ETHICS, EMBRYOS AND EVIDENCE: A LOOK BACK AT WARNOCK

Summary

The Report of the Committee of Inquiry into Human Fertilisation and Embryology, the Warnock Report, forms the basis of the UK legislation on embryo research and its influence continues to be felt even though over thirty years have passed since its publication. The Warnock Committee was the first of its kind to consider how the advancements in human fertilisation and embryology should be regulated. This article examines the evidence submitted to the Warnock Committee, upon which its members ultimately reached their conclusions. With on-going debate as to the status of the human embryo, it is important to recognise that the legislative position, which is based on the recommendations of the Warnock Committee, is one that was reached after extensive consultation and consideration of submitted evidence. This article considers the differing ethical viewpoints that were expressed by organisations both prior and post publication of the Warnock Report, and how the Committee used that evidence to reach their conclusions, and ultimately calls for a new Warnock-style committee.

Keywords: Embryo, Ethics, Evidence, Moral Status, Warnock

I. INTRODUCTION

It is over thirty years since the Warnock Report was published and its influence continues to be seen within the UK legislation on human fertilisation and embryology. Much has been written about the Report of the Committee of Inquiry into Human Fertilisation and Embryology,[1] the recommendations that it made, how those recommendations divided Parliament, the public and the scientific and religious communities, and how ultimately the recommendations were subsequently enacted; yet little has been written about the evidence on which the Warnock Committee reached its recommendations regarding the status of the human embryo and the protection that was to be accorded to it.[2] This article seeks to address this lacuna by exploring the evidence upon which the Warnock Committee reached their recommendations with regard to human embryo research.

[1] Department of Health and Social Security, *Report of the Committee of Inquiry into Human Fertilisation and Embryology* (Cm 9314, 1984) Hereafter the Warnock Report.

[2] For example M Lockwood, *Moral Dilemmas in Modern Medicine* (OUP 1985) Ch 8; J Harris, *The Value of Life: An Introduction to Medical Ethics* (Routledge 1985) 129-135; K Norrie, *'United Kingdom: Legal Regulation of Human Reproduction'* in SAM McLean (ed), *Law Reform and Human Reproduction* (Dartmouth 1992), 201.

This article's overarching purpose is to engage with the evidence that was submitted to the Warnock Committee with a view to shedding light on the opinions that were held at the advent of the (then) new reproductive technologies, in order to seek to determine how and why the Warnock Committee reached its conclusions, particularly with respect to the moral status of the embryo and embryo research. Consequently, my intention is not to engage substantively with the extensive literature on the Warnock Report per se, but rather to provide a contextual analysis that may in turn assist in understanding why the Warnock Report has formed the backbone to the legislative position on human fertilisation and embryology for so long. The Warnock Report was a succinct and clear document that fully connected with the reproductive technologies of the time; I will argue that it is now perhaps opportune to convene a new committee in order to fully and comprehensively explore the issues surrounding the next era of reproductive technologies and reproductive ethics, including matters such as womb transplants, in vitro derived gametes, mitochondrial donation and artificial wombs.[3]

It may be thought that the examination of this evidence over thirty years after it was submitted is both extremely tardy and of little relevance. However, the Warnock Report is the seminal report in the area of human fertilisation and embryology and the key recommendation that it made - to afford the human embryo some protection in law but not absolute protection - continues to be discussed and debated today within law, ethics and society.[4] As Baroness Hooper stated in 2007 during one of the debates on the reformation of the Human Fertilisation and Embryology Act 1990:

> It has already been said that the 1990 Bill was an admirable example of how to produce legislation, from the Warnock report itself and the wide discussions that took place during its preparation, through to the wide consultation process that took place subsequent to the report and before the Bill was drafted. The process took a long time—I believe it was almost 10 years altogether—but that was right and proper. We cannot and should not rush debate and decision-making over issues affecting human existence. The fact that the Bill has survived for so long as the framework for regulation in this area is proof of the value of all that preparation and concern.[5]

The thorough evaluation of the evidence by the Warnock Committee was vital due to the sensitive nature of the topic. The evidence shows that the status of the human embryo, and how we should treat the human embryo, was a divisive issue. This is significant in light of the subsequent conclusions and

[3] M Brännström, *et al.,* 'Livebirth after uterus transplant' (2015) 385(9968) The Lancet 607 (14-20 February 2015); F.D. West, *et al.,* 'In Vitro-Derived Gametes from Stem Cells' (2013) 31(01) Semin Reprod Med 033-038; *The Human Fertilisation and Embryology (Mitochondrial Donation) Regulations 2015* No.572.

[4] For example, see D Gomez, 'The special status of the human embryo in the regulation of assisted conception and research in the United Kingdom' (2011) 17(1) MLJI 6, and the parliamentary debates surrounding mitochondrial donation, such as Frank Dobson and Jane Ellison in the House of Commons on the 1st September 2014, Vol 585, Col 102 and 121 respectively.

[5] Baroness Hooper HL Deb 19th November 2007 Vol 696, Col 724

recommendations made by the Warnock Committee that ultimately sought to find compromise on an emotionally charged and ethically sensitive issue.

II. THE WARNOCK COMMITTEE

The Warnock Committee was established in 1982, with the remit:

> To consider recent and potential developments in medicine and science related to human fertilisation and embryology; to consider what policies and safeguards should be applied, including consideration of the social, ethical and legal implications of these developments; and to make recommendations.[6]

The point of investigation for this article is the ethical and evidential basis upon which the Warnock Committee reached its recommendations regarding embryo research. The Warnock Committee was the first group of its kind to consider the ethical (as well as legal and social) implications of scientific developments in human fertilisation and embryology and its recommendations were destined to be closely examined. The recommendations were that: the embryo should be accorded some protection in law; licences were required to handle human embryos; the use of *in vitro* embryos without authorisation should be a criminal offence; embryos should not be kept alive beyond fourteen days after fertilisation, that research upon embryos should be permitted; and that embryos could be created specifically for research.[7]

Although the Warnock Report was published in 1984, six years passed before the Government enacted legislation that was closely based upon its recommendations. The reason for the delay is fully explored by Mulkay, and can be summarised as a tug-of-war between 'pro-life' (broadly religious) groups and the 'pro-research' scientific community, with politics in the centre.[8] The initial backlash against the Warnock recommendation to allow research upon human embryos resulted in attempts by the 'pro-life' groups to introduce Private Members' Bills in a bid to outlaw this research before the political debate could progress. For example, Enoch Powell's Unborn Children (Protection) Bill was introduced in 1985 and was the most serious attempt to deflect Parliamentary progress on embryo research. In Mulkay's words:

> The debate over the Unborn Children (Protection) Bill in February 1985 proved to be a resounding victory for the opponents of embryo research and confirmed the worst fears of the scientific community. The Bill was designed to… prevent any use of IVF embryos for experimental purposes… the [resulting] vote of two hundred and thirty-eight to sixty-

[6] Warnock Report (n1), Para 1.2.
[7] Ibid., Ch 11.
[8] M Mulkay, *The embryo research debate. Science and the politics of reproduction* (Cambridge University Press 1997) Ch 7

six in favour of Powell's Bill revealed overwhelming Parliamentary opposition to the continuation of research involving human embryos.[9]

The turnaround from 1985 to 1990 when the Human Fertilisation and Embryology Bill finally received Royal Assent, and contained provisions favourable to embryo research, can be attributed to the scientific consensus and united front that increasingly found favour with politicians and the public, in face of the increasing religious disunity and fragmentation.[10] Yet the vote on Enoch Powell's Private Members' Bill in 1985[11] demonstrates that the Warnock Report recommendations were viewed as drastic and abhorrent by a large part of society, or at least their Parliamentary representative. So if the Warnock recommendations to allow human embryo research to continue within defined limits were initially viewed in this way, what was it that pushed the majority of the Committee members to make these controversial recommendations?

III. EVIDENCE

An examination of the evidence submitted to the Warnock Committee prior to the publication of its Report will aid understanding of what influenced the Committee to reach the recommendations that it made. The research that forms the basis of this paper was conducted primarily in 2005[12] and involves the 97 pieces of evidence found to be relevant to the embryo research debate, as well as the 101 submissions that were made post-publication of the Warnock Report.[13] A vast amount of evidence was submitted by those with an interest in the remit of the Committee and was carefully considered by the members of the Committee in helping it to reach its conclusions. Notably, nearly 300 organisations and individuals working in the field of human reproduction submitted evidence (including 21 oral submissions) and there were additionally 695 submissions from the public.[14] Unlike consultations today,[15] the evidence submitted to the Warnock Committee has never been published and only submissions from organisations are available in the House of Commons

[9] Ibid., 25-26.
[10] Mulkay (n8) Ch 7.
[11] Unborn Protection (Children) Bill 1985 was debated in the 1985-86 parliamentary session
[12] My thanks to the staff at the Houses of Parliament Archives for their assistance prior to and during my weeklong visit in 2005 and follow up visit in June 2014.
[13] The evidence that was submitted by organisations to the Warnock Committee is held in the House of Commons Library – Department of Health and Social Security, *Written evidence to the Inquiry and Responses to the Report of Human Fertilisation and Embryology* (1985) House of Commons Library Dep 1497 (hereafter referred to as Evidence). Additionally, the Northern Ireland Assembly submitted a Report post-publication. This is held in the Main Papers collection of the Parliamentary Archives, catalogue reference HL/PO/JO/10/11/2270/587-588.
[14] A list of organisations that submitted evidence can be found in the Appendix of the Warnock Report, where it is noted that the Committee also received 695 letters and submissions from the public. Unfortunately, I have only been able to locate the organisation submissions.
[15] For example, the House of Commons Science and Technology Committee Report on Government Proposals for the Regulation of Hybrid and Chimera Embryos 5th Report of session 2006-2007 HC 272-I, and the corresponding oral and written evidence HC 272-II http://www.publications.parliament.uk/pa/cm200607/cmselect/cmsctech/272/27202.htm#evidence accessed 14 May 2015.

Library. [16] The Warnock Committee sought '…evidence from as many organisations, reflecting as many different perspectives as possible'.[17] It is not clear from the Warnock Report exactly how the Committee took the evidence into account, if they gave weight to any particular submission, or even if they considered the public submissions as well as the organisation submissions. That said, it is presumed that they did consider all the submitted evidence on the basis of comments within the Report and subsequent statements made by Dame Mary Warnock herself.[18] Of course each organisation (and member of public) has his or her own particular concern, so not every piece of submitted evidence discussed the embryo research element of the Warnock Inquiry. What will become apparent is that the Warnock Committee adopted a utilitarian approach in drawing up its recommendations, and it could be assumed that any evidence that adopted this approach would have been favoured over other bright line viewpoints; for example, the view that the embryo must be protected from conception, or the view that the embryo/foetus should not be protected at any stage of development.

From the examination of the evidence, the two central ethical questions with regards to how embryo research is approached are as follows: 'When does life begin to matter morally?' and 'Should we permit research upon human embryos?' In considering these questions, the status of the human embryo has been, and will continue to be extensively debated, and it is unlikely that consensus will ever be reached.[19] The diversity of views on the status of the human embryo is reflected in the submitted evidence; examination reveals that there is no clear consensus and that few submissions are phrased in philosophical language, but rather eloquently express heartfelt concerns. Many focused purely upon the scientific developments being made in human fertilisation and embryology, rather than attempting to answer the central ethical question (as noted above), although this is perhaps understandable when the Warnock Report states that *'The question before the Inquiry was whether such research should be allowed."*[20]

[16] Unfortunately, the majority of the evidence that was stored in the House of Commons Library under reference Dep 1497 has been misplaced. This was discovered during my last visit in June 2014 and it was confirmed by private correspondence on 31 March 2015 that the material has not yet been found.
[17] Warnock Report (n1) Para 1.7.
[18] Ibid., Foreword paras 2 and 3; M Warnock, 'The Enforcement of Morals in Embryology' (1986) Current Legal Problems 17, 24.
[19] There are numerous sources that discuss the moral status of the human embryo. A useful summary of the principal different viewpoints can be found in N M Ford, *The Prenatal Person: Ethics from Conception to Birth* (2002, Blackwell Publishing) at Chapter 4.3. Other sources include: S Holm, 'Embryonic stem cell research and the moral status of human embryos' (2005) 10 Reproductive Medicine Online 63; S Uí Chonnachtaigh, 'The Monopoly of Moral Status in Debates on Embryonic Stem Cell Research' in M Quigley, S Chan, and J Harris (eds), *Stem Cells: New Frontiers in Science and Ethics* (World Scientific Publishing 2012); D. M. Shaw, 'Moral Qualms, Future Persons, and Embryo Research' (2008) 22(4) Bioethics 218-223.
[20] Warnock Report (n1) Para 11.1. I have been unable to locate a copy of the exact questions that the Warnock Committee asked for comments upon. Note that the Report does later address the central ethical question when it states that *'We have considered what status ought to be accorded to the human embryo, and the answer we give must necessarily be in terms of ethical or moral principles'* Warnock Report (fn 1) Para 11.9. See discussion in Section IV

The purpose of the following analysis of the evidence is to provide further context to the recommendations made in the Warnock Report and the subsequent parliamentary debates, and to inform the reader of the different opinions held at the time. Of the 97 pieces of evidence upon which this research is based, 33 supported embryo research, 36 were against embryo research, whilst the remaining 28 were either inconclusive or an opinion cannot be gauged.[21] The evidence that is clearly in favour or opposition of embryo research can be loosely categorised under the following headings:

a) The human embryo is a person from fertilisation/conception
b) The human embryo has the potential to become a human being/the value of the human embryo increases as it develops
c) Fear of the 'slippery slope'
d) Research upon the human embryo is not permissible as the embryo cannot consent to that research
e) Research may be consented to by an agent
f) Supportive of embryo research but only where it will benefit that particular embryo which is subsequently implanted
g) Supportive of embryo research but opposed to implantation post-research
h) Supportive of embryo research due to the potential to help infertility and/or detect and prevent hereditary disease
i) Supportive of research within defined guidelines and/or within a time limit

Each of these categories will be briefly discussed, along with extracts from the supporting evidence since these are the concerns that informed the eventual recommendations of the Committee.

a) The human embryo is a person from fertilisation/conception

The view that the human embryo is a person from fertilisation/conception was a strongly held view amongst those opposed to embryo research; it should be noted that it was not only the religious groups that favoured this approach. Amongst the supporters of this viewpoint were some legal groups, including the Association for Liberal Lawyers.[22] Indeed, one example can be found in evidence submitted by the University of Southampton Faculty of Law which pointed to fertilisation as '…being undoubtedly the starting point of meaningful life as we know it' and concluded that such experimentation upon human embryos is '…wholly unacceptable and should be prohibited by law'.[23]

The Catholic Bishops' Joint Committee on Bio-Ethical Issues stated that:

[21] Only the submissions made by organisations to the Warnock Committee are considered here as a) they are listed in the Appendix; and b) only the organisation submissions are available in the House of Commons library.
[22] Department of Health and Social Security, *Written evidence to the Inquiry and Responses to the Report of Human Fertilisation and Embryology* (1985) House of Commons Library Dep 1497, Association of Liberal Lawyers, 20th April 1983.
[23] Evidence (fn22) the University of Southampton, Faculty of Law, 19th May 1983.

> … at the time of conception there comes into existence a new life. There is a union in which a living cell from the father fertilizes a living cell from the mother. That union, a transmission of life, is the beginning of new life… Each such new life is the life not of a potential human being but of a human being with potential.[24]

Additionally, the Nationwide Festival of Light, in its detailed consideration of the human embryo, concluded that:

> … the only humane ethical position…is to treat the human embryo at any and every stage of its development with the respect due to human life at all later stage… "Human life" must therefore refer to the human life from conception… Deliberate destruction of the embryo represents the taking of "innocent" human life.[25]

These are just a few examples of the clearly expressed viewpoint that human life starts from the moment of fertilisation, and must therefore have absolute respect and legal protection. As a comparator, the viewpoint of the Association of Liberal Lawyers is of interest. Although, as already noted, the Association was not supportive of embryo research, it hinted at the possibility of 'legal sidestepping' of the issue of the embryo's status by reference to statutory exceptions:

> …In particular we believe that it is of paramount importance that the law clearly stated that the foetus is treated as a human life from the moment when conception takes place. *Any permissible exceptions to the safeguarding of human life…should be clearly spelt out in statute law or at least in regulations made and policed by the DHSS*… The alternative view that human life should not be considered as starting until implantation seems expressly designed for catering for unrestricted experimentation on human embryos and it is a view which we hope your inquiry will reject.[26]

The ethical standpoint of opposing embryo research on the basis that the human embryo is a person from conception, and as such deserving of full legal protection from that point onwards, is a viewpoint that continues to be evident in current debates surrounding the human embryo.[27] It featured prominently in the Parliamentary debates following the Warnock Report and is regularly aired whenever the legislation governing human fertilisation and embryology is before

[24] Evidence (fn22) In Vitro Fertilisation: Morality and Public Policy. Evidence submitted to the Government Committee of Inquiry into Human Fertilisation and Embryology (the Warnock Committee) by the Catholic Bishops' Joint Committee on Bio-Ethical Issues, on behalf of the Catholic Bishops of Great Britain, 6, para 8.
[25] Evidence (fn22) Nationwide Festival of Light, February 1983, 12 and 13.
[26] Evidence (fn22) Association of Liberal Lawyers, 20th April 1983 (emphasis added).
[27] For an example of the discussion on the immorality of the subsequent legislation on embryo research, see J Deckers, '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 ' (2005) 19(3) Bioethics 251.

Parliament for reformation.[28] The support that this argument had and continues to have, may have made the eventual outcome of enacting the pro-research recommendations of Warnock surprising, especially given the strength of feeling demonstrated.[29]

b) The human embryo has the potential to become a human being/the value of the human embryo increases as it develops

To the non-philosophically trained layperson, the argument that the human embryo has the potential to become a human being may seem the same as the argument that the human embryo is a person from fertilisation and therefore deserving of respect and full legal protection. However, its subtle distinction can result in different outcomes for those who hold the view that the human embryo has the potential to become a human being. This can be seen by comparing and contrasting evidence submitted to the Committee. For example, the Welsh National School of Medicine wrote that whilst the School:

> … supports research which may lead to the reduction of malformation, providing these are carried out within guidelines promulgated by the MRC. We do not support research work using whole human embryos, which retain the potential to become a human being. We regard this as morally different from the research use of tissues derived from abortions, whether spontaneous or therapeutic, and hope that any legislation will be carefully framed to allow the present practices in this field to continue.[30]

In contrast, the Council of Reform and Liberal Rabbis stated that:

> Not only is there a morally valid distinction between potential and actual human life, but the value of the embryo itself may be deemed to increase gradually, from zero to "infinity", between conception and birth.[31]

Whilst the Council recognised that the use of embryos for medical research would involve the destruction of potential human life, they concluded that research could be justified provided that certain conditions are fulfilled:

> (a) that the purpose of the research is the prevention of suffering; (b) that there is, additionally, a good prospect that the research may ultimately lead to the saving of life; (c) that the research is only carried out during the very earliest stages of the embryo's gestational life; (d) that the embryo is treated with the respect due to that which, though not a human person, has the potential to become a human person.[32]

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[28] For example, see G Bahadur, 'The moral status of the embryo: the human embryo in the UK Human Fertilisation and Embryology (Research Purposes) Regulations 2001 debate' (2003) 7(1) Reproductive BioMedicine Online 12.

[29] For an example of discussion of this viewpoint see Lord Kennet, 15 January 1988, cols 1494-5, reproduced in Mulkay (fn 8) 103.

[30] Evidence (fn22) Welsh National School of Medicine, 20th April 1983.

[31] Evidence (fn22) Council of Reform and Liberal Rabbis, 20th May 1983, ii.

[32] Ibid., Council of Reform and Liberal Rabbis, 20th May 1983, vii.

Thus, whilst the Council of Reform and Liberal Rabbis recognised that the human embryo has the potential to develop into a person, the Council also recognised that the value of the human embryo increases as it develops and as such research could be permitted in limited circumstances, albeit only in the early stages of development when the human embryo holds the least 'value'.

This 'gradualist' viewpoint is ultimately found in the recommendations made by the majority of the Warnock Committee, and yet within the submitted evidence this is the only example which expresses this position so clearly.[33] It is therefore of interest that the majority of the Committee should reach this consensus, when it appears to reflect a position held by a minority. Nevertheless, it conforms to the broadly utilitarian approach that the Committee took towards the field of human fertilisation and embryology as a whole. During the consultation process it may not have been apparent that this was the approach that would be adopted by the Committee members, although it was subsequently made clear in the Foreword of the Report.[34] How the Warnock Committee reached this decision, and why, is explored later in this paper.

c) Fear of the 'slippery slope'

The fear of stepping onto the slippery slope was most strongly expressed in the evidential submission of the National Children's Home, in respect of genetic manipulation:

> We recognise the attraction of the use of modern technology in eradicating genetic disorders in children which otherwise produce great personal suffering and public expenses. However, once genetic manipulation for these purposes is accepted, how hard will it be to prevent its extension to the manipulation of other "defective" traits in the nature of intelligence, ability etc. Similarly, with cloning, we are convinced that this is totally unacceptable from every point of view.[35]

This fear of using science in the 'wrong direction' was also expressed by the Department of Medicine at the University of Leeds, which stated, '… all were alarmed by the distinct possibility that these techniques could be used to manipulate future generations as to sex, intelligence and physical characteristics.'[36]

The slippery slope snake has reared its head in respect of many novel scientific developments, such as gene therapy and xenotransplantation, and thus, from today's perspective, is not a novel argument.[37] It is important that these concerns

[33] Warnock Report (fn1) Recommendation 12.
[34] Ibid., Foreword.
[35] Evidence (fn22) National Children's Home at 2.
[36] Evidence (fn22) the University of Leeds, Faculty of Medicine, Appendix C, 19th Jan 1983.
[37] For example, Fovargue and Ost discuss risk and public health with regard to xenotransplantation: S Fovargue, and S Ost, 'When should precaution prevail? Interests in (Public) Health, the risk of harm and xenotransplantation' (2010) 18 Med Law Rev 302; T McGleenan, 'Human Gene Therapy and Slippery Slope Arguments' (1995) 21 JME 350; N Holtug, 'Human Gene Therapy: Down The Slippery Slope?' (1993) 7(5) Bioethics 402.

are raised and addressed, but so far the fears as expressed by the National Children's Home have not materialised, probably due to the controlled regulatory environment that exists in the UK. Looking beyond the regulatory environment of the UK, science has also acted as a brake on the slippery slope; fears of manipulating genetic traits may never come to fruition due to the sheer scientific complexity of determining the complex interactions between the relevant and numerous genes involved.[38] However, one can acknowledge that perhaps these fears have been realised through the increasing numbers of genetic diseases that are being licensed for pre-implantation genetic diagnosis and embryo selection.[39]

d) Research upon the human embryo is not permissible as the embryo cannot consent to that research

The position that the embryo cannot to consent to research upon itself, and that lack of consent would therefore prohibit such research, had considerable support amongst those who submitted evidence. For example, the Joint Ethico-Medical Committee of the Catholic Union of Great Britain and the Guild of Catholic Doctors noted that:

> Ethical clinical research is regulated by the informed consent of the volunteer. Experimentation on human embryos is, in our view, rendered unethical and unacceptable by the fact that they are not able to comply with the consent or volunteer principle.[40]

This approach was supported by the Royal College of General Practitioners who stated that:

> Experimentation on human embryos is unethical, because:-
> (i) It is not in the interest of the subject under study.
> (ii) The mental, physical and legal state of the subject is such that informed consent cannot be obtained.
> (iii) The genetic parents are not able to give objective and informed consent because of their inevitable emotional vulnerability.
> (iv) It could be abused to the detriment of humanity.
> (v) Failure to maintain ethical standards in relation to human embryos represents a threat to the application of ethical standards in medicine and science generally.[41]

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[38] Thanks to Professor Hazel Biggs for raising this point during discussion of an earlier draft of this paper.

[39] The HFEA lists those conditions that it has agreed are sufficiently serious to warrant the use of PGD. This list, as of March 2015, stands at over 300 conditions *'PGD conditions licensed by the HFEA'* (HFEA) http://guide.hfea.gov.uk/pgd/ accessed 24 March 2015, with a further 16 conditions under consideration *'PGD conditions awaiting consideration'* (HFEA) http://www.hfea.gov.uk/7177.html accessed 24 March 2015. My thanks to one of the anonymous peer reviewers for raising this point.

[40] Evidence (fn22) Joint Ethico-Medical Committee of the Catholic Union of Great Britain and the Guild of Catholic Doctors, 7.

[41] Evidence (fn22) the Royal College of General Practitioners, 18th March 1983, at 1.

The League of Jewish Women and The Responsible Society also supported this position of prohibiting research upon embryos due to the inability to gain their consent.[42] This emphasis on consent in research is even more relevant today. Indeed, Biggs states that '… consent is now revered as the cornerstone of English medical law and the right to decide whether or not to accept treatment or participate in research is regarded as fundamental.'[43] However, the prioritisation of consent by the subject exists in law in the context of those who possess the capacity to consent. We can, and do, consent to research upon those from whom it may be impossible to gain consent and, thus, research on young children and those who lack capacity is permissible in some circumstances.[44] For, as Biggs notes, '… research involving members of groups who are viewed as vulnerable because of their inability to give a legally valid consent has been regarded as important, and ethical guidelines have been developed to support its facilitation.'[45] An embryo will never be able to give consent to research (or anything else), as it is a physical impossibility. Equally, from a philosophical perspective, the consent argument is a futile argument. Whilst some may argue that the embryo is a person from conception with a soul, this does not enable the embryo to give or withhold consent. A human has full legal status upon birth, but even then it is recognised that it would be futile, both legally and philosophically, to seek the consent of a newborn child for research, treatment or any other matter that affects it. The ability of others to consent on behalf of the embryo is recognised in some of the evidential submissions (see next section).

e) Research may be consented to by an agent

Moving onto the groups that were broadly supportive of embryo research, it is important to note that within the supportive submissions there is clear evidence of the desire to impose limits upon the research. The ability to consent on behalf of another was considered by the General Synod Committee for Social Responsibility of the Scottish Episcopal Church. The General Synod discussed the need for consent in order for research to take place and at what point human life begins, concluding that all human material may be deemed to have an agent who could give or withhold consent for research.[46] This acknowledged the position discussed above that others can consent on behalf of another in some circumstances.

f) Supportive of embryo research but only where it will benefit that particular embryo which is subsequently implanted

One of the limits advocated in some submission was that the research should benefit the embryo itself, which could then be re-implanted and have the opportunity to continue its development into a person. Indeed, three

[42] Evidence (fn22) League of Jewish Women, The Responsible Society – Family and Youth Concern.
[43] H Biggs, *Healthcare Research Ethics and Law: Regulation, Review and Responsibility* (Routledge-Cavendish, 2009) 78.
[44] Ibid., Ch 7.
[45] Ibid., 117.
[46] Evidence (fn22) Scottish Episcopal Church, General Synod Committee for Social Responsibility, Paragraph 12.

submissions were supportive of this position, the Presbyterian Church of Ireland, the United Free Church of Scotland and the Baptist Union of GB & Ireland. According to the United Free Church of Scotland:

> There are serious objections, based on the mechanisation of human procreation and the consequent degradation of all human life, to the generation of human embryos purely for experimental use or for organ transplant purposes. …But eggs originally fertilized for reimplantation into the mother (in excess of the number actually so used) may serve for experimentation so long as they could still be used as "spares" to achieve a successful pregnancy.[47]

The Baptist Union of Great Britain and Ireland was generally against embryo research but noted that:

> The question then is whether the good of gaining knowledge to combat disease is outweighed by the claim to life and dignity of the embryo itself, also bearing in mind the consequences for social awareness of conducting such experiments. The strong contrary features make it unlikely that a Christian ethic could approve experiments on the embryo which involved *interference* with it that was not directly therapeutic.[48]

Due to the generally stated view amongst the religious groups that an embryo is a person from conception, this position is unsurprising. For if an embryo were denied the opportunity of implantation and growth this would contravene the pillar upon which the religious view is built. However, these groups appear to sweep aside the possibility that once an embryo has been subject to research or manipulation, it may be damaged so as to no longer have the ability to divide, implant and achieve a successful pregnancy. This approach is not efficacious of time or resources.[49] These arguments also do not consider the possibility that if an embryo is researched upon and subsequently successfully transferred to a uterus for implantation, the resulting foetus may be severely impaired.[50] Moreover, and more broadly, without research upon embryos it would be impossible for scientists to reach a point where they could confidently say that research on the embryo will directly benefit that particular embryo.[51]

g) Supportive of embryo research but opposed to implantation post-research

[47] Evidence (fn22) United Free Church of Scotland, Appendix B.
[48] Evidence(fn22) the Baptist Union of Great Britain and Ireland, 9th March 1983, at 9-10, paragraph 15 (emphasis in original).
[49] Thanks to Professor Hazel Biggs for raising this point during discussion of an earlier draft of this paper.
[50] I leave to one side the arguments that a life lived with a disability is better than a life never lived as these were not directly addressed in these evidential submissions.
[51] As has since happened with PGD; this benefits the embryo that is tested and deemed fit for transfer to a uterus. It is recognized that this technique does not benefit those embryos that are tested by PGD and are subsequently discarded.

Other groups did not support the implantation of human embryos after research had been conducted upon them. The committee of the Soroptimist International of Colwyn Bay and District categorically stated that:

> (a) The manipulation of human embryos is to be forbidden if there were any intention to implant the resulting embryo in the womb …
> (c) There should be a definite time limit after fertilisation during which any research must take place.[52]

The National Association for the Childless (NI) was also in agreement with this approach to embryo research, as the majority of the Association's members '…felt that spare embryos…which would be destroyed anyway may be used for experiments provided that:- (a) the embryos are destroyed at an early stage and before they become recognisable human beings, and (b) such experiments are strictly controlled…'[53]

Within the submitted evidence there does not appear to be any explanation as to why implantation post-research is undesirable. It is probable that this was due to the commonly held fear of so called 'Frankenstein Babies', the concern that scientists could and would manipulate human embryos to produce creations of their imaginations, that they would 'play God' and act regardless of what the end result may be.[54]

h) Supportive of embryo research due to the potential to help infertility and/or detect and prevent hereditary disease

Other submissions that were supportive of embryo research adopted this position on the basis of the potential of the research to help overcome infertility and/or to detect and prevent hereditary disease. These groups, therefore, adopted the utilitarian approach that was later found to be favoured by the Committee, and consequently may have been favoured by the members in their deliberation of the evidence. For example, consider the following extract from the Department of Medicine at the University of Leeds:

> All agreed that research into the therapeutic aspects of human fertilisation, and particularly research into treatments for infertility and prevention of clearly defined inherited disease should continue…[55]

And this from the University of Birmingham's submission:

[52] Evidence (fn22) Soroptimist International of Colwyn Bay and District, Paragraph headed 'Research on spare human embryos'.
[53] Evidence (fn22) National Association for the Childless (NI), 18th February 1983, Paragraph headed 'Experimental Use of Human Embryos'.
[54] For an interesting discussion of the image of Frankenstein and its role in the Parliamentary debates, see Mulkay (fn8) Ch 8.
[55] Evidence (fn22) Department of Medicine, University of Leeds, 19th January 1983.

> This is perhaps the most controversial issue in the whole of artificial reproduction. Nevertheless it is paramount to continue carefully controlled research into the mechanisms of fertilization and implantation in the human… This particular carefully controlled research will have untold benefits for the general population and for our understanding of the control mechanisms in early pregnancy and will benefit patients who previously have had trouble with miscarriage and may lead us to help to understand genetic and immunological aspects of early pregnancy.[56]

As a final example here, the Highland Health Board stated that:

> The work being undertaken to develop new techniques for controlling fertilisation and embryology are certainly to be encouraged as without such research new advances in treatment will never be made.[57]

These groups adopted a clear consequentialist viewpoint that the potential benefits of research outweigh any possible 'harm' to the human embryo. This is a viewpoint that is widely discussed within the context of science and medicine. For example, in clinical trials the participants often do not derive any personal benefit through their participation, although they might have a feeling of 'self-worth' through knowing that their participation may help to bring to the market a new drug or device that will aid people suffering from a particular condition.[58] Thus, the consequence of their participation is the beneficial outcome for the population as a whole. In actual fact, this viewpoint became one of the main driving forces behind permitting embryo research in the subsequent parliamentary debates, although as seen here, it was not the key issue early on.[59] It is also of interest that, generally, this position was defended in submissions without the detailed consideration and reference to the moral status of the human embryo that can be found in the submissions made by groups opposing embryo research.

i) Supportive of research within defined guidelines and/or within a time limit

Many of the submissions were supportive of embryo research provided that there were clear guidelines and/or a time limit in relation to the embryo's development. Time limits suggested were up to twenty one days; the pre-implantation stage; and up to fourteen days, as suggested by the then recently

[56]Evidence (fn22) The University of Birmingham, 23rd Feb 1983, 8-9, 'Section 13 Experimentation'.
[57] Evidence (fn22) Highland Health Board, Comments from Area Medical Committee, 21st Feb 1983, paragraph (b).
[58] Examples include: J Savulescu, 'Consequentialism, Reasons, Value and Justice' (1998) 12(3) Bioethics 212; R M Taylor, 'Ethical Principles and Concepts in Medicine' (2013) 118 Handbook of Clinical Neurology 1; U Schüklenk, 'Protecting the vulnerable: testing times for clinical research ethics' (2000) 51 Social Science & Medicine 969.
[59] As Mulkay notes, "In the early debates, reference to control of genetic disease had been a minor feature…During later pro-research speeches, the use of IVF techniques to control the transmission of genetic disease was often the central topic…" Mulkay (fn 8) 63.

published guidelines of the BMA and MRC.[60] As the Maternity Alliance succinctly put it:

> We would strongly endorse the MRC guidelines of an upper time limit of 14 days for experimentation on extra zygotes both because of the possibility of a need to investigate prior to re-implantation and because there have been no neural system developments at that point. We would also endorse the MRC recommendation that zygotes which have themselves been subject to experimentation should not be re-implanted.[61]

This support for the continuation of embryo research within defined limits could be due to the desire to have public backing for such research. It could also be partly due to the recognition that the human embryo should be accorded some respect, even if some of those who supported embryo research did not accord full moral status to a human embryo from the moment of fertilisation.

As can be seen from these extracts, the range of opinions put forward by many varying groups is immense, with each one taking a slightly different approach to the difficult ethical questions of 'when does life begin to matter morally?' and 'should we permit research upon human embryos?' So how did the Warnock Committee consider all of these different ethical opinions concerning embryo research to reach their conclusion?

IV. THE WARNOCK REPORT AND RECOMMENDATIONS

The status of the human embryo and the permissibility of research upon human embryos was the most problematic area for the Warnock Committee to resolve. As Gunning and English note 'The views of the members of the Committee were as diverse as the evidence received, particularly where moral issues were concerned, and a consensus was not reached on the subjects of embryo research or surrogacy leading to three expressions of dissent.'[62] Two of those expressions of dissent concern embryo research.[63]

Chapter 11 of the Warnock Report focuses on human embryos and research upon them. The chapter first looks at the early development of the human embryo with a detailed but clear discussion of the scientific stages of development and notes that the development of IVF has for the first time given

[60] Evidence (fn22) See the Lothian Health Board (February 1983) and the Royal College of Physicians of Edinburgh (January 1983) for the 21 day suggestion; the University of Glasgow, Faculty of Medicine (15th February 1983) for the suggestion of not permitting research beyond the preimplantation stage, at 2; and the Maternity Alliance and the committee of the Soroptimist International of Colwyn Bay for agreement with the MRC guidelines that recommended fourteen days.
[61] Evidence (fn22) the Maternity Alliance's submission to the Government Inquiry into Human Fertilisation and Embryology at 1, paragraph 4.
[62] J Gunning and V English, *Human in Vitro Fertilization: A Case Study in the Regulation of Medical Innovation* (Dartmouth, 1993) at 37.
[63] Warnock Report (fn1) Expression of Dissent B and C: Use of human embryos in research.

rise to the possibility of creating human embryos that may never have the opportunity to be born as human beings since they will not be transferred to a uterus.[64] It was that possibility which required the Committee to examine the moral rights of the embryo.[65] The Warnock Report notes that the question of when life or personhood begins receives many different responses and '… that the answers to such questions in fact are complex amalgams of factual and moral judgements.'[66] However, the Committee does not provide definitive answers to these moral questions, as the Report states:

> Instead of trying to answer these questions directly we have therefore gone straight to the question of *how it is right to treat the human embryo*. [and] what status ought to be accorded to the human embryo,…[67]

The Committee notes the different views taken in relation to research upon human embryos, summarising in five paragraphs the range of arguments both for and against the use of human embryos. Briefly, these include the view that the human embryo has the same status as a child or an adult due to its potential for human life; that research on human embryos is unacceptable as the embryo is unable to give informed consent; and that opposition is based upon the view that scientists are tampering with the creation of human life (with eugenics and selective breeding mentioned as concerns). Then, turning to the opposite end of the spectrum, it is recognised that there is a wide range of views amongst the supporters of embryo research, including the view that the human embryo is merely a collection of cells which has no potential for development unless it implants into a uterus and therefore should be accorded no protected status; '…the more generally held position, however, is that though the human embryo is entitled to some added measure of respect beyond that accorded to other animal subjects, that respect cannot be absolute, and may be weighed against the benefits arising from research.' [68] Thus, the submitted evidence that was discussed earlier corresponds (unsurprisingly) with the summaries made in the Warnock Report.[69]

The Report then states: '[t]he status of the embryo is a matter of fundamental principle which should be enshrined in legislation. We recommend that the embryo of the human species should be afforded some protection in law.'[70] Although the Report notes that the embryo is to be afforded some protection in law, this does not mean that this protection cannot be waived in certain circumstances. As such, the majority of the Committee felt that research should not be totally prohibited.[71] Due to the special status that the Warnock Report accords to the human embryo, conditions are attached to research. These include

[64] Ibid., para 11.8.
[65] Ibid., para 11.8.
[66] Ibid., para 11.9.
[67] Ibid., para 11.9 (emphasis in original).
[68] Ibid., para 11.15.
[69] The arguments against embryo research that are cited in the Report correspond with a)-d) whereas the arguments in support of research correspond with e)-i).
[70] Warnock Report (fn1), para 11.17.
[71] Ibid., para 11.18.

the requirement that handling of embryos is only permitted under a licence;[72] no human embryo may be kept alive or researched upon beyond fourteen days after fertilisation; that no embryo that has been used for research should be transferred to a woman;[73] and that a statutory authority should be established to oversee research and treatment.[74]

All members of the Committee agreed that the human embryo should be afforded some protection in law, however, the subsequent conclusion that this protection was not absolute and, therefore, that research should be allowed in limited circumstances, was not favoured by all. Three members took the view that the special status of the human embryo is due to its potential for development and, as such, nothing should be done to prevent its implantation. In their view, it is '…wrong to create something with the potential for becoming a human person and to deliberately destroy it.'[75] This expression of dissent provides recognition of the opposing anti-research/pro-life views, as expressed within the evidential submissions.

In terms of a time limit, the point of fourteen days development was chosen by the majority on the basis that it is around this time that the primitive streak normally occurs in embryos and it is this point which marks the individual development of the embryo.[76] Harris is critical of this fourteen-day limit as the cut off point for research; he views the development of the primitive streak as an irrelevant point. For '… if the potentiality argument is sound, then human potential is present as much before the development of the primitive streak as afterwards. The development of the primitive streak does not affect the fact that the potential for one or more human beings exists, it just makes clear how many potential human beings are present.'[77] This is a criticism shared by many who hold that the embryo should be protected from the moment of creation, precisely because of its potentiality.[78]

The Warnock Report therefore does not answer explicitly the question of 'when does life begin to matter morally?', rather it considers all of the different ethical viewpoints which were submitted to it and provides the human embryo with a special status without actually defining that moral status. However, it could be said that the Warnock Committee *implicitly* answers the ethical question; by allowing research to be performed within only the first fourteen days of development, the Committee accords a gradualist status to the human embryo – as the embryo develops it should receive greater legal protection due to its increasing moral value and potential.[79] This corresponds with the viewpoint

[72] Ibid., para 11.18.
[73] Ibid., para 11.22.
[74] Ibid., para 13.3.
[75] Ibid., Expression of Dissent B, Para 3.
[76] Ibid., para 11.22.
[77] J Harris, *The Value of Life: An Introduction to Medical Ethics* (Routledge 1985) 134.
[78] For example, the Pro Life Alliance (www.ProLife.org.uk), Comment on Reproductive Ethics (www.corethics.org), and the Society for the Protection of Unborn Children (www.spuc.org.uk).
[79] Thanks to John Coggon who highlighted the implicit answer approach upon review of an early presentation of this paper.

expressed by the Council of Liberal and Reform Rabbis, as well as imposing limits such as those requested by many of the supportive submissions.

A gradualist approach is taken at law to the human embryo, as under the Warnock recommendations the human embryo was granted a protected status from creation, but this protection could be overridden within limited circumstances for clearly defined reasons and only for fourteen days after creation; thereby the human embryo gradually gains a more protected status. This is especially true if this law is read in conjunction with the Abortion Act 1967, which again recognises the 'special' status of the human embryo/foetus, and only allows this 'special' status to be overridden for defined reasons. Certainly, after 24 weeks gestation, the foetus has gained near complete protection from termination, with destruction only permitted in a small number of circumstances (where the health or life of the mother is at risk or upon grounds of serious disability).[80] By taking this approach, the Warnock Committee effectively ignored the moral arguments that the human embryo is a human being, or a human being with potential that should be protected from the point of fertilisation. Those who had submitted evidence that supported the potentiality argument would undoubtedly feel aggrieved; the expression of dissent from three members would do little to comfort those on the opposing side.[81] For example, in response to the Warnock Report, LIFE considered that the Committee in '[i]ts treatment of the pro-life case (the 'counter-arguments') is inadequate to the point of dishonesty… there were two minority reports [by some committee members] objecting to use of human embryos as subjects of research. But these objections were woefully weak-kneed and went out of their way to dissociate their case from one based on strict principle.'[82]

This gradualist stance can be viewed as a 'compromise'. It is apparent that the majority of the members of the Committee supported embryo research (as evidenced by Recommendation forty four) but that some limits should be imposed; the compromise is the imposition of a fourteen-day limit. This fourteen-day limit was subsequently debated by Parliament for its appropriateness, but it was one that was chosen for a valid scientific reason, this reason continues to be valid today, and the fourteen-day limit now carries moral significance (much like the twenty four week limit in section 1(1)(a) Abortion Act 1967). The moral significance of the fourteen-day limit has developed since the publication of the Warnock Report; examination of the Warnock Report shows that the Committee '…were agreed that this was an area [the time limit on keeping embryos alive in vitro] in which some precise decision must be taken, in

[80] I leave the debate surrounding the acceptability of termination after 24 weeks due to disability to other academic papers, for example S McGuinness, 'Law, Reproduction, and Disability: Fatally 'Handicapped?' (2013) 21(2) Medical Law Review 213.

[81] Examples of dissatisfaction with the Warnock Report include: *Warnock Dissected in Commons Debate*,Catholic Herald, 30th November 1984 (http://archive.catholicherald.co.uk/article/30th-november-1984/1/warnock-dissected-in-commons-debate accessed 5 Aug 2014; *Warnock Dissected: A Commentary on the Report of the Committee of Inquiry into Human Fertilization and Embryology* (Leamington Spa: LIFE, 1984).

[82] Evidence (fn22) LIFE - *Life's Comments On The Report Of The Committee Of Inquiry Into Human Fertilisation And Embryology* at 1 and 4.

order to allay public anxiety',[83] and that the scientific arguments were primarily of concern in determining the appropriate time limit on keeping human embryos alive in vitro.[84] There is brief reference to the utilitarian view, but again this is focussed around the scientific benefits of experiments.[85] Without access to the minutes of the Warnock Committee meetings it is nearly impossible to determine if there was any other reason for the adoption of this gradualist compromise position. I can only say that there were strong evidential submissions that supported embryo research, such research was already happening, unregulated, and the Warnock Committee obviously felt that the controversial work in the arena of human fertilisation and embryology needed regulating (as evidenced by recommendation one, to create a statutory licensing body).[86] The results and benefits of human fertilisation and embryology research and treatment were already being seen; the number of successful births through IVF were slowly increasing and more people were seeking help with infertility problems. As Chan notes '[t]he fortuitous intersection of scientific utility (most useful research could be done before this stage), the attributes perceived as important by much of the public, and the use of individuation as a superficially plausible cut-off point enabled a compromise position on this most intractable issue.'[87] Interestingly, Franklin notes that the use of this biological marker actually results in a legal discrepancy: '…although it provides the natural justification for a legal limit on research, the *actual* appearance of the primitive streak is legally irrelevant, having been displaced by a more clearly defined unit of measurement: "the period of fourteen days"'.[88]

The utilitarian approach is acknowledged and supported within the Report itself,[89] although it is recognised that a strict utilitarian approach alone would not answer the question of whether it is *right* that such work is carried out: 'Moral questions…are, by definition, questions that involve not only a calculation of consequences, but also strong sentiments with regard to the nature of the proposed activities themselves.'[90] It is for this reason that I believe that the majority of the Committee supported limited and controlled research, since they could appreciate the potential beneficial consequences of research whilst recommending that legislators take the lead.

The failure of the Warnock Committee to fully address the moral issue of 'when life begins to matter morally' has been soundly criticised over the years. In Michael Lockwood's words, '[t]he bulk of the recommendations in the Warnock

[83] Warnock Report (fn1) para 11.19
[84] Ibid, para 11.19-11.22
[85] Ibid, para 11.20
[86] Two informative accounts of the scientific work that was in progress (including IVF techniques, super-ovulation and cryopreservation), both before and after the Warnock Report include; J Gunning and V English, (fn62) Ch 4, and J Challoner, *The Baby Makers: The History of Artificial Conception* (Macmillan 1999) Ch 5.
[87] S Chan, 'A bioethics for all seasons' (2015) 41 J Med Ethics 17, 19.
[88] S Franklin, 134, Ch 4, '*Making Representations: The parliamentary debate on the Human Fertilisation and Embryology Act'* in J Edwards, S Franklin, E Hirsch, F Price, M Strathern (eds) *Technologies of Procreation: Kinship in the Age of Assisted Conception* (2nd edn, Routledge 1999) (emphasis in original).
[89] See also below, text accompanying n.138.
[90] Warnock Report (fn1) Foreword, para 4.

Report seem to me both eminently sensible and also to have relatively little of interest to be said about them, from a philosophical standpoint.[91] Indeed, Mason notes that the Warnock Report was '…widely criticized at the time for its pragmatic approach, which was thought to pay too little attention to the moral problems raised',[92] whilst Brazier has commented that the Warnock Report '…is more of an exercise in pragmatism than an exploration of the philosophy underpinning issues of reproductive choice.'[93]

Although the philosophical basis of the Warnock Report has been criticised, I would question whether the Report would ever have been published if the Committee had been asked to reach a final conclusion on the moral status of the human embryo. If the Committee had the remit to define conclusively the moral status of the human embryo, this would have been very problematic and potentially catastrophic for women in England, Wales and Scotland. First, the Committee would have been unable to reach a consensus. If basing their conclusion upon the evidence submitted to the Committee, as required to do, they would not have been able to reach a consensus due to the diverse range of views that had been put forward. Secondly, if a consensus had been reached this could have led to the repeal of all or parts of the legislation surrounding termination of pregnancy. As previously discussed, the majority of the Committee implicitly granted a gradualist status to the human embryo; the Committee could have concluded at either end of the status spectrum, recognising full moral status of the human embryo from the moment of creation, *or* recognising full moral status of the human embryo only upon birth. Both stances would have affected the Abortion Act 1967 (presuming of course that the recommendations regarding the moral status were then carried through into legislation by Parliament). If the human embryo were to be recognised morally from the moment of creation, and was awarded legal protection from that moment on, the Abortion Act 1967 would have had to be repealed, and all women would be prevented from accessing abortion services (except perhaps on grounds of preserving the woman's life-preservation[94]). This would have been a step backwards from the recognition of the autonomy and bodily integrity of women and their capacity to make decisions for themselves, as brought about less than twenty years previously when the Abortion Act 1967 was enacted.[95] As Latham notes, '…it was feared that increasing the rights of the embryo *in vitro* might in turn increase those of the embryo *in vivo* and jeopardise women's

[91] Lockwood (fn2) 156.
[92] J K Mason, *Medico-Legal Aspects of Reproduction and Parenthood* (2nd Edn, Ashgate 1998) 238.
[93] M Brazier, 'Regulating the Reproduction Business?' (1999) 7(2) Med Law Rev 166, 173.
[94] Although I note that recent legislation in Ireland designed specifically for this reason appears to be failing. See M Enright, *Suicide and the Protection of Life in Pregnancy Act 2013* Human Rights in Ireland http://humanrights.ie/constitution-of-ireland/suicide-and-the-protection-of-life-in-pregnancy-act-2013/ accessed 18 August 2014.
[95] I recognise that there is debate surrounding whether the Abortion Act 1967 offers doctors a defence to unlawful abortion or gives women autonomy regarding whether to proceed or terminate their pregnancy, although I stand by the point made as the Abortion Act is designed to enable women (in Wales, England and Scotland) to access termination services in certain circumstances when they have decided that they need them. Thanks to Professor Hazel Biggs for raising this point upon review of an earlier draft.

abortion rights.'[96] Conversely, if the Committee had recognised that a human embryo only gained moral status upon birth (as currently happens regarding legal status), this again would have impacted upon the abortion legislation. The abortion legislation permits termination up to twenty four weeks gestation for reasons of risk to the physical or mental health of the woman or existing children of her family.[97] However, there would be no reason to enforce this gestational time limit if the embryo/foetus had no moral status.

As has been seen, the opinions that were sought and received by the Warnock Committee varied greatly in their approach towards the human embryo, showing diversity and subtle nuances in the different viewpoints. This difference of opinion is also found within the Report as, unusually, expressions of dissent were published with regard to embryo research. Indeed, as Dame Mary Warnock herself stated, just two years after the publication of the Report:

> The point of our establishment was… to make recommendations to Ministers with a view to legislation... we were also aware that our task was not to utter and publish morally profound propositions… We were[,] right from the start, occupied in trying to relate possible law to the morality that we believed in, and that which was represented to us in the evidence we sought and sifted. And of course this morality was not self-consistent. Not only did the committee itself… diverge… but we were by no means unanimous on the question of the basis of our moral views, even where they coincided.[98]

If the Warnock Committee had concluded definitively on the moral status of the human embryo, philosophers and ethicists would still have found fault with the conclusion if they disagreed with it, or the method of analysis and reasoning used to reach it.

Farsides and Scott succinctly make the point when they state that:

> The moral status of the human embryo is a disputed matter, and has continued to be so long after the legal approach to its treatment and use was set out in English law. It is not an exaggeration to say that people will probably never agree about when human life acquires moral significance, with the range of possibilities spanning from conception to beyond birth.[99]

Harris is also critical of the position adopted by the Committee in moving directly to the question of how to treat the human embryo, as he notes that 'This is in a sense just an evasion because, for example, the discussion of the concept of the person [developed in this book] just is, amongst other things, a discussion

[96] M Latham, *Regulating Reproduction: A century of conflict in Britain and France* (MUP 2002) 170 (emphasis in original).
[97] Abortion Act 1967, s.1(1)(a).
[98] Warnock, *The Enforcement of Morals in Embryology* (fn 18) 24-25.
[99] B Farsides and R Scott, *No Small Matter for Some: Practitioners' Views on the Moral Status and Treatment of Human Embryos* (2012) 20(1) Med Law Rev 90, 90.

of how it is right to treat the human embryo. However, Warnock makes no serious attempt to discuss how it is right to treat the human embryo.'[100] In support of Harris's point, it could be said that the Warnock Report does not attempt to discuss how it is right to treat the human embryo; rather it suggests limits and conditions to be imposed when handling human embryos. In light of the above discussion, however, it is hard to imagine what alternative position the Committee could have adopted.

V. POST-WARNOCK

a) An overview of post-publication submissions

As previously noted, the Government was not swift to enact legislation following the publication of the Warnock Report, and such was the reaction to its publication that many organisations took up the government's invitation to respond to the Report. [101] This unusual step by the government allowed anyone to respond before the Report was taken to Parliament for discussion,[102] which was important given the issues were of such societal significance and so novel and divisive. The Warnock Committee had attempted to engage with as many organisations as possible (and heard oral evidence from twenty one individuals and organisations and received a further 695 letters and submissions from the public[103]). The Committee can be praised for recognising that '… there is a multiplicity of views on the issues…' and deciding '… to seek evidence from as many organisations, reflecting as many different perspectives, as possible.'[104] However, it is noted in the Report that '… we did not receive evidence from as wide a range of minority and special interest groups as we would have liked, despite our best endeavours'.[105] The opportunity to respond after the Report's publication was not limited to only those who had previously submitted evidence, thereby enabling others who wanted to respond to do so. There were 101 responses (from organisations and a few individuals) that were specifically concerned with the recommendations regarding embryo research. These 101 responses can be categorised into three groupings: those that agreed (broadly or specifically) with the recommendations (35); those that clearly disagreed with the recommendations (49); and those that were unclear (75). The Northern Ireland Assembly's (NIA) response (by way of a report) is singled out here as it is counted as one submission (in disagreement), although the submission actually contains evidence from a large number of organisations and experts. The NIA's report collates the written evidence from twenty seven different organisations, as well as providing the transcripts of two days of oral evidence, involving eleven different expert witnesses. Whilst the responses varied in the opinions expressed, the summary recommendations from the NIA's report included the recommendation that 'any practice which discriminates against the embryo or

[100] Harris (fn77) Ch 6, *The Beginnings of Life*, 133-134.
[101] Evidence held in the House of Commons library (fn22).
[102] Gunning and English (fn62) 41.
[103] Ibid., 37.
[104] Ibid.
[105] Warnock Report (fn1) Para 1.7.

violates his or her dignity or right to life should be made illegal',[106] a predictable position given the NIA's stance regarding the sanctity of life before birth.

Unsurprisingly that the number of responses that disagreed with the Warnock recommendations outnumbered those in agreement; after all, those who disagree strongly about something are far more likely to take the opportunity to air their grievances, whereas those who agreed with the Report may not have felt the need to put their point forward, as it was sufficiently represented within the Report. Within the previous section on the evidence submitted to the Warnock Committee, twenty one different organisations were highlighted to offer examples of the diversity of opinions regarding the emotive topic of embryo research. Of those twenty one organisations, fourteen made no further submission post-publication. Of the remaining seven organisations, three altered their position post-publication.[107] The three organisations that altered their position were the Royal College of General Practitioners, the Presbyterian Church in Ireland, and the Baptist Union of Great Britain and Ireland. This is most likely due to the greater understanding of the science and its possibilities by the time the Report was published.

In the Royal College's original submission, it was noted that the majority supported no experimentation involving human embryos due in part to the inability of the human embryo to provide informed consent to the research.[108] In contrast, the post-publication submission by the Royal College notes that there was a lack of consensus within the Royal College Council prior to submission to the Warnock Committee, and that this lack of consensus is reflected within the Warnock Report. Interestingly, in respect of human embryo research, the post-publication submission notes that due to the College's large 12,000+ membership, it had not been possible to reach an agreement on the matter, instead it is submitted that:

> Perhaps more general agreement will become possible as more knowledge becomes available. In the meantime, the College believes that a mechanism must be established quickly for coping with the ethical issues related to experimentation on human embryos as they continue to present. We look to the new statutory licensing authority to provide the basis for this.[109]

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[106] Northern Ireland Assembly Report: The Report of the Committee of Inquiry into Human Fertilisation and Embryology (the Warnock Report), Volume I, NIA 179-I, at 4.1 Summary of Recommendation, page 9, Main Papers collection of the Parliamentary Archives, catalogue reference HL/PO/JO/10/11/2270/587-588.

[107] The organisations that submitted responses post-publication were: The Catholic Bishops' Joint Committee on Bio-Ethical Issues; the Council of Liberal and Reform Rabbis; the Guild of Catholic Doctors (Merseyside Branch); the Royal College of General Practitioners, the Presbyterian Church for Ireland; the Baptist Union of Great Britain and Ireland; and the National Association for the Childless (NI). It should be noted that the Guild of Catholic Doctors had previously submitted in conjunction with the Joint Ethico-Medical Committee of the Catholic Union of Great Britain and it is therefore recognised that the submission by the Merseyside Branch may not be representative of the Guild as a whole.

[108] See previous discussion in the text accompanying n.41.

[109] Evidence (fn22) The Royal College of General Practitioners, December 1984.

The Royal College of General Practitioners had therefore fundamentally altered its position to one not opposed to embryo research, looking to the proposed statutory authority to provide an ethical basis for the embryo research that was proceeding at the time. Rather than a position of broad support for embryo research, this change in position could be viewed as the Royal College taking a more neutral stance, in light of the fact that it was not possible to reach a consensus amongst its members; the Royal College appeared to acknowledge that work with human embryos was on-going and that this needed to be controlled. Thus, rather than attempting to reach agreement at that time, they supported the establishment of a statutory licensing authority as a stepping stone to agreement.

The Presbyterian Church in Ireland and the Baptist Union of Great Britain and Ireland also altered their positions. Whereas prior to publication of the Report their position was that embryo research was permissible only where it was of benefit to the individual embryo, and should subsequently be implanted, their position post-publication was that embryo research should not be permissible at all.[110] The Baptist Union of Great Britain stated that:

> The "claim" of the embryo upon our respect ought to have the full weight of *potential personhood* as given by God, and recognising this unambiguously might well lead to some slightly different conclusions from the Report…The main Report disagrees with our judgement that the human embryo should not, at any age, be used for experimental purposes…[111]

This change in stance is most likely due again to better understanding of the science, and the possible benefits of research on human embryos. The scientific journal, Nature, was one of the bodies that were instrumental in promoting the better understanding of science.[112] As Mulkay notes '…there were clear signs in *Nature* of the emergence of a more active approach within the scientific community to the struggle on behalf of embryo research'.[113]

b) Submissions that were supportive of Warnock

Within the post-publication submissions from organisations generally supportive of the Report, there are two recommendations that are criticised by many: the fourteen-day limit and the recommendation to allow embryos to be created specifically for research purposes. Regarding the recommended time limit, a number of organisations viewed the fourteen-day limit as 'arbitrary', 'restricting' and 'rigid', and, accordingly, they called for this time limit to remain flexible to take account of developments and progress in science. For instance,

[110] Evidence (fn22) The Presbyterian Church in Ireland, 4th January 1985, The Baptist Union of Great Britain and Ireland (no date).
[111] Evidence (fn22) The Baptist Union of Great Britain and Ireland (no date) at page 3 (emphasis in original).
[112] For example, H. John Evans and Anne McLaren *Unborn Children (Protection) Bill* Commentary, Nature Vol 314 14 March 1985
[113] Mulky (fn 8) 27 (emphasis in original). Progress was another body that also played an active role in 'increasing public understanding of, and support of, embryo research.' Mulkay (fn 8) 28

the Association for Spina Bifida and Hydrocephalus (ASBAH) stated that its '… members felt that the time limit of 14 days during which Embryonic research could be carried out was too rigid. These members agreed that while a time limit should exist… there should be a greater degree of flexibility.'[114] The British Humanist Society opined that:

> It is quite inappropriate… to introduce any time limit to allowed procedures. The natural technical limit is appropriate. Any legal limit will be both unjustified and prejudicial to legitimate research, if it is set so that it imposes any actual restraint now; or it will be irrelevant, based on ignorance, and possibly prejudicial in the future, if the time limit is set beyond what is now technically possible.[115]

According to the National Association of Family Planning Doctors, '[s]everal members felt that the 14 day after fertilisation limit on the use of embryos for research was too short.'[116] Whilst the Committee of the Royal College of Obstetricians and Gynaecologists considered that '… the fourteenth day should not be enshrined in law but… the time limit should be under supervision of the Secretaries of State.'[117][118] Thirty years later, there are no serious calls to extend the fourteen-day limit that was subsequently enshrined in legislation in The Human Fertilisation and Embryology Act 1990 (hereafter HFE Act 1990), appearing to negate the concerns that the rule would be inflexible if put into law, rather than guidelines. Indeed, embryonic stem cells are extracted from the blastocyst approximately five days after creation. Moreover, within the field of embryonic stem cell research, there does not appear to be any benefit to attempting to extract stem cells at a much later date.[119]

The Warnock recommendation to allow embryos to be created specifically for research was also of concern to those who were generally supportive of embryo research (unsurprisingly, this was equally of concern for many who were more generally opposed to the recommendation to allow embryo research). The General Synod of the Church of England was clear that the Anglican position could support embryo research as '…a fertilised ovum should be treated with respect, but that its life is not so sacrosanct that it should be accorded the same status as a human being.'[120] Nonetheless the General Synod was clear that the creation of embryos purely for research purposes was not acceptable:

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[114] Evidence (fn22) Association for Spina Bifida and Hydrocephalus 4th Jan 1984, Section 1.
[115] Evidence (fn22) British Humanist Association, 2nd January 1985, Section E: Legislation.
[116] Evidence (fn22) National Association of Family Planning Doctors, 20th December 1984.
[117] Evidence (fn22) Royal College of Obstetricians and Gynaecologists, 11th February 1985, heading Recommendations 42, 43, 44.
[118] The Eugenics Society was similarly of the opinion that 'The proposed limit of 14 days on embryo research seems unduly restricting.' Evidence (fn22) The Eugenics Society, 28th November 1984 Paragraph 4.
[119] For the ground breaking discovery that stem cells could be extracted from the human embryo at blastocyst stage refer to J A Thomson, *et al., Embryonic Stem Cell Lines Derived from Human Blastocysts* Vol 282 (no 5391) Science 6 November 1998 pp 1145-1147 http://www.sciencemag.org/content/282/5391/1145.full accessed 19 May 2014.
[120] Evidence (fn22) The Response of the Board for Social Responsibility of the General Synod of the Church of England to the DHSS Report of the Committee of Inquiry on Human Fertilisation and Embryology, 12th November 1984 at 16, section 10.2.

> To bring into being embryos purely for research and then to destroy them would be to treat the origins of human life with scant respect; but to use 'spare' embryos is more acceptable, because scientific research is only the secondary reason for their being brought into being, the primary cause being treatment for infertility.[121]

Equally, the submission from the Registry of the Lord Archbishop of Wales recognised that: 'The view which seems to be adopted by most people is that of a 'sliding scale' of foetal value, that as the foetus develops in the uterus so its intrinsic value increases…If the intention of the researcher, however, is to create a surplus number of embryos *solely* for the purpose of experimentation, this does seem to be morally unacceptable…It is the researcher's *intention* that is the disturbing factor.'[122]

The Council of Liberal and Reform Rabbis addressed both the issues of applying a time limit to embryo research and the use of embryos created specifically for research:

> … since there is a highly respectable body of medical opinion which believes that [embryo] research would be likely to lead to major advances in the prevention and treatment of fatal or debilitating and distressing diseases, we agree with the Warnock Report that such research should not be altogether prohibited. But we strongly endorse the Committee's view that it must be subjected to the strictest control by the licensing authority, and likewise that it should be confined to embryos of up to fourteen days' gestational life. (The objection that such a limit would be arbitrary does not seem to us to be entirely valid; but even if it were, we would be inclined to say that arbitrary limits are sometimes appropriate). However, we are now inclined to think that a further limitation should be imposed on such research, at least for the time being (that is, until more is known about the value of such research, and there is wider public understanding and approval of it), namely that it should be confined to embryos that have come into existence as a by-product of the treatment of infertility, and that it should *not* be legally permitted to create embryos for the purpose of research.[123]

This reflects the Kantian viewpoint, that we should not use someone as a means to an end, is valid where you hold the view that the human embryo is a person and should receive full protection. Yet the Council of Liberal and Reform Rabbis support early research, just not on embryos created *purely* for research purposes. However, either early embryo research is acceptable, or it is not, regardless of the primary purpose of creating the embryos.[124] This element of

[121] Ibid., at 16-17, section 10.4.
[122] Evidence (fn22) The Registry of the Lord Archbishop of Wales, January 1985, at Paragraph 3.9 and 3.12 (emphasis in original).
[123] Evidence (fn22) The Council of Liberal and Reform Rabbis, 9th April 1985 (emphasis in original).
[124] For a useful discussion of the 'spare' embryo v's creating embryo debate see K Devolder, *Creating and sacrificing embryos for stem cells* (2005) 31 J Med Ethics 366.

agreement with research in principle, but not with the creation of embryos specifically for research, was one that would continue to be debated in Parliament until legislation was passed in the form of the HFE Act 1990.[125] Notably, the UK was unique (although now not alone) in statutorily allowing the creation of embryos for research purposes.[126] In the context of this law, dissent continues, although this appears to be more generally regarding the moral status of the embryo, rather than the creation of embryos specifically for research purposes. Scientific and technological progress meant that the particular issue that was predominantly debated when the Human Fertilisation and Embryology Act 1990 was reviewed and reformed in 2007 was the permissibility of the creation of hybrid embryos for research. [127]

c) Submissions that disagreed with Warnock

The principal objection to the Warnock recommendation to allow embryo research was that it does not take into account the position that the human embryo is a human life from fertilisation and should have full legal protection from that moment onwards. This was the almost unanimously presented argument against the Report and such reaction was predictable, precisely because the Report adopted a contrary position. Examples of this viewpoint can be found in submissions from groups such as The National Club, Catholic Bishop's in Northern Ireland and Ballymena Borough Council (NI). For example, The Bristol Family Life Association held the opinion that:

> It is an established biological fact that the genetic material for a new, unique human being (from the Biblical view-point, made in the image of God) is present from the time of fertilisation. An embryo, at whatever stage after this, is a potential human life and fertilisation is the only logical point at which life of this nature can be said to have begun. We contend that this life should be afforded the same protection in law as that enjoyed by any existing human person.[128]

The Presbyterial Council of Ross, likewise, declared that 'Embryos have a complete potential for human life, and to use and destroy them for experimentation is a moral outrage.'[129][130]

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[125] Mulkay (fn 8), particularly Ch2.

[126] The StemGen *Stem Cell World Map* is the most up to date map showing different policies around the world http://www.stemgen.org/stem-cell-world-map accessed 18August 2014.

[127] For example, during the parliamentary debates, Baroness Paisley of St George's stated that: 'I believe that the creation of animal/human embryos for research is not only unnecessary and undesirable but it is unethical and would undermine our human dignity and alter the very nature of humanity.' HL Deb 19th November 2007 Vol 696, Col 730.

[128] Evidence (fn22) The Bristol Family Life Association, 15th November 1984.

[129] Evidence (fn22) The Presbyterial Council of Ross 6th December 1984 Cover Letter.

[130] Another submission claimed that: 'The embryo is alive, not with animal or vegetable life, but with human life…We accordingly insist that the embryo be given not "some" protection in law, as the Committee suggests, but total protection – the same protection given to the human beings whose heritage it already shares and can claim a right to.' Evidence (fn22) St Mary's, 23rd November 1984.

The public outcry over the recommendation to allow embryo research was understandable given how controversial a matter it was, and continues to be today.[131] However, the Warnock Committee had to come to a conclusion on the issue: embryo research was happening and was largely unregulated.[132] Any policy recommendation will have its supporters and opponents, but if the policy recommendation is well thought through, has a sound ethical basis and support, it is hoped that such a recommendation would ultimately be beneficial. Many academics remained critical of the lack of philosophical basis to the Warnock Report and this did not go unnoticed by various interested parties. For example, The Salvation Army was highly critical of the Warnock Report as '… it expressly abandons responsibility for addressing the most important single issue in this area of debate – the nature and moral status of the human embryo… The Committee lamely concludes (11.17) that the embryo of the human species ought to have "a special status". Our search through the Report for what the Committee means by 'special status' has proved futile. Nowhere is the phrase unpackaged. We had expected more.'[133]

The submission from the Birmingham Maternity Hospital stated that, 'This issue [the beginning of human life] has been fudged by the Warnock Committee.'[134] LIFE is unequivocal in its damning of the Report by describing the Warnock Report as:

> … an intellectually shoddy, shallow and often muddled thing. Despite its professed support for moral reasoning and argument it often resorts to mere assertion… Above all it fails to discuss and give a reasoned decision on the fundamental issue, namely, the moral status of the human embryo. Instead, it resorts to lamentable, but typical, evasiveness. It announces that, rather than discuss this, it will "go straight to the question of *how it is right to treat the human embryo*"… This is intellectually absurd. It is impossible to know *how* something is to be treated until you know *what* it is. Warnock dodges the key issue…[135]

The Association of Lawyers for the Defence of the Unborn opined that 'It is most unfortunate that the Committee has completely evaded an issue fundamental to its considerations: the question of when human life begins… [the Warnock Committee] … takes the view that there is doubt about the matter. If that is so, and given the importance of the question, should not the Government adopt a

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[131] An example from the 1980s can be found in *'How They See It: Leading Christians Give Reactions to Warnock', Catholic Herald*, 27th July 1984, Page 3 http://archive.catholicherald.co.uk/article/27th-july-1984/3/how-they-see-1t-leading-christians-give-their-reac accessed 18 August 2014. For an up to date example, see the Comment on Reproductive Ethics webpages, especially J Quintavalle, *Latest Search and Destroy Technique for the Unfortunate Human Embryo* 28th July 2014 http://corethics.org/index.php/2014/07/28/latest-search-destroy-technique-unfortunate-human-embryo/ accessed 18 August 2014. Deckers (fn27) provides an interesting, critical discussion of the moral status of the embryo under the HFE Act 1990.

[132] For an excellent history of the regulation of embryo research see Gunning and English (fn62).

[133] Evidence (fn22) The Salvation Army 26th November 1984, II. Principle, Paragraph 1.

[134] Evidence (fn22) The Birmingham Maternity Hospital, John Kelly, Consultant Obstetrician and Gynaecologist 28th December 1984, Heading 2, The Beginning of Life.

[135] Evidence (fn22) LIFE'S comments on the Report of the Committee of Inquiry into Human Fertilisation and Embryology, at 1 (emphasis in original).

prudent approach and regard human life as beginning at conception and therefore from that moment entitled to the protection of the law?'[136]

With respect, however, it is possible to decide how to legally treat something without defining morally precisely what it is. In fact, it is clear that over a long legal history, the law has done exactly this with regards to the legal protection of foetuses.[137] It is also arguable that the Government did take a prudent position: whilst not providing full legal protection to an embryo from the point of fertilisation it allowed embryo research to continue in a controlled manner on early embryos only, with a statutory body overseeing research and sanctions for non-compliance. Pragmatically, any alternative position that would have given the human embryo a defined and protected status at any point in time during its development would have had massive ramifications for abortion law (as discussed previously), as well as halting, or severely limiting, embryo research that was showing benefits in terms of the increasing numbers of successful IVF pregnancies and births.[138] Nonetheless, I do not believe that it was a foregone conclusion that the Committee would be supportive of embryo research; in fact, Dame Mary Warnock has since noted how the Committee member's views differed, and also altered over the course of the Inquiry.[139]

VI. CONCLUSION

The Warnock Report is an excellent demonstration of a report that took into account diverse and divisive views in order to make recommendations on a number of divisive issues. Whilst this article has concentrated upon the embryo research element of the Warnock Report, it is important to acknowledge that the Warnock Committee considered the whole field of human fertilisation and embryology, as it was known at the time, from an ethical, legal and social viewpoint. Briefly, this included the different techniques for alleviating infertility, surrogacy, the freezing and storage of gametes and embryos, as well as future developments and regulation. Whilst it is right that the recommendations continue to form the backbone of the legislation (they were thoroughly debated during the passage of the Human Fertilisation and Embryology Bill), I would argue that it is now time for another Warnock-style committee. Advances in human fertilisation and embryology treatment and research have progressed far beyond what was envisaged by the Warnock Committee in the early 1980s. The recent womb transplant success in Sweden,

[136] Evidence (fn22) The Association of Lawyers for the Defence of the Unborn, 28th December 1984 paragraphs 7 and 11.
[137] McGuinness (fn80) Section A. Historical Context 217
[138] Challoner (fn86) Ch 5 discusses the IVF births around the world the few years following the birth of Louise Brown in 1978. See also T Hurst, E Shafir, and P Lancaster, *Assisted Conception Australia and New Zealand* 1997, National Perinatal Statistics Unit (Australian Institute of Health and Welfare, Sydney, 1999) Figure 3, page 8 IVF Pregnancies 1979-1991. This table shows the increasing numbers of IVF pregnancies in Australia and New Zealand https://npesu.unsw.edu.au/sites/default/files/npesu/data_collection/Assisted%20conception%20Australia%20and%20New%20Zealand%201997.pdf accessed 29 April 2015.
[139] See discussion surrounding fn 98

the use of mitochondrial donation for reproductive purposes, and research with in vitro derived gametes are all examples of treatment and research that was unheard of when the Warnock Committee was sitting and hearing evidence from interested parties.[140] A new committee that had as its remit the ethical, legal and social consideration of these new and future uses of reproductive technologies and research would undoubtedly be of much value in regulating this next era of human fertilisation and embryology, in much the same way that Warnock has for the last thirty years. I recognise that bodies such as the Nuffield Council on Bioethics have produced excellent reports in this field, but these reports are limited to specific areas of concern, such as the recent debate about mitochondrial donation.[141] Equally, the Human Fertilisation and Embryology Authority plays a role in policy-making, producing reports as required, and also through its decision-making powers over the issuing of licences for treatment and research, including matters such as PGD and mitochondrial replacement. [142] However, this examination of the remit of the Warnock Committee and its evidence gathering has shown that an overarching review of this contentious field would be worthwhile and could have a significant impact upon future regulation.

The recommendations made by the Warnock Committee formed the backbone of the legislation in the United Kingdom that governs human fertilisation and embryology, the HFE Act 1990 (as amended by the HFE Act 2008); no research is permitted upon a human embryo beyond fourteen days development post-creation, embryos can be created specifically for research, research upon embryos is only permitted where it is necessary and desirable for a defined reason and there is a statutory regulator, the HFEA, that licenses and controls embryo research. The Warnock recommendation that the 'special' status of the human embryo should be recognised:

> … and that there must be limits to what can be done to them, were two of the most consistent points of consensus throughout a debate characterised by a widely diverse and passionately contested range of views. Specifying precise limits to embryo research led to a lengthy and exhaustive parliamentary process. Yet, not only were such limits agreed upon, but the enactment of the Human Fertilisation and Embryology Bill in 1990 established one of the most substantial legislative precedents achieved anywhere in the world in the politically fraught, scientifically complex and uniquely emotive area of new reproductive technologies (NRTs).[143]

[140] See fn 3 above.
[141] *Novel Techniques for the prevention of mitochondrial DNA disorders: an ethical review* (2012) Nuffield Council on Bioethics http://nuffieldbioethics.org/project/mitochondrial-dna-disorders/ accessed 31 March 2015.
[142] For discussion of the HFEA's policy making role, see T Callus, *Patient perception of the Human Fertilisation and Embryology Authority* (2007) 15 Med L Rev 62. Reports include *Third scientific review of the safety and efficacy of methods to avoid mitochondrial disease through assisted conception* (2014, HFEA); *Hybrids and Chimeras: Final Report* (HFEA 2007); and *Cloning Issues in Reproduction, Science and Medicine* (HGAC and HFEA 1998).
[143] Franklin, (fn 88) 166.

The Warnock Committee should be praised for a thorough and clearly written report that has stood the test of time. The Committee spent two years gathering and assessing oral and written evidence from a diverse range of organisations, individuals and the public, representing distinct sections of society. Whilst the Report itself acknowledges the limited input that it had from special interest and minority groups, this is hard to overcome and a problem that may be endemic with all public inquiries. With 695 public, 252 organisations and 21 oral submissions the evidence was largely representative of diverse viewpoints, resulting in a carefully considered Report.

The utilitarian approach that the Committee took in its deliberations and recommendations is referred to within the Report, Baroness Warnock wrote about this approach soon after the publication of the Report, and later spoke about it during debate over the reformation of the HFE Act 1990 in 2007:

> At the centre of the moral thinking behind the 1990 Act was a broad utilitarianism. Changes may have come about, and we may all be much more rights-oriented than we were before the passage of the then Human Rights Bill, but in that moral thinking there was very little consideration of human rights. It was much more a broad utilitarian consideration, and I must say a few words in favour of utilitarianism... As legislators, parliamentarians have to be utilitarian in the broadest possible sense. They have to consider the consequences of any legislation they propose and carry through and, in considering the consequences, they have to weigh up the harms that may be done to society as a whole against the benefits to society as a whole. It is a morality that gives thought to the common good in so far as it can be ascertained. That is an important principle. On the committee, we thought that utilitarianism in this broad sense was the philosophy that must lie behind any legislation—weighing up harms against benefits...[144]

As Brazier stated in 1999, '[s]uch conceptual basis as there is to British law's approach to embryo status is equivocal'. This equivocal status continues post-reformation in the HFE Act 1990 (as amended). Whilst the legislation may be equivocal in its conceptual basis, I argue that it is based upon the evidence that the Warnock Committee received in its attempt to determine a suitable law for human fertilisation and embryology treatment and research that was developing and continuing without any statutory regulation, and at the time, no self-regulation.[145] This was certainly the view that Baroness Warnock herself expressed just two years after publication of the Report:

> We were, right from the start, occupied in trying to relate possible law to the morality that we believed in, and that which was represented to us in the evidence we sought and sifted… The question legislators must ask is whether the present situation, in which research is uncontrolled, is satisfactory. If it is not, then must there be a total ban on research of this

[144] Baroness Warnock HL Deb 19th November 2007 Vol 696, Col 721.
[145] The Voluntary Licensing Authority for human in vitro Fertilization and Embryology was formally established in March 1985. See Gunning and English (fn62) 45.

> kind, or can some lesser restriction be envisaged, which will recognise the special status of the human embryo, yet not treat it as if it were a child or a person?[146]

The final word will be left with Margaret Brazier who asserted that '…controlling the use of in vitro embryos was the engine which drove the Warnock proposals which in turn resulted in the 1990 Act… Controlling research becomes important not because of any moral claim on behalf of the embryo but solely because of the potential consequences to society of where that research may lead.'[147]

[146] Warnock *The Enforcement of Morals in Embryology* (fn18) 24 and 28
[147] Brazier (fn93) 186 and 187