteem (...) towards a person or quality' according to the Oxford Encyclopedic English Dictionary - can be demonstrated by destroying embryos.³⁵ Extraordinary circumstances left aside, the act of killing does not

³³ M. Meyer and L. Nelson. Respecting What We Destroy. Reflections on Human Embryo Research. *Hastings Center Report* 2001;31 (1):16-23:17: Reference is made to M.A. Warren. 1997. *Moral Status: Obligations to Persons and Other Living Things*. Oxford. Oxford University Press:148-177.

³⁴ Meyer and Nelson. Respecting What We Destroy:19.

³⁵ J.M. Hawkins, R. Allen. ed. 1991. *Oxford Encyclopedic English Dictionary*. Oxford: Clarendon Press:1230.

seem to show respect for the person killed. A similar critique has been developed by Hugh McLachlan with regard to the Warnock Report's view that the embryo should be granted some respect and some 'protection in law' which is followed by the suggestion that ex utero embryos should not be kept alive 'beyond fourteen days after fertilisation'.³⁶ McLachlan comments: 'This is a bizarre way to 'protect' the embryo! The embryo (...) must be killed. I hope that Warnock and her committee do not try to 'protect' me and my family if this is an indication of what their protection can involve.'³⁷ Together with the legal (advisory) documents discussed here, Steinbock's response is that two necessary conditions for respectful research are that the researchers aim to tackle serious disease and that the donors give informed consent.³⁸ Daniel Callahan, however, has criticised this approach: 'It seems to me simply cosmetic ethics to use the language of respect, a sort of 'to those we are about to destroy, we salute you' gesture. It is a respect of no value whatsoever to the embryos, and serves only to make the embryo donors and the researchers feel

³⁶ H. McLachlan. *Persons and Their Bodies: How We Should Think About Human Embryos*. *Health Care Analysis* 2002;10:155-164:158; Warnock. *A Question of Life*:62-63,66 (paragraphs 11.15,11.17,11.22).

³⁷ McLachlan. *Persons and Their Bodies*:158.

³⁸ Steinbock. *Respect for Human Embryos*:30,32; Chief Medical Officer's Expert Group. *Stem Cell Research*: section 4.29 and Conclusions and Recommendations number 26; House of Lords. *Stem Cell Research*: section 4.25 a) and b); The Committee also expresses concern about the notion of 'serious disease' being undefined by the Regulations (sections 8.7 and 8.8).

better.’³⁹ Of course, one could argue that making the researchers and donors feel better is important. By analogy, it could be argued that the way in which human corpses are treated is of no value to them, yet this does not make the way in which they are treated irrelevant. This is why we allow dissections only for good reasons, not for fun.⁴⁰ Can we respect corpses? Perhaps we can, but it may be more appropriate to say that such respect benefits the survivors. Can embryos be respected while being destroyed for research? It seems more appropriate to say that those who could benefit from their destruction rather than the embryos themselves are respected.

I conclude that attempts to ground the UK legislation’s assumption that the early embryo lacks moral status on her or his presumed inability to think, act, communicate, feel pain, or have preferences, fail. One could argue that a quality other than those listed here is lacking in the early embryo and that he or she therefore lacks moral status. However, in the final section, I question the validity of any argument from lack of qualities and argue for the position that embryos have moral status. If they have such status, it seems implausible that embryos can be respected while being destroyed for research purposes.

³⁹ D. Callahan. Human Embryo Research: Respecting What We Destroy?. *Hastings Center Report* 2001;31 (4):4.

⁴⁰ I owe this point to an anonymous referee of an earlier version of this paper.

EARLY EMBRYOS ONLY HAVE A POTENTIALITY TO BECOME HUMANS WITH MORAL STATUS (THE ARGUMENT FROM POTENTIALITY)

The argument from potentiality is the claim that the early embryo does not possess moral status, but only has a potentiality to become a human with moral status. This claim is developed in four different ways by the legal advisory documents discussed here: firstly, the early embryo is potentially human; secondly, the early embryo is a potential human individual; thirdly, the early embryo has a passive potentiality to become a human with moral status; and fourthly, the early embryo has an active potentiality to become a human with moral status.

The first view may underpin the Chief Medical Officer's Expert Group's statement that the early embryo 'could develop into a human being' or is 'a potential human being' (although this may also be representative of the second view).⁴¹ It is clearly present in the House of Lords' Select Committee's statement that early embryos have 'no trace of human structure such as a nervous system'.⁴² Clearly, this view cannot be maintained. It is entirely

⁴¹ Chief Medical Officer's Expert Group. *Stem Cell Research*: section 4.17 and Executive Summary conclusion no 26.

⁴² House of Lords. *Stem Cell Research*: section 4.2(d).

natural for humans to start life without the presence of a nervous system.

Lacking a nervous system does not make one nonhuman.

The second view, that the early embryo is a potential human individual, puts the emphasis on the word ‘individual’, rather than on ‘human’. The facts that the early embryo may still be divisible and that his or her cells may be totipotent and undifferentiated are held to imply that she or he lacks individuality. I have addressed this view elsewhere, where I argue that neither divisibility nor totipotency preclude individuality, and that there are scientific reasons for holding that the early embryo is an individual.⁴³

The third view is the view that the early embryo only has a passive potentiality to become a human with moral status. This view is present in the following passage from the House of Lords’ Select Committee’s Report: ‘Although the fertilised egg and blastocyst contain all the genetic signals required for human life, this is true of nearly all cells in the body. However, genetic elements are not sufficient and there is no automatic programme of development from blastocyst to birth. Although the early embryo contains within it the full genetic potential of any person(s) who may develop from it, it requires many other factors, particularly those provided by the maternal environment in the womb, to enable it to realise that potential.’⁴⁴ In an age of cloning by somatic cell nuclear transfer, the suggestion that this potential is

⁴³ See note 12.

⁴⁴ House of Lords. *Stem Cell Research*: section 4.12.

present in ‘nearly all cells in the body’ could, indeed, underline the absurdity of claiming that early embryos have moral status. This point was made orally by Onora O’Neill in the 13 November 2001 House of Lords’ Select Committee’s meeting at the University of Durham.⁴⁵ The problem with this view is that the difference between embryos and somatic cells is downplayed by the underlying assumption of a particular kind of genetic reductionism which regards embryos as virtually identical with the genes that compose them. Yet in spite of the House of Lords’ Select Committee’s appeal to ‘embryological evidence’, presenting the embryo’s development in terms of an interaction between genes and maternal environment is embryologically deficient as it assumes that what occurs at the level of the embryo as a (cluster of) cell(s) is irrelevant for understanding the embryo’s development.⁴⁶ This deficiency becomes apparent when we observe that somatic cells do not develop into children when they are placed in the same maternal environment (as the one in which embryos develop). The problem with this view is that the embryo’s potentiality is misconceived. Massimo Reichlin has pointed out

⁴⁵ See also L. Pojman. 1998. Abortion. A Defense of the Personhood Argument. In *The Abortion Controversy. 25 Years After Roe v. Wade. A Reader*. Pojman and Beckwith, ed. Second Edition. Belmont. Wadsworth:275-290:283: Pojman argues that, ‘given the prospects of cloning, any cell of your body could be developed into (...) an adult’ and that the ‘only difference between other diploid cells in our body and the zygote is the location’ where the latter ‘fortuitously has gotten into the incubator, whereas the others have not’.

⁴⁶ House of Lords. *Stem Cell Research*: section 4.12.

rightly that there is an important difference between passive potentiality (or potentiality in the loose sense) and active potentiality, and that these two different kinds of potentiality are often mixed up in discussions about the status of the embryo.⁴⁷ Human gametes (and, perhaps, the nuclei of human somatic cells combined with enucleated ova) can give rise to humans if they are brought together through decisions made by external types of agency, i.e. (normally) the agencies of the people they belong to. Each gamete has, at the most, a 'passive potentiality' to become a human being, as it does not have the capacity to develop itself into a human being, but merely a possibility to unite with another gamete to form a new individual. 'Real' or 'active potentiality', on the other hand, refers to an entity's internal capacity to change and develop itself.⁴⁸ The error consists in understanding the embryo's potentiality in terms of a passive potentiality. The embryo's development depends on his or her inherent teleology as he or she has an orientation towards growth from the moment the sperm interacts with the egg. Environmental factors are needed, for example the right maternal environment, but that is no different from the

⁴⁷ M. Reichlin. The Argument From Potential: A Reappraisal. *Bioethics* 1997;11:1-23:2-9; I refer to Reichlin's paper for a more elaborate treatment of this issue; A similar account of these two different kinds of potentiality is developed in a utilitarian context in D. Jacquette. Two Kinds of Potentiality: A Critique of McGinn on the Ethics of Abortion. *Journal of Applied Philosophy* 2000;18 (1):79-86.

⁴⁸ For this difference, see also Aristotle. 1924. *Aristotle's Metaphysics*. Ross, ed. Oxford. Clarendon Press:1049a.

way in which adults, for example, also rely on oxygen (amongst other things) in order to realise their potential. But what about an embryo created outside the body? In the context of discussing Reichlin's ideas, Alta Charo has pointed out that the active potentiality of such an embryo may not extend for longer than one week as he or she needs external assistance to obtain the chance of developing into a baby, leading to the view that 'because it is not a potential baby, it need not be treated with a degree of respect that forestalls destructive research'.⁴⁹ It is clear, however, that Alta Charo misunderstands the point which Reichlin has tried to make. Even though both gametes and embryos need external assistance to develop into babies, only embryos have active potentialities. As long as they exist, however long or short and in whatever location they exist, they regulate themselves and direct their own development. Nothing other than death can remove their potentialities.

I now turn to the final view. One could take the preceding point on board but still argue that it does not make sense to ascribe moral status on the basis of active potentiality. Embryos could have an active potentiality to become humans with moral status, but not possess such status as yet. The House of Lords' Select Committee argues this point in the following way: 'A medical student is a potential physician, and if he or she qualifies may practise as such;

⁴⁹ R. Alta Charo. 2001. Every Cell Is Sacred: Logical Consequences of the Argument from Potential in the Age of Cloning. In *Cloning and the Future of Human Embryo Research*. Lauritzen, ed. Oxford. Oxford University Press:82-89:86.

but the potentiality alone does not confer a right to practise.’⁵⁰ In a similar vein, Louis Pojman has pointed out that a mere candidate for the presidency is not a president.⁵¹ These analogies are intended to suggest that, just as it does not make sense to ascribe the privileges enjoyed by either graduates or presidents to those who merely aspire to these states, it does not make sense to confer the status enjoyed by children or adults to striving embryos. What is conflated here is the embryo’s potentiality to develop into a child (or more

⁵⁰ House of Lords. *Stem Cell Research*: section 4.10; A strikingly similar example is in A. Campbell, G. Gillett, G. Jones. 2001. *Medical Ethics*. Third Edition. Oxford. Oxford University Press:102-103 where they argue that a student who still needs to sit final examinations cannot be regarded as one who is already qualified; See also R. Gillon, Is There a ‘New Ethics of Abortion?’. *Journal of Medical Ethics*. 2001;27 suppl II:ii5-ii9:ii6: Gillon makes an analogy which has featured repeatedly in this discussion, at least since 1971 (when it was mentioned in J.J. Thomson. A Defense of Abortion. *Philosophy and Public Affairs* 1971;1:47-66): It is the view that since acorns are less valuable than oak trees, embryos are less valuable than mature human beings. The analogy is invalid, as the reason why oak trees are valued more than acorns resides in their greater instrumental value to the ecosystem in which they are situated and their aesthetic value for humans, rather than in a difference in intrinsic value. I believe that humans, however, should not be valued differentially relative to their importance for the ecosystems to which they belong or their aesthetic value for other humans. A referee of an earlier version of this paper also pointed out that oak trees may have more value than acorns because they have realised the potential which acorns have. Yet, once again, I believe this should not be transferred to the human domain. We may admire people of old age, yet we should not think that they are more valuable than younger people.

⁵¹ Pojman. Abortion:275-290.

mature human being) and the embryo's potentiality to develop into a being with moral status. These analogies are only relevant for those who have already decided that the embryo's lack of maturity implies a lack of moral status. Yet this is by no means a straightforward implication. Does one's lack of qualification as a physician or of being the president imply a lack of moral status? Not at all. The question of whether or not a particular human has moral status is immune from the question of whether or not that human has achieved a particular contingent status. Presidents and physicians, after all, do not have more moral value than anybody else. Then why should embryos be denied moral status because they are not babies yet? In the final section I argue that the embryo's value is not diminished by the fact that she or he has not attained X or Y (any contingent human qualities) as yet, but that he or she has moral status because of his or her striving towards X or Y.

I have identified four different versions of the argument from potentiality that can be found in the legal advisory bodies' documents discussed here: that early embryos are potentially human; that they are potential human individuals; that they have a passive potentiality to become humans with moral status; and that they have an active potentiality to become humans with moral status. I have argued that none of these are convincing.

A CASE FOR EGALITARIAN SPECIESISM

Some may agree with my objections to the argument from lack of qualities and the argument from potentiality, yet point out that my discussion of the former argument focused on the wrong qualities and that there are other qualities that are morally relevant and that are lacking in the early embryo. I disagree, however, with any approach that makes the attainment of qualities a necessary prerequisite for humans to have moral status. Put positively, I defend egalitarian speciesism or an ethic which regards all humans as equals and as having more value than members of any other species.

I shall first explain why I embrace egalitarianism. Should embryos be discriminated against on the basis of, for example, their inability to speak?⁵² No. It is entirely normal for embryos to be unable to speak. By doing other things, for example, by cell differentiation, embryos are developing features which are essential for the later development of speech. A one year old child cannot type, but it is only because it is practising its motor skills now that it will later be able to type. In view of the fact that they are essential for the development of the

⁵² An anonymous referee of an earlier version of this paper pointed out rightly that egalitarian speciesism should not be taken to imply that the embryo has the full set of rights (including, for example, the right to vote), yet suggested wrongly that the view that the embryo has a right to life should also be questioned. Embryos have equal rights to life, yet no equal rights to vote. Withholding the latter from the embryo does not challenge egalitarian speciesism as arguing that the embryo has the right to vote is meaningless. Also, humans do not gain more moral value once they have attained, for example, the right to vote. We owe the same respect towards a twenty-one year old as towards a twelve year old, regardless of any difference in rights.

more developed stages, it is arbitrary to discriminate against the less developed stages. Two fundamental problems are associated with deciding on a list of qualities which need to be fulfilled in order for a human being to acquire or increase in moral value. The first one is: Who is going to decide? Some people may value some qualities, others will value other qualities. Who should adjudicate between them? People like Steinbock, Tooley, Warren, and Singer (see below) should, by their willingness to discriminate against those humans that do not match their list of essential qualities, be prepared to be discriminated against themselves for not matching the list of qualities which others may deem morally relevant. They should be prepared to accept being granted less moral value than some other humans on the basis of someone's judgement that, for example, their reasoning powers are not sufficiently developed for them to be granted the same moral value as people with more sophisticated reasoning powers. I guess this is a price these philosophers would not be willing to pay. They could respond, however, that what matters morally is not whether one does or does not have sophisticated reasoning power, but whether one does or does not have reasoning power (or some other quality) at all. Since embryos may not have reasoning power at all, they would therefore lack moral status. My reply to this response is that the decision to value the adult's capacities (for example: to think or to feel pain) more than the embryo's capacities (for example: to implant himself or herself in the womb) is entirely subjective. It is entirely normal for the embryo to develop the capacity to implant before she or he develops the capacity

to think, and the development of the latter must necessarily be preceded by the former, not the other way round. A second problem, related to the first, is that, even if a broad consensus could be established about which qualities should be relevant, we should still be wary of the fact that - in the words of Michael Zimmerman - 'specifying groups have often defined the human in a way that excludes or marginalizes those who don't belong to that group', with horrific consequences (for example the consequences of Nazi Germany eugenics).⁵³ In a similar vein, Stephen Schwarz has raised the charge of 'elitism' against those who make the attainment of qualities a prerequisite for a human to have moral status.⁵⁴ Both problems are avoided by embracing egalitarianism.

Yet it is one thing to argue that all humans deserve equal moral significance, another to argue that they deserve more moral significance than nonhumans. I shall now explain why we need to adopt speciesism. Peter Singer has argued that the charge of 'elitism' should rather be raised against those who assign moral

⁵³ M.E. Zimmerman. 1994. *Contesting Earth's Future. Radical Ecology and Postmodernity*. Berkeley. University of California Press:308; A good example of such discrimination is M.L. Gross. 2002. Abortion and Neonaticide: Ethics, Practice, and Policy in Four Nations. *Bioethics* 2002;16:202-230:217: The fetus is marginalised by exaggerating the difference with a newborn baby, who becomes, with birth, 'the undisputed master of his body'.

⁵⁴ S. Schwarz. 1998. Personhood Begins at Conception. In *The Abortion Controversy. 25 Years After Roe v. Wade. A Reader*. Pojman and Beckwith, ed. Second Edition. Belmont. Wadsworth:257-274:272.

status to humans simply because they are human and who refrain from assigning such status to nonhumans simply because they are nonhuman.⁵⁵ This is known as the charge of ‘speciesism’, a concept popularised by Singer who defined it as ‘a prejudice or attitude of bias in favor of the interests of members of one’s own species and against those of members of other species’.⁵⁶ Singer claims to avoid elitism and unjustifiable discrimination by promoting the view that the possession of certain qualities, rather than species membership, should determine moral significance. My view, however, is that we need to embrace a speciesist ethic, and detach the concept of ‘speciesism’ from the negative connotations associated with the words ‘prejudice’ and ‘bias’. Egalitarian speciesism or an ethic which regards all humans as equals and discriminates against all other species is entirely reasonable. The only non-arbitrary moral boundary is the species boundary. Species boundaries, however, are blurry, but it does not take away the fact that a long time has passed, for example, since our ancestors stopped interbreeding with the ancestors of modern chimpanzees. Modern chimpanzees have many features and behaviours that are different from the features and behaviours of modern humans. In spite of our similarities, these differences are recognisable and this is why modern humans do not feel the same sense of community with chimpanzees as with fellow humans. This is morally significant. Speciesism makes good evolutionary sense. The reason why we

⁵⁵ P. Singer. 1990. *Animal Liberation*. 2nd ed. London. Jonathan Cape.

⁵⁶ Singer. *Animal Liberation*:6.

should be speciesist is because we have natural inclinations to favour members of our own species. Those groups of ancestral humans that cared more about their fellow humans than about other species had a selective advantage over other groups of people that put the interests of other species first or on an equal level. The fact that we evolved into beings with natural inclinations to care more for our own kind than for other species is morally significant. Mature chimpanzees, for example, may well have more personal qualities than human embryos or infants, yet they do not have the same moral significance. This is why, for example, the thought that we should pay money into a scheme benefiting chimpanzees even if it meant neglecting human children, on the basis of the former having more advanced qualities, provokes strong ‘gut reactions’. This does not deny that Darwin was wrong for rejecting the possibility that ‘any animal (...) performs an action for the exclusive good of another of a distinct species’.⁵⁷ Humans can do things for other species without deriving personal benefit from them, or even with direct disadvantages to them. Greenpeace

⁵⁷ C. Darwin. 1986. *The Origin of Species by Means of Natural Selection or the Preservation of Favoured Races in the Struggle for Life*. Edited with an introduction by J.W. Burrow. Harmondsworth. Penguin:237: Speciesism has also been grounded by W. Murdy (1983. Anthropocentrism: A Modern Version. In *Ethics and the Environment*. Scherer and Attig, ed. Englewood Cliffs. Prentice-Hall:12-20:13) in Darwin’s view that ‘any part of the structure of any one species’ could not have been ‘formed for the exclusive good of another species’ (p. 228-229), yet I do not share Murdy’s suggestion that this should be taken to imply that nonhuman animals are of no direct moral concern.

activists have risked life and limb in their campaign to save whales. Such actions must be interpreted as having provocative value: they hyperbolically emphasise the view that whales deserve almost as much moral significance as humans, not that we should regularly put our lives on the line for the sake of whales. Had we developed into a species that routinely did things for the good of other species whilst compromising our own chances of survival, we would no longer exist. The fact that we have not become extinct indicates that we have developed, like other animals, natural inclinations that direct us more towards looking after our own kind than after other animals. It is hard to imagine how the fact that most people value looking after their own kind more than after other species could be explained without the existence of such inclinations. In this respect, Mary Midgley has argued that ‘there does (...) seem to be a deep emotional tendency, in us as in other creatures, to attend first to those around us who are like those who brought us up, and to take much less notice of others’, providing the example of large herds on the Serengeti Plain who live together yet normally seek primarily the company of their species members.⁵⁸ The existence of this tendency is morally relevant, and justifies assigning more value to humans than to nonhumans.

The view that we should give preferential treatment to members of our own species because our biological make-up predisposes us to caring more for

⁵⁸ M. Midgley. 1984. *Animals and Why They Matter*. Athens. University of Georgia Press:105-106.

members of our own species than for members of other species could be charged with committing the is-ought fallacy. This is the alleged fallacy that what we ought to do (the moral order) can be derived from what is (the order of being). The charge is that such derivation is fallacious because the order of being is held to be neutral towards the question of what ought to be done. David Hume is often credited for pointing out that such inferences are fallacious, which is why the fallacy is often referred to as 'Hume's law'. The attribution, however, is erroneous, as Hume himself rooted morality in being. The only point which Hume was trying to make is that you cannot logically derive an 'ought' from an 'ought-free' premise. He did not make the point that the order of being is completely neutral to the question of what ought to be done. In fact, Hume thought that 'morality is more properly felt than judg'd of' and that we hold things to be 'virtuous or vicious' because they cause a feeling of 'satisfaction' or 'pleasure or uneasiness of a particular kind', and that 'our approbation is imply'd in the immediate pleasure' experienced.⁵⁹ Hume seems to suggest here that a neutral perception of reality is impossible. We are immediately affected by things which command either our approval or disapproval. In the words of

⁵⁹ D. Hume. 1978. *A Treatise of Human Nature*. Second edition with text revised and variant readings by P.H. Nidditch. Oxford. Clarendon Press:470-471.

Holmes Rolston, this means that ‘an ‘ought’ is not so much *derived* from an ‘is’ as discovered simultaneously with it’.⁶⁰

As I suggested earlier, when Steinbock writes that ‘getting enough sleep, eating moderately, and foregoing tobacco might be in the interest of a person who has no interest in following such a regime’, she seems to acknowledge that some things simply are in our interests because of the kind of beings that we are, and that this is why we ought to value them.⁶¹ Having argued that speciesism is based on the kind of beings that we are, I shall now argue that life is in the interest of embryos because of the kind of beings that they are. Embryos, like other humans, are constantly taking up materials from their environment and transporting entropy back into their environment in order to maintain and develop themselves as living organisms. They have a natural inclination to organise themselves in such a way as to stay alive and a teleological orientation towards growth into more developed humans, present from fertilisation. Gametes lack such an orientation. An early indication of the existence of a new individual is that shortly after fertilisation, and prior to syngamy, further sperm is prevented from penetrating the zona, which the ovum could not achieve by itself, and which is an early manifestation of the embryo’s orientation towards growth. Should this matter morally? As Thomas Fuchs has pointed out in his discussion

⁶⁰ H. Rolston. 1983. Is There an Ecological Ethic?. In *Ethics and the Environment*. Scherer and Attig, ed. Englewood-Cliffs. Prentice-Hall:41-54:48.

⁶¹ Steinbock. Why Most Abortions Are Not Wrong:252.

of active euthanasia, 'the art of medicine traditionally consists of assisting the reintegration of the organism' and 'the 'artificiality' of its technical means is always subordinate to the preservation *or* restitution of the autonomous natural processes as far as possible', expressed in the principle of '*primum nil nocere*'.⁶² Fuchs argues that killing (as opposed to 'letting die' in situations where interventions can no longer restore the organism's autonomous functioning) is incompatible with this traditional aim of medicine. Yet one could still argue that the killing of embryos for research purposes should become an additional aim of medicine. I disagree with this position because, in normal situations, promoting the autonomous functioning of human organisms is right, and undermining it is wrong. Even those people who have strong desires to end their lives also have a natural inclination to keep on living and it is the existence of this inclination which makes the decision to commit suicide never an easy option. The view - expressed by Timothy Sprigge - that we have 'sentiments about killing which cannot be reduced to judgements about what will best promote the sum of human happiness' suggests that the existence of this natural drive to maintain life is morally relevant.⁶³ The basic reason why the protection of human life should be a precious value is not that we are beings who consciously decide that life is better than death (as we may not), but that we find ourselves to be

⁶² T. Fuchs. The Notion of 'Killing'. Causality, Intention, and Motivation in Active and Passive Euthanasia. *Medicine, Health Care, and Philosophy*. 1998;1:245-253:248-249.

⁶³ T.L.S. Sprigge. Utilitarianism and Respect for Human Life. *Utilitas* 1989 (March):1-21:20.

organisms that strive to maintain life. The *prima facie* wrongness of killing humans consists in the termination of the autonomous functioning of human organisms, which is present from fertilisation. Egalitarian speciesism is the view that all humans have equal rights to life (as they all strive to maintain it) and that they have more value than nonhumans.

CONCLUSION

Legal advisory bodies in the UK have argued for embryo research and the view that early embryos are less valuable than other humans on the basis of the views that they lack relevant qualities and only have a potentiality to become humans with moral status. Among the qualities which are considered important for a being to have moral status are the capacities to 'think, act, and communicate', as well as a capacity to feel pain. Especially the latter has been the subject of debate in the ethics literature. To engage with this debate, I presented the position of Bonnie Steinbock as a putative defence of present UK legislation. I have shown that neither the UK legal advisory bodies' nor her account are convincing. Subsequently, I discussed four different versions of the argument from lack of potentiality, all of which can be found in the legal advisory bodies' documents: that the early embryo is potentially human; that he or she is a potential human individual; that he or she has a passive potentiality to become a human with moral status; and that he or she has an active potentiality to become a human

with moral status. I have shown that none of these are convincing. In the final section, I presented a case for egalitarian speciesism. Embryos have moral status and should be assigned more value than nonhuman beings as they are autonomously functioning organisms with a teleological orientation towards becoming more developed humans from the beginning of fertilisation. Current UK legislation on embryo research is immoral as it undermines egalitarianism by discriminating against early embryos.