UNIVERSITY OF SOUTHAMPTON

Faculty of Business, Law and Art

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The Role of Reproductive Effort in the Resolution of Frozen Embryo Disputes: An Analysis of Equity, Property and Rights in this Context

by

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ABSTRACT

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THE ROLE OF REPRODUCTIVE EFFORT IN THE RESOLUTION OF FROZEN EMBRYO DISPUTES: AN ANALYSIS OF EQUITY, PROPERTY AND RIGHTS IN THIS CONTEXT

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Frozen embryo disputes have been described as cases requiring the 'wisdom of Solomon' due to the difficulty in assessing the potentially competing interests of gamete providers following IVF treatment and the breakdown of their relationship. A legal framework modelled on 'reproductive effort' could inform how authority over the disposition decisions of frozen embryo(s) should be allocated in such disputes. This thesis considers how 'reproductive effort' could be applied under three different areas of law by which frozen embryo disputes have previously been settled, namely: estoppel, property law and a rights-based regime. A specific application of 'reproductive effort' in all three of these areas of law highlights the importance of the investment made by the female partner which, it is argued, in most circumstances, should grant her decisional authority over the disposition of any existing embryo(s). Whichever legal model is employed, it can be tailored (by regulation, statute or by application in case law) to more adequately recognise the gendered role 'reproductive effort' plays in IVF.

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Declaration of Authorship

I, ALEXANDER CHRYSANTHOU

declare that the thesis entitled

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and the work presented in it are my own and has been generated by me as the result of my own original research.

I confirm that:

- this work was done wholly or mainly while in candidature for a research degree at this University;
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- where I have consulted the published work of others, this is always clearly attributed;
- where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
- I have acknowledged all main sources of help;
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- none of this work has been published before submission.

Signed:

Alexander Chrysanthou

Date: 30th July 2017

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Chapter 1: Introduction

> There is no doubt that the widening of the frontiers of human existence by the use of assisted reproduction technologies has raised new questions about how the legal relationships that result from their use are to be identified.[1] --- Lord Hope

> Until now the law has never had to consider the existence of embryos outside the mother's uterus.[2] --- *Warnock Report*

1.1 Introduction

Lord Hope portrays a panorama out of which legal issues have surfaced in recent decades as a response to reproductive technological developments. One of the most prominent forms of those technologies is *in vitro* fertilisation (IVF). This thesis is concerned with disputes that occur between gamete providers over the use or disposition of their frozen embryo(s) following IVF treatment. It takes the novel approach to comprehensively investigate how three legal models—estoppel, property and rights—can be applied from a UK perspective as potential solutions for these disputes; and considers that in each of these models greater significance should be ascribed to the reproductive effort invested in the embryos in allocating them. In this chapter, the reasons why these specific models were chosen will be explained, as well as outlining what is meant by 'reproductive effort' for the purposes of this thesis. A political background to IVF will be provided to situate how the key legislation (Human Fertilisation and Embryology Act 1990) emerged to govern these disputes in the UK. First, an overview of some of the bioethical issues pervading frozen embryo disputes will be provided.

The advances in reproductive technologies since 1978 have been described as 'mind-boggling'[3] and revolutionary.[4] Technology such as IVF can be interpreted as a force leading to new ways of conceiving legal relationships. On one hand the picture is of a force representing an unstoppable 'juggernaut of

[1] *In re R (A Child) (IVF: Paternity of Child)* [2005] UKHL 33 [5] (Lord Hope).
[2] *Report of the Committee of Inquiry into Human Fertilisation and Embryology (Warnock Report)* Cmnd 9314 (London, HMSO, 1984) [10.11].
[3] Lisa Hemphill, 'American Abortion Law Applied to New Reproductive Technology' (1992) 32 Jurimetrics 361, 362.
[4] John Harris, *Wonderwoman and Superman: The Ethics of Human Biotechnology* (Oxford University Press 1992) 5; Robert Winston, *The IVF Revolution* (Vermillion 1999); Sonia Suter, 'In Vitro Gametogenesis: Just Another Way to Have a Baby?' (2015) 3(1) Journal of Law and the Biosciences 87, 91.

progress';[5] and on the other a more reflexive relationship is perceived: technology is introduced to serve human needs and, once present, shapes society as humanity adapts to new technologies through a process known as 'reverse adaptation',[6] and '*in principle*, man is always at the control panel'.[7] This spectrum provides a landscape for the subject matter of this thesis—with the emergence of IVF, people can become parents in a different way. The procedure can offer a unique opportunity of genetic and/or biological parenthood. The notion of the parties being gamete providers presents a backdrop to the legal debate. Engagement of bodies and fertilisation of gamete providers' embryos occurs in a different context to pregnancy through sexual intercourse, causing lawmakers to consider whether laws governing IVF should reflect pregnancy through sexual intercourse or something else.

Technologies such as IVF can be understood as part of a programme (not necessarily contrived)[8] for social change. The backdrop to this thesis is therefore how the (assisted reproductive) technology (re)defines norms involving legal relationships.[9] For IVF this can signify the infertile being able to have a child;[10] the greater involvement in the 'birthing process' afforded to men by IVF;[11] the relationship between the mother and her embryo *in utero*;[12] or, in the event of the use of donor gametes, the understanding that one parent is a genetic parent and the other not.[13] IVF is often depicted as a naturalising force[14]— 'giving nature a helping hand'[15] or, in more pronounced terms, that the technology offers the opportunity of escaping the biological confinements of 'nature', in turn ushering society towards new identities and rights regimes. It is these very regimes which this thesis

[5] Martin Heidegger, *The Question Concerning Technology and Other Essays* (William Lovitt tr, Harper & Row 1977) 4. The concept that technological development has a revelatory impact on society was propounded by Martin Heidegger. He considered technology, in general, as a *Gestell*, a force which involves an enframing of the world—a predisposing to control it, which allows for truth to be revealed to humanity poetically, allowing us to orientate to the world. 20ff.

[6] Langdon Winner, *Autonomous Technology: Technics-out-of-Control as a Theme in Political Thought* (MIT Press 1977) 229.

[7] ibid 236.

[8] Although it can be seen as providing a stake in the struggle of new social movements; thus, '[w]omen demanded changes in childbirth procedures; as a response to human needs'. Andrew Feenberg, *Questioning Technology* (Routledge 1999) xv.

[9] Sarah Franklin questions 'to what extent is IVF a technology for producing new types of identity and sociality not only in addition to, but sometimes instead of, making babies?' Sarah Franklin, *Biological Relatives: IVF, Stem cells and the Future of Kinship* (Duke University Press 2013) 155.

[10] Elizabeth Heitman, 'Social and Ethical Aspects of In Vitro Fertilization' (1999) 15(1) International Journal of Technology Assessment in Health Care 22.

[11] Robyn Rowland, 'Technology and Motherhood: Reproductive Choice Reconsidered' (1987) 12(3) Signs 512, 514.

[12] Renee Dunnington and Greer Glazer, 'Maternal Identity and Early Mothering Behaviour in Previously Infertile Women' (1991) 20(4) Journal of Obstetric, Gynaecological and Neonatal Nursing 309.

[13] ibid. It is also possible that neither parent is a genetic parent.

[14] Sarah Franklin, *Embodied Progress: A Cultural Account of Assisted Conception* (Routledge 1997) 67-9, 92, 97-100, 103-5.

[15] ibid 10; Sarah Franklin and Celia Roberts, *Born and Made: An Ethnography of Preimplantation Genetic Diagnosis* (Princeton University Press 2006) 224; Kristen Bell, 'Kinship' in *Social and Cultural Perspectives on Health, Technology and Medicine: Old Concepts, New Problems* (Ciara Kierans, Kristen Bell and Carol Kingdon eds, Routledge 2016) 94.

investigates in terms of considering how the contours of legal relationships between gamete providers are affected from alternative legal viewpoints.

How IVF is perceived by lawmakers is relevant for appraising the application of the technology. Peter Singer and Karen Dawson have noted that IVF and developments in other reproductive technologies 'force us to revise some previously universal truths about embryos'.[16] These revisions can be viewed in a positive sense, in that they provide a narrative for social critique. An analogy can be made with dystopian literature which can 'provide fresh perspectives on problematic social and political practices that might otherwise be taken for granted or considered natural and inevitable'. [17] Technologies can also be open to radical feminist critique that they are dominated by men and thus reflect gender divisions.[18] IVF is thus also situated within the environment of these differing standpoints,[19] which can provide varieties of responses to reproductive technologies.[20] It is therefore no surprise that legal disputes have arisen from the redefinition(s) of relationships between progenitors which have occurred as a result of IVF. These redefinitions have been addressed by legislation discussed below.

1.2 Background and overview of legislation and regulation in the UK

The first successful IVF cycle was in 1978, which lead to the birth of Louise Brown, through the pioneering work of Patrick Steptoe and Robert Edwards.[21] Responding to the myriad of issues arising from the development of the new reproductive technologies, a Committee of Inquiry was appointed in July 1982, chaired by Dame Mary Warnock. Certain assisted reproductive technologies (ARTs), such as artificial insemination, were already established practices prior to the Report.[22] The remit of the Committee was:

[16] Peter Singer and Karen Dawson, 'IVF Technology and the Argument for Potential' (1988) 17(2) Philosophy & Public Affairs 87, 88.
[17] Keith Booker, *Dystopian Literature: A Theory and Research Guide* (Greenwood Press 1994) 4.
[18] Shulamith Firestone, *The Dialectic of Sex: The Case for Feminist Revolution* (William Morrow and Company 1970) 289.
[19] For example, the feminist writers provide a variety of perspectives. See for example Karen Throsby who provides a feminist sociological critique of IVF, Karen Throsby, *When IVF Fails Feminism and the Negotiation of Normality* (Palgrave 2004); Lene Koch, 'IVF—an Irrational Choice?' (1990) 2 Reproduction and Genetic Engineering: International Journal of Feminist Analysis 235, 242; Mary Warren argues against the rejection of IVF on the basis of women's interests, Mary Warren, 'IVF and Women's Interests: An Analysis of Feminist Concerns (1988) 2(1) Bioethics 37, 39.
[20] There are, for example, a variety of feminist approaches. Paul Lauritzen, *Pursuing Parenthood: Ethical Issues in Assisted Reproduction* (John Wiley & Sons 1993) 73; Helena Michie and Naomi Cahn, *Confinements* (Rutgers University Press 1997) 6.
[21] Patrick Steptoe and Robert Edwards, 'Birth after the Reimplantation of a Human Embryo' (1978) 2 The Lancet 366.
[22] The first reported case of artificial insemination occurred in 1770s and was carried out by John Hunter. Willem Ombelet and John van Robays, 'Artificial Insemination History: Hurdles and Milestones (2015) 7(2) Facts, Views and Vision in ObGyn 137, 138.

> [T]o 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.[23]

The Committee reported in July 1984 with recommendations set out in the *Warnock Report*.[24] The approach of the Warnock Committee was to find limits 'beyond which people must not be allowed to go'.[25] Due to the exigencies of reaching a decision within a certain timeframe, the Committee avoided difficult philosophical questions of when life and human personhood began.[26] The Committee decided to forge a middle path through competing views,[27] different rationales and beliefs[28] by recognising the 'special status' of the human embryo.[29]

The Warnock Committee's approach of operating within a democratic framework gave heed to the increasingly pluralistic society of 1980s modern Britain to provide a 'common moral position'.[30] The law was considered as the 'embodiment of a common moral position. It sets out a broad framework for what is morally acceptable within society'.[31] Questions over morality[32] and justice[33] are also evident in frozen embryo disputes. The Warnock Committee advised that in the event that a couple

[23] *Warnock Report* (n 2) [1.2].
[24] *Warnock Report* (n 2)
[25] *Warnock Report* (n 2) [5].
[26] *Warnock Report* (n 2) [11.9]. This echoed the approach taken by the US Supreme Court earlier on the issue of abortion: 'We need not resolve the difficult question of when life begins. When those trained in the respective disciplines of medicine, philosophy, and theology are unable to arrive at any consensus, the judiciary, at this point in the development of man's knowledge, is not in a position to speculate as to the answer'. *Roe v Wade* 410 US 113 (1973) 159.
[27] Positions ranged from those taken by pro-life groups and some churches that the early embryo should be granted full moral status from the moment of fertilisation (Select Committee on Stem Cell Research, *Stem Cell Research* (HL 2002) [4.4]), to medical groups such as the Royal College of Obstetricians and Gynaecologists, British Medical Association, Medical Research Council and Royal College of Physicians which suggested that embryos could be used for research under strict time limits (*Warnock Report* (n 2) [11.21]).
[28] 'Moral questions, such as those with which we have been concerned 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'. *Warnock Report* (n 2) [4].
[29] *Warnock Report* (n 2) [11.17].
[30] *Warnock Report* (n 2) [6]. The requirement for precision of setting limits in situations such as embryo testing was not primarily based on scientific or philosophical reasons, but to 'allay much… (public) anxiety'. *Warnock Report* [12.1].
[31] *Warnock Report* (n 2) [6].
[32] Diane Yang, 'What's Mine is Mine, but What's Yours Should Also Be Mine: An Analysis of State Statutes That Mandate the Implantation of Frozen Preembryos' (2002) 10(2) Journal of Law and Policy 587, 596; Marisa Zizzi, 'The Preembryo Prenup: A Proposed Pennsylvania Statute Adopting a Contractual Approach to Resolving Disputes Concerning the Disposition of Frozen Embryos' (2012) 21 Widener Law Journal 391, 419.
[33] For a discussion on the relationship between justice and morality, see Robert Folger, Russell Cropanzano and Barry Goldman, 'What is the Relationship between Justice and Morality' in *Handbook of Organizational Justice* (Jerald Greenberg and Jason Colquitt eds, Lawrence Erlbaum Associates 2005) 215-46.

failed to agree how the stored embryo(s) should be used, the right to determine the use or disposal of the embryo should pass to the 'storage authority'.[34] The Warnock Committee accordingly proposed the establishment of a statutory body to regulate services pertaining to artificial insemination by donor,[35] IVF, [36] embryo donation[37] and research using embryos.[38]

The Warnock Committee's recommendations regarding IVF were laid out for consultation in a Green Paper, which posited what should happen in the event of a lack of agreement among gamete providers regarding the fate of their embryo(s). [39] A subsequent White Paper[40] proposed that the legislation should be 'flexible enough to deal with as yet unforeseen treatment developments which may raise new ethical issues…'.[41] Respondents to the consultation rejected the idea that a 'storage authority' be empowered to decide the embryo's fate in the event of conflict between the donors, and the Government therefore set out the position that the 'storage authority' should not have the right to determine the use or disposal of the embryos unless granted by the donor.[42] This is noteworthy since it demonstrates an alternative way of regulating the disposition of embryos was proposed during the development of legislation, and indeed before any legal cases arose in the UK. A requirement of the 'veto'[43] on continued storage of the embryos was not contained in the Warnock Report, Green Paper nor White Paper.[44]

With the eventual arrival of the Human Fertilisation and Embryology Act 1990, the recommendations of the Warnock Report were largely adopted, providing for the establishment of a statutory body, the Human Fertilisation and Embryology Authority, replacing the Interim Licensing Authority,[45] to review developments on ARTs, embryological issues and to perform regulatory duties.[46] The 1990 Act was subsequently amended by the Human Fertilisation and Embryology Act 2008, and although some of the changes have been significant, the 'basic structure of the Act has not been changed'.[47] Statutory

[34] *Warnock Report* (n 2) [10.13].
[35] *Warnock Report* (n 2) [4.16].
[36] *Warnock Report* (n 2) [5.10].
[37] *Warnock Report* (n 2) [7.4].
[38] *Warnock Report* (n 2) [11.18], [11.19].
[39] Department of Health and Social Security, *Legislation on Human Infertility Services and Embryo Research*. *A Consultation Paper* (Green Paper, Cm 46, 1986).
[40] Department of Health and Social Security, *Human Fertilisation and Embryology: A Framework for Legislation* (White Paper, Cm 259, 1987).
[41] ibid [14].
[42] ibid [51].
[43] Counsel for Ms Evans used this term to describe Mr Johnston's ability to override Ms Evans' decision regarding the embryos in the event of dispute. *Evans v Amicus Healthcare Ltd* [2003] EWHC 2161 (Fam) [184].
[44] ibid [223].
[45] The Voluntary Licensing Authority, later renamed the Interim Licensing Authority, was established in 1985 to monitor developments by researchers on human IVF until the introduction of legislation.
[46] Sections 5-8 of the 1990 Act.
[47] Erin Nelson, *Law, Policy and Reproductive Autonomy* (Hart 2013) 252.

authority was thus provided for the creation, storage and subsequent use of live human embryos produced *in vitro*, subject to a number of conditions (including the need for a licence to create embryos)[48] and various restrictions.[49] Fundamental to carefully defining and understanding the 1990 Act are the twin pillars of concern for the welfare of the child[50] and informed consent.[51] However, in neither this statute nor the amending 2008 Act is there an appreciation of the relative positions of the gamete providers in terms of the 'reproductive effort' when undertaking IVF treatment.

1.3 Frozen embryo disputes

Legal disputes provide opportunities to determine legal relations and interests by the doctrine of precedent and/or statutory interpretation, as appropriate. The focus of this thesis is the type of frozen embryo dispute found in *Evans v Amicus Healthcare Ltd*,[52] the facts of which will be discussed shortly. A typical dispute involves a disagreement between gamete providers over the disposition of embryos that were produced by IVF treatment undertaken together, ordinarily (as in *Evans*) using their own gametes. The facts of *Evans* present litigation which is situated within the technological panorama pictured at the beginning of this chapter.

The IVF procedure will now be briefly explained, and revisited and discussed in greater length in Chapters 2 and 3 in the context of estoppel. IVF is a costly treatment[53] which involves the

[48] Section 3(1) of the 1990 Act. The contravention of this section is an offence created by section 41(2)(a) of the 1990 Act.
[49] Section 3(3) of the 1990 Act.
[50] Lord Mackay LC (as he then was) at a reading of the Human Fertilisation and Embryology Bill 1990 argued that, 'The conclusion I have reached is that if it is to remain possible for unmarried couples to receive the benefit of treatment to bring a child into being, both should have imposed upon them the responsibility for the child. I was most concerned that this proposal should not be seen as encouraging unmarried people to use infertility treatments, thus perhaps undermining marriage, or leading to children having unsuitable social fathers because of the difficulty in distinguishing partners to stable relationships from more transitory ones'. HL Deb 20 March 1990 vol 517, col 209.
[51] These pillars were referred to by Wall J at *Evans* (HC) (n 43) [37] who referenced *Leeds Teaching Hospital NHS Trust v A and others* [2003] 1 FLR 412 [20] (Butler-Sloss P), which in turn referenced *U v Centre for Reproductive Medicine* [2002] EWCA Civ 565 [24] (Hale LJ) in stating: 'The whole scheme of the 1990 Act lays great emphasis upon consent. The new scientific techniques which have developed since the birth of the first IVF baby in 1978 open up the possibility of creating human life in ways and circumstances quite different from anything experienced before then. These possibilities bring with them huge practical and ethical difficulties. These have to be balanced against the strength and depth of the feelings of people who desperately long for the children which only these techniques can give them, as well as the natural desire of clinicians and scientists to use their skills to fulfil those wishes. Parliament has devised a legislative scheme and a statutory authority for regulating assisted reproduction in a way which tries to strike a fair balance between the various interests and concerns. Centres, the HFEA and the courts have to respect that scheme, however great their sympathy for the plight of particular individuals caught up in it'. See also Sally Sheldon, 'Evans v. Amicus Healthcare; Hadley v. Midland Fertility Services—Revealing Cracks in the "Twin Pillars"?' (2004) 16(4) Child and Family Law Quarterly 437.
[52] *Evans* (HC) (n 43).
[53] James Kelly, Ciara Hughes and Robert Harrison, 'The Hidden Costs of IVF' (2006) 99(5) The Irish Medical Journal 142.

administration of drugs and hormones to stimulate ovulation.[54] Eggs are then collected as the woman is normally sedated[55] and transvaginal oocyte (egg) retrieval (involving a needle and suction apparatus) is carried out.[56] Semen is collected from the man (which may be from the partner or a donor), and is incubated in a culture containing oocytes that have matured.[57] The resulting embryo(s) of best quality are then selected and a maximum of two or three are transferred to the uterus.[58] If successful, at least some of the embryo(s) will implant and a pregnancy will ensue.

'Good quality embryos' not transferred (referred to sometimes as surplus, spare or excess embryos) can be cryopreserved (frozen),[59] which is routine practice in most fertility clinics.[60] This arises in part due to the requirement that a fertility clinic transfer no more than two embryos (three, if the age of the mother is 40 or above) during any one given cycle.[61] This is to reduce the chances of multiple pregnancy and associated risks.[62] In theory, embryos may be stored 'indefinitely'[63] and in light of such

[54] University Hospitals Coventry and Warwickshire, 'IVF' <http://www.uhcw.nhs.uk/ivf/treatments/ivf> accessed 12 April 2015.

[55] Conscious sedation is now available with the NHS, Cambridge University Hospitals, 'Cambridge IVF Patient Information- Patient Agreement to Investigation or Treatment' 3 <http://www.cuh.org.uk/sites/default/files/publications/CF455_oocyte_retrieval.pdf> accessed 12 April 2015 <http://www.cuh.org.uk/sites/default/files/publications/CF455_oocyte_retrieval.pdf>.

[56] University Hospitals Coventry and Warwickshire (n 54). Although this paragraph only outlines the procedure in the UK, it is worth noting that in other countries such as the US, the manner of egg recovery varies between fertility centres. Supreeya Wongtra-Ngan, Teraporn Vutyavanich and Julie Brown, 'Follicular Flushing during Oocyte Retrieval in Assisted Reproductive Techniques' 8 September 2010, Cohrane Database of Systematic Reviews 1, 4.

[57] University Hospitals Coventry and Warwickshire (n 54).

[58] This involves the insertion of a speculum into the woman's vagina with a fine tube (catheter) which is passed through the cervix, normally using ultrasound guidance. The embryos are passed down the tube into the womb. If the woman is under the age of 40, one or two embryos can be transferred. If the woman is 40 or over, a maximum of three embryos can be used (unless donated eggs are used, when the maximum is two because these eggs will be from donors who are not older than 35). Homerton University Hospital, 'Assisted Conception' <http://www.homerton.nhs.uk/media/49839/assisted_conception_-_patient_information_dec_2009.pdf> accessed 20 December 2014.

[59] ibid. Steptoe and Edwards first announced the possibility of freezing surplus embryos from IVF in 1982. 'Embryo Donation Criticized' *The New York Times* (New York, 29 January 1982) <http://www.nytimes.com/1982/01/29/us/embryo-donation-criticized.html> accessed 10 April 2014. The freezing of semen and spare embryos is now a standard procedure in assisted reproductive technologies. More embryos are created than required for a first cycle of IVF to allow for the selection of the best embryos, and it is advised that surplus embryos are frozen to provide further opportunities for pregnancy without repeated treatment to produce new embryos. University Hospitals Coventry and Warwickshire, 'Cryopreservation (Embryo, Egg and Sperm Freezing)' <http://www.uhcw.nhs.uk/ivf/treatments/cryopreservation> accessed 5 September 2015.

[60] Human Fertilisation and Embryology Authority, 'Freezing and Storing Embryos' <http://www.hfea.gov.uk/45.html> accessed 5 March 2016.

[61] NICE, 'Fertility Problems: Assessment and Treatment (2016) [1.12.6.5] <https://www.nice.org.uk/guidance/cg156/resources/fertility-problems-assessment-and-treatment-pdf-35109634660549> accessed 26 July 2017.

[62] The National Institute for Health and Clinical Excellence (NICE) guidelines advise consideration of single- or double-embryo transfer and depend upon the age of the woman, and IVF treatment rank, embryo quality and development. ibid 10, 42. There is no international consensus on this point. The American Society for Reproductive Medicine recommends single embryo transfer with no more than two embryos for women under

possibilities, statute places time-limits on the storage of embryos created for the purposes of IVF.[64] It is the very existence of these frozen embryos which leads to the potential for disputes between their progenitors as to how they are dealt with.

Disputes may arise if gamete providers vary their consent(s) over the use of such embryos following IVF treatment. Although such disputes can include a variety of scenarios (as will be discussed in the ensuing chapters in reference to international case law), to date *Evans* is the only such legal case in the UK. The parties, Ms Evans and her partner, Mr Johnston, embarked on fertility treatment together at the Bath Assisted Conception Clinic[65] ('the clinic') on 12 July 2000.[66] Preliminary tests revealed that Ms Evans had pre-cancerous tumours in both ovaries, necessitating their removal.[67] This was disclosed to both parties in a consultation along with the information that it was first possible to extract some eggs for IVF treatment.[68] Both parties signed a mandatory consent form for the treatment which advised, in accordance with Schedule 3 of the 1990 Act, that consent to further treatment using any resultant embryos could be withdrawn at any time before they were implanted in Ms Evans' uterus.[69] On 12 November 2001, eleven eggs were retrieved from Ms Evans, out of which six embryos were subsequently created and placed in frozen storage.[70] Ms Evans was told she would have to wait at least two years before attempting to implant any of the embryos in her uterus.[71] In May 2002 the relationship between Ms Evans and Mr Johnston broke down.[72] Mr Johnston communicated to the clinic on 4 July 2002 that he no longer consented to the use or continued storage of the embryos.[73] The clinic considered that by law it had to respect the withdrawal of his consent[74] thus leading to the

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35, increasing up to a maximum transfer of five cleavage-stage or three blastocyst-stage embryos in women aged 41–42 years age group. Practice Committee for American Society for Reproductive Medicine and the Practice Committee for Society for Reproductive Technology, 'Criteria for Number of Embryos to Transfer: A Committee Opinion' (2013) 99(1) Fertility and Sterility 44, 45.

[63] Karen Greif and Jon Merz, *Current Controversies in the Biological Sciences: Case Studies of Policy Challenges from New Technologies* (MIT Press 2007) 92. A baby has been born from an embryo that was kept frozen for nearly 20 years in the USA. Donna Dowling-Lacey and others, 'Live Birth from a Frozen–Thawed Pronuclear Stage Embryo almost 20 years after its Cryopreservation' (2011) 95(3) Fertility and Sterility 1120.

[64] Section 14(4) of the 1990 Act as amended by section 15(3) of the 2008 Act specifies that the maximum storage period for embryos is 10 years. However, from 1 October 2009 it has become possible to extend embryo storage up to a maximum of 55 years, providing that every 10 years a fertility centre obtains a written opinion from a registered medical practitioner that the 'relevant person' is or is likely to become prematurely infertile. Sections 3 and 4 of the Human Fertilisation and Embryology (Statutory Storage Period for Embryos and Gametes) Regulations 2009.

[65] The clinic has since been renamed to the Bath Fertility Centre.

[66] *Evans v United Kingdom* [2006] 43 EHRR 21 [7].

[67] *Evans* (HC) (n 43) [43].

[68] *Evans* (HC) (n 43) [10].

[69] *Evans* (HC) (n 43) [81].

[70] *Evans* (ECtHR) (n 66) [11].

[71] *Evans* (HC) (n 43) [88].

[72] *Evans v Amicus Healthcare Ltd* [2004] EWCA (Civ) 727 [13].

[73] *Evans* (HC) (n 43) [91]; *Evans* (ECtHR) (n 66) [12].

[74] Paragraph 4, Schedule 3 of the 1990 Act.

destruction of the embryos. Ms Evans then issued proceedings to try to preserve the embryos for implantation, and it was decided in a directions hearing that the clinic should consign the embryos to cryostorage pending a legal judgment.[75] The ensuing litigation[76] concerned who should have decisional authority over the frozen embryos.

Decisions over the use of frozen embryos are known as 'disposition decisions',[77] which can take the form of a decision to implant the embryo(s), discard them, donate them to another couple or donate them for research (any of these actions can be regarded as 'disposals'). The legal issue is the apparent 'binary'[78] nature of the argument: for example in *Evans,* respect for Ms Evans' reproductive autonomy would deprive Mr Johnston of his. Ms Evans contended her right to a private and family life, protected by Article 8 of the European Convention on Human Rights (ECHR), was violated by Mr Johnston's decision,[79] but likewise a similar argument could be made for Mr Johnston's Article 8 rights. *Evans* is of primary focussed in this thesis as it is the only case of its type in the UK;[80] however, reference will also be made to US,[81] Israeli[82] and Irish[83] case law in which judges provided alternative rationales for understanding frozen embryo disputes.

Deciding whose interests should prevail in frozen embryos disputes has been described as beset with 'profound uncertainty',[84] 'extremely difficult'[85] and even 'nigh-impossible'.[86] Craig Lind[87] and Hazel

[75] *Evans* (HC) (n 43) [91].
[76] This litigation involved four decisions proceeding from the Family Division of the High Court (*Evans* (HC) (n 43)) to the Court of Appeal (*Evans v Amicus Healthcare Ltd* [2004] EWCA Civ 727), European Court of Human Rights (ECtHR) (*Evans v United Kingdom* [2006] 43 EHRR 21) and the ECtHR (Grand Chamber) (*Evans v United Kingdom* [2008] 46 EHRR 34).
[77] The sense that the 'disposition' of an embryo relates to all possible outcomes for the embryo is part of the vernacular in the field. John Robertson, 'Prior Agreements for Disposition of Frozen Embryos' (1990) 51 Ohio State Law Journal 407; Hemphill (n 3) 373; Robert Nachtigall and others, 'Parents' Conceptualization of their Frozen Embryos Complicates the Disposition Decision' (2005) 84(2) Fertility and Sterility 431; Rosamund Scott and others, 'Donation of "Spare" Fresh or Frozen Embryos to Research: Who Decides that an Embryo is "Spare" and How Can we Enhance the Quality and Protect the Validity of Consent?' (2012) 20(3) Medical Law Review 255, 300.
[78] Yehezkel Margalit, 'To Be or Not to Be (a Parent)? – Not Precisely the Question: The Frozen Embryo Dispute' (2012) 18 Cardozo Journal of Law & Gender 355, 356. For a discussion on the issues of the binary nature of the adversarial system see Carrie Menkel-Meadow, 'The Trouble with the Adversary System in a Postmodern, Multicultural World' (1996) 38 William & Mary Law Review 5, 5.
[79] *Evans* (ECtHR) (n 66) [52].
[80] As will be considered in Chapter 3, the case of *Hadley v Midland Fertility Services Ltd* [2003] EWHC 2161 (Fam) was heard at the same time as *Evans* due to similarity of facts.
[81] For example *Davis v Davis* 842 SW 2d 588 (Tenn 1992).
[82] CA 2401/95 *Nahmani v Nahmani* [1995] IsrSC 50(4) 661.
[83] *Roche v Roche* [2010] 2 IR 321.
[84] Olivia Lin, 'Rehabilitating Bioethics: Recontextualizing In Vitro Fertilization Outside Contractual Autonomy' (2004) 54 Duke Law Journal 485, 510.
[85] Bonnie Steinbock, 'The Moral Status of Extracorporeal Embryos' in *Ethics & Biotechnology* (Anthony Dyson and John Harris eds, Routledge 1994) 89.

Biggs,[88] amongst others, have reflected that the facts of such cases require the 'wisdom of Solomon'.[89] To provide one gamete provider the decision over whether or not to become a parent/dispose of the embryo(s) in the way he/she wishes denies the other gamete provider the opportunity to exercise an equivalent decision. David Rameden noted in the context of an American case attempting to find out the related question of what type of interests a gamete provider had in sperm,[90] 'Courts have struggled to define an appropriate judicial response and even to determine the appropriate body of substantive law to use as precedent'.[91] The choice of which area of law to rely upon in resolving frozen embryo disputes is similarly challenging. The decision over which areas of law have been chosen to consider frozen embryo disputes is mentioned in section 1.6.

1.3.1 Issues at stake

A recurrent theme in this thesis is whether male and female gamete providers should be perceived as equivalent in terms of their rights and interests by the law. They are equivalent in many respects, since—in situations akin to the facts in *Evans*—both have decided to pursue IVF, and both will become genetic parents if the treatment is successful. However, they can be distinguished on four grounds. First, the notion of 'reproductive effort' described in the next section. Second, in disputes one varies their consent to use the embryo(s), the other does not. Third, one wishes to implant or otherwise use the embryos, the other does not. Fourth, one party may face less reproductive opportunities than the other in the event the embryo(s) in question are not used for implantation; this may be because the

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[86] Sarah Chan and Muireann Quigley, 'Frozen Embryos, Genetic Information and Reproductive Rights' (2007) 21(8) Bioethics 439, 441.

[87] Craig Lind, 'Evans v United Kingdom—Judgments of Solomon: Power, Gender and Procreation (2006) 18(4) Child and Family Law Quarterly 576.

[88] Hazel Biggs, 'Last Chances, Lost Opportunities and Legal Contortions' (2006) 349 BioNews <http://www.bionews.org.uk/page_37858.asp> accessed 20 September 2015.

[89] Margie Eget, 'The Solomon Decision: A Study of Davis v. Davis' (1991) 42(3) Mercer Law Review 1113; Helen Shapo, 'Frozen Embryos and the Right to Change One's Mind' (2002) 12 Duke Journal of Comparative & International Law 75, 88; JK Mason, 'Discord and Disposal of Embryos' (2004) 8 Edinburgh Law Review 84, 93; Tim Annett, 'Balancing Competing Interests over Frozen Embryos: The Judgment of Solomon? Evans v. United Kingdom' (2006) 14(3) Medical Law Review 425; Sally Sheldon, 'Stored Embryos, Gender Equality and the Meaning of Parenthood' (2006) 388 BioNews < http://www.bionews.org.uk/page_37912.asp> accessed 28 February 2016; Kansas Gooden, 'King Solomon's Solution to the Disposition of Embryos: Recognizing a Property Interest and Using Equitable Division' (2008) 30(1) University of La Verne Law Review 66; Margalit (n 78) 358. The media have predictably reported frozen embryo disputes in like manner, for example, Martina Devlin, 'Embryo Battle Is a Case for the Wisdom of Solomon' *Independent* (Dublin, 6 July 2006) <http://www.independent.ie/opinion/analysis/embryo-battle-is-a-case-for-the-wisdom-of-solomon-26373116.html> accessed 28 February 2016. *Litowitz v Litowitz* 48 P3d 261 (Wash 2002) 274 (Sanders J dissenting).

[90] (1993) 20 Cal Rptr2d 275.

[91] Discussing the David Rameden, 'Note: Frozen Semen as Property in Hecht v. Superior Court: One Step Forward, Two Steps Backward' (1993) 62(2) UMKC Law Review 377, 379.

embryo(s) represented the last chance to achieve genetic parenthood, or due to a general reduction in reproductive potential, which especially impacts women. [92]

In a significant study on IVF, Sarah Franklin interviewed couples on their experiences of IVF.[93] The procedure was reported as providing an 'enabling force in the production of new persons',[94] defining the reproductive process[95] and providing a 'narrative of hope',[96] or even providing a 'miracle'.[97] The Court of Appeals of New York recognised that the prospect of successful IVF treatment is 'the fulfillment of a life dream'.[98] These comments provide an initial insight into some of the interests that are at stake for gamete providers. In a US case on similar facts to *Evans*, Poritz CJ, who delivered the opinion of the Supreme Court of New Jersey, stated there were 'few guideposts for decision-making' and '[a]dvances in medical technology have far outstripped the development of legal principles to resolve the inevitable disputes arising out of the new reproductive opportunities now available'.[99] *Evans* has also been described by Penny Booth as 'a classic example of legislative provision trailing behind technological development and human needs'.[100]

The 'human needs' in this thesis concern the treatment gamete providers undergo in IVF which, crucially, normally implicate a woman's body more than a man's. Lawmakers have trailed behind addressing this human need and have failed to acknowledge the effort involved in this treatment

[92] In general, reproductive potential for women gradually decreases from the age of 24 according to the largest study to date in the USA. David Seifer, Valerie Baker and Benjamin Leader, 'Age-Specific Serum Anti-Müllerian Hormone Values for 17,120 Women Presenting to Fertility Centers within the United States' (2011) 95(2) Fertility and Sterility 747, 747-50. See also David Dunson, Bernardo Colombo and Donna Baird, 'Changes with Age in the Level and Duration of Fertility in the Menstrual Cycle' (2002) 17(5) Human Reproduction 1399; Egbert Velde and Peter Pearson, 'The Variability of Female Reproductive Ageing' (2002) 8(2) Human Reproduction Update 141, 142.

[93] Franklin (n 14) 5, 13.

[94] Franklin (n 14) 166.

[95] Franklin (n 14) 11.

[96] Franklin (n 14) 90.

[97] Franklin (n 14) 94-5, 100, 187-91. Philip Peters also described the modern fertility treatments as 'miraculous'. Philip Peter, *How Safe is Safe Enough* (Oxford University Press 2004) 1.

[98] *Kass v Kass* 91 NY2d 554 (NY 1998) 569.

[99] *JB v MB* 783 A 2d 707 (NJ 2001) [66].

[100] Penny Booth, 'Frozen Embryos, Frozen Hearts, Frozen Law?' (2004) 154(7140) New Law Journal 1206. For a similar perspective from the US see Joseph Saltarelli, 'Genesis Retold: Legal Issues Raised by the Cyropreservation of Preimplantation Human Embryos' (1985) 36 Syracuse Law Review 1021, 1021; Lynne Thomas, 'Abandoned Frozen Embryos and Texas Law of Abandoned Personal Property: Should There Be a Connection?' (1997) 29(1) St Mary's Law Journal 255, 259; Lee Silver and Susan Silver, 'Confused Heritage and the Absurdity of Genetic Ownership' (1998) 11(3) Harvard Journal of Law & Technology 593, 593; David Vukadinovich, 'Assisted Reproductive Technology Law: Obtaining Informed Consent for the Commercial Cryopreservation of Embryos' (2000) 21 Journal of Legal Medicine 67, 67; Sherri Jayson, '"Loving Infertile Couple Seeks Woman Age 18-31 to Help Have Baby. $6,500 Plus Expenses and a Gift": Should We Regulate the Use of Assisted Reproductive Technologies by Older Women?' (2001) 11(2) Albany Law Journal of Science and Technology 287, 299. In a case concerning the exhumation of a decedent to test for DNA Metcalf J stated, 'We live in a modern and scientific society and the law must keep pace with these developments'. *Alexander v Alexander* 42 Ohio Misc 2d 30 (1988) 34.

should be valued more in the courts, thus allowing for her to use the embryos for implantation in the event of dispute. This specific human need, already alluded to, is coined as 'reproductive effort'.

1.4 Reproductive effort

There is a dearth of legal or bioethical engagement with the term reproductive effort, apart from an aside by Valerie Hartouni;[101] whereas the phrase has been utilised in scientific literature,[102] often to describe mating strategies.[103] In contrast, 'reproductive burden' or considerations of 'burdens' in reproductive contexts are more commonly discussed by academics.[104] For example, in *Davis v Davis*, the first case regarding a frozen embryo dispute between gamete providers to appear before the highest court of a US state, Daughtrey J stated:

> Refusal to permit donation of the preembryos [sic] would impose on her the burden of knowing that the lengthy IVF procedures she underwent were futile, and that the preembryos [*sic*] to which she contributed genetic material would never become children. While this is not an insubstantial emotional *burden*, we can only conclude that Mary Sue Davis's interest in donation is not as significant as the interest Junior Davis has in avoiding parenthood.[105]

However, the analysis of the reproductive burden in this thesis does not consider mere knowledge of the futility of the IVF procedure, but the very effort involved in pursuing it. 'Reproductive effort' is not confined to the emotional burden, but also the physical burdens of undertaking IVF. Moreover, although 'burdens' are referred to in the thesis, the term 'reproductive *effort*' is preferred as 'burdens' imbues a sense of negativity, and some gamete providers may feel this is an inappropriate characterisation.[106] Neither is 'reproductive labour' used as an overarching term since notions of

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[101] She uses the term once to describe the actions of a male gamete provider and intended parent in a seminal US case on surrogacy (*In re Baby M*, 537 A2d 1227 (NJ 1988). Valerie Hartouni, *Cultural Conceptions: On Reproductive Technologies and the Remaking of Life* (University of Minnesota Press 1997) 73.

[102] A scientific definition of reproductive effort is 'that proportion of the total energy budget of an organism that is devoted to reproductive processes'. Michael Hirshfield and Donald Tinkle, 'Natural Selection and the Evolution of Reproductive Effort' (1975) 72(6) Proceedings of the National Academy of Sciences 2227, 2227.

[103] Ryan Schacht and Monique Mulder, 'Sex Ratio Effects on Reproductive Strategies in Humans' (2015) 2(1) Royal Society of Open Science 1.

[104] For example, John Robertson, *Children of Choice: Freedom and the New Reproductive Technologies* (Princeton University Press 1996) 14; John Robertson, 'Reconciling Offspring and Maternal Interests during Pregnancy' *Reproductive Laws for the 1990s* (Sherrill Cohen and Nadine Taub eds, Humana Press 1989) 271; Shireen Hassim, 'Gender, Social Location and Feminist Politics in South Africa' (1991) 15 Transformation 65, 80; Carla Lam, *New Reproductive Technologies and Disembodiment: Feminist and Material Resolutions* (Routledge 2015) 34.

[105] *Davis* (n 81) (Daughtrey J). Emphasis added.

[106] One study suggests that for a female gamete donor, 'to invest in her own body… narcissistically will bring the suffering experience back to joy, pleasure, rather than tying it to psychic and physical pain'. Silvia Jadur, Viviana Wainstein and Constanza Duhalde, 'The Role of the Donor in Assisted Fertilisation Treatment' in *Changing*

labour do not correspond to the case law discussing rights relevant for IVF in Chapter 5. Reproductive labour is, however, discussed in Chapter 4 in reference to property, and is considered a subset of the principle of 'reproductive effort'. The definition of 'reproductive effort' that provides a conceptual framework for this thesis is therefore the following: the physical and emotional exertion expended in attempts to achieve a specific reproductive outcome.

An overview of the significant differences in 'reproductive effort' between men and women pursuing IVF treatment is provided by radical feminist Gene Corea:

> The women who are candidates for IVF have generally already been through an immense amount of medical probing and prodding, much of it painful and humiliating: endometrial biopsies, tubal insufflation (the filling of oviducts with pressurized carbon dioxide to see if the tubes are open; injecting dye into the uterus and oviducts, drug treatments, 'blowing out' the tubes to maintain an opening; surgery, including laparoscopy.
>
> Once in an IVF program [*sic*]… drugs administered; blood samples taken and hormones within measured; sometimes closing oviducts using high frequency electric current; ultrasound exams to estimate when women will ovulate; instilling sterile normal saline into a woman's bladder through a catheter for the ultrasound right before laparoscopy; laparoscopy for 'egg capture', often repeated a number of times… transfer of an embryo into a woman's body during which cannula may traumatize the uterus.[107]

That a man does not normally have to undertake an equivalent 'reproductive effort' should be significant for the resolution of frozen embryo disputes. 'Reproductive effort' may be located within a much broader feminist narrative which considers that women's bodies are not adequately appreciated in healthcare. It has been considered by Jennifer Baumgardne and Amy Richards that, 'It is not feminism's goal to control any woman's fertility, only to free each woman to control her own'.[108] The freedom which Baumgardne and Richards refer to can be interpreted to relate not only to her control[109] over the embryo(s) per se, but also over her own 'reproductive effort' from which they are substantially generated. Ellen Annandale and Judith Clark consider how patriarchal privileges are taken

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Sexualities and Parental Functions in the Twenty-First Century (Cândida Sé Holovko and Frances Thomson-Salo eds, Karnac Books 2017) 107.

[107] Gena Corea, 'What the King Can Not See' in *Embryos, Ethics and Women's Rights* (Elaine Baruch, Amadeo D'Adamo, Jr and Joni Seager eds, Harrington Park Press 1988) 85.

[108] Jennifer Baumgardne and Amy Richards, *Manifesta: Young Women, Feminism, and the Future* (Farrar, Straus and Giroux 2000) 77.

[109] The issue of control over a woman's body, and the product(s) of her body, is considered in Chapter 4 regarding the control and use of embryos generated in IVF.

by men to mean that the male body is '"standard"… fashioning upon it a range of valued characteristics … and, through a comparison, viewing the female body as deficient'.[110] Standardisation of men and women's body in IVF is argued in this thesis to be erroneous. The analysis concerning 'reproductive effort' indicates that significant gender distinctions between men and women[111] exist in frozen embryo disputes in IVF.[112] The outcome of the analysis is to recommend that the woman is normally granted a disposition decision over the embryos, which will in most cases will lead to her seeking implantation, although this is not always the case.[113] The reasons for her decision to implant are not explored or justified, although they may be based on her greater 'reproductive effort', or the prospect that her reproductive potential will be reduced more significantly than the man's.

The adaption of 'reproductive effort' may be seen to complicate frozen embryo disputes in IVF, especially once the volume of varied physical and psychological factors are taken into account (see section 3.2 of Chapter 3). Nonetheless, such an endeavour can be justified by considering that, 'Feminists insist on more complex, nuanced, ways of interpreting biological processes'.[114] This nuance is not an end in itself, but rather exists as a way to 'better describe how things work'. [115] A model of law which takes into account the complexities of frozen embryo disputes is thus recommended.

Reproductive effort therefore provides a critique to the premise that the differing bodily investments of men and women pursuing IVF can be overlooked. The main reason 'reproductive effort' cannot be accounted for under current UK law[116] on frozen embryo disputes in IVF is discussed now.

1.5 The key legal issue in *Evans*: Consent

The primary reason that Ms Evans was not able to rely on arguments that she had a right to use[117] the embryos or that Mr Johnston should be estopped from withdrawing his consent[118] was due to the

[110] Ellen Annandale and Judith Clark, 'What is Gender? Feminist Theory and the Sociology of Human Reproduction' (1996) 18(1) Sociology of Health & Illness 17, 19
[111] All frozen embryo disputes analysed in this thesis involve heterosexual couples.
[112] For example Ruth Halperin-Kaddari mentions how IVF can lead to shifts in power-balances between genders. Ruth Halperin-Kaddari, 'Redefining Parenthood' (1999) 29 California Western International Law Journal 313, 314.
[113] *JB* (n 99) [31]; and a dispute currently being litigated between Sofia Vergara and Nick Loeb reported in, American Society for Reproductive Medicine, 'Legally Speaking' <https://www.asrm.org/Legally_Speaking/More_Frozen_Embryo_Disputes/https://www.asrm.org/Legally_Speaking/More_Frozen_Embryo_Disputes/> accessed 3 September 2015.
[114] Lynda Birke, 'Bodies and Biology' in *Feminist Theory and the Body: A Reader* (Janet Price and Margit Shildrick eds, Taylor & Francis 1999).
[115] ibid.
[116] To do so would require an amendment to the consent provisions in Schedule 3 of the 1990 Act as mentioned below.

consent provisions of the 1990 Act; *Evans* represented the first time these provisions were subject to a challenge under the Humans Rights Act 1998. The statutory requirements concerning variation of consent are contained in paragraph 4 of Schedule 3 of the 1990 Act. This makes clear that consent can be varied prior to the 'use' of an embryo in IVF:

> (1) The terms of any consent under this Schedule may from time to time be varied, and the consent may be withdrawn, by notice given by the person who gave the consent to the person keeping the gametes or embryo to which the consent is relevant.
> (2) The terms of any consent to the use of any embryo cannot be varied, and such consent cannot be withdrawn, once the embryo has been used —
> (a) in providing treatment services, or
> (b) for the purposes of any project of research.

The central legal issue in *Evans* was whether the original consents to the use of the embryos operated to enable the clinic to treat Ms Evans for IVF after Mr Johnston's withdrawal of consent.[119] Following the withdrawal of the man's consent, Paragraph 6(3) of Schedule 3 of the 1990 Act pertained to the effectiveness of gamete providers' consent to the use of the embryo(s). It stated:

> An embryo the creation of which was brought about *in vitro* must not be used for any purpose unless there is an effective consent by each person whose gametes were used to bring about the creation of the embryo to the use for that purpose and the embryo is used in accordance with those consents.[120]

This provision clearly required the consent of *both* parties concerning the use of the embryos. Ms Evans and Mr Johnston had initially agreed that the embryos were to be used to provide 'treatment together' for both parties,[121] and signed consent forms to allow for the use of their gametes for

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[117] *Evans* (HC) (n 43) [180]ff.
[118] *Evans* (HC) (n 43) [279]ff.
[119] *Evans* (HC) (n 43) [103] (Wall J).
[120] This has now been amended by the 2008 Act to read: 'An embryo the creation of which was brought about in vitro must not be used for any purpose unless there is an effective consent by *each relevant person* in relation to the embryo to the use for that purpose of the embryo and the embryo is used in accordance with those consents' (emphasis added). A 'relevant person' is defined as '(a) each person whose gametes or human cells were used to bring about the creation of embryo A, (b) each person whose gametes or human cells were used to bring about the creation of any other embryo, the creation of which was brought about in vitro, which was used to bring about the creation of embryo A, and (c) each person whose gametes or human cells were used to bring about the creation of any human admixed embryo, the creation of which was brought about in vitro, which was used to bring about the creation of embryo A'. Paragraph 6(3E) of Schedule 3 of the 1990 Act as amended by Paragraph 9(5) of Schedule 3 of the 2008 Act.
[121] *Evans* (HC) (n 43) [107].

fertilisation.[122] On Mr Johnston's form he consented to 'the use of my sperm to fertilise egg(s) in vitro and to the use of embryo(s) developed from these egg(s)... in the treatment of myself together with (Ms Evans)'.[123] On the question of whether Mr Johnston could revoke his consent, the clinic's consent form, signed in October 2001 stated, 'Upon the cessation of our domestic relationship by divorce or legal separation we understand that the storage and use of the embryos must be reviewed'.[124] In the High Court, Wall J explained to the parties that this provision applied equally to unmarried couples.[125] Wall J noted that used of the word 'review' was ambiguous and not consistent with the provisions quoted from the 1990 Act above.[126] An HFEA form, signed by both parties was more faithful to the 1990 Act, which stated in bold: 'You may vary the terms of this consent or withdraw this consent at any time except in relation to eggs or embryos which have already been used'.[127]

Wall J considered that the relationship breakdown of the gamete providers demonstrated they were not pursuing treatment together.[128] He also considered case law discussing 'treatment together'[129] to decide that paragraph 6(3) required 'effective consent' by each person whose gametes were used to create the frozen embryos, which means a consent that, according to paragraph 1(1) of Schedule 3, has not been withdrawn, and can only be effective at the point at which the embryos are transferred to the womb.[130] Therefore, the situation in which Ms Evans sought the transferral of the stored embryos to herself, without the consent of Mr Johnston, could not constitute both parties receiving 'treatment together'.[131]

Subsequently, the Court of Appeal affirmed the requirement for ongoing consent, as Thorpe and Sedley LJJ held that the need perceived by Parliament 'is for bilateral consent to implantation, not simply to the taking and storage of genetic material, and that need cannot be met if one half of the consent is no longer effective'.[132]

[122] *Evans* (HC) (n 43) [52].
[123] *Evans* (HC) (n 43) [81] and [107].
[124] Clause 2 of paragraph 4 of the Consent form, *Evans* (HC) (n 43) [52].
[125] *Evans* (HC) (n 43) [17].
[126] *Evans* (HC) (n 43) [83].
[127] 'Consent to Storage and Use of Eggs and Embryos', *Evans* (HC) (n 43) [75].
[128] *Evans* (HC) (n 43) [125], [134], [140], [147].
[129] *Re B (Parentage)* [1996] 2 FLR 15, *U v W (Attorney General Intervening)* [1997] 2 FLR 282, and *Re R (A Child) (IVF: Paternity of Child)* [2003] EWCA Civ 182.
[130] *Evans* (HC) (n 43) [125].
[131] *Evans* (HC) (n 43) [134].
[132] *Evans* (CA) (n 72) [69].

Thus, for the national courts ongoing mutual consent was key to the law. However, it is not clear why mutual consent[133] should be framed as a requirement for the use of the embryos but not for their destruction. The statutory construction of these provisions requiring ongoing mutual consent remain the main obstacle for the legal arguments constructed in this thesis which are based on 'reproductive effort', of which a synopsis is now provided.

1.6 Synopsis and scope

Courts from jurisdictions outside the UK have resolved frozen embryo disputes by reference to estoppel,[134] property,[135] rights[136] or contract;[137] and the first three of these areas of law are considered in this thesis.

An introduction to the general equitable framework of estoppel and its relevance to a gendered understanding of frozen embryo disputes in discussed in Chapter 2. Estoppel has been considered in fewer cases,[138] yet offers a nuanced way of understanding the disputes through interpretations of estoppel's requisite conditions of unconscionability and detriment. This chapter specifically focuses on the unconscionability of resiling from a promise in frozen embryo disputes. Special reference is given to the estoppel argument raised in the High Court in *Evans*,[139] which although unsuccessful, succeeded in a different format in *Nahmani v Nahmani*;[140] an Israeli case which provides substantial scope for analysis. Estoppel, it is argued, is doctrinally robust due to its flexibility in deeming whether a person is unconscionable in resiling from promise(s) made, and the role of unconscionability in protecting fairness. Part of the critique in Chapter 2 is based on the fact that women are more likely to face reduced reproductive opportunities than men. Flowing from this discussion, the pivotal notion of 'reproductive effort' is described in greatest depth in Chapter 3, as the different components of the notion are linked to case law on detriment. The depth of analysis this entails, as well the ramifications

[133] A sense of the requirement for mutual consent had received earlier recognition by the Council of Europe which stated that 'the destination of embryos stored for the use of a couple for procreation but not used by them may be decided upon only with the consent of both members of the couple'. Principle 8(3) of Council of Europe, *Meeting Report: Ad Hoc Committee of Experts on Progress in the Biomedical Sciences CAHBI: 9th Meeting, Strasbourg* (CAHBI 1989). This Principle did not state who should decide the fate of the embryos in the event of dispute.
[134] *Nahmani* (n 82). See also *obiter dicta* in *Szafranski v Dunston*, 2015 IL App (1st) 122975-B [137].
[135] *In re Marriage of Dahl and Angle* 194 P 3d 834 (Or App 2008); *McQueen v Gadberry* ED 103138 (Mo Ct App 2016) 7.
[136] *Davis* (n 81); *AZ v BZ* 725 431 Mass 150 (2000); *JB* (n 99); *In re Marriage of Witte*, 672 NW 2d 768 (Iowa 2003).
[137] *Kass* (n 98); *Bohn v Ann Arbor Reproductive Med* WL 33327194 (Mich App 1999); *Litowitz v Litowitz* 48 P3d 261 (Wash 2002); *Roman v Roman* 193 SW3d 40 (Tx App 2006); *Findley v Lee* No FDI-13-780539 (Cal Super Ct 2015).
[138] n 131.
[139] *Evans* (HC) (n 43) [279]ff.
[140] n 82.

of the development of the notion of 'reproductive effort' for the thesis as a whole, require the dedication of an entire chapter. This analysis considers the potential physical, psychological and financial detriments to the respective gamete providers if embryos are used against their wishes. The discussion of detriment shows that the woman's physical engagement in undertaking IVF indicates she should have a stronger position in a case decided under the principles of estoppel, following the example of *Nahmani.*[141]

Chapter 4 considers how perceiving the embryo as property would affect gamete providers' interests. The application of property law triggers debate as to whether the embryo should be perceived as *sui generis*,[142] akin to the 'special status'[143] referred to above, which can indicate whether property law is viable to govern frozen embryo disputes. Recent case law has considered whether gametes should be perceived as property,[144] and an assessment of a qualified transposition of this legal analysis to frozen embryos will be provided. The focus of property analysis in this chapter is not ultimately about the embryo as a thing (property), but rather the relationship between the effort required to produce the embryo and its role in determining the nature of the property that results therein. An interpretation of John Locke's theory of labour provides a nuanced conceptualisation of 'reproductive effort' in this context. This interpretation is defined as reproductive labour and builds on the analyses of scholars such as Donna Dickenson who have queried why women's labour, in particular, is undervalued in biotechnologies.[145] The ramifications of establishing a property regime over frozen embryos will also be considered in relation to commodification and market forces.

Chapter 5 considers how a rights-based approach would affect the interests of gamete providers. Discussion of rights is common in case law pertaining to frozen embryo disputes,[146] and thus important to consider. Indeed, it is crucial to investigate the role of rights given the focus thereupon in *Evans* of an Article 8 right to respect for private and family life and an Article 14 right to enjoy the Article 8 right without discrimination. This chapter builds on Chapter 4 by reflecting on whether gender neutrality in this context is appropriate, especially given the significance of 'reproductive effort' in practice. This leads to analysis of the meaning of treatment in IVF, which can signify varying results for gamete providers dependent on interpretation under Article 8. According to the understanding provided in this chapter, treatment is primarily considered in terms of physical engagement; indicating

[141] n 82.
[142] Charles Kindregan and Maureen McBrien, *Assisted Reproductive Technology: A Lawyer's Guide to Emerging Law and Science* (American Bar Association 2006) 125.
[143] n 29.
[144] *Yearworth v North Bristol NHS* [2009] EWCA Civ 37; *R v Human Fertilisation and Embryology Authority Ex p. Blood* [1997] 2 All ER 687.
[145] Donna Dickenson, *Property, Women and Politics: Subjects or Objects?* (Rutgers University Press 1997) 160.
[146] n 131.

that a woman has a greater Article 8 right to private life, which specifically encompasses a right to physical integrity, to continue receiving treatment.

In Chapter 6 the three legal models will be reviewed to conclude which would be preferential to operate under an amended version of the 1990 Act which considers 'reproductive effort' to be significant in regulating frozen embryo disputes.

Contract law is not specifically considered as a model for the resolution of frozen embryo disputes in this thesis for two primary reasons. First, notions of 'reproductive effort' are much more difficult to consistently apply under this area of law. Second, although contract law has been considered as a legal mechanism to resolve frozen embryo disputes in the US, the more public nature of healthcare in the UK,[147] as well as the lack of consideration of contract law principles throughout the *Evans* litigation, indicate its unsuitability for application. Nonetheless, contractual notions which bear relevance to the discussion of the models considered in this thesis will on occasion be referred to where appropriate; especially in the context of unconscionability in estoppel, and in comparing how property is conceived in contractual arrangements for surrogacy. Moreover, frozen embryo disputes that have been decided by reference to contractual principles will also be referred to for the sake of factual and legal comparison.

1.6.1 Scope and status of the embryo

If the embryo were ascribed a different status, for example personhood, the outcome of disputes such as *Evans*, as well as the application of 'reproductive effort', would be very different. While this thesis has not taken a different conceptualisation of the embryo as its primary focus, it is discussed here for completeness. Were the embryo considered a person, there would be less scope for a gamete provider seeking the embryo's destruction to exercise this decision as opposed to the embryo being perceived as property. A dichotomy between the embryo being a human person or property/a thing that could be owned was contemplated in the Warnock Report:

> The concept of ownership of human embryos seems to us to be undesirable. We recommend that legislation be enacted to ensure there is no right of ownership in a human embryo. Nevertheless, the couple who have stored an embryo for their use should be recognised as having rights to the use and disposal of the embryo, although these rights ought to be subject

[147] Joel Teitelbaum and Sara Wilensky, *Essentials of Health Policy and Law* (3rd edn, Jones & Bartlett Learning 2017) 66.

to limitation. The precise nature of that limitation will obviously require careful consideration.[148]

The question resurfaced as the House of Lords debated the Human Fertilisation and Embryology Bill in 1990 as Lord Kenet noted that there was no indication in the Bill as to whether an embryo should be considered a person or chattel.[149] He pre-empted the context for the debate in *Evans*, considering the ambiguity of the definition,[150] and concluding that 'it would be a great neglect of parliamentary duty if this Bill did not settle by a simple declaration the status of the embryo in law for the later avoidance of unnecessary and confusing litigation'.[151] Lord Somers referred to the embryo as a 'person',[152] whilst Lord Hailsham preferred a more tautological definition,[153] considering that the status of the embryo was comparable to unsolvable puzzles,[154] meaning that the embryo should not be defined as a chattel or person, rather an embryo is simply an embryo.[155]

The approach originally adopted by the Warnock Report of recognising the 'special status' of the embryo,[156] was later adopted by parliamentary committees,[157] and has subsequently been echoed by foreign legislatures,[158] national ethics advisory bodies,[159] academic commentators[160] and case law.[161]

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[148] *Warnock Report* (n 2) [10.11].

[149] HL Deb 6 February 1990, vol 515, col 749.

[150] '[T]o leave it undefined is likely to leave it to the definition of the courts at a later date... What might happen? People fall out and when they fall out they go to court. When they fall out about stored embryos it seems very likely they will fall out as grievously as they do about divorce, about the care of children after divorce and all that tangle of very intimate emotional questions'. ibid.

[151] ibid col 750

[152] HL Deb 6 February 1990, vol 515, col 751.

[153] 'A human entity which is living is not a chattel and neither is it a person in the ordinary sense. Most extraordinary results would occur if it were. Could it bring an action by its next friend?.. It would be wrong to try to define a human embryo in terms of existing legal definitions which are plainly inapplicable to human embryos. Why must an embryo be one or the other? Why cannot it be just an embryo' ibid cols 750-751.

[154] See also Lord Chancellor at ibid col 751.

[155] ibid col 751.

[156] *Warnock Report* (n 2) [11.17].

[157] House of Lords Select Committee on Stem Cell Research, *Stem Cell Research* (HL 2002) [4.4]; House of Commons Select Committee on Science and Technology, *Fifth Report of Session 2004–5, Human Reproductive Technologies and the Law, vol 1* (HC 2005) 49; Joint Committee on the Human Tissue and Embryos (Draft) Bill [105].

[158] In Germany the Gesetz zum Schutz von Embryonen (Embryonenschutzgestz)—ESchG 1991 (BGB I S.2746) makes the derivation of human embryonic stem cell lines a criminal offence. Françoise Baylis and Timothy Krahn commented that this indicates human embryos carry a 'special status' in German law. Françoise Baylis and Timothy Krahn, 'The Trouble with Embryos' (2009) 22(2) Science Studies 31, 41.

[159] 'It is in the public interest to establish boundaries that respect this special biological entity, the embryo…' ESHRE Task Force on Ethics and Law, 'The Moral Status of the Pre-Implantation Embryo' (2001) 16(5) Human Reproduction 1048, 1048. The Ethics Committee of the American Fertility Society took the view that there is 'widespread consensus that the preembryo is not a person but is to be treated with special respect because it is a genetically unique, living human entity that might become a person'. Ethics Committee of the American Fertility Society, 'Ethical Considerations of the New Reproductive Technologies' (1987) 46(1) Fertility and Sterility 30.

The term has not been without its detractors. John Robertson, one of the first bioethicists to write on frozen embryo disputes commented, 'If the embryo has no rights or interests, how can it be owed "special respect"? On the other hand, if the embryo is owed special respect, is it not then a holder of rights, including the right not to be subject of research? What does "special respect" mean'?[162] The President's Council on Bioethics had a different tone: 'the invoking of a "special respect" owed to nascent human life seems to have little or no operative meaning once one sees what those who take this position are willing to countenance'.[163] How a notion of specialness of the embryos is applied impacts not only whether they can be researched upon, but also whether gamete providers can exert (property) rights over them, as previously alluded to, and consequently how frozen embryo disputes may be resolved.[164] Wall J reflected in the High Court in *Evans* that, 'Embryos were on any view "special" and deserved special protection under the law', [165] and that '"Specialness" alone would be a good reason not to give a veto over continued storage to one gamete provider alone'.[166] The status of the embryo, in terms of 'specialness' at least, is not decisive in determining the interests of gamete providers in frozen embryo disputes.

State courts in the US have generally been reluctant to apply the property approach[167] or the personhood approach.[168] Ascribing personhood to human embryos would have various fundamental

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[160] The topic has been discussed at great length, and the following is only a selection of some of the work on the issue. Davor Solter and others argue that a 'special status' is necessary to protect human embryos from commodification. Davor Solter and others, *Embryo Research in Pluralistic Europe* (Springer-Verlag 2003) 213. Richard Hull considers that 'our bodily selves, began as embryos. If we are special, embryos are special'. Richard Hull, *Ethical Issues in New Reproductive Technologies* (Prometheus Books 2005) 143. Glenn Graber considers that 'special respect' is owed to an embryo at every stage of its development. Glenn Graber, 'The Moral Status of Gametes and Embryos: Storage and Surrogacy' in *Health Care Ethics: Critical Issues for the 21st Century* (Eileen Morrison and Beth Furlong (eds), Jones & Bartlett Learning 2014) 74. In contrast, some commentators take the view that human embryos are not special. Peter Singer argued that it would be speciesist to grant embryos and fetuses special status on the basis of merely being human. Peter Singer, *Practical Ethics* (2nd edn, Cambridge University Press 1990) 55ff, 77, 86, 98, 313. Stephen Hanson argues that *in vitro* embryos are more morally similar to clonable somatic cells. Stephen Hanson, 'More on Respect for Embryos and Potentiality: Does Respect for Embryos Entail Respect for *In Vitro* Embryos?' (2006) 27(3) Theoretical Medicine and Bioethics 215.

[161] *Davis* (n 81) 597 (Daughtrey J). Alternatively, Kaye CJ held that it was irrelevant to consider whether 'pre-zygotes' are entitled to 'special respect' for the solution of a frozen embryos dispute in *Kass* (n 98) 558, 565.

[162] John Robertson, 'Symbolic Issues in Embryo Research' (1995) 25(1) Hastings Center Report 37.

[163] The President's Council on Bioethics, *Human Cloning and Human Dignity: An Ethical Inquiry* (US Government Printing Office 2002) 154.

[164] Vincent Stempel, 'Procreative Rights in Assisted Reproductive Technology: Why the Angst?' (1999) 62(3) Albany Law Review 1187, 1199-202.

[165] *Evans* (HC) (n 43) [219].

[166] *Evans* (HC) (n 43) [219].

[167] This was originally laid out in *York v Jones* 717 F Supp 421 (ED Va 1989).

[168] The person/property dichotomy has arisen in recent US cases. Following a couple's divorce, the woman involved in the litigation of a Californian frozen embryo dispute (*Findley* (n 130)) reported that the embryos were 'biological children ready to come to life'. Joel Christie and Myriah Towner, ''I Have Biological Children Ready to Come to Life': Infertile Cancer Survivor Battling to Save Frozen Embryos from Being Destroyed by Ex-Husband Says She Will 'Do Anything' to get the Eggs Back' *Daily Mail* (London, 6 August 2015) <http://www.dailymail.co.uk/news/article-3187323/I-biological-children-ready-come-life-Infertile-cancer-

ramifications.[169] In IVF, a fertility clinic could potentially be liable for conversion in the event of the embryo's destruction if perceived as property, whereas manslaughter if viewed as a person. It could thus be obligated to keep the embryo frozen or use it for implantation. Gamete providers seeking the destruction of embryos would clearly be limited in their choices as well. The selection of embryos through genetic profiling in preimplantation genetic diagnosis would not be possible. The number of embryos that might be created and transferred to the woman in any one IVF cycle may also be limited,[170] which could require more IVF cycles to be completed to achieve a pregnancy, unless the woman chose to freeze her eggs, the risks of which are described most comprehensively in Chapter 3. Without egg freezing, the effort involved in gamete retrieval could be multiplied for the gamete providers.

The person-property dichotomy is thus pertinent to consider. Margaret Radin considers that possession can occur with objects linked to personhood rather than property: 'most people possess certain objects they feel are almost part of themselves'.[171] Her test for a personhood object is 'if its loss causes pain that cannot be relieved by the object's replacement'.[172] Such a rationale would be highly subjective in its application in IVF, as different gamete providers are likely to have different

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survivor-battling-save-frozen-embryos-destroyed-ex-husband-says-eggs-back.html> accessed 9 June 2017. Massullo J declined to categorise the embryos as either 'life' or 'property'. *Findley* (n 130) 82. A legal argument that the embryo, as a person, should be provided to the woman seeking implantation was also submitted in a recent frozen embryo dispute. *McQueen* (n 132) 10. Clayton III J preferred 'something more nuanced'. 82. The embryos were considered neither property nor a 'fully formed human being', but rather '*sui generis*'. 82. This legal construction provided no impediment for the San Francisco Superior Court to enforce an agreement allowing the man to discard the embryos. 82-3. The Missouri Court of Appeals rejected a notion of personhood as holding sway, as the 'potential life of the frozen pre-embryos' was not held to be 'sufficient to justify any infringement upon the freedom and privacy of the gamete providers to make decisions'. 23-4. Rather, the embryo were held to be property of a 'special character' (27) which meant they could not be implanted without the man's wishes. 41.

[169] Non-therapeutic research on embryos would become unlawful. Emily Jackson highlights the bizarre scenario of a frozen embryo being treated as property 'in order that someone should be able to bequeath their interest in [a proprietary claim over an estate]'. Emily Jackson, *Regulating Reproduction* (Hart 2001) 235.

[170] A jurisdiction could find similar to Costa Rica between 2000 and 2016 that IVF is altogether unlawful due to its production (and loss) of excess embryos. (Constitutional Chamber of the Supreme Court of Justice, File Number 95-001734-007-CO (2000) 02306. The Inter-American Court on Human Rights found Costa Rica to be in breach of Article 5 of the American Convention on Human Rights regarding the right to humane treatment, Article 7 on the right to personal liberty, and Article 11(2) on the right to non-interference with private life) and 2016 (following a ruling by the Inter-American Court of Human Rights in *Artaia Murillo et al (fecundación in vitro) v Costa Rica* (2012) I/A Court HR, Series C, 257, the ban was lifted in 2016 by 'Resolución de la Corte Interamericana de Derechos Humanos supervisión de 26 de Febrero 2016, Cumplimiento de Sentencia' (Inter-American Court of Human Rights,) 26 February 2016) .<http://www.corteidh.or.cr/docs/supervisiones/artavia_26_02_16.pdf> accessed 14 February 2017) Alternatively, a country could require implantation of all embryos created during each IVF cycle. This had been proposed in Costa Rica, and was noted by the Pan-American Health Organization to increase the risk of multiple pregnancy and fetal reduction. Ligia Jesus, '*Artavia Murillo v Costa Rica*: The Inter-American Court on Human Rights' Promotion of Non-Existent Human Rights Obligations to Authorize Artificial Reproductive Technologies' (2014) 18 UCLA Journal of International Law and Foreign Affairs 275, 282-3.

[171] Margaret Radin, 'Property and Personhood' (1982) 34(5) 957, 959.

[172] ibid.

perceptions of their embryos.[173] To confirm, this thesis will not tackle the difficult question of how to balance a gamete provider's subjective perception of the embryo,[174] whatever that may be.

Rejection of a property approach in embryos in favour of personhood has led religious groups to consider alternative approaches. For example Nightlight Christian Adoptions stated, 'We would like for embryos to be recognized as human life and therefore to be adopted as opposed to treated as property'.[175] Allowing the embryo to be adopted or not does not necessarily assist a frozen embryo dispute unless there is a specific notion that the embryo is a person. It would not be clear which party could adopt and whether, after adoption, a party could exercise whichever disposition decision she wanted. Moreover, a rights regime could still be used to govern frozen embryo disputes even with a notion of adoption. Adoption laws are not considered in this thesis due to their lack of discussion in case law. However, since the notion that embryos occupy an interim category is widely accepted, Chapter 4 proceeds on the basis that there is scope for the discussion and application of property law as previously mentioned.

1.6.1.1 Article 2 of the ECHR

[173] A study of egg donors and embryo donors found the latter tend to be more likely to feel they were donating an infant as opposed to merely a set of cells. Viveca Söderström-Anttila and others, 'Embryo Donation: Outcome and Attitudes Among Embryo Donors and Recipients' (2001) 16(6) Human Reproduction 1120. Research amongst Canadian couples suggests that donors are most likely to consider the procedure of donating embryos to other couples as comparable to infant adoption. Christopher Newton and others, 'Embryo Donation: Attitudes toward Donation Procedures and Factors Predicting Willingness to Donate' (2003) 18(4) Human Reproduction 878, 883. For gamete providers who donate their embryos to studies which lead to their destruction, donees have found this 'much harder than they imagined and fraught with moral ramifications'. Sheryl de Lacey, 'Parent Identity and 'Virtual' Children: Why Patients Discard rather Than Donate Unused Embryos' (2005) 20(6) Human Reproduction 1661, 1633. She found that before participants became parents, surplus frozen embryos represented a 'successful endpoint of ovarian stimulation and an opportunity for pregnancy'. 1667. However, following childbirth however, the remaining embryos came to be seen as 'virtual children'. 1667. In another study, 1020 fertility patients were asked to rank the moral status of embryos from one ("no moral status") to seven ("maximum moral status"). Responses reflected a wide range of views, with 10% ascribing no moral status and 18% ascribing maximum moral status. Anne Lyerly and others, 'Fertility Patients' Views about Frozen Embryo Disposition: Results of a Multi-Institutional U.S. survey' (2010) 93(2) Fertility and Sterility 499, 503. One psychological study has shown that those who assign full moral status or no moral status to embryos have the lowest decisional conflict regarding disposition of the embryos. Anne Lyerly, Sage Nakagawa and Miriam Kuppermann 'Decisional Conflict and the Disposition of Frozen Embryos: Implications for Informed Consent' (2011) 26(3) Human Reproduction 646, 650.

[174] This issue has arisen in US case law, for example, at the Circuit Court for Blount County, Tennessee Mrs Davis testified that the embryos are 'the beginning of life ... I'm the Mother of the embryos' and as such it was considered 'she feels an attachment to the embryos, views them as children'. *Davis v Davis* No E-14496 (Tenn CC, Blount Cty, Div 1 1989) 25 (Young J).

[175] Kathryn Deiters quoted in Sarah Blustain, 'Embryo Adoption' *The New York Times* (New York, 11 December 2005) <http://www.nytimes.com/2005/12/11/magazine/embryo-adoption.html?mcubz=0> accessed 21 July 2017.

Different countries have different perceptions regarding the status of the human embryo,[176] and a distinction is sometimes made by Israeli[177] and US[178] lawmakers between a preembryo and an embryo.[179] However, this is not a distinction made in the UK, and the biological significance of it[180] is thus not deliberated in this thesis. However, significance was attached to how the embryo was defined for the purposes of Article 2[181] of the ECHR in *Evans*. Ms Evans submitted that an embryo, although not a 'human life', has a sufficiently 'special' status to attract a 'qualified' right to life under Article 2.[182] Wall J rejected this submission on the grounds that it clearly lacked authority and that the

[176] This has been highlighted well in case law at the ECJ and ECtHR. In *Brüstle v Greenpeace eV* the ECJ the Court recognised that the definition of the human embryo is a 'very sensitive issue in many Member states, marked by their multiple traditions and value systems'. Case C-34/10, *Brüstle v Greenpeace e.V.* [2011] E.C.R. I-9821[30]. Such an approach was required due to a lack of consensus among Member States over the definition of the embryo.

[177] 'I wish to point out that I have assumed that the fertilized ovum is not an "embryo"; that it is at the "pre-embryonic" stage. As my colleague Justice Strasberg-Cohen, said, "We are not speaking of preserving life that has been created, but with the creation of life ex nihilo". We have therefore not considered at all the constitutional status of the embryo, and we have not considered the constitutional aspects from this perspective'. *Nahmani* (n 82) 161 (Barak P).

[178] '[T]he currently accepted term for the zygote immediately after division is "preembryo" and that this term applies up until 14 days after fertilization'. *Davis* (n 81) 604 (Daughtrey J).

[179] For a cursory review of how different Member States of the European Union define the embryo see Case C-34/10 *Brüstle* (n 173) [AG67]- [AG70]. Concerning a pan-European definition, 'As far as the legislation of the Member States is concerned, it must be stated that one would search in vain for evidence of a unanimous conception'. [AG66]. For further discussion on the meaning of 'embryo' see: Norman Ford, *When Did I Begin? Conception of the Human Individual in History, Philosophy, and Science* (Cambridge University Press 1988); Zbigniew Szawarski, 'Talking About Embryos' in *Conceiving the Embryo: Ethics, Law and Practice in Human Embryology* (Donald Evans ed, Martinus Nijhoff Publishers 1996) 125.

[180] 'The stage subsequent to the zygote is cleavage, during which the single initial cell undergoes successive equal divisions with little or no intervening growth. As a result, the product cells (blastomeres) become successively smaller, while the size of the total aggregate of cells remains the same. After three such divisions, the aggregate contains eight cells in relatively loose association... [E]ach blastomere, if separated from the others, has the potential to develop into a complete adult... . Stated another way, at the 8-cell stage, the developmental singleness of one person has not been established. Beyond the 8-cell stage, individual blastomeres begin to lose their zygote-like properties. Two divisions after the 8-cell stage, the 32 blastomeres are increasingly adherent, closely packed, and no longer of equal developmental potential. The impression now conveyed is of a multicellular entity, rather than of a loose packet of identical cells. As the number of cells continues to increase, some are formed into a surface layer, surrounding others within. The outer layers have changed in properties toward trophoblast ..., which is destined [to become part of the placenta]. The less-altered inner cells will be the source of the later embryo. The developing entity is now referred to as a blastocyst, characterized by a continuous peripheral layer of cells and a small cellular population within a central cavity ... It is at about this stage that the [normally] developing entity usually completes its transit through the oviduct to enter the uterus. Cell division continues and the blastocyst enlarges through increase of both cell number and [volume]. The populations of inner and outer cells become increasingly different, not only in position and shape but in synthetic activities as well. The change is primarily in the outer population, which is altering rapidly as the blastocyst interacts with and implants into the uterine wall ... Thus, the first cellular differentiation of the new generation relates to physiologic interaction with the mother, rather than to the establishment of the embryo itself. It is for this reason that it is appropriate to refer to the developing entity up to this point as a preembryo, rather than an embryo'. American Fertility Society, *Ethical Considerations of the New Reproductive Technologies* (1990) 53(6) Journal of the American Fertility Society 31 quoted in *Davis v Davis* 842 SW 2d 588 (Tenn 1992) 593-4.

[181] 'Everyone's right to life shall be protected by law'.

[182] Two aspects of the qualified right argued were for the embryos '(1) to continue in being whilst one or other of the gamete providers wished; and (2) to be available for implantation if its mother wished'. [174].

embryo did not possess an 'existence independent of its mother'.[183] Wall J cited *Paton v UK*[184] and *Re F (In Utero)*[185] to find that since Article 2 afforded no right to life to a foetus neither could an embryo be granted such a right.[186] In turn, the Court of Appeal refused leave to appeal on the basis of Article 2 in the absence of a ruling from the ECtHR on the issue.[187] Thorpe and Sedley LJJ considered that no 'Convention jurisprudence extends the right to an embryo, much less to one which at the material point of time is non-viable'.[188] For the Court of Appeal, the crux of the matter did not concern a right to life, rather a right to bring life into being.[189] The ECtHR had considered that Article 2 was not engaged in *Vo v France*,[190] which clarified that Member States enjoy a margin of appreciation in deciding when the 'right to life' begins,[191] which the ECtHR duly applied in *Evans*.[192] Due to the clarity of the law on this matter, and the lack of a link to 'reproductive effort', Article 2 is not considered in the rights discussion in Chapter 5.

There is thus no legal impediment in terms of the status of the embryo to proceed by considering the role of estoppel in resolving frozen embryo disputes through 'reproductive effort' in Chapter 2.

[183] *Evans* (HC) (n 43) [175].
[184] [1980] 3 EHRR 408. In *Paton* the European Commission of Human Rights ruled that: 'The "life" of the foetus is intimately connected with, and cannot be regarded in isolation from, the life of the pregnant woman'. *Paton v UK* [1980] 3 EHRR 408 [19].
[185] [1988] Fam 122. The ruling in *Paton* was applied in *Re F (In Utero)* in which the Court of Appeal dismissed an appeal by a local authority seeking to make a foetus a ward of court.
[186] *Evans* (HC) (n 43) [175]. Wall J also cited *obiter dicta* from [1997] 2 FCR 541, 561 which emphasised the right of a woman to refuse medical treatment even if it placed the unborn child at risk. It was noted that, '(t)he foetus up to the moment of birth does not have any separate interests capable of being taken into account when a court has to consider an application for a declaration in respect of a caesarean section operation'. *Evans* (HC) (n 43) [177].
[187] *Evans* (CA) (n 72) [19].
[188] ibid.
[189] ibid.
[190] [2005] 40 EHRR 12. The ECtHR recognised that: 'in the various laws on abortion – the unborn child is not regarded as a "person" directly protected by Article 2 of the Convention and that if the unborn do have a "right" to "life", it is implicitly limited by the mother's rights and interests. The Convention institutions have not, however, ruled out the possibility that in certain circumstances safeguards may be extended to the unborn child…It is also clear from an examination of these cases that the issue has always been determined by weighing up various, and sometimes conflicting, rights or freedoms claimed by a woman, a mother or a father in relation to one another or vis-à-vis an unborn child'. [80].
[191] ibid [82].
[192] *Evans* (ECtHR) (n 66) [46]; *Evans v United Kingdom* [2008] 46 EHRR 34 [54].

Chapter 2: An Assessment of the Use of Estoppel in Resolving Frozen Embryo Disputes

Eggs and oaths are easily broken --- Danish Proverb

2.1 Introduction

This chapter is the first of two which interrogates how the doctrine of estoppel could impact the interests of gamete providers which, in turn, would dictate which person has decisional authority over the embryos in the event of a dispute. One of the first advocates for the use of estoppel in settling frozen embryo disputes lucidly explained why the estoppel route could lead to a just solution:

> One fact is of vital importance in making this judgment; the spouse who opposes implantation wanted a child at one time and submitted to the IVF process with that end in mind. The two spouses once agreed on this issue and initiated the IVF procedure in reliance on that mutual wish. Given this background, the greater injustice would be to deny implantation to the spouse who detrimentally relied on the other's words and conduct.[1]

Alise Panitch's argument is developed from the perspective of estoppel to favour the spouse seeking implantation in part due to the fact that both parties agreed to and initiated treatment. Her observations have remained largely undeveloped in academic literature in the context of estoppel. This chapter will develop her reasoning to evaluate the worth of estoppel in settling frozen embryo disputes, specifically by showing that reliance and unconscionability should be given greater consideration to the effort of the woman involved in IVF. Her points will therefore be expanded, including reference to the gender specific implications of IVF.

Estoppel was raised in the High Court[2] and Court of Appeal[3] in *Evans v Amicus Healthcare Ltd*, where it was contended that the male partner, Mr Johnston, made assurances which dissuaded his female partner, Ms Evans, from seeking alternative ways of achieving a pregnancy using her eggs.[4] In addition

[1] Alise Panitch, 'The *Davis* Dilemma. How to Prevent Battles over Frozen Embryos' (1999) 41 Case Western Law Review 543, 574.
[2] *Evans v Amicus Healthcare Ltd* [2003] EWHC 2161 (Fam) [279ff].
[3] *Evans v Amicus Healthcare Ltd* [2004] EWCA (Civ) 727 [18].
[4] *Evans* (HC) (n 2) [13].

to its consideration in the High Court in *Evans*, estoppel is analysed in this thesis due to its flexibility as a legal doctrine in deeming whether a person is unconscionable in resiling from a promise(s) made. This flexibility, referred to by Lord Denning, [5] one of the doctrine's champions in English law, originates from its roots in equity,[6] and reflects 'the moral values which underlie the private law concept of estoppel'.[7] The flexible and equitable legacy of estoppel has also left its imprint in the US[8] and Israel,[9] thus this chapter will also analyse US case law and the Supreme Court of Israel's decision in *Nahmani v Nahmani*.[10]

Mr and Ms Nahmani were married in 1984 and three years later she required a hysterectomy due to an unnamed 'dangerous illness'.[11] It was arranged with the surgeon that her ovaries would not be removed, but would be moved aside 'in such a way that they would not be damaged by the radiation that was to follow'.[12] In 1988, as a precursor to IVF, the couple sought to identify a potential surrogate mother.[13] Due to legal restrictions in Israel, this search led them to the US where they succeeded in finding a potential surrogate mother after three years, following significant legal[14] and economic

[5] 'The doctrine of estoppel is one of the most flexible and useful in the armoury of the law'. *Amalgamated Investment and Property Co Ltd v Texas Commerce International Bank* [1982] QB 84, 122 (Lord Denning MR). See also Martin Dixon, 'Confining and Defining Proprietary Estoppel' (2010) 30(3) Legal Studies 408, 409.

[6] Robert Megarry and Paul Baker, *Snell's Principles of Equity* (27th edn, Sweet & Maxwell 1973) 11. The first case of specifically equitable estoppel to be decided by the Chancery Court was *Montefiori v Montefiori* (1762) 1 Blackstone W 363, in which Lord Mansfield CJ held, 'It shall be, as represented to be'. ibid 364. In the UK, equity refers to those body of rules which originated in the Court of Chancery.

[7] *R (Reprotech (Pebsham) Ltd) v East Sussex County Council* [2002] UKHL 8 [35] (Lord Hoffmann).

[8] 'The primary principle governing equitable estoppel… is ethicality, *i.e.*, morality'. Laura Burson, 'A.C. Aukerman and the Federal Circuit: What is the Standard of Review for a Summary Judgment Ruling on Laches or Equitable Estoppel' (1999) 32(3) Loyola Law Review 799, 831. 'It is against good morals to permit such double dealing in the administration of justice'. Leigh Anenson, 'From Theory to Practice: Analyzing Equitable Estoppel under a Pluralistic Model of Law' (2007) 11(3) Lewis & Clark Law Review 633, 634 quoting from *Wills v Kane* 2 Grant 60 (Pa 1853) 63. Diane Yang, 'What's Mine is Mine, but What's Yours Should Also Be Mine: An Analysis of State Statutes That Mandate the Implantation of Frozen Pre-Embryos (2002) 10 Journal of Law and Policy 587, 628. The doctrine was first academically referred to in the USA in Samuel Williston, *The Law of Contracts* (Baker, Voorhis & Company 1920) 139.

[9] '…the principled approach of Jewish law regarding the need for fixed and stable criteria and standards as a rule did not prevent it from requiring the judge trying a case to endeavour to find a solution for an exceptional case, if and when such a solution was required according to the criteria of justice…'. HCJ 702/81 *Mintzer v Israel Bar Association Central Committee* [1982] IsrSC 36(2) 1 [11]. 'The rules of equity allowed a degree of flexibility in implementing the rules of the common law while taking account of the circumstances of each specific case, and they gave relief that was unavailable under the common law'. CA 2401/95 *Nahmani v Nahmani* [1995-96] IsrSC 50(4) 661, 56, 64 (Dorner J).

[10] *Nahmani* (n 9). The discussion of equity was most prevalent in Dorner J's judgment, in which he poignantly cited Witkon J: 'As with most problems in law and in life in general, it is not the choice between good and bad that makes our decision difficult. The difficulty is in choosing between various considerations, all of which are good and deserving of attention, but which conflict with one other, and we must determine which will take precedence'. CA 461/62 *Zim Israeli Shipping Co Ltd v Maziar* [1963] IsrSC 17 1319, 1337 in *Nahmani* (n 9) 58.

[11] *Nahmani* (n 9) 35, 52.

[12] *Nahmani* (n 9) 52.

[13] *Nahmani* (n 9) 52.

[14] *Nahmani* (n 9) 35, 52-3.

obstacles.[15] Immediately following this, IVF treatment was pursued, and eleven embryos were created using Ms Nahmani's eggs and Mr Nahmani's sperm[16] and stored at Assuta Hospital in Israel.[17] He subsequently left her and went to live with another woman, who bore him a child.[18] Ms Nahmani applied to Assuta Hospital for possession of the embryos for the purpose of the surrogacy procedure in the US, but Mr Nahmani opposed this.[19] A majority of seven of the Supreme Court Justices (with four dissenting) reversed the same Court's judgment[20] in a second hearing[21] to allow Ms Nahmani to implant the embryos. Thus, Ms Nahmani was allowed to use the frozen embryos. The Court found that the husband was estopped from opposing the implantation of the embryos into a surrogate by promissory estoppel, allowing the woman to implant the embryos. Similar arguments were considered in the *Evans* litigation, albeit unsuccessfully.[22]

In this chapter it will be considered how, in cases such as *Evans* and *Nahmani*, the reliance by gamete providers on representation(s) plays an important role in resolving frozen embryo disputes.[23] This analysis, which foregrounds the discussion of detriment in Chapter 3, leads to the argument that the woman has a significantly stronger case in raising estoppel as she is normally more adversely affected by withdrawal of consent to use the embryo(s) through her greater reliance on representation(s) made by the man that IVF treatment may be pursued for the purpose of implantation. This interrogation ignores, for the purposes of the discussion, the existence of the relevant aspects of the statutory framework[24] requiring ongoing consent. To that end, whether the estoppel argument should have been applied in an *Evans* type scenario will be re-examined.

[15] *Nahmani* (n 9) 8, 52.
[16] *Nahmani* (n 9) 52-3.
[17] *Nahmani* (n 9*)* 35.
[18] *Nahmani* (n 9) 35.
[19] *Nahmani* (n 9) 35.
[20] CA 5587/93 *Nahmani v Nahmani* [1995] PD 49(1) 485.
[21] This was the first time the Israeli Supreme Court granted a second hearing on a case previously heard by a panel of more than three judges. Janie Chen, 'Note: The Right to Her Embryos: An Analysis of Nahmani v. Nahmani and its Impact on Israeli In Vitro Fertilization Law' (1999) 7 Cardozo Journal of International and Comparative Law 325, 335.
[22] *Evans* (HC) (n 2) [305]- [310].
[23] In the US, unconscionability is more closely linked to fairness. 'The doctrine of unconscionability permits courts to invalidate contracts that they deem to be fundamentally unfair'. (Philip Bridwell, 'The Philosophical Dimensions of the Doctrine of Unconscionability' (2003) 70 The University of Chicago Law Review 1513). Outside the estoppel context, in the US, Amy Schmitz considers that unconscionability 'survives to protect… fairness norms' and that the 'history and philosophy underlying the doctrine's conception show that it serves an important role of protecting humanity's natural, or innate, sense of "fairness" that defies formulaic definition or intellectualized rigidity. The doctrine therefore serves as a flexible safety net which courts can use to address contracts that offend these safety norms…'. Amy Schmitz, 'Embracing Unconscionability's Safety Net Function' (2006) 58(1) Alabama Law Review 73, 74. See also Andrew Phang, 'The Uses of Unconscionability' (1995) 111(Oct) Law Quarterly Review 559, in which the author discusses the broad approach to unconscionability in Australian case law.
[24] Schedule 3 of the Human Fertilisation and Embryology Act 1990.

2.2 Overview of estoppel in *Evans*

In *Evans*, promissory estoppel was raised.[25] This doctrine in English and Welsh Law was first set out in *Hughes v Metropolitan Rly Co*,[26] and resurrected by Lord Denning in *Central London Property Trust Ltd v High Trees House Ltd*.[27] In *Evans*, according to Wall J in the High Court, the following conditions must be fulfilled:

> Firstly, there must be a legal relationship between the parties. Secondly, the estoppel is not, of itself, the cause of action, although it may be an element in it. Thirdly, there must be a clear and unequivocal promise or representation which is designed to affect the legal relationship between the parties. Fourthly, there must be reliance on that promise or representation by the other party and, fifthly, it must be unconscionable for the person making the representation to be allowed to resile from it.[28]

The argument for Ms Evans followed, on the basis of 'equitable'[29] (promissory) estoppel, that Mr Johnston's action of withdrawing his consent on 4th July 2002[30] for the transfer of the embryos was unconscionable as she had relied on his representations to her detriment.[31] Ms Evans pleaded that these representations arose in the following way:

> By his words and actions (Mr. Johnston) gave (Ms Evans) to understand that any embryos created from his sperm would always be available for her to use and that there was no need to consider other options. Amongst other things, he told the claimant that he loved her, wanted to share his life with her, would never leave her and was anxious to be a father.[32]

Ms Evans also cited representations Mr Johnston made to her regarding egg freezing, which occurred during a consultation at the fertility clinic (Bath Assisted Conception Clinic) during which the fertility sister (nurse), Pam Spearman, was present:[33]

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[25] *Evans* (HC) (n 2) [298].
[26] [1877] 2 AC 439.
[27] [1947] KB 130.
[28] *Evans* (HC) (n 2) [303].
[29] Wall J used the terms 'equitable estoppel' and 'promissory estoppel' interchangeably (*Evans* (HC) (n 2) [298]
[30] *Evans* (CA) (n 3) [14]. This withdrawal of consent was only communicated to Ms Evans on 11th September 2002 *Evans* (CA) (n 3) [14].
[31] *Evans* (HC) (n 2) [12].
[32] *Evans* (HC) (n 2) [13](6).
[33] *Evans* (HC) (n 2) [7].

> At this point Howard told me not to be stupid and that there was no need for that. He told me that he loved me, that we would be getting married and having a family together. I said, 'But what if we split up?' Howard told me that we were not going to and that I should not be such a negative person…
>
> I suggested that perhaps we freeze some of the eggs and that if we were still together in a couple of years' time and wanted to use them he would always fertilise them then. He told me again that we would not be splitting up, that our future was together and that he loved me. He told me that he loved me, that he wanted to have a family and that I was the woman he wanted to share his life with. He told me that he would never leave me, and that he wanted to be the father of my children. I told him that I loved him and trusted him…
>
> Pam Spearman was present throughout this conversation. She said that we would need to really think about what we wanted and to make up our minds what we wanted to do.[34]

Ms Evans acted and relied on these representations by deciding 'not to seek further advice on the storage of unfertilised eggs or embryos created using sperm from another donor'.[35] Otherwise, her evidence was that she would have 'taken every opportunity to maximise her prospects of having children in the future including specifically the storage of unfertilised eggs or eggs fertilised by another donor or by investigating other treatments for her cancer than the removal of her ovaries'.[36]

In other estoppel cases it has been held that loss of opportunity may be sufficient to establish detriment in estoppel, 'if there were alternative courses available which offered a real prospect of benefit, notwithstanding that the prospect was contingent and uncertain'.[37] Thus, someone in Ms Evans' situation may have sought IVF treatment alone, with another partner, or a donor. A more recent development which might be used in the future for women in Ms Evans' position concerns the possible human application of recent technologies involving 3D printed bioprostehtic ovaries which allowed infertile mice to give birth.[38] The relevance of such alternatives to the decision of the court may depend on whether they still exist or are feasible (no alternatives to genetic parenthood existed for Ms Evans due to the removal of her ovaries; thus she had no more eggs to use for further treatment cycles), or whether the probability of successfully pursuing them has significantly been

[34] *Evans* (HC) (n 2) [47].
[35] *Evans* (HC) (n 2) [14](35).
[36] ibid.
[37] *Kelly and others v Fraser* [2012] UKPC 25 [17] (Lord Sumption JSC). Cf *Fung Kai Sun v Chan Fui Hing* [1951] AC 489, 505-506 (Lord Reid); *Greenwood v Martins Bank Ltd* [1933] AC 51, 58 (Lord Tomlin); *Ogilvie v West Australian Mortgage and Agency Corp Ltd* [1896] AC 257, 268 (Lord Watson).
[38] Monica Laronda and others, 'A Bioprosthetic Ovary Created Using 3D Printed Microporous Scaffolds Restores Ovarian Function in Sterilized Mice' (2017) 10 (1038) Nature Communications 15261.

reduced. In the case of embryo disputes concerning an older woman who has sought or undertaken IVF treatment for a number of years, the chances of implantation through IVF with another partner may exist, yet the likely success of achieving pregnancy and live birth may be significantly reduced. For the purposes of fertility, there is no singular understanding of what constitutes an older woman or the point at which maturity begins,[39] and consequently the incremental approach is important: the older the woman becomes, the more significant reduced reproductive opportunities become, as will be discussed in section 3.2.4 of Chapter 3.[40]

Rejecting the application based on estoppel and contractual principles, Wall J held that Mr Johnston could not promise that which was, by statute, forbidden for him to do and which was not in the public interest: 'Mr. Johnston cannot give an unequivocal consent to the use of the embryos irrespective of any change of circumstances. In the wider public interest of the proper operation of the scheme under the Act, Parliament does not permit him to give such a promise'.[41] The statutory requirements referred to in Chapter 1 indicated the need for consent from both parties prior to use of the embryo in IVF.[42] Therefore, the third condition of estoppel considered by Wall J above (a clear and unequivocal promise) could not be present because a promise is, by definition, a commitment to pursue a course of action to be realised in the future, and in this case Mr Johnston, by law, could not commit to not varying his consent.[43] The doctrine of estoppel could not trump statute according to parliamentary sovereignty,[44] and no precedent for this existed in English law.[45] Wall J held that Ms Evans could not rely on estoppel as, 'Neither the gamete providers nor the clinics can opt out of the statutory scheme'.[46]

[39] A variety of studies have shown that increasing female age is negatively correlated with success rates of pregnancy following IVF. Luca Sabatini and others found that women aged 35 or over had significantly lower pregnancy success compared with women younger than 35. Luca Sabatini and others, 'Relevance of Basal serum FSH to IVF Outcome Varies with Patient' (2008) 17 Reproductive BioMedicine Online 10. Yueping Wang and others demonstrated that women aged 30 or older compared with women in the aged 25- 29 had lower chances of pregnancy. Yueping Wang and others, 'Age-Specific Success Rate for Women Undertaking Their First Assisted Reproduction Technology Treatment Using Their Own Oocytes in Australia, 2002–2005' (2008) 23(7) Human Reproduction 1633.

[40] Notwithstanding the incremental approach, the aforementioned fertility research demonstrates that an age of between 24 to 27 would be relevant to consider as a starting point in the context of detrimental reliance to show the significance of loss of opportunity in receiving alternative fertility treatment.

[41] *Evans* (HC) (n 2) [296], [309].

[42] Paragraphs 4 and 6(3) of Schedule 3 of the 1990 Act.

[43] *Evans* (HC) (n 2) [321](22).

[44] *Evans* (HC) (n 2) [296].

[45] In contrast, Jeffrey Steinberg described how estoppel was used to defeat the operation of the Statute of Frauds Act 1677 in the US. Jeffrey Steinberg, 'Promissory Estoppel as a Means of Defeating the Statute of Frauds' (1975) 44(1) Fordham Law Review 114. However, Michael Barnes QC has more recently argued that estoppel should never be used to circumvent statute. Michael Barnes, 'Estoppels as Swords' (2011) Lloyd's Maritime and Commercial Law Quarterly 387, 387-91.

[46] *Evans* (HC) (n 2) [294]. Cf the subsequent judgment of Lord Scott, 'My present view, however, is that proprietary estoppel cannot be prayed in aid in order to render enforceable an agreement that statute has

This stance was approved at the Court of Appeal as Thorpe and Sedley LJJ found there was a need for 'bilateral consent'.[47] Arden LJ concurred and held that a person cannot contract out of their own benefit in such a scenario: 'A person may give up a right created by statute for his benefit only, but here the right of withdrawal is granted in recognition of the dignity to which each individual is entitled'.[48] 'Dignity' must relate to Mr Johnston's option to choose whether or not to be a parent. However, 'benefit' can also be construed when a person wishes to bind themselves into an agreement at a certain point in time. From this apparent paradox of autonomy, it can be noted that the philosophy underpinning Wall J and Arden LJ's *ratios* is problematic in terms of Millian autonomy.[49] Apart from Mr Johnston, there is no harm to any *other* from Mr Johnston's actions, which would otherwise make his promise ineffective.[50] Legal scholar JA Andrews wrote decades ago that 'in cases where the doctrine of estoppel has been excluded it is because to have decided otherwise would have allowed a person to achieve by an estoppel against himself something which he could not otherwise lawfully do'.[51] However there was an exception: 'If the Act merely confers private rights on the defendant then he can contract out of them. If they do something more, for example, if they limit the jurisdiction of the court to hear the cause, then the defendant cannot validly contract out of their benefit.'[52] There is no evidence the domestic courts were aware of this argument, but aside from the force of parliamentary sovereignty, the judges would likely have pointed to the public interest concerns mentioned above to rebut this argument,[53] including interests concerning the welfare of the

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declared to be void… 'Equity can surely not contradict the statute.' *Cobbe v Yeoman's Row Management Ltd and another* [2008] UKHL 55 (HL) [29].

[47] *Evans* (CA) (n 3) [69].

[48] *Evans* (CA) (n 3) [120] (Arden LJ).

[49] The 'harm principle' states 'the only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others'. John Stuart Mill, *On Liberty* (2nd edn, Ticknor and Fields 1863) 23.

[50] Stephen Smith also notes promises which would not be binding due to illegality, such as a promise to a sell of a gun to a person about to embark on a murder of another. Stephen Smith, *Contract Theory* (Oxford University Press 2004) 243.

[51] JA Andrews, 'Estoppels against Statutes' 29(1) 1966 The Modern Law Review 1, 5.

[52] ibid 6.

[53] *Evans* (HC) (n 2) [296], [309]. The public interests at stake was one of the reasons the Secretary of State intervened in the proceedings in *Evans. Evans* (CA) (n 3) [42], [47]. The Secretary of State opposed 'the private law claims of Ms Evans based on contract and estoppel. If such claims could be made, the consent regime in Schedule 3 to the Act, and all of the policies which underlie it, would be fatally undermined'. *Evans* (CA) (n 3) [48]. The public policy/interests argument has also been followed in other jurisdictions to avoid implantation. *AZ v BZ* 725 431 Mass 150 (2000) 158-62 (it would be against public policy 'to compel a person to be a parent against that person's will'); *JB v MB* 783 A 2d 707 (NJ 2001) [85]; *In re Marriage of Witten*, 672 NW 2d 768 (Iowa 2003) 781 (it would be against public policy 'to enforce a prior agreement between the parties in this highly personal area of reproductive choice when one of the parties has changed his or her mind concerning the disposition or use of the embryos'); *Roman v Roman* 193 SW3d 40 (Tx App 2006) ('We believe that allowing the parties voluntarily to decide the disposition of frozen embryos in advance of cryopreservation, subject to mutual change of mind, jointly expressed, best serves the existing public policy of this State and the interests of the parties'). However, in *Reber v Reiss* No 1351 EDA 2011 (Pa Super 2012) implantation was allowed since, 'Pennsylvania public policy is silent on the issue of forced procreation under these circumstances'.

child.[54] Indeed, the Court of Appeal specifically dismissed Ms Evans' estoppel argument on the basis of public policy since it is an 'individual's right to control the use of their own genetic material'.[55]

Suffice to say, as was demonstrated in Chapter 1, for consent to be effective for the purposes of Schedule 3 of the 1990 Act it must be present in a continuous and mutual contemporaneous form with respect to the IVF treatment. Once consent is withdrawn in the present, notions of a prior promise made with regard to a future event necessarily become spurious by English law. The rigid nature of the 1990 Act is one reason why the estoppel argument was given much less consideration at the Court of Appeal. Arden LJ effectively regarded the statutory 'right' conferred by Schedule 3 of the 1990 Act as trumping any ground for estoppel.[56] The limitations provided by statute therefore precluded a fuller exploration of the relevance of estoppel to frozen embryo disputes; yet this shall be undertaken in the remainder of this chapter. The purpose behind this examination is not to advocate a wholesale rejection of the 1990 Act by any means, but to investigate the disputes without the legal restriction that embryos cannot be used for implantation if one gamete provider varies consent.

This chapter will now proceed to explore how estoppel based arguments affect the interests of gamete providers. This will require consideration of each of the conditions of estoppel outlined above by Wall J, to understand whether they could be raised in a context such as *Evans*.

2.3 Hypothetical application of estoppel in frozen embryo disputes and remedies

2.3.1 Promissory Estoppel

To recap, Wall J first mentioned that estoppel requires the existence of a legal relationship between gamete providers who choose to embark on a course of treatment together to produce the embryos. A legal relationship will also exist between the gamete providers and the fertility clinic, who have various duties to gamete providers seeking treatment from them.[57]

[54] *Evans* (HC) (n 2) [295].
[55] *Evans* (CA) (n 3) [120] (Arden LJ).
[56] 'In my judgment, the judge was correct in law to rule that Mr Johnston could not be estopped from exercising his statutory right to withdraw his consent'. *Evans* (CA) (n 3) [120] (Arden LJ).
[57] For a list of such duties and obligations in England & Wales see Human Fertilisation and Embryology Authority, *Code of Practice* (8th edn, HFEA 2012). Section 25(1) of the 1990 Act requires the HFEA to maintain a Code of Practice to give 'guidance about the proper conduct of activities carried on in pursuance of a licence…'. Section 26 of the 1990 Act details that the Code must be approved by the Secretary of State before it is laid before Parliament.

The second condition is that 'the estoppel is not, of itself, the cause of action, although it may be an element in it',[58] i.e. a defence to a claim. This is commonly referred to as meaning that promissory estoppel could operate as 'a shield and not as a sword'.[59] This distinction is relevant when considering the nature of frozen embryo disputes. The estoppel could be raised as a shield, so as to prevent the gamete provider seeking to avoid implantation from enforcing the original rights relinquished (namely, that he could vary consent). The right relinquished indicated his agreement to proceed with IVF treatment to implantation. However, it could contrarily be interpreted that estoppel does not act merely defensively, but also as a sword, by arguing that consent to implantation in the new context, *post-separation*, is a different form of consent.[60] Under this interpretation, the estoppel would not be valid in English law.[61] The estoppel would not be viewed as the modification of an existing relationship, but rather the creation of a new relationship.[62]

2.3.2 The approach of proprietary estoppel

However, proprietary estoppel is an exception to the rule that estoppel cannot be a cause of action,[63] and the use of this doctrine could be considered under an alternative construction of an interest in property (presumably of the embryos, as discussed in Chapter 4). This type of estoppel is traditionally considered to be other main type of estoppel applied in English law.[64] Proprietary estoppel in relation to rights to use and/or transfer property (proprietary estoppel) has been confirmed as a valid doctrine.[65] 'Promissory' estoppel becomes 'proprietary' estoppel if 'the right claimed is a proprietary right, usually a right to or over land but, in principle, equally available in relation to chattels or choses in action'.[66] Thus, for the latter type of estoppel a proprietary right may need to be established over the embryo as a chattel, as discussed in Chapter 4. Proprietary estoppel usually only involves cases

[58] *Evans* (HC) (n 2) [303].
[59] *Combe v Combe* [1951] 2 KB 215 (CA) 218. Denning J held that the estoppel 'may be part of a cause of action, but not a cause of action in itself' (220). Morritt VC (with whom Judge LJ and Mance LJ concurred) confirmed that the estoppel should not operate as a sword. *Baird Textile Holdings Ltd v Marks & Spencer Plc* [2001] EWCA Civ 274 [32]-[40], [49]-[55]. However, Judge LJ disapproved of the 'misleading aphorism' ([52]), and Mance LJ held ([98]) open the possibility of reaching a result similar to that reached in Australia where estoppel is used as a sword (*Waltons Stores (Interstate) v Maher* [1988] 164 CLR 387 (HCA)).
[60] According to the description of the dissenting judge, Justice Zamir in *Nahmani* (n 9) 149.
[61] *Combe v Combe* [1951] 2 KB 215 (CA) 218- 220. The US and Australian approaches, however, would allow estoppel to be used as a 'sword' (section 90 of the Restatement (Second) of Contracts 1981; *Waltons Stores* (n 59) respectively).
[62] Richard Stone and James Devenney, *The Modern Law of Contract* (11th edn, Routledge 2015) 124.
[63] *Crabb v Arun District Council* [1976] EWCA Civ 7 (CA) 187-8 (Lord Denning MR).
[64] In rare examples the courts have recognised other forms such as estoppel by convention (*Amalgamated Investment* (n 5)) and estoppel by representation (*Cadbury Schweppes plc v Halifax Share Dealing Ltd* [2006] EWHC 1184 (Ch)).
[65] For example *Pascoe v Turner* [1979] 1 WLR 431 (CA); *Lloyds Bank plc v Rosset* [1991] 1 AC 107 (HL) [132]; *Wayling v Jones* [1995] 69 P & CR 170 (CA) 173.
[66] *Cobbe* (n 46) [14] (Lord Scott).

concerning land,[67] but it may extend to other forms of property,[68] and can include chattels and choses in action,[69] and 'identifiable property'.[70] Hence, if the embryo is not considered property, then promissory estoppel would be more likely to be considered applicable. This type of estoppel can require that the representations made 'would reasonably have been understood as intended to be taken seriously as an assurance which could be relied upon', [71] if the claimant relied upon them to his/her detriment. The test is wider in that there are situations in which a valid promise is not even required: for example, if one party makes improvements to the other's property under a mistaken belief.[72] This is unlikely to be applicable in frozen embryo disputes, however it illustrates that the representations made do not necessarily have to carry the same significance as with promissory estoppel. Proprietary is also wider in scope in that a legal relationship is not necessarily required for this type of estoppel.[73]

The two most recent and authoritative cases on proprietary estoppel are *Cobbe v Yeoman's Row Management*[74] and *Thorner v Major.*[75] In the former case although the claimant, a property developer, engaged in significant effort to obtain planning permission on the basis of an oral arrangement, a proprietary estoppel claim was not successful.[76] In the latter case an estoppel claim was upheld in favour of a farmer who had worked without pay on his cousin's farm. Lord Walker's judgment in *Cobbe*, in particular, throws light on the difference in success of the estoppel claims: to permit estoppel to be raised in *Cobbe*, the facts of which were essentially of a commercial nature, would be problematic for reasons of certainty.[77] However, the House of Lords was amenable to the flexibility of equity in allowing estoppel to be raised in *Thorner*, considering the familial relationship between the appellant and respondent. *Thorner* would therefore be more appropriate in the hypothetical application of estoppel to frozen embryo disputes. As Baroness Hale stated, in 'law, "context is everything" and the domestic context is very different from the commercial world'.[78]

Even if proprietary estoppel is specifically raised under the guise of a cause of action, the party seeking to estop the other varying his/her consent may not achieve the result he/she wishes. Strasberg-Cohen

[67] *Western Fish Products Ltd v Penwith District Council and Another* [1979] 38 P & CR 7, 27 (Megaw LJ).
[68] *Moorgate Mercantile Co Ltd v Twitchings* [1976] QB 225, 242 (Lord Denning MR).
[69] *Cobbe* (n 46) [14] (Lord Scott).
[70] *Thorner v Major* [2009] UKHL 18 [61] (Lord Walker).
[71] ibid [5].
[72] *Willmott v Barber* [1880] 15 Ch D 96, 105.
[73] Wall J recognised this approach in *Jennings v Rice* [2002] EWCA (Civ) 159 in *Evans* (HC) (n 2) [299], [305].
[74] n 46.
[75] [2009] UKHL 18.
[76] The claimant was however entitled to quantum meruit on the basis of his efforts expended in obtaining planning permission. *Cobbe* (n 46) [42], [43], [45] (Lord Scott).
[77] *Cobbe* (n 46) [46], [81], [85] (Lord Walker)
[78] *Stack v Dowden* [2007] UKHL 17 [69].

J considered at the first hearing of *Nahmani* at the Israeli Supreme Court, that even if estoppel is successfully raised, reliance damages would be the 'usual remedy' and not enforcement.[79] However, in English law promissory estoppel could operate to prevent a promisor insisting on their full rights,[80] i.e. the right to vary consent to use the embryos. The remedy afforded by proprietary estoppel may however be more complex. Lord Scott considered that, 'Where an agreement is reached under which an individual provides money and services in return for a legal but unenforceable promise which the promisor… refuses to carry out, the individual would be entitled… to a restitutionary remedy'.[81] That remedy would be at the court's discretion.[82] A court would need to judge 'what is the relief appropriate to satisfy the equity'.[83] This will need to take into account the circumstances of the parties, expectation and detriment.[84] These points will be expanded below, and in the case of detriment, in the next chapter. However, it is sufficient to say at this point that if a gamete provider seeks relief by way of proprietary estoppel, equity may adjudge that a variation of consent to implant the embryos by a gamete provider may not be extinguished if the other gamete provider already has genetic children (especially if they were gestated using embryos created from the same IVF cycle as the frozen embryos in question), or has alternative options for pursuing parenthood using her own gametes.

A remedy for a gamete provider may be financially quantifiable due to loss of autonomy. However, the remedy under proprietary estoppel may be not merely financial, but also for use of the embryos, since the claim can provide 'a benefit more or less equivalent to the benefit he expected to obtain from the oral and inchoate agreement; in effect a benefit based on the value of his non-contractual expectation'.[85] Would the expectation be to use the embryos created or to be placed in a similar situation as before? As family law barrister Rhys Taylor recently reflected, 'the exercise when determining a remedy for a proprietary estoppel claim is discretionary and the outcome can be as hard to predict as in a financial remedy claim'.[86]

2.3.3 Comparisons and distinctions on estoppels

[79] *Nahmani* (n 20) 40.
[80] *Collier v P & M J Wright (Holdings) Ltd* [2007] EWCA Civ 1329 [31] (Arden LJ).
[81] *Cobbe* (n 46) [43].
[82] *Plimmer v Mayor of Wellington* [1884] 9 App Cas 699, 713-14.
[83] *Crabb* (n 63) 193 (Scarman LJ).
[84] *Jennings v Rice* [2002] EWCA 159 [36].
[85] *Cobbe* (n 46)[4] (Lord Scott).
[86] Rhys Taylor, 'Predicting the Remedy in a Proprietary Estoppel Claim: Which Route Home?' *Family Law* (24 February 2015) http://www.jordanpublishing.co.uk/practice-areas/family/news_and_comment/predicting-the-remedy-in-a-proprietary-estoppel-claim-which-route-home#.V4gRRWP0jcs accessed 14 July 2016.

The distinction between these two types of estoppel rests upon whether the parties' dispute involved property, a discussion fully explored in Chapter 4. It is worth noting that the above discussion on the possible differences in the application of proprietary and promissory estoppel to frozen embryo disputes may be rendered obsolete by debate over whether promissory and proprietary estoppel are not in fact the same estoppel.[87] It is clear there are distinct variants of estoppel in other legal contexts, but as the landscape of IVF would be almost entirely novel for equitable estoppel, it is not clear whether a judgment in English law would borrow reasoning from varieties of estoppels. Wall J himself stated that it was difficult to define the parameters of promissory estoppel and to distinguish them from proprietary estoppel.[88] Subsequently, Wall J conflated the two definitions of estoppel by including the detriment requirement in his *second* definition of estoppel,[89] and considering it as a proprietary estoppel case.[90] This is evidenced further by his consideration of case law[91] and academic literature[92] pertaining to proprietary estoppel in his judgment. This, and uncertainty as to which estoppel could be used, licences a broad-brush approach in this and the following chapter in reading across a variety of estoppels. Scarman LJ stated:

> I do not find helpful the distinction between promissory and proprietary estoppel. This distinction may indeed be valuable to those who have to teach or expound the law; but I do not think that, in solving the particular problem raised by a particular case, putting the law into categories is of the slightest assistance. [93]

In this case, *Crabb v Arun District Council*, the facts concerned a landowner inducing another person to believe that a right of access will be given over the landowner's land. Frozen embryo disputes represent much more of 'particular problem' for estoppel, not least because there are no other estoppel cases which involve facts pertaining to healthcare. Therefore, a detailed study as to whether

[87] That there is a 'virtual equation of promissory and proprietary estoppel' was considered in *Taylor Fashions Ltd v Liverpool Victoria Trustees Co Ltd* [1982] QB 133, 153 (Oliver J). Different estoppels could be seen to 'merge into one general principle shorn of limitation', according to *Amalgamated Investment* (n 5) 122 (Lord Denning MR). Alternatively, Millet LJ has stated that there has never been general acceptance that 'all estoppels other than estoppel by record are now subsumed in the single and all-embracing estoppel by representation and that they are all governed by the same requirement'. *First National Bank Plc v Thompson* [1996] Ch 231 (CA) 236. However, at the House of Lords Lord Scott described proprietary estoppel as a 'sub-species of a "promissory" estoppel'. *Cobbe* (n 46)[14].

[88] *Evans* (HC) (n 2) [298].

[89] '(1) a clear representation by Mr. Johnston; (2) reliance on that representation by Ms Evans to her detriment, and (3) a finding that it would be unconscionable to allow Mr. Johnston to allow Mr. Johnston to go back on the representation.' *Evans* (HC) (n 2) [304].

[90] Through his consideration of *Jennings* (n 84) in *Evans* (HC) (n 2) [305].

[91] *Jennings* (n 84) considered in *Evans* (HC) (n 2) [299] [304].

[92] Simon Gardner 'Remedial Discretion in Proprietary Estoppel' (1999) 115 Law Quarterly Review 438 in *Evans* (HC) (n 2) [300].

[93] *Crabb* (n 63) 193 (Lord Scarman).

frozen embryo disputes should be categorised utilising proprietary or promissory estoppel will not be undertaken here as the focus is more concerned with the equity due to the gamete providers in such unique circumstances.

Case law considering proprietary estoppel is referred to more below since such cases more frequently address gaps in formalities (whereas promissory estoppel more often deals with an absence of consideration). The lack of formality in frozen embryo disputes involves any representations that a gamete provider makes regarding dedication to the continuance of IVF treatment, which are made before and/or subsequent to a formal agreement. Proprietary estoppel case law also often corresponds more closely to the theme of the value of 'reproductive effort' in this thesis, in that a claimant's work performed on the defendant's land may reasonably grant him an expectation of gaining an equitable interest in the land. This is the preferred approach, and the remedy which values the 'reproductive effort' or labour of the female gamete provider is the use of the embryos created following the significant engagement of her body.

The significance of a promise, which is now considered is especially relevant to promissory estoppel, since it has been held that proprietary estoppel can arise in the absence of a promise.[94]

2.4 Clear promises, representations and reliance

The third condition of estoppel referred to by Wall J is that 'there must be a clear and unequivocal promise or representation which is designed to affect the legal relationship between the parties'.[95] As mentioned, the requirement that the representation is a promise is more relevant for consideration of promissory estoppel. A promise might have been deployed by either party, promising that the embryos can be used (in whatever circumstances) or that the other party can change their mind. Promises are important, as Hannah Arendt reasons they 'are the uniquely human way of ordering the future, making it predictable and reliable to the extent that this is humanly possible'.[96] The question of whether a promise should be kept has triggered debate in economic,[97] legal,[98] political,[99]

[94] *Crabb* (n 63) 188.
[95] *Evans* (HC) (n 2) [303].
[96] Hannah Arendt, *Crises of the Republic: Lying in Politics; Civil Disobedience; On Violence; Thoughts on Politics and Revolution* (Harcourt Brace & Company 1972) 92.
[97] Microeconomic theory notes that promises between individuals are best kept due to the cooperative benefits. From the perspective of game theory see Douglas Baird, Robert Baird and Randal Gertner, *Game Theory and Law* (Harvard University Press 1994) 51ff. The theory of the firm predicts that firms are organised in such a way to ensure that key parties with whom transactions are made keep their promises. Jonathan Macey, 'Public Choice: The Theory of the Firm and the Theory of Market Exchange' (1989) 74 Cornell Law Review 43. Another study found that individuals are less opportunistic than economic theory assumes. Rather, there are 'indications that people care about fairness and consistency' (and not just financial gain). Tore Ellingsen and Magnus Johannesson,

philosophical,[100] psychological[101] and sociological[102] circles. It is should therefore come as no surprise that the validity of a promise in the bioethical scenario of frozen embryo disputes is also controversial.

To revisit the facts of *Evans*, Ms Evans stated that during one of the couple's appointments at the fertility clinic, she enquired about egg freezing, whereupon she was told that she would have to go to another IVF clinic for those services.[103] Mr Johnston apparently made clear and unequivocal promises to Ms Evans on 10 October 2001 regarding the use of the embryos, according to evidence she submitted.[104] Nonetheless, a cross-examination by counsel for Mr Johnston provided some contrary evidence: 'Ms Evans accepted that Mr. Johnston was not telling her in terms that she could always use the embryos but seeking to reassure her that they were not going to split up'.[105] This would indicate ambiguity, and the question becomes how clear and unambiguous promises or assurances need to be relied upon for the purposes of estoppel. The possible stress of cross-examination may have meant Ms Evans was not able to optimally communicate her position.[106] Nevertheless, Wall J concluded that Mr Johnston's assurances were not tantamount to clear, unequivocal representations that he 'would never withdraw his consent for their use'.[107] On the basis of Schedule 3 of the 1990 Act, this had to be the correct decision.

The particular wording required for a promise to be effective in frozen embryo disputes based on promissory estoppel is unclear. Even if the words 'I promise' are used, it will only carry the function of promising and may not be conclusive. As Rawls queries, 'I think that one would question whether or

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'Promises, Threats and Fairness' (2004) 114 The Economic Journal 397, 417. Macroeconomic theory holds that broken promises made by state actors can lead to capital flight, credit contraction, depressed internal spending. Daniel Heymann, 'Macroeconomics of Broken Promises' in *Macreconomics in the Small and the Large: Essays on Microfoundations, Macroeconomic Applications and Economic History in Honor of Axel Leijonhufvud* (Roger Farmer ed, Edward Elgar Publishing 2009) 81.

[98] John Rawls, *A Theory of Justice* (Harvard University Press 1971) 342-50, in which he argues that promises are made possible by social and normative practices and rules. Joseph Raz, 'Promises and Obligations' in *Law, Morality and Society: Essays in Honour of H.L.A. Hart* (HLA Hart, Peter Hacker and Joseph Raz eds, Oxford University Press 1977) 210; Patrick Atiyah, *Promises, Morals, and Law* (Oxford University Press 1981).

[99] Elinor Ostrom, James Walker and Roy Gardner, 'Covenants with and without a Sword: Self-Governance Is Possible' (1992) 86(2 American Political Science Review) 404.

[100] David Hume, *A Treatise on Human Nature* (first published 1740, Dover 2003) 367-374; Thomas Hobbes, *Leviathan: Volume 1* (first published 1651, Pacific Publishing Studio 2011) 79-89; Michael Smith, 'The Value of Making and Keeping Promises' in *Promises and Agreements: Philosophical Essays* (Hanoch Sheinman ed, Oxford University Press 2011) 198.

[101] Norbert Kerr and Cynthia Kaufman-Gilliland, 'Communication, Commitment, and Cooperation in Social Dilemma' (1994) 66(3) Journal of Personality and Social Psychology 513.

[102] David Sally 'Conversation and Cooperation in Social Dilemmas: A Meta-Analysis of Experiments from 1958 to 1992' (1995) 7(1) Rationality and Society 58.

[103] *Evans* (HC) (n 2) [47] (22)-(25).

[104] *Evans* (HC) (n 2) [47].

[105] *Evans* (HC) (n 2) [59].

[106] See Stanley Brodsky, *Coping with Cross-Examination and Other Pathways to Effective Testimony* (American Psychological Association 2004) for a discussion of the challenges of cross-examination.

[107] *Evans* (HC) (n 2) [281].

not he knows what it means to say "I promise" (in the appropriate circumstances)'.[108] There are too many complexities and permutations to consider every situation of what might constitute a valid promise for the purposes of estoppel. This would be a question of fact for a court to consider. The common understanding in law is that a promise on its own is merely a statement of intention,[109] and without the other elements of estoppel no obligation is created. This can be understood as a protective mechanism, allowing for a degree of flippancy in conversation. It is uncontroversial to state, as US legal scholar Jack Balkin reflects, that 'we mean more than we say'[110] and 'say more than we mean'.[111] Unintended consequences not envisioned by the promisor may arise. Balkin elaborates that 'words seem to perform tricks that we had not intended, establish connections that we had not considered, lead to conclusions that were not present to our minds when we spoke or wrote.'[112] A rigorous sociolinguistic interrogation of which promises would be sufficient in estoppel is beyond the scope of this thesis. However, it can be noted that Wall J found 'extremely helpful'[113] Robert Walker LJ's consideration that a factor in assessing an assurance would be its 'quality'.[114] Such an assessment of a promise would therefore involve a question of fact, as context becomes important. Some of the possible tests to help determine what type of representation is required in order for a representee to rely upon them for the purposes of estoppel will now be explored in the context of frozen embryo disputes.

2.4.1 Intention and risk

In reference to estoppel by representation, Sean Wilken and Karim Ghaly have noted that an 'estoppel may arise if it can be shown that the representor intended its representation to be acted upon'.[115] An objective test is generally involved in assessing the intentions of the representor in making the assurances,[116] although potential limits to the applicability of this test in the context of frozen embryo disputes will be discussed. Notwithstanding, it will mean that the more formal the representation, the more likely it will give rise to an estoppel. Thus, flippant and non-committal representations will carry less weight. However, the crucial issue becomes deducing what the gamete providers' intentions

[108] John Rawls, 'Two Concepts of Rules' in *Studies in Utilitarianism* (Thomas Hearn Jr ed, Appleton-Century-Crofts 1971) 214
[109] Atiyah (n 98) 101.
[110] Jack Balkin, 'Deconstructive Practice and Legal Theory' (1987) 96 The Yale Law Journal 743, 777.
[111] ibid.
[112] ibid.
[113] *Evans* (HC) (n 2) [301].
[114] *Jennings* (n 84) [44] quoted in *Evans* (HC) (n 2) [300]. This was a case of proprietary estoppel, as Wall J recognised but still found helpful to discuss in the context of promissory estoppel. *Evans* (HC) (n 2) [300].
[115] Sean Wilken and Karim Ghaly, *The Law of Waiver, Variation and Estoppel* (3rd edn, Oxford University Press 2012) 159. See also *Hopgood v Brown* [1955] 1 WLR 213, 224 (Evershed MR); *Hunter v Senate Support Services Ltd* [2004] EWHC 1085 [73] (John Randall QC).
[116] *Thorner* (n 70) [5].

would have been in the knowledge that they would separate or that there would be a significant risk they would separate. Lord Walker observed in cases in which proprietary estoppel was established 'the Claimant believed that the assurance on which he or she relied was binding and irrevocable'.[117]

Neither the High Court nor the Court of Appeal in *Evans* specifically referred to either parties' intentions in making representations in *Evans*, but Wall J did consider that Ms Evans was pursuing the only 'realistic course'[118] open to her; and that Mr Johnston's assurances 'played a part in what she did', but were not 'critical'.[119] Without the representations Wall J stated, 'I think she would have gone ahead with the treatment in any event'.[120] This interrogation attempted to strike at the heart of whether or not a representation was actually relied on.[121] Moreover, it should be noted whether Wall J's reflection bore in mind the burden of undertaking treatment itself, a point which will be discussed with reference to detriment in the following chapter. Suffice to say at this point, some have argued that women might reconsider treatment were they to be fully informed of the physical and emotional demands and toll of IVF and associated procedures.[122] Elise Bant and Michael Bryan argue cogently, the common theme underpinning the various doctrines of estoppel (including promissory and proprietary) 'is the law's concern to respond appropriately to, and not to reward, undue risk-taking on the part of claimants in a non-contractual context'.[123] IVF involves risk, and perhaps Wall J presupposed that the risk Ms Evans consented to entailed not only failed medical treatment but also the consequences of a failure of relationship. This notion will be explored below in the context of prenuptial agreements.

The issue of intention in representations was analysed in the Supreme Court of Israel in *Nahmani* where Tal J discussed a legal approach for tackling the dilemma of whether the couple would have pursued treatment in the knowledge of a future break-up:

> The law reconstructs a person's intentions in two ways; presumed intention and imputed intention: presumed intention, according to experience of life and common sense, and according to the special circumstances of each case; imputed intention, when there is no way

[117] *Cobbe* (n 46) [66].
[118] *Evans* (HC) (n 2) [309].
[119] ibid.
[120] ibid.
[121] This point is made in Elizabeth Cooke, *The Modern Law of Estoppel* (Oxford University Press 2000) 83.
[122] Robyn Rowland, *Living Laboratories* (Indiana University Press 1992) 60.
[123] Elise Bant and Michael Bryan, 'Fact, Future and Fiction: Risk and Reasonable Reliance in Estoppel' (2015) 35(3) Oxford Journal of Legal Studies 427, 429.

> of assessing the presumed intention of the parties, and the law—for its own purposes—attributes to someone an intention without his knowledge, and maybe even against his will.[124]

Tal J thereby held in a majority that 'in the absence of explicit consent with regard to a case of separation, an intention should be imputed to the parties that no party can change his mind'.[125] Such an imputed intention would therefore trump the need for continuing consent. As to whether the female partner was pursuing the only realistic option available to her, Tal J in *Nahmani* adjudged (conversely to Wall J): 'It is difficult to assume that she would have agreed to undergo these treatments in the knowledge that her husband could change his mind at any time that he wished'.[126] Both judges seemed to base their observations on assumption rather than factual evidence.

The extent to which a representee is willing to rely on a representation, notwithstanding a risk that it would be withdrawn, will inevitably vary according to each case, and a broad inquiry to that end may be required. Questions should be raised as to whether either gamete provider expressed doubts regarding her obligations and the treatment, whether satisfactory enquiries were made concerning the representor's promise and whether enquiries were made beyond the representor, to healthcare or legal professionals. An objective approach in assessing risk was laid out by Lord Hoffmann in a case in which a taxpayer had been acting under a mistake of law when paying advance corporation tax:

> I would not regard the fact that the person making the payment had doubts about his liability as conclusive of the question of whether he took the risk, particularly if the existence of these doubts was unknown to the receiving party… the question of whether a party should be treated as having taken the risk depended upon the objective circumstances surrounding the payment as they could reasonably have been known to both parties, including of course the extent to which the law was known to be in doubt.[127]

If doubts became evident to healthcare professionals, there would be a duty to disclose information concerning the risks, even if the gamete providers did not wish to know about the risks.[128] Tom Beauchamp and James Childress relate *descriptive* and *evaluative* accounts of risk.[129] In the context of

[124] *Nahmani* (n 9) 42.
[125] *Nahmani* (n 9) 43. Tal J was alone in considering the notion of imputed intention.
[126] *Nahmani* (n 9) 42.
[127] *Deutsche Morgan Grenfell Group plc v Inland Revenue Commissioners and another* [2006] UKHL 49 [27].
[128] For a discussion of the duty to disclose risks in the context of negligence see Alasdair Maclean, *Autonomy, Informed Consent and Medical Law: A Relational Challenge* (Cambridge University Press 2009) 201.
[129] Tom Beauchamp and James Childress, *Principles of Biomedical Ethics* (5th edn, Oxford University Press 2001) 195.

IVF, there would be a duty on healthcare professionals to describe risks and take adequate steps to ensure gamete providers could comprehend them; and for this an objective test is more relevant.

2.4.2 The circumstantial component

The notion that the representation should not be binding due to 'changed circumstances' has been considered in some frozen embryos disputes. In one such dispute (albeit not considering estoppel), the Massachusetts Supreme Judicial Court held that due to 'significantly changed circumstances' a consent form the parties had signed could not be seen as intended to allow the woman to use the embryos.[130] Returning to *Evans*, Wall J applied a similar argument:

> He was not—nor could he be—committing himself for all time. In the field of personal relationships endearments and reassurances of this kind are commonplace, but they do not — nor can they—have any permanent, legal effect. They certainly cannot bind Mr. Johnston in what were totally changed circumstances, namely his separation from Ms Evans. [131]

With respect, it is submitted that Wall J overstates the evidence that the circumstances had changed 'totally'—Ms Evans still intended to undertake IVF and sought to achieve a pregnancy using the embryos in storage. Due to her cancer treatment, and following medical advice she had to wait two years to elapse before implantation could take place.[132] These particular circumstances existed for almost eight months before Mr Johnston resiled.[133] The circumstances surrounding the treatment undertaken were relevant to show a binding representation. The observation by Tal J at the first hearing of *Nahmani*[134] is persuasive in this debate, and points to the significance of the integral nature of the treatment:

> If both parties did not think about a possible change of circumstances, this means that they also did not think about stages and changes on the way, but about the final goal… the wife acted in reliance on what she thought was an agreement 'to the end'; and the wife changed her position, on the basis of the consent to that final goal.[135]

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[130] *AZ v BZ* 725 431 Mass 150 (2000) 158.
[131] *Evans* (HC) (n 2) [306].
[132] *Evans* (HC) (n 2) [88].
[133] *Evans* (HC) (n 2) [91].
[134] *Nahmani* (n 20) 485. At this hearing Strasberg-Cohen J represented the majority judgment, which allowed Daniel Nahmani's appeal and reversed the order of the Haifa District Court to release the embryos for Ruth Nahmani to use.
[135] *Nahmani* (n 20) 53.

Although Tal J surmises that the couple did not (informally) think about the stages and changes on the way of treatment; nonetheless, that Ms Nahmani embarked on an arduous medical procedure, with significant undertaking, without receiving formal representation that she might be required to discontinue in the event of a relationship breakdown, indicates she did rely on Mr Nahamni's representation regardless of the circumstantial changes.

Tal J highlights that although the circumstances of the original agreement had changed, 'the husband is also estopped with regard to this argument (enforceability of contract), since it is he who has changed the situation'.[136] If the 'changed' 'situation' here refers to the relationship breakdown, then it could be argued it is more difficult to justify estoppel, since the causes of relationship breakdown can be varied and complex, and to rule against him on this basis would be harsh. Moreover, the partner seeking implantation could also be the one to end the relationship. The unconscionability of *changing* circumstances will be considered further in section 2.6 of this chapter.

Alternatively, it could be queried whether the female partner would have sought treatment elsewhere absent the representation. This was the line of questioning Wall J also employed, considering that it would have been unlikely that Ms Evans could have found alternative treatment due to time constraints.[137] In terms of assessing Ms Evans' reliance on the representations, Wall J adopted too narrow a test. Robert Goff J (as he then was) provided a more authoritative approach utilising a wider test from an estoppel by convention case, *Amalgamated Investment & Property Co Ltd (In Liquidation) v Texas Commerce International Bank Ltd*,[138] concerning the guarantee of loans:

> [I]n my judgment, no bar to a conclusion that the other party's conduct was so influenced, that his conduct did not derive its origin only from the encouragement or representation of the first party. There may be cases where the representee has proceeded initially on the basis of a belief derived from some other source independent of the representor, but his belief has subsequently been confirmed by the encouragement or representation of the representor. In such a case, the question is not whether the representee acted, or desisted from acting, solely in reliance on the encouragement or representation of the other party; the question is rather whether his conduct was so influenced by the encouragement or representation… that it would be unconscionable for the representor thereafter to enforce his strict legal rights.[139]

[136] *Nahmani* (n 20) 54.
[137] *Evans* (HC) (n 2) [308].
[138] [1982] QB 84 (CA) (Civ).
[139] ibid 104 (Robert Goff J).

Rather than only considering whether Mr Johnston's representations were not factually causative, the breadth of Goff J's test lies in its scope to find whether Mr Johnston's representations provided 'encouragement' to Ms Evans to receive treatment. The sense of belief and reliance is also drawn out in Lord Walker's observation in *Cobbe* that for a successful estoppel to be raised, in a proprietary context, the following is required: 'the claimant believed that the assurance on which he or she relied was binding and irrevocable.'[140] The vital role belief and encouragement play should be recongised in frozen embryo disputes, whether promissory or proprietary estoppel are relied upon.

Another approach would be to evaluate the reliance factor in the event the roles of representor and representee were interchanged, i.e. as Tal J posited, 'Can it be presumed that he would have refrained from (pursing treatment)… had he known that he could not subsequently change his mind?'[141] Tal J concluded not, since men also do not refrain from sex on the basis that they will not be consulted later with regard to an abortion.[142] Predictably, dissenting judge Zamir J took the opposite view regarding Mr Nahmani (Daniel):

> Let us assume that before the procedure began, Daniel was asked as follows: if during the procedure, but before implantation of an ovum, a serious dispute will break out between you and Ruth, which will lead you to a complete separation and serious animosity, would you, even in such a situation, consent to implantation of the ovum, which would make you and Ruth joint parents of a child? In my opinion, Daniel's answer, as a reasonable person, would be no. And if he were asked before the start of the procedure as follows: assume that after you separate from Ruth, as a result of a serious dispute of this kind, you establish a new family for yourself and even have a child of your own with your new partner. Would you consent to implantation of the ovum, notwithstanding all this? Again, in my opinion, Daniel's answer would be: no and no.[143]

The contention can be framed as whether the questioning should revolve around whether consent to implantation would have occurred in the knowledge of a failed relationship, or whether consent to treatment (continuing to implantation) would have occurred in the knowledge of the risk of a failed relationship. The latter questioning should be more persuasive, since it is important to assess the obligations of parties to one another at the time representation(s) are made, and subsequently relied upon; not from a retrospective view taken once the dispute occurs. However, if the appreciation is

[140] *Cobbe* (n 46)[66].
[141] *Nahmani* (n 9) 42.
[142] *Nahmani* (n 9) 42.
[143] *Nahmani* (n 9) 148.

that the party not seeking implantation should bear the *risk* that he may change his mind, it could be countered equally that the party seeking implantation should also bear such a risk. That such similar reasoning can be provided for both sides presents shades of a zero-sum game—a theme which reverberates throughout this thesis, and is the primary reason frozen embryo disputes are considered hard cases. The reliance that embarking on treatment in the belief that it will continue however is favoured as the stronger reliance in my thesis, and appears to be the more consistent line taken in *Amalgamated Investment*. The significance of belief that treatment will continue is also drawn out in considering the implications of a representor making a representation to embark upon treatment.

2.4.3 Implied representations

A further approach to assess reliance on the representation(s) would be to consider what was implicitly held in the representation(s). This was the approach (not in reference to an estoppel argument) taken by the Superior Court of Pennsylvania in a frozen embryos dispute in which the embryos were awarded to the woman seeking implantation:

> We believe that Husband implicitly agreed to procreate with Wife when he agreed to undergo IVF, signed the consent form, provided sperm for the creation of the pre-embryos, and agreed to the fertilization causing the pre-embryos to be created. The use of the pre-embryos was never made contingent upon the parties remaining married.[144]

Similarly, Goldberg J held in *Nahmani*: 'This pessimistic scenario [that of a marriage break-up] is contrary to the spirit of union implied by the very decision to travel together along the hazardous road of the in-vitro fertilization procedure'.[145] The implication of beginning the journey is therefore finishing the journey. The togetherness envisaged here appears to be one in which one party does not obstruct the other in their journey along the IVF road, regardless of whether they are now separated. The parties in *Evans* were not ever married, and the courts may place greater emphasis on a representation made within the context of the potentially greater enduring commitment of marriage.

Unconditional promises are more likely to give rise to estoppel.[146] This could also be applied to frozen embryo disputes to ask whether the assurances or promises were conditional on the relationship continuing, and whether they meant to continue indefinitely. A representation such as 'we'll never

[144] *Reber v Reiss* No 1351 EDA 2011 (Pa Super 2012) (Panella, Lazarus, and Strassburger JJ).
[145] *Nahmani* (n 9) 72 (Goldberg J).
[146] Arden LJ held that an assurance in a proprietary estoppel case was valid due to it being 'unconditional'. *Suggitt v Suggitt & Another* [2012] EWCA Civ 1140 [45]. A similar approach is taken in the US where the requirement is for a promise to be unconditional. *Norton v Hoyt* 278 F Supp 2d 214 (DRI 2003) 224 (Lagueux J).

break up, and even if we did, you can do whatever you like with the embryos', would be an example of an unconditional promise, which takes into account the contingency of breaking up, and should therefore represent a 'categorical assurance, in terms, that *whatever* happened between them she could use the embryos in order to become pregnant'.[147] However, Wall J noted that Ms Evans inferred such a categorical assurance from Mr Johnston's words.[148] Strasberg-Cohen J highlighted the issue in the *Nahmani* case in his dissenting judgment: 'Daniel did not promise Ruth that the procedure would continue whatever the conditions or circumstances, and such a promise cannot be inferred from his consent to begin the procedure when their family life was intact'.[149] Unsurprisingly, Tal J viewed the same issue through a converse lens: 'in the absence of an express stipulation between the parties concerning the fate of the ova in a case of separation, it should be presumed that their intention was that one party would be unable to stop the procedure against the will of the party interested in the implantation'.[150] Considering the equivalent merits of both judges' arguments, in the absence of a specific representation concerning a possible breakup, it would be unjust to reach a conclusion merely on the basis of what was not said in this context. The unconscionability of specifically not referring to the possibility of a break-up will be considered in section 2.6.

Reliance will therefore likely be stronger for representations which are more detailed and take into account relevant circumstances and contingencies. However, Strasberg-Cohen J's dissenting judgment that representations should contain a proviso that they will operate under any conditions or circumstances in order to be effective for estoppel is not necessarily required to show reliance.

Lord Neuberger, in *Thorner v Major*,[151] laid out an alternative test for assessing assurances or representations in proprietary estoppel where ambiguity existed:

> [T]here may be cases where the statement relied on to found an estoppel could amount to an assurance which could reasonably be understood as having more than one possible meaning. In such a case, if the facts otherwise satisfy all the requirements of an estoppel, it seems to me that, at least normally, the ambiguity should not deprive a person who reasonably relied on the assurance of all relief: it may well be right, however, that he should be accorded relief on the basis of the interpretation least beneficial to him.[152]

[147] *Evans* (HC) (n 2) [65] (Wall J) (emphasis added).
[148] ibid.
[149] *Nahmani* (n 9) 22. Cf. *Nahmani* (n 9) 149 (Zamir J).
[150] *Nahmani* (n 9) 45.
[151] [2009] UKHL 18 [86].
[152] *Thorner* (n 70) [86].

However, in the more recent case of *Kim v Chasewood Park Residents Ltd*, Patten LJ held that, 'If the statement is open to more than one reasonable interpretation (one of which is fatal to the estoppel defence) then the representee was not entitled to rely on what was said without further clarification and there is no basis for an estoppel'.[153] These possibly divergent *ratios* in the two most recent and authoritative judgments on the matter are yet to receive scholarly criticism, although this is unremarkable since equity must take into account circumstances and fairness on a case by case basis. Under an alternative statutory framework without the limitations of Schedule 3 of the 1990 Act, the unanimous decision in *Thorner* should be preferred in frozen embryo disputes. *Kim* concerned claims for arrears of rent and failure to pay service charges. The appellants were tenants who appealed against a decision that a management company was not estopped from seeking to recover ground rent. The agreement was specifically of a commercial nature, and as such was heard at the Chancery Division of the High Court[154] prior to reaching the Court of Appeal. *Thorner*, as noted above, in contrast, represented informal assurances between a man who worked substantially on his father's cousin's farm.[155] *Thorner* therefore is closer in nature to *Evans*, with both cases operating within a familial context,[156] and it is submitted would be of greater authority to show reliance, not least since the judgment is from the House of Lords.

Ms Evans could have argued that from her perspective Mr Johnston's representations were not open to more than one reasonable interpretation, and no other clarification was required to interpret his statements. This standard could be more relevant for promissory estoppel, with relevant *dicta* of the need for clear representations for this type of estoppel contained in *Woodhouse AC Israel Cocoa Ltd SA v Nigerian Produce Marketing Co Ltd*[157] in which Lord Hailsham required that the representation should be 'reasonably understood in the particular sense required'.[158] Moreover the representee should be 'justified in having no doubt that the words meant what (s)he took them to mean'.[159] This could be applied in the present case, as Ms Evans concluded that following Mr Johnston's continued assurances of his commitment to her, she 'simply accepted what he said and… (they) just carried on'.[160]

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[153] [2013] EWCA Civ 239 [23] (Patten LJ).
[154] *Chasewood Park Residents Ltd v Kim* [2010] EWHC 579 (Ch).
[155] *Thorner* (n 70) [1] [37].
[156] *Thorner* (n 70) [34].
[157] [1972] AC 741 (Lord Hailsham). The buyers requested to pay in Pounds sterling for cocoa for current and future trades, and the sellers accepted by letter. After sterling devalued significantly in relation to the Nigerian Pound, the buyers claimed that agreement in the sellers' letter enabled them to purchase the cocoa in sterling for the same nominal amount as the contract price in Nigerian pounds. The House of Lords confirmed that the agreement related to method of payment, not value. See also *Spiro v Lintern* [1973] 1 WLR 1002, 1010 (Buckley LJ).
[158] *Woodhouse* (n 157) 756 (Lord Hailsham LC).
[159] *Woodhouse* (n 157) 756 (Lord Cross).
[160] *Evans* (HC) (n 2) [47].

2.4.4 Silence

A further issue in relation to representations is assessing silence, an issue which could be of relevance to a frozen embryo dispute involving proprietary estoppel. It is predictable due to the equitable nature of estoppel that silence on the part of the representor, whilst the other party pursues IVF treatment, might be considered part of the argument. Denning MR pointed to the place of silence in *Amalgamated Investment and Property Co*:

> When the parties to a transaction proceed on the basis of an underlying assumption - either of fact or of law - whether due to misrepresentation or mistake makes no difference - on which they have conducted the dealings between them - neither of them will be allowed to go back on that assumption when it would be unfair or unjust to allow him to do so. If one of them does seek to go back on it, the courts will give the other such remedy as the equity of the case demands.[161]

An 'underlying assumption' when considering the parties' dealings can encapsulate silence, and this could become another test utilised in estoppel arguments in frozen embryo disputes when all circumstances are taken into account: was there an underlying assumption the parties would use the embryos? Or was there an underlying assumption that one of the parties might change his/her mind after treatment had commenced? Silence would predictably be more applicable if proprietary estoppel rather than promissory estoppel were raised (as silence is not becoming to promise). An authoritative statement that silence can indicate a representation for the purposes of proprietary estoppel was provided by the House of Lords in *Thorner*.[162] Thus, the rest of this subsection will explicitly consider whether the silence or acquiescence of one party could estop him/her preventing use of the embryos, with the sense this argument is much more relevant to proprietary rather than promissory estoppel.

Complete silence is unlikely to be an issue in frozen embryo disputes since both parties have to formally consent to pursuing treatment with a fertility clinic. Silence on the part of the representor in the knowledge that there may be a mere 'possibility' the embryos could not be used, and that his/her original representation continues to encourage the representee to continue pursuing treatment should be considered for the purposes of estoppel. The knowledge that the other party will undertake

[161] *Amalgamated Investment* (n 5) 122.
[162] *Thorner* (n 70) [55] (Lord Walker).

or will continue undertaking significant investment to procure IVF treatment as a result of the representor's silence is key.

Two landmark cases have addressed the issue of silence in estoppel cases. The first, *Willmott v Barber*[163] was a proprietary estoppel case in which a lessee sub-let some land in breach of covenant. The sub-lessee built on the land extensively, relying on an option to purchase the interest in the land, in mistaken belief. The issue was whether the landlord could object to the breach of covenant due to acquiescence. The case was one of mere silence where what had to be established was a duty that the landlord should speak.[164] The Court laid out a probanda for an estoppel involving silence to be raised successfully:

> In the first place the plaintiff must have made a mistake as to his legal rights. Secondly, the plaintiff must have expended some money or must have done some act (not necessarily upon the defendant's land) on the faith of his mistaken belief. Thirdly, the defendant, the possessor of the legal right, must know of the existence of his own right which is inconsistent with the right claimed by the plaintiff. If he does not know of it he is in the same position as the plaintiff, and the doctrine of acquiescence is founded upon conduct with a knowledge of your legal rights. Fourthly, the defendant, the possessor of the legal right, must know of the plaintiff's mistaken belief of his rights. If he does not, there is nothing which calls upon him to assert his own rights. Lastly, the defendant, the possessor of the legal right, must have encouraged the plaintiff in his expenditure of money or in the other acts which he has done, either directly or by abstaining from asserting his legal right. Where all these elements exist, there is fraud of such a nature as will entitle the Court to restrain the possessor of the legal right from exercising it, but, in my judgment, nothing short of this will do.[165]

Therefore, it must be proved the representor 'has acted fraudulently, or that there has been such an acquiescence on his part as would make it fraudulent for him now to assert his legal rights'.[166] 'Fraudulently' means 'unjust' and 'cannot be explained in terms of concepts other than wrongdoing'.[167] Clearly the link between financial investment on land and the physical (and potentially financial) investment by gamete providers in IVF is tenuous. Nonetheless, if it could be shown in a frozen embryo dispute that, for example, the male had, silently, allowed the female to pursue

[163] [1880] 15 Ch D 96.
[164] Oliver J interpreted the case in this way in *Taylor* (n 84), 146.
[165] *Willmott* (n 72) 105-6 (Fry J).
[166] *Willmott* (n 72) 106 (Fry J).
[167] Stpehen Pitel, 'Principle in Contract Law: the Doctrine of Consideration' in *Exploring Contract Law* (Jason Neyers, Richard Bronaugh and Stephen Pitel eds, Hart Publishing 2009) 71.

treatment fraudulently, in a mistaken belief that he was committed to the relationship and the treatment, then such conduct should estop him from resiling a clear promise. Such conduct certainly could be viewed as unconscionable by an application of *Willmott*.[168]

In *Taylor Fashions Ltd v Liverpool Victoria Trustees Co Ltd* Oliver J doubted whether the *Willmott* probanda[169] needed to be always strictly applied in cases of estoppel by acquiescence.[170] In this case a tenant spent significant sums to improve business property, and the legal issue was whether an option to renew a lease on the property was void due to lack of registration under the provisions of the Land Charges Act 1925. Debate centred on whether estoppel bound the landlord from preventing renewal. Although it did not, Oliver J provided significant *dictum* on the issue which has led to the case being described as a 'watershed in the law of proprietary estoppel'.[171] Departing from *Willmott*, Oliver J held that knowledge that the other party's belief is a mistaken belief regarding their rights is not necessarily required, so long as there is active encouragement. Therefore, Oliver J stated:

> The fact is that acquiescence or encouragement may take a variety of forms. It may take the form of standing by in silence whilst one party unwittingly infringes another's legal rights. It may take the form of passive or active encouragement of expenditure or alteration of legal position upon the footing of some unilateral or shared legal or factual supposition. Or it may, for example, take the form of stimulating, or not objecting to, some change of legal position on the faith of a unilateral or a shared assumption as to the future conduct of one or other party. I am not at all convinced that it is desirable or possible to lay down hard and fast rules which seek to dictate, in every combination of circumstances, the considerations which will persuade the court that a departure by the acquiescing party from the previously supposed state of law or fact is so unconscionable that a court of equity will interfere.

The conclusion Oliver J reached is that in his silence, the representor has 'knowingly, or unknowingly… allowed another to assume to his detriment'.[172]

In a frozen embryo dispute, the question over silence could manifest in different ways. The representor may have been silent in relation to allowing the representee to pursue IVF treatment in the knowledge that he may change his mind, or the knowledge that she was unaware that he had the right to change his mind. Silence as acquiescence could be intended to encourage one party to pursue

[168] A further discussion of unconscionability is contained in section 2.6.
[169] *Willmott* (n 72) 147 (Fry J).
[170] [1982] QB (Ch) 133, 147.
[171] Kevin Gray and Susan Gray, *Elements of Land Law* (3rd edn, Butterworths 2001) 772.
[172] *Taylor* (n 84) 152.

treatment, in which case *dictum* from *Taylor* should become applicable. The corresponding need for fraudulent action per *Willmott,* which might involve misrepresentations to induce the other party to treatment, appears not necessary following *Taylor*. Nonetheless, a representor's silence about doubts he or she about the original agreement may be unintentional. The male not seeking implantation, in a US case argued that 'silence on the subject of disposition merely reflected the fact that they never brought up or discussed the issue, and he testified that the subject did not even cross his mind at the time'.[173]

The judge in *Taylor Fashions* affirmed that when mere silence on the part of the representor is involved, 'it is readily understandable that there must be shown a duty to speak, protest or interfere, which cannot readily be shown in the absence of knowledge or at least a suspicion of the true position'.[174] When and how such a duty arises is controversial.[175] An objective test was laid out in *Pacol Ltd & Ors v Trade Lines Ltd and R/I SifIV ('The Henrik Sif')*:

> [T]he duty necessary to raise an estoppel by silence or acquiescence arises where a reasonable man would expect the person against whom the estoppel is raised, acting honestly and responsibility, to bring the true facts to the attention of the other party known by him to be under a mistake as to their respective rights.[176]

A legal duty may arise if, as previously mentioned, one partner had doubts about the stability of the relationship and/or their long-term desire to use embryo(s) that may be created, and omitted to express that to the other partner.[177] In a frozen embryos dispute if a partner knew that the other was mistaken about his/her commitment it would be reasonable that he/she should bring this true fact to their attention.

There has been little discussion in frozen embryo disputes about the role of silence. Goldberg LJ in *Nahmani* enunciated that, 'The couple's silence should be interpreted as a repression of the possibility that the marriage would break down'.[178] The judge continues:

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[173] *Szafranski v Dunston* 34 NE3d 1132 (Ill App Ct 2015).[146].
[174] *Taylor Fashions* (n 84) 147.
[175] 'That duty has never been the subject of precise definition'. Elizabeth Cooke, *The Modern Law of Estoppel* (Oxford University Press 2000) 76. 'There is some controversy as to precisely when such a duty arises'. Wilken and Ghaly (n 115) 154.
[176] [1982] 1 Lloyd's Rep 456 (QBD) 465 (Webster J).
[177] The duty would arise as stated by Oliver J 'in a case of mere passivity, it is readily intelligible that there must be shown a duty to speak, protest or interfere which cannot normally arise in the absence of knowledge or at least a suspicion of the true position'. *Taylor* (n 84) 147.
[178] *Nahmani* (n 9) 72 (Goldberg J).

> They did not consider the possibility of continuing the procedure and the single parenthood of one of them, should they separate from one other. Attempting to fill this lacuna will not, in my opinion, be successful. It cannot be established that when the ova were fertilized, the couple mutually discounted the possibility of single parenthood, just as it cannot be established that their consent to fertilization of the ovum incorporated consent of both of them to single parenthood. [179]

The zero-sum game rears its head again, and for Goldberg J the answer to this normative lacuna in the law is not found in considering the representations themselves or lack thereof, but to consider the justice involved in terms of who has been harmed the most by the status quo being altered.[180] This was a point Panitch picked up on: 'the greater injustice would be to deny implantation to the spouse who detrimentally relied on the other word's and conduct'.[181]

It can be concluded at this point that verbal or written representations which encourage a gamete provider to pursue treatment will normally be more significant than silence. As Oliver J stated in *Taylor*, 'equity is not claimed because the landowner has stood by in silence while his tenant has spent money on his land. This is a case in which the landowner has, for his own purposes, requested the tenant to make the improvements'.[182] Therefore, it is submitted that silence over any significant doubts that the (future) embryos could be used, coupled with encouragement to pursue treatment, will provide necessary conditions for an estoppel case in a frozen embryo dispute. The representation is, however, never viewed in isolation; the next issue is whether the representation was *relied* on by the representee.

2.5 Does the availability of egg freezing affect her reliance on his assurances?

The fourth condition of estoppel is that 'there must be reliance on that promise or representation by the other party'. [183] The sense that a promise should be enforceable only if it has been relied upon has been criticised as an 'arbitrary limitation on the scope of promissory liability'.[184] Wall J did not appear to take into account the possibility that Ms Evans could have frozen her eggs since 'by undergoing IVF with Mr. Johnston (she was) taking the only realistic course was open to her', [185] which is

[179] *Nahmani* (n 9) 72.
[180] *Nahmani* (n 9) 73-8 (Goldberg J).
[181] Panitch (n 1) 574.
[182] *Plimmer v Wellington Corp* [1884] 9 App Cas (PC) 699, 712 (Hobhouse PC) quoted in *Taylor* (n 84) 149.
[183] *Evans* (HC) (n 2) [303].
[184] Smith (n 50) 243.
[185] *Evans* (HC) (n 2) [309].

understandable since the technology was still novel at the time.[186] The emergence of egg freezing (also known as oocyte cryopreservation) leads to three important issues for estoppel which shall be addressed in this section. First, whether egg freezing does affect the woman's reliance on the man's representation. Second, how the somewhat uncertain nature of egg freezing should be factored into this discussion. Third, whether mandatory counselling would affect the first point.

With regard to the question of whether it is reasonable for a representee to whom representations have been made to take the representations at their face value and rely on them, it would not in general be open to the representor to say that he or she had not intended the representee to rely on them.[187] In *Evans*, Ms Evans argued that Mr Johnston's assurances[188] dissuaded her from 'insuring against the breakdown of their relationship';[189] indicating a forbearance. Such an 'insurance' might have taken the form of Ms Evans freezing unfertilised eggs or by storing eggs fertilised with a donor's gametes.[190] In the context of proprietary estoppel, the first response to this is whether there is 'a sufficient link between the promises relied upon and the conduct which constitutes the detriment'.[191] One manner to assess this is to apply the questioning to the claimant to ascertain whether there had been reliance from another estoppel case in which the claimant had acted as the defendant's chauffeur in return for pocket money, living and clothing expenses and a promise that he would inherit the respondent's business:

> 'One question, Mr Wayling. Assuming you were in the Royal Hotel Bar, before Dan's death and Dan was there, if Dan had told you that he was not going to give the Royal Hotel to you but to somebody else after his death, what would you have done?
> A. I would have left.'[192]

A similar question could have been put to Ms Evans: 'If Mr Johnston had at least told you there was a chance that he might change his mind and not allow you to use the embryos, what would you have done?' The point of this questioning is twofold: to indicate whether or not the gamete provider would have proceeded with unnecessary treatment, including any physical, emotional and financial

[186] Some of the first reports of early mainstream success include Carlos Quintans and others, 'Birth of Two Babies Using Oocytes That Were Cryopreserved in a Choline-Based Freezing Medium' (2002) 17(12) Human Reproduction 3149; Andrea Borini and others, 'Pregnancies and Births after Oocyte Cryopreservation' (2004) 82(3) Fertility and Sterility 601.
[187] John Cartwright, *Misrepresentation, Mistake and Non-Disclosure* (3rd edn, Sweet & Maxwell 2012) 550.
[188] *Evans* (HC) (n 2) [13].
[189] *Evans* (HC) (n 2) [13].
[190] ibid.
[191] *Wayling* (n 65) 173 (Balcombe LJ). See a comparable discussion of the relevance of a link from the perspective of a trust is in *Eves v Eves* [1975] 1 WLR 1338, 1345 (Brightman J).
[192] *Wayling* (n 65).

disadvantage to that person. Second, to indicate whether or not the person would have sought alternative methods of reproduction.

The second point leads to a further issue noted by Wall J: 'both egg freezing and AID would have opened up the question of the durability of her relationship with Mr. Johnston'.[193] As the fertility sister at the clinic confirmed, 'if oocyte freezing had been raised, it would have suggested to me that there was some doubt about them seeking treatment as a couple'.[194] Her concern was derived from the (then) law,[195] section 13(5) of the 1990 Act, which required that the 'welfare of any child who may be born as a result of the treatment (including the need of that child for a father)' be taken into account. Wall J specifically referred to this law, which indicated the potential need for a father.[196] The relevance for an estoppel case is that it could show that the party seeking implantation relied to a greater extent on the representations in the face of reduced alternative reproductive options.

The statutory welfare of children requirement was criticised as discriminatory by the House of Commons Select Committee on Science and Technology.[197] Elaine Sutherland, an academic specialising in child and family law, also criticised the previous regime as 'shamelessly couple based' founded on a 'vague notion of the welfare of the resulting child'.[198] Although single women were still treated with

[193] *Evans* (HC) (n 2) [308].
[194] *Evans* (HC) (n 2) [53] (24).
[195] This section has been amended by section 14(2)(b) of the Human Fertilisation and Embryology Act 2008 which now requires that the 'welfare of any child who may be born as a result of the treatment (including the need of that child for supportive parenting)' be taken into account, indicating that presence of a legal father may not necessarily be required. The HFEA has elaborated that supportive parenting is: 'a commitment to the health, well being and development of the child. It is presumed that all prospective parents will be supportive parents, in the absence of any reasonable cause for concern that any child who may be born, or any other child, may be at risk of significant harm or neglect. Where centres have concern as to whether this commitment exists, they may wish to take account of wider family and social networks within which the child will be raised' (Human Fertilisation and Embryology Authority, *Code of Practice* (8th edn, HFEA 2012) [8.11]). This law reflected direction from the Warnock Committee: '[A]s a general rule it is better for children to be born into a two-parent family, with both father and mother' *Report of the Committee of Inquiry into Human Fertilisation and Embryology (Warnock Report)* (Cmnd 9314, 1984) [2.12]. Wall J accordingly noted that the welfare of any child be taken into account
[196] *Evans* (HC) (n 2) [37].
[197] 'The welfare of the child provision discriminates against the infertile and some sections of society, is impossible to implement and is of questionable practical value in protecting the interests of children born as a result of assisted reproduction… The welfare of the child provision has enabled the HFEA and clinics to make judgments that are more properly made by patients in consultation with their doctor. It should be abolished in its current form'. Select Committee on Science and Technology, *Fifth Report of Session 2004–5, Human Reproductive Technologies and the Law, vol 1* (HC 2005) [24]. 'The requirement to consider whether a child born as a result of assisted reproduction needs a father is too open to interpretation and unjustifiably offensive to many. It is wrong for legislation to imply that unjustified discrimination against "unconventional families" is acceptable.' [101].
[198] Elaine Sutherland, '"Man Not Included" - Single Women, Female Couples and Procreative Freedom in the UK' (2003) 15(2) Child and Family Law Quarterly 155, 156. Further criticism is noted in John Eekelaar, 'Beyond the Welfare Principle' (2002) 14(3) Child and Family Law Quarterly 237; Emily Jackson, 'Conception and the Irrelevance of the Welfare Principle' (2002) 65 Modern Law Review 176; Julie Wallbank, 'Reconstructing the HFEA 1990: Is Blood Really Thicker Than Water?' (2004) Child and Family Law Quarterly 387.

IVF, they did nonetheless face discrimination on the basis of marital status.[199] Sally Sheldon has commented that the storage of eggs by freezing is a 'sensible precaution', and withholding this option could force the female gamete provider into reliance on the man:

> But why should requesting storage of eggs or embryos created via donor insemination be taken as a lack of confidence in a current relationship liable to ring warning bells for the welfare of the child, rather than a sensible precaution based on the indisputable fact that even those relationships which we are quite convinced will last, very often do not? And where gametes are stored as insurance for the future, even if we are committed to preserving the requirement that the welfare of the future child be considered, why should this determination not be made at the time of implantation?[200]

In the absence of reproductive alternatives by law, therefore, estoppel can ensure that the last remaining alternative (continuance with the existing IVF treatment) is not denied the party seeking implantation. Section 14(2)(b) of the Human Fertilisation and Embryology Act 2008 amended section 13(5) of the 1990 Act, and the current law seemed to indicate that a party in a position such as that of Ms Evans may no longer be deprived of an opportunity to pursue reproduction for fear of showing a father might not be present, so long as it can be shown that she (and any other potential partner) can provide commitment for 'supportive parenting'.[201] However, an empirical study reflecting on the impact of the 2008 Act found that although few people are denied access to IVF on the basis of 'welfare of the child' assessments, discretion at a clinical level over the issue still exists,[202] with 'lingering concerns in some clinics regarding the lack of a suitable male role model for their children'.[203]

A further point to consider is the availability of estoppel in the event that the party seeking implantation does freeze their gametes. Imogen Goold and Julian Savulescu reflected that if Ms Evans had frozen her eggs the situation 'would be profoundly different'.[204] Clearly, she would have had another route available for genetic parenthood. However, egg freezing would not detract from her

[199] Darren Langdridge and Eric Blyth, 'Regulation of Assisted Conception Services in Europe: Implications of the New Reproductive Technologies for "the Family"' (2001) 23(1) Journal of Social Welfare and Family Law 45, 53
[200] Sally Sheldon, 'Evans v Amicus Healthcare; Hadley v Midland Fertility Services - Revealing cracks in the 'twin pillars'?'(2004) 16 Child and Family Law Quarterly 437,451.
[201] ibid.
[202] Sally Sheldon, Ellie Lee and Jan Macvarish, '"Supportive Parenting", Responsibility and Regulation: The Welfare Assessment under the Reformed Human Fertilisation and Embryology Act (1990)' (2015) 78(3) The Modern Law Review 461, 492.
[203] ibid 491.
[204] Imogen Goold and Julian Savulescu, 'In Favour of Freezing Eggs for Non-Medical Reasons' (2009) 23(1) Bioethics 27, 51.

reliance on Mr Johnston's representations if those eggs did not result in a successful pregnancy. Moreover, women may not wish to pursue a procedure in which uncertainties remain regarding efficacy and the possible harm to potential offspring. The American Society for Reproductive Medicine [205] recently stated that there 'are not yet sufficient data to recommend oocyte cryopreservation... because there are no data to support the safety, efficacy, ethics, emotional risks, and cost-effectiveness of oocyte cryopreservation for this indication' ,[206] thus:

> [I]t is too soon to conclude that the incidence of anomalies and developmental abnormalities of children born from cryopreserved oocytes is similar to those born from cryopreserved embryos. Oocyte cryopreservation will need to be studied in adequate numbers of patients for a sufficient length of time to determine whether the development of children is comparable to those conceived from other established assisted reproduction techniques.[207]

The American College of Obstetricians and Gynecologists agrees there is not yet adequate evidence to support egg freezing for women who wish to delay reproduction for non-medical reasons.[208] Even with an unfettered opportunity to freeze her eggs, the reliance factor may still be valid since a recent study found that frozen eggs resulted in a significantly lower rate of blastocyst formation than fresh eggs.[209] This does not mean that egg freezing cannot still be regarded as an insurance for genetic parenthood; the point is to prepare for a worst case scenario.

Due to the novelty of the technology, psychologist Jon Weil argues that in such a context 'considerations of contraception or technological interventions such as prenatal diagnosis impinge upon some of the most intimate, emotionally profound experiences'.[210] The decision whether to freeze one's eggs, as with one's embryos, may likewise be very much emotionally charged, and the option to the woman seeking implantation to proceed with treatment should not be hampered by uncertainty surrounding egg freezing. Whether counselling was offered to the gamete providers may make a difference in deciding whether a woman's choice to freeze her eggs or not demonstrates that

[205] The American Society for Reproductive Medicine is a non-profit professional organisation whose members work in the area of infertility and reproductive biology.
[206] The Practice Committees of the American Society for Reproductive Medicine and the Society for Assisted Reproductive Technology, 'Mature Oocyte Cryopreservation: A Guideline' (2013) 99(1) Fertility and Sterility 37, 42.
[207] ibid.
[208] American College of Obstetricians and Gynecologists, 'Oocyte Cryopreservation. Committee Opinion Number 584' (2014) 123(1) Obstetrics & Gynecology 221.
[209] Kara Goldman and others, 'Oocyte Efficiency: Does Live Birth Rate Differ When Analyzing Cryopreserved and Fresh Oocytes on a Per-Oocyte Basis?' (2013) 100(3) Fertility and Sterility 712, 716.
[210] Jon Weil, *Psychosocial Genetic Counselling* (Oxford University Press 2000) 142.

she relied on the man's assurances. Under the present regime counselling 'must be offered' [211] with a 'suitable opportunity'[212] for treatment services involving the use of the *in vitro* embryo, including IVF. However, use of counselling services is not mandatory.[213] In a discussion of whether there was reliance on assurances made, counselling could help promote informed consent, thereby strengthening the validity of any agreement made between gamete providers about the fate of the embryos, which in turn would potentially weaken the woman's reliance on the male's assurances. Counselling could provide a forum within which these ideas could be explored more fully between partners. Counselling could also provide evidence as to how informed parties were when making agreements, which might be referred to in court in the event of a dispute.

As egg freezing is a relatively new medical process the possibility of it leading to a successful pregnancy is likely to improve,[214] meaning the potential to freeze one's eggs may lead to arguments that the woman is less reliant on the man's representations. Egg freezing is becoming more socially acceptable, as the well-publicised moves of corporate funding of employee egg freezing illustrate,[215] and this could indicate greater acceptance that the availability of this technology indicates lack of reliance. However, since the current success rates of thawing an embryo leading to a live birth stand at between 5% and 15%,[216] the effect on reliance is still negligible. Moreover, Heidi Mertes has pointed out that women should feel under no pressure to take up the corporate offer of egg freezing.[217] Again, Weil's position would ring true—egg freezing is likely an emotionally profound experience, and women should not be found to have relied upon a representation less simply because they did not pursue an option open to pursue this new technology. Moreover, these points obviously become superfluous once women are in the position that they do not have the opportunity to access or retrieve more of their own eggs due to, for example, an oophorectomy, which Ms Evans herself underwent.

[211] Schedule 3ZA of the 1990 Act as amended by the 2008 Act.
[212] Schedule 13(6) of the 1990 Act as amended by the 2008 Act.
[213] Likewise, in the US contracts may stipulate that counselling should be provided, however, as in *Roman v Roman* 193 SW3d 40 (Tx App 2006), the gamete providers may not always follow through by seeing counsellor(s).
[214] Leyre Herrero, Mónica Martínez and Juan Garcia-Velasco, 'Current Status of Human Oocyte and Embryo Cryopreservation' (2011) 23(4) Current Opinion in Obstetrics & Gynecology 245-50.
[215] Mark Tran, 'Apple and Facebook Offer to Freeze Eggs for Female Employees' *The Guardian* (London, 15 October 2014) < https://www.theguardian.com/technology/2014/oct/15/apple-facebook-offer-freeze-eggs-female-employees> accessed 03 August 2016.
[216] Sophie Arie, 'Is Too Much Hope Placed in Egg Freezing?' (2015) 351 BMJ 5955.
[217] Heidi Mertes, 'Does Company-Sponsored Egg Freezing Promote or Confine Women's Reproductive Autonomy?' (2015) 32(8) Journal of Assisted Reproduction and Genetics 1205, 1208-9.

As a final point, it should be noted that the costs of egg freezing may be prohibitive[218] to some people. However, a woman such as Ms Evans, for whom a particular IVF cycle represents a last chance of genetic parenthood, especially as a result of other medical treatment, may be in a stronger position to request NHS funding for egg freezing following *R (on the application of Elizabeth Rose) v Thanet Clinical Commissioning Group*.[219] In this case a woman suffering from Chron's disease required chemotherapy which carried a high risk of making her infertile.[220] The CCG's decision not to provide funding for egg freezing was deemed unlawful since it demonstrated an impermissible departure from NICE guidelines[221] on the basis of its disagreement with NICE's medical or scientific rationale.[222] The extent of the *Thanet* ruling remains unclear, especially following *obiter dicta* by Jay J.[223] The latest NICE guidance recommends that egg freezing be offered if women are 'well enough to undergo ovarian stimulation and egg collection, and this will not worsen their condition, and enough time is available before the start of their cancer treatment'. [224] This guidance would likely be applicable to women who require the removal of pre-cancerous tumours from their ovaries, as did Ms Evans. [225]

On reflection, the assessment of whether there was reliance is complex and multi-layered, dependent on a range of factors, which include the manner in which representations were given, the time period between the representation and its withdrawal, how much treatment was undertaken in the interim period, and the reproductive opportunities lost and remaining to the gamete provider relying on the representation. Whether a sense of 'reproductive effort' is appreciated by the doctrine of estoppel will become clearer when considering unconscionability.

2.6 Unconscionability

The other reasons that resiling on a representation or promise that the embryos can be used for implantation in any circumstances is that it is 'worthless, immoral, or degrading'.[226] These are value-laden criteria and lead the thesis to a consideration of the unconscionability of resiling a promise, which is covered by the fifth condition of estoppel referred to by Wall J above. Unconscionability is

[218] Egg freezing packages can cost as much as £8,000. Carl Heneghan, 'Lack of Evidence for Interventions Offered in UK Fertility Centres' (2016) 355 BMJ 6295.
[219] [2014] EWHC 1182 (Admin).
[220] ibid [5].
[221] ibid [35]- [36].
[222] ibid [107].
[223] 'I am not ruling out the possibility that other reasons of a different nature could not lawfully be relied on'. ibid [107] (Jay J).
[224] NICE, *Fertility Problems: Assessment and Treatment* CG156 (NICE 2013) [1.16.1.10].
[225] *Evans* (HC) (n 2) [43].
[226] Smith (n 50) 255.

relevant in consideration of all types of estoppel.[227] In English law there is no general doctrine of unconscionability,[228] and elusive as this sounds Martin Dixon has argued that 'the court will find an estoppel without much looking'.[229] Emphasis will be placed on whether it is unconscionable for the male partner to resile from a representation that the embryos can be used for IVF treatment, since in most reported cases it is the male who has revoked consent.

2.6.1 Unconscionability and a comparison with prenuptial agreements

Notions of unconscionability may be garnered from jurisprudence in prenuptial agreements to inform how estoppel might be applied in frozen embryo disputes. How unconscionability operates in the variation of these agreements is considered now. Comparisons with prenuptial agreements must be qualified; unconscionability is not a necessary requirement of contract law as with estoppel. Nonetheless, there is scope for addressing the potential common ground that can exist in relation to unconscionability in both areas of law when considering frozen embryo disputes. Though 'estoppel cannot be said to a "contract" it is still concerned with the enforcement of promises where not to do so would be unconscionable and where they have caused reliance detriment'[230] argues James Edelman in considering that estoppel operates in a manner akin to contract without actually providing for a contractual claim. Thus, reading between these areas of law which are not ideologically completely foreign to one another carries the benefit of analysing agreements made within a familial context which attempt to forecast the distribution of interests in the event of a relationship breakdown. All frozen embryo disputes analysed in this thesis have been the result of relationship breakdowns, and a prenuptial agreement itself may address the disposition of embryos. Of course, frozen embryo disputes may not occur within marriage, as in the case of *Evans.* The existence of marriage was also important for the Massachusetts Supreme Judicial Court in *AZ*, which expressed hesitancy to become 'involved in intimate questions inherent in the marriage relationship'.[231] This position was used as a platform to develop an argument that for similar public policy reasons forced procreation could not be supported.[232] However, irrespective of marriage, questions of whether or not it is unconscionable for a gamete provider to resile his promise to the detriment of the other are still relevant; although

[227] *Gillett v Holt* [2001] Ch 210 (CA) 225 (Robert Walker LJ).
[228] John Cartwright, 'Protecting Legitimate Expectations and Estoppel in English Law' (2006) 10.3 Electronic Journal of Comparative Law 1, 5; Dixon (n 5) 412. In the US the influence of unconscionability as a doctrine has waned since the late 1970s in certain contexts. Anne Fleming, 'The Rise and Fall of Unconscionability as the "Law of the Poor"' (2014) 102(5) Georgetown Law Journal 1383, 1430-1431. This article concerned the regulatory regime for consumer lending to low-income households, especially in Washington D.C.
[229] Martin Dixon, *Modern Land Law* (6th edn, Routledge-Cavendish 2009) 433.
[230] James Edelman, 'Remedial Certainty or Remedial Discretion in Estoppel after Giumelli?' (1999) 15(2) Journal of Contract Law 179, 189.
[231] *AZ v BZ* 725 431 Mass 150 (2000) 161.
[232] ibid 162.

marriage may be viewed by some courts as evidence of greater commitment to pursue a course of conduct, due to the potential expectation of an enduring relationship, thereby furthering the argument of reliance and unconscionability to resile.

There are other distinctions between prenuptial agreements and agreements made by gamete providers. For the former, the distribution of assets post-break-up is fundamental, which usually distinguishes them from IVF agreements whose primary concern in anticipation of a potential dispute is allocation of dispositional decision-making regarding the embryos. Nonetheless, the pressure to sign an agreement as a means to an end; to proceed along the only route available to achieve procreation is comparable to a prenuptial agreement. For example, in *M v M (Prenuptial Agreement)*[233] a wealthier partner agreed to marry his partner to avoid his partner performing an abortion. She did not want to raise a child as a single mother.[234] The agreement to marry was made only on the basis that she signed a prenuptial agreement.[235] *M* illustrates a global trend[236] in family law—for many partners, the route to marriage or their desired family life has to be via a formal agreement. Connell J indeed relied on a notion of justice in *M* to award the wife a substantial sum when the couple divorced: 'In my view it would be as unjust to the husband to ignore the existence of the agreement and its terms as it would be to the wife to hold her strictly to those terms…'.[237] This demonstrates that justice (and therefore unconscionability) can override familial agreements, and potentially those in IVF which hold parties strictly to terms which ignore what has happened subsequent to the signature of the agreement.

In England & Wales strict enforcement of prenuptial agreements was traditionally considered against public policy.[238] However, in a landmark decision, the Supreme Court in *Granatino v Radmacher (formerly Granatino)*[239] ruled that prenuptial agreements could be given effect as long as they were entered into freely and with full appreciation of their implications.[240] The case was concerned with

[233] [2002] 1 FLR 654. In this case, following a divorce, the husband claimed the agreement should be enforced, whilst the wife claimed it was, at most, a material circumstance.
[234] ibid [26].
[235] Connell J elaborated: 'on the one hand this husband would not have married the wife unless she signed the agreement. On the other hand the wife signed the agreement because she was pregnant and did not relish single parenthood either for herself or for her child because she wanted to marry the husband. *M v M* [2002] 1 FLR 654 [26].
[236] William Statsky, *Family Law: The Essentials* (2nd edn, Thomson 2004) 3; *Contractualisation of Family Law-Global Perspectives* (Frederick Swennen ed, Springer 2015).
[237] *M v M (Prenuptial Agreement)* [2002] 1 FLR 654 [26]. See also *S v S (Matrimonial Proceedings: Appropriate Forum)* [1997] 1 WLR 1200 (HC) 1203-4 (Wilson J); *K v K (Ancillary Relief: Prenuptial Agreement)* [2003] 1 FLR 120 (HC) 131 (Smith QC).
[238] Pre-nuptial agreements 'must be of very limited significance'. *F v F (Ancilliary Relief: Substantial Assets)* [1995] 2 FLR 45, 66 (Thorpe J). Under section 25 of the Matrimonial Causes Act 1973 courts are provided with the discretion to make ancillary relief orders in relation to property and other assets following divorce.
[239] [2010] UKSC 42.
[240] ibid 42 [57], [60-61], [63], [68], [69-70], [75], [78], [124], [129], [171-173].

financial provision orders (formerly known as ancillary relief) following the breakdown of a marriage in which a prenuptial agreement had been arranged and signed in Germany.[241] Regarding the justice of such an agreement in envisaging future circumstances the Supreme Court held:

> [A]ttempts to address the contingencies, unknown and often unforeseen, of the couple's future relationship there is more scope for what happens to them over the years to make it unfair to hold them to their agreement. The circumstances of the parties often change over time in ways or to an extent which either cannot be or simply was not envisaged. The longer the marriage has lasted, the more likely it is that this will be the case.[242]

This dictum has also been interpreted as referring to an unconscionable outcome,[243] that is one in which the prenuptial agreement is enforceable, yet to enforce the agreement it would be considered unfair due to the change in circumstances affecting the parties. An 'unconscionable outcome' would be would be more of a novel approach in English law, as the courts more often refer to 'unconscionability of conduct'.[244] However the former approach of an unconscionable outcome was considered in *Gregson v HAE Trustees Ltd*,[245] a case concerning trust administration; and in *Jennings v Rice*,[246] where proprietary estoppel was considered necessary to avoid an 'unconscionable result'.[247] These different approaches could be influential in the determination of frozen embryos disputes were the consent requirements in Schedule 3 of the 1990 Act amended. If unconscionability is primarily related to conduct, then the questions over the manner in which gamete providers made representations to one another regarding the future use of embryo(s) would be significant. If unconscionability was linked to outcome, then the result of whether the party seeking implantation faced significantly less reproductive opportunities following the treatment; whether the person seeking implantation already had a genetic child; and whether the party not seeking implantation would be financially liable could be relevant factors a court to consider. The 1990 Act is also outcome oriented in that it permits variation of consent with little reference to how that consent was formed. This is the correct priority, as regardless of any unfairness associated with representation making, the potential outcome of IVF involves lifelong ramifications for both parties. Nonetheless, it is suggested

[241] The relevance of foreign law only needed to be considered in terms of whether the parties intended their agreements to be binding. *Granatino* (n 239) [74], [108].
[242] *Granatino* (n 239) [80] (Lord Phillips PSC).
[243] Jens Sherpe, 'Fairness, Freedom and Foreign Elements – Marital Agreements in England and Wales after *Radmacher v Granatino*' (2011) 23(4) Child and Family Law Quarterly 429, 513.
[244] *Cobbe* (n 46)[16].
[245] [2008] EWHC 1006 (Ch) [52].
[246] [2002] EWCA Civ 159.
[247] ibid [56] (Walker LJ). This was accepted by the Privy Council in *Knowles v Knowles* [2008] UKPC30 [27] (Brooke PC).

that a court would inevitably refer back to the conduct of the both parties when assessing unconscionability.

Prenuptial agreements also draw out other legal issues facing couples seeking infertility treatment and marriage in terms of notions of the more vulnerable[248] position of one of the bargaining parties. The majority considered in *Radmacher* that relationship breakdowns may lead to circumstances which are difficult for parties to envisage.[249] The point regarding *changing* circumstances mentioned is here again relevant to frozen embryo disputes—specifically the *extent* to which they have changed during one party's reliance on the other's assurances. It might be argued that the longer the agreement has lasted between gamete providers, the more likely it is that they will enter into unforeseen contingencies concerning their relationship and lives. The observation in *Radmacher* on this point is that it shows a greater scope for unconscionability to hold the parties to their agreement.[250] Changing circumstances are not necessarily attributable to the fault of the parties, and thus a court may be reticent to adopt such reasoning if relying on purely subjective consideration of unconscionability pertaining to the conduct of the parties.

However, this interpretation should not be applied in frozen embryo disputes. Rather, the understanding should be that the longer both gamete providers have expressed agreement to proceed with treatment using the frozen embryos, the more unconscionable it would be to vary consent. Whilst anticipating treatment, the partner seeking implantation may accrue hopes, plans and preparations. Also, the issue of reduced reproductive potential is especially poignant for women, and normally distinguishes frozen embryo and pre-nuptial agreements. Ms Evans was 29 at the time of her treatment.[251] The exact length of time Ms Evans had been pursuing IVF treatment is unknown from the reported facts. She attended the fertility clinic with Mr Johnston in July 2000[252] but the couple may have been making preparations for IVF beforehand. The last possible date she could have used the embryos (notwithstanding her need to wait after her cancer treatment) was July 2002, which is the date the clinic wrote to Ms Evans to advise her that Mr Johnston had withdrawn consent.[253] During those two years, the circumstances of reproductive opportunities Ms Evans faced would have changed significantly, as mentioned in Chapter 3. Her hopes and aspirations of becoming a mother using the

[248] As one American lawyer comments, 'premarital agreements adversely affect the economic and social well-being of many women; they contribute to the financial vulnerability of women as a class'. Gail Brod, 'Premarital Agreements and Gender Justice' (1994) 6 Yale Law Journal 229, 240.
[249] *Granatino* (n 239) [80].
[250] *Granatino* (n 239) [80].
[251] *Evans* (CA) (n 3) [4].
[252] *Evans* (CA) (n 3) [41].
[253] *Evans* (CA) (n 3) [91].

embryos over a period of time that was not insignificant should have made it unconscionable for Mr Johnston to vary his consent.

Circumstances will also dictate that the gamete providers seeking implantation (especially women) may be placed in a more vulnerable[254] position in relation to their reproductive potential, as described below. This can lead to the type of gendered power imbalances often prevalent in the prenuptial context, which Baroness Hale referred to in her dissenting opinion in *Radmacher*:

> Above all, perhaps, the court hearing a particular case can all too easily lose sight of the fact that, unlike a separation agreement, the object of an ante-nuptial agreement is to deny the economically weaker spouse the provision to which she—it is *usually* although by no means invariably she—would otherwise be entitled… In short, there is a *gender dimension* to the issue which some may think ill-suited to decision by a court consisting of eight men and one woman.[255]

Likewise, the gender dimension in frozen embryo disputes partly relates to the reduced opportunities of genetic parenthood a woman will have after completing IVF medical treatment if any of the embryos created cannot be used, as well as her greater 'reproductive effort'.

In an Irish frozen embryos dispute, *Roche v Roche*, which reached the Supreme Court of Ireland, a couple underwent IVF treatment resulting in six embryos.[256] Three of the six embryos were implanted in Ms Roche and a child was subsequently born. The remaining three embryos were frozen. In terms of the agreement between the couple, the status of these embryos was addressed only in a consent form in which both parties consented to the embryos being frozen. At this stage, flagging up the possibility that IVF is an integrated[257] treatment is also useful in reconsidering the circumstances surrounding the representations made. Counsel for the female gamete provider specifically portrayed IVF as a singular sequence in her estoppel claim.[258] More formality will be attached to a representation to embark on treatment if there is a higher perception that the stages of IVF treatment are part of a unified whole, making it more unconscionable to resile. Nonetheless, it was held that the husband, Mr Roche, was not estopped from revoking consent of the transfer of embryos to his wife after their separation.[259]

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[254] Anne Donchin understands this notion in terms of a woman's limited reproductive potential: 'her vulnerability to his preferences outstrips his vulnerability to hers. Her biological tie to progeny is more tenuous'. Anne Donchin, 'Toward a Gender-Sensitive Assisted Reproduction Policy' (2009) 25(1) Bioethics 28, 36.
[255] *Granatino* (n 239) [137] (Lord Phillips PSC). Emphasis added.
[256] *Roche v Roche* [2010] 2 IR 321 [22].
[257] The understanding that IVF is a singular treatment parties subscribe to will be explored in Chapter 5.
[258] *Roche* (n 256) [32].
[259] *Roche* (n 256) [40] (Denham J).

The nail in the coffin for Ms Roche's argument was that there had been agreement as to the disposition of the embryos, and therefore no representation from which estoppel could flow.[260] However, Murray CJ stated in *obiter dictum* that if a woman had no other children and 'her only reasonable prospect of bearing a child is the implantation of embryos'[261] then the woman could be entitled to implantation.[262] Unconscionability has been closely linked to reasonableness in English law in other contexts,[263] and it would seem to be clear in a frozen embryos dispute that it would be both more unconscionable and unreasonable to prevent use of the embryo(s) if a woman has no other children or chance of genetic childhood.

As in other contexts,[264] the precise boundaries of what may be considered a 'reasonable prospect' or 'reasonable' means are nebulous, especially in a context in which a person may be desperate to reproduce.[265] Guidance would be required, and questions might revolve around what probability of success bearing a child by other means would be required in order to favour the man's refusal, and whether it would be unconscionable to exclude women who would be considered otherwise fertile. Murray CJ's *dictum* leads to the question of what alternatives the representee has to achieve parenthood. At the Supreme Court of Tennessee Daughtrey J opined that the opportunity to adopt should be included in a balancing test.[266] The balancing of interests test was considered to be

[260] *Roche* (n 256) [36] (Denham J).
[261] *Roche* (n 256) 353.
[262] This followed Denham J's obiter dicta in the same case: 'If a party had no children, and had no other opportunity of having a child, that would be a relevant factor for consideration'. *Roche* (n 256) [38].
[263] It has been regarded as an adjudicative tool to enforce or void contracts. 'The time may come when this process of "construing" the contract can be pursued no further. The words are too clear to permit of it. Are the courts then powerless? Are they to permit the party to enforce his unreasonable clause, even when it is so unreasonable, or applied so unreasonably, as to be unconscionable? When it gets to this point, I would say, as I said many years ago: "there is the vigilance of the common law which, while allowing freedom of contract, watches to see that it is not abused"… It will not allow a party to exempt himself from his liability at common law when it would be quite unconscionable for him to do so'. *Gillespie Bros & Co Ltd v Roy Bowles Transport Ltd* [1973] QB 400 (CA) 415 (Denning MR).
[264] Laurie Fett, 'The Reasonable Expectations Doctrine: An Alternative to Bending and Stretching Traditional Tools of Contract Interpretation' (1992) 18 William Mitchell Law Review 1113, 1115 (concerning US insurance policies); Mayo Moran, *Rethinking the Reasonable Person: An Egalitarian Reconstruction of the Objective Standard* (Oxford University Press) 198-230 (for a feminist critique of the reasonable man test); Amanda Perkins, 'United States Still No Closer to Database Legislation' (2000) 22(8) European Intellectual Property Review 366, 368 (on legislation to protect databases from harmful extraction and unfair competition); Kellyann Everly, 'Reasonable Burden: The Need for a Uniform Burden of Proof Scheme in Reasonable Accommodation Claims' (2003) 29 University of Dayton Law Review 37, 65 (concerning US accommodation claims for disabled people); Wendy Bonython, 'Whose Reason is Reasonable? Reasonableness, Negligence, and the Mentally Ill Defendant' (2013) 3 Juridical Review 181 (concerning negligence law in relation to the mentally ill).
[265] Jim Cummins considers how people are 'obviously willing to try anything to conceive despite the restrictions politicians (mostly old and male) wish to impose on them. This is because the urge to reproduce- at any cost- lies deep in our evolutionary history'. Jim Cummins 'Unresolved and Basic Problems in Assisted Reproductive Technology' in *Assisted Reproductive Technology: Accomplishments and New Horizons* (Christopher De Jonge and Christopher Barratt eds, Cambridge University Press 2002) 108.
[266] *Davis v Davis* 842 SW 2d 588 (Tenn 1992) 604.

favourable for a woman who 'could not achieve parenthood by any other reasonable means'.[267] This indicates the significance placed on genetic parenthood when considering unconscionability.[268] The possibility of adoption as mitigating unconscionability to the party seeking implantation has been criticised by legal scholar David Theyssen as mistaken on '[f]irst, the assumption that children are easily obtained through adoption, and second the notion that the relationship between an adoptive parent and an adoptive child is the same as one between a biological parent and child'.[269] This echoes the Warnock Committee's consideration that the desire to have children 'cannot be assuaged by adoption'.[270] After the litigation at the Grand Chamber of the ECtHR commenced, Ms Evans reported to a newspaper that she would not adopt as she 'couldn't bear to go through another period of waiting for other people to decide if I could be a mum'.[271] It is beyond the scope of this thesis to fully consider the similarities and differences between adoption and genetic parenthood but, as mentioned, a lack of alternative options for genetic parenthood should be a factor relevant for considerations of unconscionability.

Dissenting Judges Traja and Mijovic̈ in *Evans* at the ECtHR also considered the place of alternatives to reproduction:

> While the applicant has no other way of having a genetic child, her partner, J, may have children with another woman and so satisfy his need for parenthood. The balancing exercise might lead to a different conclusion if the applicant had another child or the possibility of having a child without using J's genetic material.[272]

The consequence of not being able to use the embryos may also mean that the representee may seek to create more embryos via IVF again using gametes from another person. To that end she may face the challenge of finding a new partner or donor. This is 'not a decision to be taken lightly' and often requires counselling,[273] and such factors should be taken into account if a balancing exercise is utilised for the purposes of estoppel.

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[267] ibid.
[268] Unconscionability was not explored in *Davis*, but the balancing of interests test mentioned involves similar notions.
[269] David Theyssen, 'Balancing Interests in Frozen Embryo Disputes: Is Adoption Really a Reasonable Alternative?' (1999) 74(2) Indiana Law Journal 711, 725.
[270] *Report of the Committee of Inquiry into Human Fertilisation and Embryology (Warnock Report)* Cmnd 9314 (London, HMSO, 1984) [2.2].
[271] Rachel Halliwell, 'It Happened to Me: My Ex Destroyed My Embryos' *Daily Mail* (London, 3 August 2009) <http://www.dailymail.co.uk/femail/article-1203484/It-happened-My-ex-destroyed-embryos.html> accessed 9 February 2016.
[272] *Evans v United Kingdom* [2006] 43 EHRR 21 [O-16].
[273] Caroline Lorbach, *Experiences of Donor Conception: Parents, Offspring and Donors through the Years* (Jessica Kingsley Publishers 2003) 45

As mentioned at the beginning of this chapter, estoppel is an equitable doctrine and the equitable notion prevalent in estoppel is that it will intervene to the minimum extent to provide justice to the representee—the 'minimum equity', as commonly referred to.[274] The minimum equity could be not restricting a unique opportunity for genetic parenthood, or use of at least one of the embryos (if more than one had been frozen) for implantation. A just approach would on one level seem to allow for a flexible understanding of unconscionability, which allows judges to estop a gamete provider either on the basis of preventing the other gamete provider's last opportunity of genetic parenthood and/or for any greater investment of significant value he or she has undertaken (which will be described in the discussion of detriment below). Certainly the balancing of interests test would lend itself to a flexible approach, and indeed Denham J's *obiter dictum* that, 'All the circumstances would have to be considered carefully'[275] lends itself to such a test. Andrea Mulligan warned that *Roche* 'might well be read as encouraging judges to weigh up the competing interests at play and hand control of the embryos over to the "deserving party", in the absence of any guiding legal principle'.[276] To assist certainty, the main factor that should be considered is whether the woman has begun to receive any form of invasive[277] medical treatment for IVF (which will indeed always have happened once the embryos are extant). This would provide a clear demarcation from which gamete providers could base their expectations.

2.6.2 Unconscionability and expectations

The role that expectations play in determining whether it might be unconscionable for a gamete provider to resile from promises made will now be considered. Notwithstanding, conduct which foments reliance by the representor may make it unconscionable to resile. Such conduct may include verbal representations or even helping the representee to have treatment, with the implicit understanding that they are pursuing a course of conduct together. Reconsidering the *Taylor Fashions* and *Willmott* cases mentioned in section 2.3.3, Martin Dixon commented that in the former it is the representor's 'expectations and beliefs that are central—whereas in *Taylor Fashions v Liverpool Victoria Trustees Co* and subsequent cases, it is the *effect* of such representations on the claimant that is central'.[278]

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[274] *Crabb* (n 63) 198 (Scarman LJ); *Jennings* (n 84) [48] (Robert Walker LJ); *Sledmore v Dalby* [1996] 72 P & CR (CA) 196, 205 (Roch LJ); *Seward v Seward* [2014] WL 3535431 [10] (Monty QC).
[275] *Roche* (n 256) [38].
[276] Andrea Mulligan, 'Frozen Embryo Disposition in Ireland after Roche v Roche' (2011) 46 The Irish Jurist 202, 210.
[277] This would involve the insertion or injection of any foreign material into the body.
[278] Martin Dixon, 'Estoppel: A Pancea for All Wills?' (1999) Conveyancer and Property Lawyer 46, 51 (emphasis added).

Applying this reasoning to frozen embryo dispute cases, the *Willmott* criteria mentioned above could favour the gamete provider varying consent, so long as it could be shown that he or she did not exert undue pressure or misrepresent his or her position. Under the more flexible *Taylor Fashions* test, the gamete provider who does not vary consent may be preferred, as the court may give heed to the effect variation of consent has on him or her. And here the negative effect of a possible significant reduction in the other gamete provider's reproductive potential would be a key consideration. Conversely, had the agreement between gamete providers specified that the embryos would be destroyed under certain conditions, if those conditions are met and, one of the gamete providers resiles on his/her representation to seek implantation, then the effect of unwanted genetic parenthood would be scrutinised. The *Taylor Fashions* test would therefore primarily view frozen embryo disputes through the lens of conflicting interests between representor and representee, as opposed to seeing them as a gendered conflict, or a tussle between gamete providers over whether to implant.

Taylor Fashions can also be contrasted with *Cobbe*. In the latter case, the property developer's expectation was that following the granting of planning permission the outstanding terms of a contract for the sale of the property would be successfully negotiated leading to a formal contract. Lord Scott reasoned that this belief was speculative[279] since he regarded the representor as 'bound "in honour"' but not 'legally bound'.[280] Lord Walker also reiterated the principle that 'conscious reliance on honour alone will not give rise to an estoppel'.[281] By the same token, it could be argued that gamete providers take a risk regarding the 'honour' of the other party's conduct. Clearly, the more speculative a gamete provider's expectations are about the other's conduct or future conduct, the less likely estoppel would be generated for him/her.

Thus far estoppel has been interpreted in hypothetical isolation to existing law governing the storage and use of embryos. However, the existence of Schedule 3 of the 1990 Act (or similar legislative provisions in other jurisdictions) should indicate an absence of unconscionability due to the effect it would have on the knowledge of the parties. In other words, the parties should have been made aware by licensed fertility clinics in the UK that they are bound by law which allows them to vary consent once the embryos have been created. Lord Walker resolved that estoppel could not be founded in *Cobbe* because 'both parties knew that there was no legally binding contract, and that either was therefore free to discontinue the negotiations without legal liability - that is liability in

[279] *Cobbe* (n 46) [25], [27], [37].
[280] *Cobbe* (n 46) [27].
[281] *Cobbe* (n 46) [81].

equity as well as at law'.[282] The argument here from Martin Dixon is persuasive: it is difficult to establish unconscionability 'not because formality rules triumph over estoppel as a matter of public policy… but because the landowner cannot easily be said to have promised that formality would *not* apply when the parties intended but failed to comply with the required formality'.[283] Accordingly, what may be required to raise estoppel in a frozen embryos dispute is a formality assurance,[284] such as 'I promise you can use any embryo(s) created for treatment *and* this promise will be unaffected by the terms of our contract/legislative provisions'. Dixon gives the example of 'whatever happens' as a formality assurance example.[285] However Dixon also notes that although formality assurances are 'rarely express, the facts may yield such an assurance through implication'.[286] This may be ascertained from repeated assurances[287] and/or a pattern of conduct occurring over a significant period of time.[288]

In contrast to *Cobbe*, the agreement should have already been negotiated between the gamete providers and fertility clinic, allowing for all parties to accordingly pursue a course of conduct. Thus, *Taylor Fashions* becomes more applicable, in which there was 'fair certainty'[289] the agreed course of conduct would continue. Oliver J thereby stated that:

> [I]f A under an expectation created or encouraged by B that A shall have a certain interest in land, thereafter, on the faith of such expectation and with the knowledge of B and without objection by him, acts to his detriment in connection with such land, a Court of Equity will compel B to give effect to such expectation.[290]

Thus, the longer the representor has been encouraging and assuring the representee, the more unconscionable it should be for him or her to resile once IVF treatment has commenced.

In *Nahmani*, the Supreme Court of Israel did not consider such points, but Tal J queried whether the expectations of the gamete providers were 'legitimate'.[291] Tal J related that 'legitimate' should be defined by 'the system of values accepted by society', relating these expectations to the harm

[282] *Cobbe* (n 46) [91].
[283] Dixon (n 5) 417.
[284] A formality assurance can be defined as an assurance that a 'right will be granted despite the absence of the formality that is normally require to create, transfer or enforce that right'. Philip Pettit, *Equity and the Law of Trusts* (12th edn, Oxford University Press 2012) 219.
[285] Dixon (n 5) 419.
[286] Dixon (n 5) 418.
[287] *Gillett v Holt* [2001] Ch 210 (CA) 232.
[288] *Thorner* (n 70) [60] (Lord Walker).
[289] *Taylor Fashions* (n 84) 141.
[290] *Taylor Fashions* (n 84) 144.
[291] *Nahmani* (n 9) 41.

principle.[292] Tal J's definition of 'harm' was derived from an Israeli legal scholar: 'We should refrain... from choosing that option that harms reasonable expectations. The reasons for this are many. Harm to a reasonable expectation harms the sense of justice, disrupts proper social life, harms the public's faith in the law, and denies any possibility of planning behaviour'.[293] In an area of law which requires a 'judgment of Solomon',[294] it is highly uncertain what the 'values accepted by society' are in this context. This ambiguous test does not make clear whether the harm of unwanted parenthood should be offset by the benefit of parenthood. Tal J's pre-emptive conclusion on this point was that 'expectations should be fulfilled without the need for continuing consent in order to continue the procedure once the fertilization was carried out by consent'.[295] To support this position, the argument follows that 'expectation' was at one time mutual and united between the couple (at least on a formal basis). The expectation was that treatment would continue, through the difficulties, until completion. One party may have held a caveat to that expectation: in the event of a relationship breakdown the course pursued would be altered. But the *major* expectation was that treatment would continue, and this would have outweighed the minor caveat. In the event of a changed decision by one party, the only 'harm' that would be incurred, at least until a possible birth, would be to the gamete provider who chose to continue with treatment.

Expectation is also connected to detriment. Robert Walker LJ considered that it is:

> [T]he court's natural response is to fulfil the claimant's expectations. But if the claimant's expectations are uncertain, or extravagant, or out of all proportion to the detriment which the claimant has suffered, the court can and should recognise that the claimant's equity should be satisfied in another (and generally more limited) way.[296]

Applying this to *Evans*, it is clear that Ms Evans' expectations were neither uncertain nor extravagant. However, whether her expectations were out proportion to the detriment she suffered will become clearer upon closer inspection in Chapter 3.

2.7 Gender reflections

Sally Sheldon has argued that the 'pain and risks' involved in egg harvesting, which shall be discussed in detail in the next chapter, should not be 'overstated'. Without considering the pain and risks

[292] *Nahmani* (n 9) 41.
[293] Aharon Barak, 'Judicial Legislation' (1983) 13 Mishpatim 25, 71 in *Nahmani* 41.
[294] See section 1.3 of Chapter 1.
[295] *Nahmani* (n 9) 45.
[296] *Jennings* (n 84) [50].

involved, Sheldon concludes that this 'difference alone seems to me to be an unsatisfactory basis for granting control over such an important event in the lives of two individuals to just one of them'.[297] However, following from the argument introduced in Chapter 1, equalisation of gamete providers' positions undervalues the greater detriment of treatment to the female gamete provider in the context of estoppel.

Recognition of the greater female 'reproductive effort' in estoppel can fit in well with the possibility of a proprietary understanding of the embryo discussed in Chapter 4. As Sarah Chan and Muireann Quigley analogise:

> [I]f I were to take your flour and combine it with my eggs to bake a cake. The labour I have invested in the baking process and the creation of a substantially different new item from the mixed property ought to give me property rights over the resulting cake, although you would then have a claim against me for the value of your flour.[298]

Therefore, although both parties provided equivalent 'ingredients' at the start of the process, the woman alone has proceeded to provide extra effort to produce the cake, from which the eggs and flour cannot now be separated. To further this argument, it can be imagined that if the man should change his mind that he did not want his flour to be used for the cake, he should be estopped from destroying the cake. The analogy is of course limited: the existence of cake contrary to the man's wishes is not harmful. However, although the emotional, moral and possible financial burdens of an unwanted child may be substantial, these points should be considered less than the harm of unwanted childlessness. The issue of balancing harms is significant, as Panitch argued, while the harm to the gamete provider not seeking implantation 'amounts to a possibility of psychological discomfort' for the gamete provider seeking implantation the harm incurred would be 'that same discomfort along with the very real financial, physical, and emotional burdens of starting over again, possibly with a lower chance of success'.[299] The burdens which Panitch alludes to, which prove pivotal to the thesis that there are inequivalent positions in IVF, will be explored in the next chapter.

[297] Sally Sheldon, 'Gender Equality and Reproductive Decision-making' (2004) 12 Feminist Legal Studies 303, 313.
[298] Sarah Chan and Muireann Quigley, 'Frozen Embryos, Genetic Information and Reproductive Rights' (2007) 21(8) Bioethics 439, 446.
[299] Panitch (n) 277.

Chapter 3: The Use of Detriment in Resolving Frozen Embryo Disputes

[C]um venit calamitas, tum detrimentum accipitur[1] (When calamity comes, then detriment is sustained) --- Cicero

3.1 Introduction

The introduction to Chapter 2 referred to Panitch's argument that estoppel would be a useful tool in resolving frozen embryo disputes, and that 'the greater injustice would be to deny implantation to the spouse who detrimentally relied on the other's words and conduct'.[2] In this chapter, Panitch's reference to detriment will be explored further. Though Panitch refers to the 'time, money, and psychological commitment necessarily expended in pursuing the full commitment (of IVF),'[3] these notions with respect to the condition of detriment in estoppel have been significantly overlooked, especially in the courts and to a lesser degree in academic literature. As such, this chapter will contemplate the physical, psychological and financial detriments[4] to gamete providers if embryos are used against their wishes. The purpose of this will be to illustrate how an understanding of the 'reproductive effort' involved in IVF shows that the detriment to the female gamete provider is significant. Detriment can operate in a variety of circumstances and thus it is important to understand how detriment could affect women who have sustained repeated failed IVF cycles, and how age affects the topic as well. Following this discussion, it is considered how detriment may affect men and gamete providers not seeking implantation. This will lead to a conclusion that detriment is more significant for women seeking implantation.

Analysis of detriment requires definition, an understanding of the place of risk, and the point at which detriment can be measured. In cases of proprietary estoppel, detriment is not presumed and must be proved.[5] The Court of Appeal judgment in *Gillett v Holt* laid out important directions

[1] Marcus Cicero, 'Oratio Pro Lege Manilia' in *Orationes Selectæ* (first published nd, John R Priestley 1837) 76.
[2] Alise Panitch, 'The *Davis* Dilemma. How to Prevent Battles Over Frozen Embryos' (1999) 41 Case Western Law Review 543, 574.
[3] ibid 575.
[4] Ellen Waldman, 'The Parent Trap: Uncovering the Myth of "Coerced Parenthood" in Frozen Embryo Disputes' (2004) 53(5) American University Law Review 1021, 1053.
[5] *Thorner v Major* [2009] UKHL 18 [15], [29] (Lord Scott) [60] (Lord Walker).

concerning the assessment of detriment of proprietary estoppel,[6] which are likely to also be relevant if discussed in the context of promissory estoppel. Robert Walker LJ (as he then was) held that detriment is 'not a narrow or technical concept'[7] and is 'something substantial. The requirement must be approached as part of a broad inquiry as to whether repudiation of an assurance is or is not unconscionable in all the circumstances'.[8]

This definition gives broad scope to consider the effect of reliance on assurances in frozen embryo disputes. The circumstantial evidence that can be taken into account also allows judges significant discretion to consider a variety of factors that might affect detriment. Since the aim of this thesis is to draw out the ways in which three different areas of law affect the interests of gamete providers, consideration will be given to those of both genders, and those seeking and not seeking implantation. However, the bulk of the analysis of this chapter will be devoted to women seeking implantation, not least since all the reported estoppel cases analysed have been focussed on such issues. In the absence of statutory restrictions, the availability of estoppel as a doctrine correctly signifies that women seeking implantation have an especially strong legal argument.

Detriment for specifically promissory estoppel does not necessarily need to be shown,[9] although Wall J did consider its application in *Evans*.[10] Whether or not it is required, its existence may still be considered by a court and improve the strength of the argument in the context of promissory estoppel.[11] The condition of detriment is discussed far more in cases concerning proprietary estoppel, as will be seen in this chapter; however, the equity of seeking to avoid or prevent detrimental reliance should allow a reading across of different types of estoppel in frozen embryo disputes, whether promissory or proprietary are raised.[12]

[6] *Gillett v Holt* [2001] Ch 210 (CA) 231-35.
[7] ibid 232.
[8] ibid 232 (Robert Walker LJ). This has also been accepted by the Privy Council, *Kelly and Others v Fraser* [2012] UKPC 25 [17] (Lord Sumption JSC). That the 'broad inquiry' is also relevant for *promissory* estoppel was confirmed by *Collier v P & MJ Wright (Holdings) Ltd* [34] (Arden LJ).
[9] *D & C Builders Ltd v Rees* [1966] 2 QB 617 (CA) 624 (Lord Denning MR). However, Sean Wilken and Karim Ghaly have argued that detriment is required in all types of estoppel, since 'detriment is an essential prerequisite for establishing inequity'. 'I know that it has been suggested in some quarters that there must be detriment. But I can find no support for it in the authorities cited by the judge'. *WJ Alan & Co Ltd v El Nasr Export and Import Co* [1972] 2 QB 189 (CA), 213 (Lord Denning). Sean Wilken and Karim Ghaly, *The Law of Waiver, Variation and Estoppel* (3rd edn, Oxford University Press 2012) 95.
[10] *Evans v Amicus Healthcare Ltd* [2003] EWHC 2161 (Fam) [67].
[11] *Goldsworthy v Brickell and Another* [1987] Ch 378 (CA) (Nourse LJ).
[12] As mentioned in the previous Chapter, this is the approach Wall J employed in the context of assurances. *Evans* (HC) (n 10) [300].

Detriment can carry a variety of meanings[13] and has been considered as not 'meaning anything more than "putting under a disadvantage"'.[14] Such a broad meaning will be useful for this thesis as a variety of different types of disadvantage that gamete providers may face in pursuing IVF treatment will be considered. Some of the disadvantages mentioned below, such as psychological harm and emotional distress, are difficult to quantify. Robert Walker LJ indicated that in cases where this difficulty exists, for example caring for an elderly person and being 'subservient to his or her moods and wishes… the court has to exercise a wide judgmental discretion'.[15] The balancing test which will be explored in Chapter 5 with respect to rights could be adopted in the context of estoppel to find a 'fair balance… between competing interests'.[16] For dissenting Judges Traja and Mijoviĉ at the ECtHR, the key to this balancing exercise was that Ms Evans had neither other children nor the possibility of having other genetically related children.[17] Previous estoppel case law has involved a balancing exercise to assess whether benefits outweigh disadvantages,[18] and this approach in a frozen embryos dispute would therefore be sound. Panitch has argued that such a balancing exercise should be employed in estoppel cases to demonstrate that the harm facing the gamete provider seeking implantation outweighs the harm caused by denying a 'double consent rule'[19] (a rule in which consent is required twice: first, before treatment commences, and second, before implantation).[20] To hold otherwise would indicate 'unfairness'.[21] Moreover, in *Szafranski v Dunston*[22] the Appellate Court of Illinois also opined in *obiter dicta* that in the absence of an enforceable agreement, promissory estoppel could be relied upon by weighing the parties' respective interests.[23]

Many of the factors mentioned below, in association with IVF treatment, involve only a *risk* of disadvantage to the gamete provider. These risks must be properly accounted for in frozen embryo disputes. Feminist critique has long recognised that the risks undertaken by women in reproduction are not fairly valued. Simone de Beauvoir related that man posits himself above the animal by his ability to risk his life on the battlefield, whilst women's risks of giving life in reproduction do not

[13] For an example of a debate in Australia between two academics see: Denis Ong, 'Equitable Estoppel: Defining the Detriment' (1999) 11(1) Bond Law Review 136; and Michael Pratt, 'Equitable Estoppel: Defining the Detriment – A Reply to Denis Ong' (2000) 12(1) Bond Law Review 48.
[14] *Ministry of Defence v Jeremiah* [1980] QB 87 99 (CA) (Brandon LJ).
[15] *Jennings v Rice* [2002] EWCA (Civ) 159 [51].
[16] *Evans v United Kingdom* [2006] 43 EHRR 21 [59]. See also [66]-[69]; *Evans v United Kingdom* [2008] 46 EHRR 34 [92].
[17] *Evans v United Kingdom* [2006] 43 EHRR 21 [O-16].
[18] *Henry v Henry* [2010] UKPC 3 PC [53].
[19] Panitch (n 2) 572.
[20] ibid 574-77.
[21] ibid 575.
[22] 34 NE3d 1132 (Ill App Ct 2015).
[23] *Szafranski v Dunston* 34 NE3d 1132 (Ill App Ct 2015) [137]. The Court declined to expand its ruling to resolve the dispute under promissory estoppel based on the circumstances of an enforceable oral agreement.

grant her superiority.[24] Thus, to avoid such critique, it is important to understand how risk can be conceived in estoppel.

Estoppel case law shows that risk can indicate detrimental reliance. In a maritime case in which a successful plea of estoppel by convention was made, Bingham LJ took into account the commercial risk a sub-charter involved, holding that 'risk is a detriment to the party who enters into such a transaction'.[25] If risk can be taken into account in commercial arrangements, in which parties are more readily expected to engage in risk management, then it should also be permitted as forming part of detriment in the familial context. The concept of risk may be tackled from an alternative perspective. There is always a degree of risk whenever one believes and acts upon another's representation. However, in proprietary estoppel cases in which a relative is led to believe that he or she will inherit land, Graham Virgo has suggested 'a relationship of trust and confidence between the representor and representee'[26] indicates that proprietary estoppel should not be defeated notwithstanding the risk involved in relying on the representation.[27] This case law illustrates that estoppel can assist gamete providers in avoiding the moral hazard of asymmetric information involved in one party being more aware than the other that the relationship may break down and that IVF treatment may have to consequently be interrupted.

A further issue for analysis is to consider the point at which detriment can be measured. The classical approach was laid out by the High Court of Australia in *Grundt v Great Boulder Pty Gold Mines Ltd*[28] and has been to measure detriment from the moment at which the representor resiles:

> [T]he real detriment or harm from which the law seeks to give protection is that which would flow from the change of position if the assumption were deserted that led to it. So long as the assumption is adhered to, the party who altered his situation on the faith of it cannot complain. His complaint is that when afterwards that other party makes a different state of affairs the

[24] Simone de Beauvoir, *The Second Sex* (Constance Borde and Sheila Malovany-Chevalier trs, first published 1949, Vintage Books 2010) 99.
[25] *Norwegian American Cruises (Formerly Norwegian American lines) v Paul Mundy (The 'Vistafjord')* [1988] 2 Lloyd's Rep 343, 349 (Bingham LJ). In this case the defendant passenger sales agent agreed to sell tickets for the owner of a cruise-liner. The agent then agreed to sub-charter the cruise-liner to a third party. The agent was not entitled to commission according to a prior agreement, although it was assumed by all parties concerned that the agent was entitled. The agent was found to be entitled to the commission on the basis of estoppel by convention.
[26] Graham Virgo, *The Principles of Equity and* Trusts (Oxford University Press 2012) 349.
[27] ibid.
[28] [1937] 59 CLR 641, 674.

> basis of an assertion of rights against him, then if it is allowed, his own original change of position will operate as detriment.[29]

In the context of frozen embryo disputes however this would not mean that harm that occurred before the change of position could not be taken into account if the interpretation of *Grundt* by Denis Ong holds sway, which is that the estoppel seeks to prevent expectations being abandoned by representors.[30] The detriment which would flow from the change of position in this sense would be the use or destruction of the embryos without consent. Academic opinion of frozen embryo disputes holds that the burdens expended in IVF before the representor resiles should form part of the detriment.[31] In *Thorner* Lord Walker approved[32] Hoffmann LJ (as he then was) in which he contrasted equitable estoppel with contract law on the basis that,

> it does not look forward into the future and guess what might happen. It looks backwards from the moment when the promise falls due to be performed and asks whether, in the circumstances which have actually happened, it would be unconscionable for the promise not to be kept.[33]

The dissenting judges in *Nahmani v Nahmani*[34] and the Supreme Court of Ireland in *Roche v Roche*[35] also tellingly did not attempt to argue that detriment must only flow after the men resiled, but rather respectively held that there was no valid representation or agreement to rely upon. Also, the burdens of IVF treatment may have to be repeated with another gamete provider to restore the representee to her original position, and therefore the similar (if not the same) burdens undertaken after the representor resiles should also count as detriment before he resiles. Although *Grundt* was

[29] ibid 674 (Dixon J). *Grundt* has been described as the '*locus classicus*' on estoppel by conduct, both in England and Australia. Michael Pratt, 'Equitable Estoppel: Defining the Detriment – A Reply to Denis Ong' (2000) 12(1) Bond Law Review 48, 49. The Court of Appeal has also held that, 'The issue of detriment must be judged at the moment when the person who has given the assurance seeks to go back on it'. *Gillett* (n 6) 232 (Robert Walker LJ).

[30] Denis Ong, 'Equitable Estoppel: Defining the Detriment' (1999) 11(1) Bond Law Review 136. However, see criticism of this view from Michael Pratt, 'Equitable Estoppel: Defining the Detriment – A Reply to Denis Ong' (2000) 12(1) Bond Law Review 48.

[31] 'The prejudice [detriment] to the other spouse consists of money, time and the psychological commitment necessarily expended in pursuing the full procedure. The injury would include not only the time and money spent, but also the last opportunity to have a child'. Panitch (n 2) 575. This was approved in CA 2401/95 *Nahmani v Nahmani* [1995-96] IsrSC 50(4) 661, 44 (Tal J), 99 (Bach J)

[32] *Thorner v Major* (n 5) [57].

[33] *Walton v Walton* [1994] CA Transcript No 479 [16].

[34] *Nahmani* (n 31) 123 (Strasberg-Cohen J). 131. (Or J). 150. (Zamir J).

[35] [2010] 2 IR 321 [40].

not referred to by the majority in *Nahmani*, its rationale seems to have been adopted by Tal J—'whoever changes course has the disadvantage',[36] and Goldberg J—'the just conclusion that there is no going back, and whoever wishes to make a change is at a disadvantage'.[37] This is the preferable viewpoint, and linked to the same rationale mentioned in Chapter 2 concerning the role of expectations in determining unconscionability.[38]

3.2 Detriment to the female gamete provider seeking implantation in law

A female gamete provider seeking implantation will have strong grounds for showing that she acted to her detriment when she underwent treatment before her partner resiled on his representation(s) that treatment should be continued. To show this, *Evans,* other frozen embryo disputes, and also relevant legal, scientific, psychological and sociological research is referred to to justify this assertion. In general, it will be shown that the woman seeking implantation incurs a greater detriment than the male not seeking implantation in IVF treatment, especially with regard to egg retrieval. In the US, John Robertson downplayed the differences to the parties pursuing IVF treatment, suggesting it should not prioritise interests since the 'difference in bodily burdens between the man and the woman in IVF is not so great (especially with transvaginal aspiration of eggs) that it should be automatically determine decisional authority over resulting embryos'.[39] This statement is critiqued in an examination of the relative positions of the gamete providers according to their 'reproductive effort', considered detriments.

To label the effort exerted in IVF as necessarily 'not so great' for the woman will be shown to be erroneous, yet Robertson's viewpoint has been highly influential. More recent commentary has framed the competing interests between gamete providers in equivalent terms. Thus, Erin Nelson claimed that, 'it is arguable that the harms [of not allowing the reproductive autonomy of one gamete provider]… may be evenly balanced' and 'the harm of forcing an ongoing parental relationship on the former partner is more pronounced than ruling out a woman's wish to be a genetic parent'.[40] In case law, similar notions have held sway. The Supreme Court of Tennessee considered that the equivalency of rights between gamete providers was not undermined by the

[36] *Nahmani* (n 31) 43 (Tal J).
[37] *Nahmani* (n 31) 79 (Goldberg J).
[38] This is unsurprising since it has been argued, 'There is considerable overlap between detriment and unconscionability'. Wilken and Ghaly (n 9) 236.
[39] John Robertson, 'Resolving Disputes over Frozen Embryos' (1989) 19(6) Hastings Centre Report 7, 7.
[40] Erin Nelson, *Law, Policy and Reproductive Autonomy* (Hart 2013) 315.

greater burden borne by the female gamete provider.[41] The Court considered that the emotional stress and physical discomfort endured by the woman 'is more severe than is the impact of the procedure on men'.[42] Yet the equivalency of rights was maintained because the gamete providers' experience 'must be viewed in light of the joys of parenthood that is desired or the relative anguish of a lifetime of unwanted parenthood'.[43] The Court's comments seem to suggest that the value of the interests involved in the freedom to choose to become a parent to the gamete provider seeking implantation minus the (normally) more severe emotional stress and physical discomfort involved in treating the female gamete provider (if applicable), are equivalent to the value of interests involved in choosing not to be a parent and the anguish of unwanted parenthood on the part of the gamete provider not seeking implantation. The ECtHR took a similar approach in *Evans*: 'The Court is not persuaded by the applicant's argument that the situation of the male and female parties to IVF treatment cannot be equated…'.[44] Both views require greater substantiation from psychological and sociological perspectives to show that the male and female detriment is equivalent. The argument the courts have taken belies the fact that the balance of burdens and benefits in the *future* to both gamete providers outweighs the 'reproductive effort' endured by the female in the past. Even if this assumption is made, the courts seemed immune to the argument that even if the balance of future burdens and benefits are equivalent, the greater 'reproductive effort' already endured by the female should tip the balance in her favour.

The courts in *Evans* barely mentioned the significance of the treatment Ms Evans had already received.[45] All courts examining the *Evans* litigation mentioned 'sympathy' for Ms Evans, though in somewhat ambiguous terms, with little mention that this sympathy was in relation to the onerous fertility treatment she had received. Wall J mentioned sympathy for her 'medical condition'[46] and 'considerable sympathy' for the 'operation for the removal of her ovaries immediately following the harvesting of her eggs'[47] and that 'the frozen embryos represent her only chance of giving birth to a child which is genetically hers'.[48] Similarly, in other jurisdictions, those judges who have rejected the plea of the woman seeking implantation have often paid scant attention to the burden of IVF

[41] *Davis v Davis* 842 SW 2d 588 (Tenn 1992) 589.
[42] ibid (Daughtrey J). The Court proceeded to stated that in this sense, 'it is fair to say that women contribute more to the IVF process than men'. ibid.
[43] *Davis* (n 41) 589.
[44] *Evans* (ECtHR) (n 16) [66].
[45] A report chronicling Ms Evans' treatment was made available to the courts through a statement from Dr Sharp, *Evans* (HC) (n 10) [41].
[46] *Evans* (HC) (n 10) [45].
[47] *Evans* (HC) (n 10) [24].
[48] *Evans* (HC) (n 10) [24].

treatment.[49] The ECtHR mentioned 'great sympathy', but only because Ms Evans was 'deprived of the ability to give birth to her own child'.[50] The Grand Chamber of the ECtHR also mentioned 'great sympathy for the applicant, who clearly desires a genetically related child above all else…'.[51] Strasberg-Cohen J also mentioned 'sympathy and understanding for Ms Nahmani's aspiration'.[52]

The Courts could have interrogated the cause for their sympathy more. The lack of ascription of understanding regarding the *medical procedures* the woman had to undergo may indicate that the Courts did not appreciate the significance of this treatment in relation to detriment. It might be counter-argued that a British female would be fortunate to get treatment at all due to the limitations on NHS funding of IVF which may restrict the number of cycles patients can receive on the basis of their address and age.[53] It is unknown whether Ms Evans received NHS funding for her treatment, but Ms Hadley, whose case was heard together with *Evans* in the High Court[54] (due to the similarity of issues involved)[55] did receive NHS funded treatment.[56] Voices calling for wider provision and a change to this system were already in place by the time *Hadley* was heard,[57] and the fortune of Ms Hadley to have received treatment in the first place may be considered by some as forming

[49] Strasberg-Cohen J's dissenting judgment contained one sentence in reference to this: 'Ruth's contribution to the fertilization involved suffering and effort beyond those involved in Daniel's contribution'. CA 2401/95 *Nahmani* (n 31) 33.
[50] *Evans* (ECtHR) (n 15) [67].
[51] *Evans v United Kingdom* [2008] 46 EHRR 34 [90].
[52] *Nahmani* (n 31) 11.
[53] There are no statutory guidelines, however NICE guidance states that women aged under 40 should be offered 3 full cycles of IVF under certain conditions. Women aged 40-42 should be offered 1 full cycle on the basis of further conditions. NICE, Clinical Guideline 156, *Fertility: Assessment and Treatment* (2013) [1.11.1] <https://www.nice.org.uk/guidance/cg156/resources/fertility-problems-assessment-and-treatment-35109634660549> accessed 8 February 2016. However, it was reported that 73% of the formerly known primary care trusts were not complying with the recommendations of these guidelines, and only 27% of the primary care trusts offered the recommended number of NHS-funded IVF treatment cycles. NHS, 'Report Finds IVF Provision Varies on the NHS' (2011) <http://www.nhs.uk/news/2011/06June/Pages/report-finds-ivf-provision-varies-on-the-nhs.aspx> accessed 8 February 2016. A case study of a patient being refused IVF for being too young is provided in Jeremy Laurance, 'More Than 70 Per Cent of NHS Trusts Break Rules to Deny IVF &; and Save Money' *The Independent* (London, 6 June 2011) <http://www.independent.co.uk/life-style/health-and-families/health-news/more-than-70-per-cent-of-nhs-trusts-break-rules-to-deny-ivf-ndash-and-save-money-2293848.html> accessed 8 February 2016.
[54] *Hadley v Midland Fertility Services Ltd* [2003] EWHC 2161 (Fam).
[55] *Evans* (HC) (n 10) [3].
[56] Rebecca English, 'Couple at War over Frozen IVF Embryos' *Daily Mail* (London) < http://www.dailymail.co.uk/news/article-132714/Couple-war-frozen-IVF-embryos.html> accessed 4 January 2016.
[57] Sally Keeble, a former MP who had children conceived through IVF, was an early voice calling for an end to the way in which IVF was provided: Sally Keeble, 'Fertility Lottery' (1999) 13(37) Nursing Standard 1999. See also Richard Ashcroft, 'In Vitro Fertilisation for All?' (2003) 327 BMJ 511. For more recent criticism see NICE, 'NICE Calls for an End to Postcode Lottery of IVF Treatment' <https://www.nice.org.uk/news/article/nice-calls-for-an-end-to-postcode-lottery-of-ivf-treatment> accessed 27 November 2015.

part of the aforementioned balancing test.[58] In the event, estoppel was not a point raised by Ms Hadley, and if it were Wall J would likely have passed the same judgment as for Ms Evans.

Wall J provided the facts of the treatment which the appellate courts subsequently relied on.[59] Following Wall J's factual analysis, all the Courts involved in the *Evans* litigation glossed over the potential significance to a female gamete provider of hormone treatment and oocyte retrieval. Arden LJ, the only female judge to hear the *Evans* litigation in the English and Welsh courts, was the exception. She alluded to IVF treatment as 'perhaps unpleasant and certainly intrusive',[60] but without further elaboration. At the ECtHR, it was mentioned, again without necessary explanation, that there is 'clearly a difference of degree between the involvement of the two parties in the process of IVF treatment'.[61] Ms Evans' contention at the Grand Chamber of the ECtHR that her 'greater physical and emotional expenditure during the IVF process'[62] should provide her with the veto was also given short shrift, where it was held that there was an absence of 'clear consensus' on this point.[63] IVF treatment was seen to give rise to 'sensitive moral and ethical issues', but no mention was made of the physical or medical issues.[64] Consequently, the margin of appreciation afforded to the UK to legislate with respect to variation of consent was a wide one.[65] The dissenting judges, however, recognised that, 'A woman is in a different situation as concerns the birth of a child, including where the legislation allows for artificial fertilisation methods,' which stemmed from the 'excessive physical and emotional burden and effects caused by her condition'.[66] This viewpoint will be explored further in the following subsection.

3.2.1 Detriment to the female gamete provider in reality

An inquiry into the IVF procedure from the perspective of the woman will now be provided to elucidate the burdens it carries which have not been mentioned or sufficiently considered by the

[58] In 2013, 41.3% of IVF treatment cycles were funded by the NHS, whereas 58.7% were privately funded. Human Fertilisation & Embryology Authority, 'Fertility Treatment in 2013' 14 < http://hfeaarchive.uksouth.cloudapp.azure.com/www.hfea.gov.uk/docs/HFEA_Fertility_Trends_and_Figures_2013.pdf > accessed 3 March 2016.
[59] *Evans* (HC) (n 10) [40]-[44].
[60] *Evans v Amicus Healthcare Ltd* [2004] EWCA (Civ) [82].
[61] *Evans* (ECtHR) (n 16) [66].
[62] *Evans* (ECtHR) (GC) (n 49) [80].
[63] ibid.
[64] *Evans* (ECtHR) (GC) (n 49) [81].
[65] *Evans* (ECtHR) (GC) (n 49) [81], [82].
[66] *Evans* (ECtHR) (GC) (n 49) [O-I 15]. This was also recognised by the Circuit Court for Blount County, Tennessee: "Mrs. Davis went through many painful, physically tiring, emotionally and mentally taxing procedures" (*Davis v Davis* No E-14496 (Tenn CC, Blount Cty, Div 1 1989) 25 (Young J)).

courts. The purpose is to provide a better understanding of the potential detriment to the woman. It is important that the courts adequately value the 'greater physical and emotional expenditure'[67] borne by the woman.

It should be noted that prior to a decision to undertake IVF, there are a range of other medical treatments for infertility which might be available for both males and females, each carrying varying degrees of potential burdens. If these treatments are carried out prior to IVF treatment, it is unlikely they would not be considered as part of the same sequence of treatment to resolve an infertility issue, especially if their aim is to achieve conception by way of sexual intercourse.[68] Nonetheless, due to the wide discretion of the court in being able to assess detriment and unconscionability, it is possible these factors might carry some weight, especially if the gamete provider seeking implantation has a significant medical history of receiving treatment to become a genetic parent with embryos created using the sperm of her partner. This was clearly the case in *Davis v Davis* in which the female gamete provider, Ms Davis, had:

> [S]uffered an extremely painful tubal pregnancy, as a result of which she had surgery to remove her right fallopian tube. This tubal pregnancy was followed by four others during the course of the marriage. After her fifth tubal pregnancy, Mary Sue chose to have her left fallopian tube ligated, thus leaving her without functional fallopian tubes by which to conceive naturally.[69]

The factual circumstances peculiar to each party may give rise to further disadvantages which should be factored into considerations of detriment. If IVF is pursued in addition to another medical procedure, then the reproductive treatment may represent an additional risk for the woman. In *Reber v Reiss*[70] the wife, Ms Reiss, deferred treatment for breast cancer for several months for the purposes of fertility treatment.[71] Similarly, in *Nahmani*, the decision not to expose the wife's ovaries to radiation by pushing them to one side during her hysterectomy 'endangered her health'.[72] This

[67] *Evans* (ECtHR) (GC) (n 49) [80].
[68] See section 5.7.3 of Chapter 5 for further discussion on this point.
[69] *Davis* (n 41) 591. The female gamete provider in another US case also suffered an ectopic pregnancy which necessitated the removal of a fallopian tube, followed by another which resulted in the removal of her other fallopian tube. *AZ v BZ* 725 431 Mass 150 (2000) 152.
[70] No 1351 EDA 2011 (Pa Super 2012).
[71] ibid.
[72] *Nahmani* (n 31) 52.

endangerment occurred before the decision to pursue IVF had been taken according to the facts noted in the Supreme Court.[73]

The possibility of anxiety, obviously, does not commence only with IVF treatment, but also in the build up to it.[74] Women have been found to have significantly higher levels of depression, state anxiety[75] and infertility specific distress prior to IVF treatment.[76] These points are illustrative that detriment relevant to estoppel can be present even before IVF has occurred, since the couple or individual can make plans and arrangements for reproduction, which may have a greater detrimental impact on one party. In pursuing IVF, it is conspicuous that other significant risks of harm emerge; and once again these were not recounted in the judgments by any of the courts in *Evans*. This may have been due to an oversight or an under-appreciation of the risks and harms involved.

The hormonal aspect of IVF treatment involves risks and harms relevant to detriment. The hormone treatment can last around two weeks, and has been described as an invasive and often painful

[73] The hysterectomy occurred in 1987, but the couple only decided to pursue IVF in 1988. *Nahmani* (n 31) 35.
[74] This has long been recognised, and in research of surgery before general anaesthesia it was reported that in one case surgeons decided to limit the anxiety of one patient 'by choosing a day at random and giving her only two hours notice before they began'. Fanny Burney, *Selected Letters and Journals* (Joyce Hemlow ed, OUP 1986) 127 cited in 'The Horrors of Pre-Anaesthetic Surgery' (*The Chirurgeon's Apprentice*)). http://thechirurgeonsapprentice.com/2014/07/16/the-horrors-of-pre-anaesthetic-surgery/#f1 accessed 27 July 2015. Even though such a study is not so relevant now, it is still possible for a person having surgery to experience anxiety. For a more recent and relevant study see Jill Stoddard and others, 'Impact of a Brief Intervention on Patient Anxiety prior to Day Surgery' (2005) 12(2) Journal of Clinical Psychology in Medical Settings 99, 99-110.
[75] State anxiety is 'perceived anxiety that occurs only in certain situations. Cognitive or somatic anxiety can also be state anxiety'. Christine Brain, *Advanced Psychology: Applications, Issues and Perspectives* (Nelson Thornes 2002) 191. It can be distinguished from trait anxiety which refers to a 'stable trait of anxiety that some people have as part of their personality'.
[76] Christina Wichmann and others, 'Comparison of Multiple Psychological Distress Measures between Men and Women Preparing for In Vitro Fertilization' (2011) 95(2) Fertility and Sterility 717. Christina Wichmann advised by email to the present author (26/02/2015) that distress measurements were retrieved before any IVF treatment had commenced, but patients may have had a course of clomid or a previous cycle of IUI. See also Valerie Peddie, Edwin Van Teijlingen, Siladitya Bhattacharya, 'A Qualitative Study of Women's Decision-Making at the End of IVF Treatment' (2005) 20(7) Human Reproduction 1944, 1946: 'A common response from women was related to the stress caused by IVF treatment, and the process of decision-making often exacerbated this. However, relief of the cyclical process of 'treatment and stress' was evident once the final decision to end treatment was made. One interviewee (008) indicated that: "the IVF for me was an extremely traumatic experience and I just wanted it all to end' (008), and went on to clarify that it was her life that she wanted to end". Others reported similar feelings of depression: "The GP started me on antidepressants. I just wasn't coping with it all" (028), or: "In a way, I felt quite depressed, not in the clinical sense, but I felt so low, so down, in a way I had never felt before. That lasted for about two months and I decided then that I never wanted to feel like that again'. It has also been reported that women in particular may suffer a grief reaction following failed IVF which may be quite disruptive to their lives. Dorothy Greenfield, Michael Diamond and Alan Decherney 'Grief Reactions following In-Vitro Fertilization Treatment' (1988) 8(3) Journal of Psychosomatic Obstetrics & Gynecology 169.

treatment.[77] Ms Evans was first prescribed clomid[78] to stimulate ovulation, which has a range of possible side effects including visual disturbances, hot flushes, dizziness, breast tenderness, abdominal bloating, nausea[79] and multiple pregnancy.[80] Also, the use of clomid 'for more than 12 months has been associated by some early reports with a slight increase in the risk of ovarian cancer, although this has not been subsequently proven'.[81] Instead of producing one or two eggs, a woman may produce as many as forty eggs in a cycle.[82] The HFEA reported that, 'Some women receive fertility drugs to boost egg production before the sperm is transferred and these stimulated cycles are presented separately from unstimulated cycles (where there is no treatment with fertility drugs before insemination), as the success rates are quite different'.[83] This may indicate that some women feel compelled to use such drugs if a choice exists. Ms Evans received clomid for approximately 8 months,[84] however she had also used the drug beforehand,[85] and as mentioned above this should be taken into account when considering both detriment and unconscionability. Following a lack of success in reproduction, Ms Evans had a hysterosalpingogram,[86] which is a 'diagnostic procedure

[77] This is known as ovulation induction or ovulation stimulation for IVF. Such treatment however would not be required for *in vitro* maturation (IVM). The difference between IVM and IVF is that for the former the eggs are removed from the woman's ovaries at an immature stage. They are then matured in the laboratory and then fertilised. In IVF the eggs are mature when collected. The significance of this here is that the use of hormonal medication is minimised or excluded in IVM. Such stimulating drugs are not always necessary for IVF, but they improve success rates significantly on average. Peter Uzelac , Greg Christensen and Steven Nakajima, 'The Role of In Vitro Maturation in Fertility Preservation' in *Oncofertility Medical Practice: Clinical Issues and Implementation* (Clarisa Gracia and Teresa Woodruff eds, Springer 2012) 77ff; Baris Ata and others, 'In Vitro Maturation of Oocytes as a Fertility Preservation Strategy' in *Fertility Preservation: Advances and Controversies* (Mohamed Bedaiwy and Botros Rizk eds, Jaypee Brothers Medical Publishers 2014) 111ff.

[78] *Evans* (HC) (n 10) [42].

[79] Eleftherios Meridis and Stuart Lavery, 'Drugs in Reproductive Medicine' (2006) 16 Current Obstetrics & Gynaecology 281, 282. One patient reports the significant side effects: 'I had dizzy spells, a constant pain in the left side of my belly and a funny feeling inside my head… I couldn't see sharply any more. I saw lights and colours and I felt kind of strange/funny inside my head. I remember on time at school when I began to panic because I couldn't see clearly. It made me feel unbalanced and insecure. While working with pupils I suddenly couldn't remember the simplest things. Was that a side effect of the drug as well? I almost couldn't believe it. I also suffered from a pain in my belly which dragged on and on. Emotionally I wasn't stable any more'. Robyn Rowland, *Living Laboratories* (Indiana University Press 1992) 21-22 quoted from Katharina Steins, 'Personal Communication from Titia Elser' in *Infertility. Women Speak out About Their Experiences of Reproductive Medicine* (Renate Klein ed, Pandora Press 1989).

[80] Stuart Lavery, 'Drugs Used in Reproductive Medicine' (2003) 13 Current Obstetrics & Gynaecology 355, 356.

[81] Meridis and Lavery (n 79) 282.

[82] Sarah Franklin, 'Dead Embryos: Feminism in Suspension' in *Fetal Subjects, Feminist Positions* (Lynn Morgan and Meredith Michaels eds, University of Pennsylvania Press 1999) 79. For a brief, general discussion on ovulation inducing fertility drugs, mentioning also the production of forty eggs per cycle, see Philip Peters, *How Safe is Safe Enough?* (Oxford University Press 2004) 210.

[83] Human Fertilisation and Embryology Authority, 'Fertility Treatment in 2013: Trends and Figures' <http://hfeaarchive.uksouth.cloudapp.azure.com/www.hfea.gov.uk/docs/HFEA_Fertility_Trends_and_Figures_2013.pdf> 36 accessed 24 July 2017.

[84] *Evans* (HC) (n 10) [42].

[85] *Evans* (HC) (n 10) [40].

[86] *Evans* (HC) (n 10) [42].

used to assess whether the fallopian tubes are blocked or open'.[87] There is a degree of invasiveness surrounding the procedure as, 'A dye is injected into the tubes, this dye can then be picked up on an X-ray and will show whether the tubes are patent (open)',[88] and it can lead to cramps lasting several hours,[89] with extreme pain reported in one account.[90] The procedure carries a risk of causing cancer (especially bladder).[91] Other risks include infection, fainting, radiation exposure (very low risk), allergy and spotting.[92]

The IVF procedure, and in particular ovulation stimulation/induction, can lead to increased risks of different cancers.[93] In the largest known study it was concluded that 'ovarian stimulation for IVF may increase the risk of ovarian malignancies, especially borderline ovarian tumours'.[94] This is the type of

[87] Bath Fertility Centre, 'Glossary of Terms' <http://www.bathfertility.com/glossary-of-terms> accessed 24 July 2015.
[88] ibid.
[89] 'Factsheet Hysterosalpingogram' (*Reproductivefacts.org*) < http://www.reproductivefacts.org/FACTSHEET_Hysterosalpingogram/> accessed 24 July 2015.
[90] 'Totally unsuspecting, during the lunch break I made my way to one of the large X-ray practices in the city. Sitting on a sort of gynaecological examination couch, my lower body bared, I was greeted by the radiologist. A tearing pain went through me when he injected the "contrast meal". After the examination, blood was flowing from my vagina. Without a word, I received an intravenous penicillin injection and a prescription for penicillin tablets, which I was to take over the following days in order to prevent any infection of the lower abdominal region. When I left the practice, wobbly at the knees, I was quite decided not to do this. Two hours later, while I myself was examining a patient (she was a doctor), I was suddenly gripped by a cramp in my lower abdomen such as I had never felt before. I spent the next few hours curled up on a couch in my boss's room. How I cycled home that evening remains a mystery to me. I then swallowed the penicillin tablets with an air of desperation. Subsequently I learnt in discussions with other women that the pain and cramps did not only occur in my case, but are typical. This X-ray examination, the result of which showed no abnormality, was the prelude to the events of the following weeks'. Robyn Rowland, *Living Laboratories* (Indiana University Press 1992) 21-22 quoted from Katharina Steins, 'Give Me Children or Else I Die' in Renate Klein (ed) *Infertility. Women Speak out About Their Experiences of Reproductive Medicine* (Pandora Press 1989) 15.
[91] Prince Gyekye and others, 'Cancer Incidence Risks to Patients due to Hysterosalpingography' (2012) 37(2) Journal of Medical Physics 112.
[92] Reproductivefacts.org, 'Factsheet Hysterosalpingogram' <http://www.reproductivefacts.org/FACTSHEET_Hysterosalpingogram/> accessed 24 July 2015.
[93] A recent Norweigian study showed an increased risk of breast cancer in women after fertility treatment. Marte Reigstad and others, 'Risk of Breast Cancer Following Fertility Treatment—A Registry Based Cohort Study of Parous Women in Norway' (2015) 136(5) International Journal of Cancer 1140. Daniela Katz and others found women who started IVF after the age of 30 appeared to have an increased risk of developing breast cancer. Daniela Katz and others, 'Beginning IVF Treatments after age 30 Increases the Risk of Breast Cancer: Results of a Case–Control Study' (2008) 14(6) The Breast Journal 1524. See also Alice Whittemore, Robin Harris and Jacqueline Itnyre, 'Characteristics Relating to Ovarian Cancer Risk: Collaborative Analysis of 12 US Control Studies' (1992) 136(10) American Journal of Epidemiology 1184; Louise Brinton and others, 'Ovulation Induction and Cancer Risk' (2005) 83(2) Fertility and Sterility 261; Ronit Calderon-Margalit, 'Cancer Risk after Exposure to Treatments for Ovulation Induction' (2009) 169(3) American Journal of Epidemiology 365; Jennifer Schneider, Jennifer Lahl and Wendy Kramer, 'Long-Term Breast Cancer Risk following Ovarian Stimulation in Young Egg Donors: A Call for Follow-Up, Research and Informed Consent' (2017) 34(5) Reproductive BioMedicine Online 480.
[94] The study investigated 19,146 women treated for IVF in the Netherlands Flora van Leeuwen, 'Risk of Borderline and Invasive Ovarian Tumours after Ovarian Stimulation for In Vitro Fertilization in a Large Dutch Cohort' (2011) 26(12) Human Reproduction 3456, 3463.

tumour Ms Evans had after taking clomid in attempts to become pregnant whilst with Mr Johnston.[95] Ms Evans was suffering from 'serious'[96] borderline ovarian tumours (BOT), as discovered by a laparoscopy and subsequent laparotomy during initial IVF treatment;[97] and there is 'no consensus whether IVF treatment is safe after conservative treatment of BOT'[98] and 'it cannot be excluded that the recurrence of the BOT during pregnancy and excessive growth during pregnancy… [is] influenced by IVF treatment'.[99] It should be noted that the very existence of BOT may have been brought about by past IVF cycles (as mentioned above) undertaken by Ms Evans.[100]

More recently Emile Daraï and others have cautioned that 'ART is usually only proposed to women with early stages of BOT and with BOT showing no aggressive patterns'.[101] According to the reported facts, Ms Evans' cancer was 'growing slowly',[102] and therefore it does not seem that she suffered from aggressive patterns, but nonetheless she still faced a risk. The most recent study in the UK involving records of women who had ART between 1991 and 2010 left 'open the possibility' that the treatment might lead to increased ovarian cancer risk.[103] Brenda Hermsen and others found that mortality rates from ovarian cancer are high and difficult to detect.[104] If the risks are unknown, this does not mean they should not be factored into assessments of detriment. Accounting for the risks in IVF may allay feminist critique that IVF is experimental[105] and exploitative[106] towards women.

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[95] *Evans* (HC) (n 10) [42].
[96] *Evans* (HC) (n 10) [42].
[97] *Evans* (HC) (n 10) [42].
[98] Naomi Cabenda-Narain and others, 'Conservatively Treated Borderline Ovarian Tumours, followed by IVF Treatment: A Case Series' (2011) 31(4) Journal of Obstetrics and Gynaecology 327, 328.
[99] ibid. The authors do however opine that, 'IVF can be considered safe after conservative surgery of BOT and seems not to impair the prognosis of BOT. Nevertheless, all patients with BOT, who receive IVF treatment should be registered and monitored. The results of these data can finally establish the relation between IVF and the risk of recurrent disease'. ibid 329.
[100] van Leeuwen (n 94) 3463.
[101] Emile Daraï and others, 'Fertility and Borderline Ovarian Tumor: A Systematic Review of Conservative Management, Risk of Recurrence and Alternative Options' (2013) 19(2) Human Reproduction Update 151, 159.
[102] *Evans* (HC) (n 10) [43].
[103] Alastair Sutcliffe and others, 'Ovarian Tumor Risk in Women after Assisted Reproductive Therapy (ART); 2.2 million person years of observation in Great Britain' (2015) 104(3) Fertility and Sterility e-37.
[104] Brenda Hermsen and others, 'No Efficacy of Annual Gynaecological Screening in BRCA1/2 Mutation Carriers; an Observational Follow-Up Study' (2007) 96(9) British Journal of Cancer 1335-1342.
[105] Gene Corea questioned whether IVF was satisfactorily tested on animals before being provided to humans. Corea also suggested that scientists' desire for recognition and acclaim through producing the first IVF baby took priority over investigations over possible risks. Gene Corea, *The Mother Machine: Reproductive Technologies from Artificial Insemination to Artificial Wombs* (Harper and Row 1985) 99ff. Another feminist noted that IVF 'had never undergone formal assessment prior to its application'. Janine Morgall, *Technology Assessment: A Feminist Perspective* (Temple University Press 1993) 186. Another critic labelled IVF as 'an experimental and debilitating technology for women'. Janice Raymond, *Women as Wombs: Reproductive Technologies and the Battles over Women's Freedom* (HarperCollins 1993) 35.
[106] Klein describes IVF as 'a new form of patriarchal violence against women'. Renate Klein, 'IVF Research: A Question of Feminist Ethics' (1990) 3(3) Reproductive and Genetic Engineering: Journal of International

If hormone treatment is not successful, then 'more powerful fertility injections may be necessary to stimulate egg production in the ovaries'.[107] One woman described the feeling of being a 'pincushion' after being injected 'with more than 700 needles' after which she 'lost count'.[108] In *Davis* it was recorded that despite a fear of needles Ms Davis underwent at each IVF attempt 'a month of subcutaneous injections necessary to shut down her pituitary gland and then eight days of intermuscular injections necessary to stimulate her ovaries to produce ova'.[109] In the balancing of interests test employed by the Supreme Court of Tennessee, this and the other physical burdens Ms Davis underwent were not even considered as an interest to be balanced (let alone a pivotal one).[110] The Court was not 'unmindful of the fact that the trauma (including both emotional stress and physical discomfort) to which women are subjected in the IVF process is more severe than is the impact of the procedure on men.'[111] Nonetheless, somewhat bizarrely it is suggested, '*None* of the concerns about a woman's bodily integrity that have previously precluded men from controlling abortion decisions is applicable here'.[112] Although the bright line of the location of an embryo within a woman is indeed not applicable, there are concerns over bodily integrity that parallel both 'natural' pregnancy and IVF prior to implantation; namely the significant engagement of a woman's body. Though that engagement is neither the same nor as substantial, it nonetheless exists to a significant degree. The burden of pregnancy is obviously unique, however it could easily be inferred from the Court's statement that concerns over bodily integrity were non-existent. The analogy with pregnancy will be reconsidered from a rights perspective in Chapter 5.

One of the main risks women face during the period of hormone injections is (severe) ovarian hyperstimulation syndrome.[113] In this medical condition, the ovaries, which are normally about

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Feminist Analysis 1, 3. See also, Renate Klein, *The Exploitation of a Desire: Women's Experiences with In Vitro Fertilization* (Deakin University Press 1989).

[107] University Hospitals Coventry and Warwickshire, 'Ovulation Induction' < http://www.uhcw.nhs.uk/ivf/treatments/oi> accessed 11 September 2015. These injections can last 9 to 12 days. Jacky Boivin, E Griffiths and Christos Venetis, 'Emotional Distress in Infertile Women and Failure of Assisted Reproductive Technologies: Meta-Analysis of Prospective Psychosocial Studies' (2011) 342 BMJ 481.

[108] Hartley Steiner, *Sensational Journeys: 48 Personal Stories of Sensory Processing Disorder* (Future Horizons 2011) 211.

[109] *Davis* (n 41) 591.

[110] *Davis* (n 41) 603-4 (Daughtrey J).

[111] *Davis* (n 41) 601 (Daughtrey J).

[112] *Davis* (n 41) 601 (Daughtrey J) (emphasis added).

[113] 'The risk of complications after each IVF treatment cycle was low, but cumulatively repeated attempts led to hospital care in the case of many women'. Reija Klemetti and others, 'Complications of IVF and Ovulation Induction' (2006) 20(12) Human Reproduction 3293, 3296. 'The reported prevalence of the severe form of OHSS is small, ranging from .5 to 5%. Nevertheless, as this is an iatrogenic complication of a non-vital treatment with a potentially fatal outcome, the syndrome remains a serious problem for specialists dealing with infertility'. Annick Delvigne and Serge Rozenberg, 'Epidemiology and Prevention of Ovarian

3cm[114] in in size can swell to 5-12cm,[115] and ovarian rupture and thrombophlebitis can follow and, in extremely rare cases, death.[116] A series of blood tests and ultrasound examinations are required to identify when ovulation occurs and the best time carry out oocyte retrieval. This is an invasive procedure involving insertion of a long needle into the ovaries often performed by surgery under general anaesthetic.[117] Ms Davis was anaesthetised five times for this procedure.[118] If oocyte retrieval is carried out by conscious sedation, pain levels will be higher,[119] to such a level that patients describe it as 'excruciatingly painful' and 'agony'.[120] Use of analgesics to relieve the pain of oocyte retrieval, such as opiates, may depress the central nervous system, and undermine respiration and circulation.[121] Oocyte retrieval carries risks of infection,[122] pelvic abscess,[123] bowel injury (although much rarer),[124] bleeding,[125] and torsion.[126] IVF also carries risks of acute abdomen

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Hyperstimulation Syndrome' (2002) 8(6) Human Reproduction Update 559, 559. The significant risk of ovarian hyperstimulation syndrome has led to calls for IVF staff to be, 'reachable 24 h a day, 7 days per week, for women with complaints foreshadowing OHSS, sepsis and other severe complications'. Didi Braat and others, 'Maternal Death Related to IVF in the Netherlands 1984–2008' (2010) 25(7) Human Reproduction 1782, 1785.

[114] Jodi Lerner and Ilan Timor-Tritsch, 'Morphological Evaluation of the Ovary using Transvaginal Sonography' in Asim Kurjak (ed), *Ultrasound and the Ovary* (The Parthenon Publishing Group) 116.

[115] Joseph Whelan and Nikos Vlahos, 'The Ovarian Hyperstimulation Syndrome' (2000) 73(5) Fertility and Sterility 883, 884.

[116] Brooke Ellison and Jaymie Meliker, 'Assessing the Risk of Ovarian Hyperstimulation Syndrome in Egg Donation: Implications for Human Embryonic Stem Cell Research' (2011) 11(9) American Journal of Bioethics 22, 23.

[117] Cambridge University Hospitals, 'Cambridge IVF patient information- patient agreement to investigation or treatment' 3 < http://www.cuh.org.uk/sites/default/files/publications/CF455_oocyte_retrieval.pdf> accessed 12 April 2015.
<http://www.cuh.org.uk/sites/default/files/publications/CF455_oocyte_retrieval.pdf>

[118] *Davis* (n 41) 592.

[119] Irene Kwan and others, 'Conscious Sedation and Analgesia for Oocyte Retrieval during IVF Procedures: A Cochrane Review' (2006) 21(7) Human Reproduction 1672, 1677. However, an exception to this study is that abdominal pain was significantly lower in those receiving conscious sedation as opposed to general anaesthesia according to Izhar Ben-Shlomo, 'Midazolam/Ketamine Sedative Combination Compared with Fentanyl/Propofol/Isoflurane Anaesthesia for Oocyte Retrieval' 14(7) Human Reproduction 1757.

[120] Sarah Franklin, *Embodied Progress: A Cultural Account of Assisted Conception* (Routledge 1997) 119.

[121] Academy of Medical Royal Colleges, 'Safe Sedation Practice for Healthcare Procedures' (2013) 23 < http://www.aomrc.org.uk/doc_view/9737-safe-sedation-practice-for-healthcare-procedures-standards-and-guidance> accessed 12 April 2014, earlier version cited in Irene Kwan and others, 'Pain relief for women undergoing oocyte retrieval for assisted reproduction' (2013) The Cochrane Collaboration < http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD004829.pub3/pdf> 1ff.

[122] Klemetti and others (n 113) 3297. Risks of pelvic infection are documented in Abbaa Sarhan and Suheil Muasher, 'Surgical Complications in IVF' (2007) 12(1) Middle East Fertility Society Journal 1, 1.

[123] Sarhan and Muasher (n 122) 2.

[124] Sarhan and Muasher (n 122) 3.

[125] ibid.

[126] 'Superovulation protocols used in IVF lead to transiently enlarged, multicystic ovaries that are at risk for torsion. Gonadotropin stimulation followed by human chorionic gonadotropin can enlarge the ovaries to two to four times the normal size even after follicular aspiration ... The risk rises even further for those patients who develop ovarian hyperstimulation syndrome'. Sarhan and Muasher (n 122) 4. A 16% incidence of torsion has also been reported after gonadotropin intake (which are gonad-stimulating hormones). Shlomo Mashiach and others, 'Adenxal Torsion of Hyperstimulated Ovaries in Pregnancies after Gonadotropin Therapy' (1990) 53 Fertility and Sterility 76.

complications,[127] kidney failure,[128] pre-eclampsia,[129] antepartum and postpartum haemorrhage[130] and gestational diabetes.[131] These factors must all be considered as potentially forming part of the detriment and they are risks that only the woman faces when being treated for IVF.

There are also increased risks of miscarriages and/or pregnancy difficulties,[132] such as the need for a caesarean section.[133] In *Kass*, the wife, Ms Kass, suffered a miscarriage followed by an ectopic pregnancy which had to be surgically terminated.[134] The Court of Appeals of the State of New York did not consider this at any point in their judgment, and it is submitted these significant medical episodes in Ms Kass' attempts to produce a child for herself and her then husband should have been taken into account as detriment.

The entire IVF procedure can be more stressful for the female gamete provider than the man,[135] and women have 'more and different risk factors for developing emotional problems during and after treatment than their partners.'[136] Women undergoing IVF were also found to be at particular risk for a variety of sexual problems, [137] which 'may markedly impact intimate relationships as well as overall quality of life'.[138] In general, it has been suggested that the state of infertility affects women during and after IVF treatment more than men in terms of quality of life.[139] Adverse effects such as dizziness, rashes and bleeding may continue for months after treatment has been concluded.[140] One

[127] Dov Dicker and others, 'Severe Abdominal Complications after Transvaginal Ultrasonographically Guided Retrieval of Oocytes for In Vitro Fertilisation and Embryo Transfer' (1993) 49 Fertility & Sterility 726.
[128] Kristian Heldal and others, 'Acute Renal Failure following IVF: Case Report' (2005) 20(8) Human Reproduction 2250.
[129] Nico Bollen and others, 'The Incidence of Multiple Pregnancy after In Vitro Fertilization and Embryo Transfer, Gamete, or Zygote Intrafallopian Transfer' (1991) 55 Fertility and Sterility 314, 314.
[130] ibid.
[131] ibid.
[132] Laura Schieve and others, 'Spontaneous Abortion among Pregnancies Conceived Using Assisted Reproductive Technology in the United States' (2003) 101 Obstetrics & Gynecology 959; Zdravka Veleva and others, 'High and Low BMI Increase the Risk of Miscarriage after IVF/ICSI and FET' (2008) 23(4) Human Reproduction 878.
[133] ibid.
[134] *Kass v Kass* 91 NE 2d 554 (NY 1998) 558.
[135] Hillary Klonoff-Cohen and others, 'A Prospective Study of Stress among Women undergoing In Vitro Fertilization or Gamete Intrafallopian Transfer' (2001) 76(4) Fertility and Sterility 675; Isabelle Laffont and Robert Edelmann, 'Psychological Aspects of In Vitro Fertilization: A Gender Comparison' (1994) 15(2) Journal of Psychosomatic Obstetrics & Gynecology 85.
[136] Aleida Huppelschoten and others, 'Differences in Quality of Life and Emotional Status between Infertile Women and Their Partners' (2013) 28(8) Human Reproduction 2168, 2172.
[137] Nicole Smith and others, 'Sexual Function and Fertility Quality of Life in Women Using In Vitro Fertilization' (2015) 12 The Journal of Sexual Medicine 985, 991.
[138] ibid 992.
[139] Huppelschoten and others (n 136) 2171.
[140] Robyn Rowland, *Living Laboratories* (Indiana University Press 1992) 59.

of the most comprehensive studies on IVF concluded that the maternal mortality rate in IVF pregnancies was higher in Holland than in the general Dutch population.[141]

None of these risks and burdens of IVF were considered in *Evans, Kass or Davis*. They were, however, raised in *Nahmani,* where dissenting judge, Zamir J, was refreshingly candid:

> Indeed, there is no doubt that the medical treatment which Ruth underwent was much more difficult than the medical treatment that Daniel underwent. However, is the medical treatment that was carried out in the past the criterion that should decide the case, as opposed to, for example, the suffering of each party on an aggregate over time? But which of the parties will, on aggregate, suffer more? To this question I have no answer. At most, I can guess how I would feel and how much I would suffer were I in Daniel's position or in Ruth's position.[142]

Zamir J's honest disclosure points to the fact that the courts, in general, should take into account the type of aforementioned analysis which informs about the female's position, and the notion of detriment in estoppel provides a useful avenue for this. The majority in *Nahmani* however did consider some of the burdens mentioned as part of their judgment. Bach J mentioned the serious physical suffering Ms Nahmani underwent as well as a risk to her life due to the treatment.[143] Mazza J recognised that in order for Ms Nahmani to be placed in the same position she would have to undergo 'great physical and emotional suffering'.[144] Ms Nahmani specifically consented to this suffering on a certain basis, as Tal J enunciates: 'we are speaking of a man who gave his consent, and in reliance on this the woman consented to interference in her body and painful treatments, and also adversely and irrevocably changed her position'.[145] Such an appreciation of the burden the woman faced in the context of her reliance was lacking in *Evans* and the other international cases mentioned, and should be conclusive in supporting her desire to receive the end-product of her treatment: implantation.

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[141] Didi Braat and others, 'Maternal Death Related to IVF in the Netherlands 1984–2008' (2010) 25(7) Human Reproduction 1782, 1785. See also Alison Venn and others, 'Mortality in a Cohort of IVF Patients' (2001) 16(12) Human Reproduction 2691. Other side effects of the drugs may include hot flushes, feeling down or irritable, headaches, restlessness, shortness of breath, abdominal bloating, nausea and vomiting. NHS Choices, 'Risks of IVF' <http://www.nhs.uk/Conditions/IVF/Pages/Risks.aspx> accessed 10 March 2015.
[142] *Nahmani* (n 31) 155 (Zamir J).
[143] *Nahmani* (n 31) 95.
[144] *Nahmani* (n 31) 114.
[145] *Nahmani* (n 31) 43.

Detriment can also include meanings that involve burdens other than invasive treatment or a risk of physical harm for the woman, and one of those will now be explored.

3.2.2 Foregone work

The portrayal of women as unique reproductive labourers in IVF will be explored in greater depth in Chapter 4, and in the present context lends itself to allowing their labour to be considered detriment. Whether or not the representation of women in this fashion is plausible, the courts should also be persuaded that work foregone also constitutes detriment, which will now be described. The course of IVF, which may take many years, can significantly undermine a woman's aspirations for work, a certain lifestyle and social opportunities.[146] This might be compared to a typical proprietary estoppel case in which the deceased had repeatedly promised his son that he would inherit property to live in, it was considered unconscionable to deprive the son of his reasonable expectations based on the promises despite the terms of the deceased's will.[147] Kaye QC considered that the son had 'positioned his whole life on the basis of the assurances given to him and reasonably believed by him'[148] as sufficient detriment. It is difficult to show that IVF treatment involves a repositioning of the *whole* of the woman's life. Nonetheless, what Franklin's interviews indicate is that the course of IVF can change the patient's life.[149] Clearly, the longer the patient has been receiving treatment, the more likely Kaye QC's aforementioned *ratio* will be relevant. For frozen embryo disputes the length of treatment is often over twelve months, a not insignificant amount of time.

In *Gillett v Holt*[150] foregone education and work experience counted towards detriment.[151] In another case of proprietary estoppel, *Greasley v Cooke*,[152] a maid servant acted to her detriment as she looked after two people in a house, when 'she might have left and got a job elsewhere'.[153] However, in *Coombes v Smith*[154] a plaintiff seeking a property interest could not claim that

[146] Peddie, Van Teijlingen and Bhattacharya (n 76) 1944.
[147] *Suggitt v Suggitt & Another* [2012] EWCA Civ 1140.
[148] *Suggitt v Suggitt* [2011] EWHC 903 (Ch) [59]. This decision was upheld at appeal. *Suggitt v Suggitt & Another* [2012] EWCA Civ 1140 [39].
[149] Franklin (n 120) 129ff.
[150] [2001] Ch 210.
[151] [2001] Ch 210, 233-235 (Robert Walker LJ). The 'change of position' doctrine was available to proprietary estoppel and other forms of estoppel, *Gillett v Holt* [2001] Ch 210, 233 (Robert Walker LJ).
[152] 1 WLR 1306 (CA) 1306.
[153] ibid 1312 (Lord Denning MR).
[154] *Coombes v Smith* [1986] 1 WLR 808 (Ch). Mrs Coombes and Mr Smith began a romantic relationship, whereby he purchased a house with the intention for them to live together. She became pregnant with his child and moved into the house. Mr Smith did not move into the house but visited regularly. Mr Smith then

pregnancy and giving birth constituted detriment.[155] The issue here however was that the plaintiff had not acted in reliance on the assurance made to her.[156] If she had acted in reliance, it is possible the High Court would have been more disposed to find detriment. If this interpretation of the judgment is not accepted, Wilken and Ghaly have nonetheless argued that *Greasley* is to be preferred over *Coombes* since the former case is a decision from a higher court and the defendant in *Coombes* provided significant financial assistance to the plaintiff.[157] However, even though such benefits might be taken into account to consider whether 'net hardship'[158] had occurred, it would be unlikely that any financial assistance the male gamete provider had given to the female could be determinative. The 'minimum equity to do justice'[159] is necessary, and this can only mean a decision over the fate of the embryos.

It is also worth considering another long-term risk for the female which should count for detriment. Although none of the detriments of a pregnancy with the frozen embryos in question will be factored into an estoppel argument, nonetheless, in her pursuit of IVF she had laid herself open to the risks of pregnancy. This point is made by Tracy Pachman, as part of an argument that with or without IVF, 'women overwhelmingly bear the responsibility of care, including emotional, psychological, and financial support' of the fetus and children born.[160] This argument is reminiscent of proprietary estoppel cases in which a person takes on responsibilities in the anticipation of receiving a future reward. However, if the couple plan to use a surrogate, as in *Nahmani*, then this point is less relevant as the woman will not carry the burdens of pregnancy.

3.2.3 Detriment of (repeated) failed IVF cycles

The aforementioned factors which may disadvantage women may need to be multiplied a number of times for failed IVF cycles, which in some cases can reach double figures.[161] For certain factors, the

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sold this house and bought another, which Mrs Coombes moved into, and redecorated. After the relationship broke down she claimed an interest in the house.

[155] ibid 820 (Parker QC).

[156] 'The first act relied on by the plaintiff is allowing herself to become pregnant by the defendant. In my judgment, it would be wholly unreal, to put it mildly, to find on the evidence adduced before me that the plaintiff allowed herself to become pregnant by the defendant in reliance on some mistaken belief as to her legal rights' (ibid 820 (Parker QC)).

[157] Wilken and Ghaly (n 9) 242; *Coombes v Smith* [1986] 1 WLR 808 (Ch) 811.

[158] ibid 242.

[159] *Crabb v Arun District Council* [1976] EWCA Civ 7 179 (CA) 198 (Scarman LJ).

[160] Tracey Pachman, 'Disputes over Frozen Preembryos & the "Right Not to Be a Parent"' (2003) 12 Columbia Journal of Gender and Law 128, 148.

[161] David Ryley and others, 'Characterization and Mutation Analysis of the Human FORMIN-2 (FMN1) Gene in Women with Unexplained Infertility' (2005) 83(5) Fertility and Sterility 1363, 1365; Alex Kuczynski, 'Her Body,

detriment increases at an accelerating rate with each failed cycle. There are physical issues. Repeated failures can lead to higher rates of thrombophilia in women,[162] which in some cases may be significantly higher, as noted by Hussein Qublan: 'Combined thrombophilia (two or more thrombophilic factors) was significantly higher in women who have had repeated IVF failure as compared with the two control groups'.[163]

It is worthwhile considering empirical research from Lene Koch exploring how women felt about their third and final publicly funded IVF cycle drawing to a close (regardless of whether treatment was successful).[164] The language used by female participants in Koch's study is striking: 'Liberation', 'peace of mind', and 'great relief are the expressions that the women use to characterise the situation when IVF will be ended definitively'.[165] There are issues pertaining to the emotional distress and societal pressures of repeated IVF procedures in the form of emotional labour, and these propositions will be interrogated in Chapter 4 in greater depth and from a property perspective. Such emotional distress is not *per se* likely to be construed as detrimental reliance in an estoppel case in the UK, even though it has been referred to by psychologists as involving 'detrimental consequences',[166] since there is a lack of precedent to support this view. Even in the US it can be noted that the courts have rejected claims based on emotional distress.[167]

3.2.4 Detriment for older women

For the gamete provider seeking implantation, a significant period of time may pass if he or she awaits legal resolution and seeks reproductive opportunities with other embryos. This passage of

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My Baby' *The New York Times* (New York, 30 November 2008) < http://www.nytimes.com/2008/11/30/magazine/30Surrogate-t.html?_r=0> accessed 9 February 2016. One report investigated a medical procedure on 7 women with infertility problems, 5 of which had a history of 15 failed IVF cycles. Eliran Mor, Melanie Landay, and Richard Paulson, 'Endometrial Receptivity is Preserved in Diethylstilbestrol-Associated and Other Müllerian Anomalies: Evidence from Tubal Embryo Transfer' (2009) 26(1) Journal of Assisted Reproduction and Genetics 65.

[162] Foad Azem and others, 'Increased Rates of Thrombophilia in Women with Repeated IVF failures' (2004) 19(2) Human Reproduction 368.

[163] Hussein Qublan and others, 'Acquired and Inherited Thrombophilia: Implication in Recurrent IVF and Embryo Transfer Failure' (2006) 21(10) Human Reproduction 2694, 2694.

[164] Lene Koch, 'IVF- an Irrational Choice' (1990) 3 Reproductive and Genetic Engineering: Journal of International Feminist Analysis 1.

[165] ibid 7.

[166] Qublan and others (n 163) 2694.

[167] In the USA, a case seeking damages for resulting from breach of an oral promise not to view a videotape with a sexual encounter, recovery for damages for emotional distress based on promissory estoppel was not allowed unless an independent tort could be established. *Deli v University of Minnesota* 578 NW2d 779 (Minn Ct App 1998). Similar decisions have been reached in other states. *Wright v Schwebel Baking Co*, 4475 (Ohio 2005) [38]; *Nancy Weible v University of Southern Mississippi and Dr Jane Siders* 00442 (MS Supreme Ct 2011) [40].

time may specifically confront women with greater physical risks. Detriment can thus be more relevant for older women. The difficulties of identifying an age which could be identified as mature, in that IVF and/or other reproductive options will be significantly reduced has already been alluded to.[168] Though not all frozen embryo disputes will involve the female gamete provider's last chance of pregnancy with her own genetic offspring dependent on implantation of the embryos in contention (as in *Evans*), a delay in pursuing treatment may regardless have a detrimental effect on women since many enter IVF knowing it is their 'last resort in the attempt to have a child'.[169] This is in part because older women face reduced reproductive possibilities, and as such any further delays they face will be potentially detrimental.[170] In general, reproductive potential gradually decreases from the age of 24 according to the largest study to date in the USA.[171] Fertility especially declines from the late 20s[172] due to a decreased probability of conception and increased probability that a pregnancy will terminate after conception or implantation.[173] The likelihood of IVF success also decreases with age.[174] With respect to funding, NICE guidelines state that IVF funding should be restricted to women aged 23 to 39.[175] Ruth Colker argues that it is accordingly false to equate women's reproductive capacity with men's, and that it is 'important for courts to be aware of these gender-specific implications when they decide cases involving reproductive choices'.[176] This essentially means *ceteris paribus* women have a greater interest in frozen embryos than men.

[168] See Chapter 2, n 39.
[169] Franklin (n 120) 121.
[170] The gender distinction between reduced reproductive potential begins at birth: 'A woman is born with all the oocytes she will ever have, with estimates varying from 400 000 to 2 x 10^6... Of these, only ~ 400 will be subject to ovulation during an average female's reproductive life. Contrary to this, with 1% of the supply of sperm created within a man each day, the entire stock of some billions of sperm can be replaced in < 4 months…'. Hillary Klonoff-Cohen, 'Female and Male Lifestyle Habits and IVF: What is Known and Unknown' (2005) 11(2) Human Reproduction Update 180, 180.
[171] David Seifer, Valerie Baker and Benjamin Leader, 'Age-Specific Serum Anti-Müllerian Hormone Values for 17,120 Women Presenting to Fertility Centers within the United States' (2011) 95(2) Fertility and Sterility 747, 747-50.
[172] David Dunson, Bernardo Colombo and Donna Baird, 'Changes with Age in the Level and Duration of Fertility in the Menstrual Cycle' (2002) 17(5) Human Reproduction 1399. This study particularly shows that fertility significantly declines after 27 by using a Bayesian statistical approach.[172]
[173] Egbert Velde and Peter Pearson, 'The Variability of Female Reproductive Ageing' (2002) 8(2) Human Reproduction Update 141, 142.
[174] Richard Jones and Kristin Lopez, *Human Reproductive Biology* (Academic Press 2014) 293.
[175] NICE Clinical Guideline 156, *Fertility: Assessment and Treatment* (2013) [1.11.1.3] <https://www.nice.org.uk/guidance/cg156/resources/fertility-problems-assessment-and-treatment-35109634660549> accessed 3 May 2016.
[176] Ruth Colker, 'Pregnant Men Revisited or Sperm is Cheap, Eggs are Not' (1996) 47 Hastings Law Journal 1063, 1074.

Increasing age indicates that gender-specific implications are triggered again. Older women are specifically more at risk of venous thrombosis should they pursue IVF.[177] Women over the age of 35 who become pregnant face increased risks of gestational diabetes, placenta praevia, emergency caesarean section, postpartum haemorrhage and delivery before 32 weeks gestation.[178] A recent Swedish study also found that women over the age of 30 'revealed significantly increased risk of prematurity, perineal lacerations, preeclampsia, abruption, placenta previa, postpartum haemorrhage and unfavourable neonatal outcomes' compared to younger women.[179] Consideration of the aforementioned risks will be relevant for majority of female patients given that the average age of treatment in the UK is 35[180] and, in general, the average age of having children is increasing.[181] Consideration should also be given to findings that there is a decline in not only egg quantity[182] but also quality[183] with maternal age. As mentioned above, since Ms Evans was 29 at the time of treatment[184] these issues were of moderate relevance, but that does not undermine the overall argument over the importance of gender in IVF. Although one might argue that a woman, for example, in her early 20s might not face the same aforementioned burdens, it would be unjust to recognise detrimental reliance only for women over a certain age, since the very reason couples usually seek IVF is due to reproductive complications. Nonetheless, this motivation does not negate that burdens exists which should be taken into account for the purposes of detriment.

3.3 Detriment to the male gamete provider seeking implantation

[177] Frederick Anderson and Frederick Spencer, 'Risk Factors for Venous Thromboembolism' (2003) 107 (23) Circulation I9-16.
[178] Matthew Jolly and others, 'The Risks Associated with Pregnancy in Women Aged 35 years or Older' (2000) 15(11) Human Reproduction 2433, 2433-37.
[179] Marie Blomberg, Rasmus Tyrberg and Preben Kjølhede, 'Impact of Maternal Age on Obstetric and Neonatal Outcome with Emphasis on Primiparous Adolescents and Older Women: A Swedish Medical Birth Register Study' (2014) 4(11) BMJ Open 5840.
[180] Human Fertilisation and Embryology Authority, 'Fertility Treatment in 2013: Trends and Figures' < http://hfeaarchive.uksouth.cloudapp.azure.com/www.hfea.gov.uk/docs/HFEA_Fertility_Trends_and_Figures_2013.pdf > 13 accessed 24 July 2017.
[181] "The average age of mothers in 2013 increased to 30.0 years, compared with 29.8 years in 2012", Office for National Statistics, 'Births in England and Wales, 2013: Statistical Bulletin'. <http://www.ons.gov.uk/ons/dcp171778_371129.pdf> 1 accessed 5 May 2016.
[182] Lie Fong and others, 'Anti-Müllerian Hormone: A Marker for Oocyte Quantity, Oocyte Quality and Embryo Quality?' (2008) 16(5) Reproductive Biomedicine Online 664.
[183] ibid; Elpida Fragouli, Dagan Wells and Joy Delhanty, 'Chromosome Abnormalities in the Human Oocyte' (2011) 133(2-4) Cytogenetic and Genome Research 107; Yaakov Bentov and Robert Casper, 'The Aging Oocyte—Can Mitochondrial Function be Improved?' (2013) 99(1) Fertility & Sterility 18, 18- 22. 'The loss of oocyte
quality is believed to be the result of an increase in meiotic nondisjunction, leading to an increasing rate of aneuploidy in the early embryo at higher female ages'. Frank Broekmans and others, 'Female Reproductive Ageing: Current Knowledge and Future Trends' (2007) 18(2) Trends in Endocrinology and Metabolism 58.
[184] *Evans* (CA) (n 60) [4].

A governance framework which considers that the detriment is significant enough to be relied on to estop the male gamete provider not seeking implantation from varying consent, yet not the female gamete provider not seeking implantation, may fall foul of Article 14 (taken in conjunction with Article 8) of the ECHR as discrimination based on gender.[185] Therefore, the detriment to the male gamete provider seeking implantation will now be analysed.

Though the male gamete provider may share in some of the financial costs and distress of IVF, the relative ease of sperm donation on his part is normally in stark contrast to the physical and psychological and burdens borne by the female gamete provider during IVF treatment. The financial costs she will face will on average be higher due to absence from work.[186] However, as two obstetricians once pointed out, 'The man, after being almost ignored for many years, can now share with his partner the various invasive medical techniques which may be proposed'.[187] In the cases in which there is no sperm in the male's ejaculate, a testicular biopsy may be required to retrieve sperm.[188] An NHS website advised the procedure requires light general anaesthetic combined with local anaesthetic.[189] Two medical researchers considered risks of vascular injuries[190] and inflammation,[191] but in their own study of 62 patients undergoing testicular biopsy, 'no acute perioperative complications' were detected.[192] Inflammation and/or haematoma was observed at 3 months afterwards at the biopsy site, but by 6 months had resolved.[193] This indicates that for some men, detriment for physical factors may be present, but will normally be significantly less than for women.

In a separate study 162 couples presenting for IVF treatment were tested for psychological distress, with differences associated with gender recorded.[194] The conclusion was that, 'both women and men experience significant infertility-specific psychological distress in the context of IVF,' although

[185] Chapter 5 analyses Article 14 rights in the context of frozen embryo disputes and considers that a similar argument would not be found to be discriminatory on the basis that the gamete providers should be viewed in terms of substantive, not formal, equality.
[186] Karin Hammarberg, Jill Astbury and Hugh Baker, 'Women's Experience of IVF: A Follow-up Study' (2001) 16(2) Human Reproduction 374, 378.
[187] Francois Olivennes and Rene Frydman, 'Friendly IVF: The Way of the Future?' 1998 13(5) Human Reproduction 1121, 1121.
[188] ibid.
[189] University Hospitals Coventry and Warwickshire, 'Surgical Sperm Retrieval (SSR)' http://www.uhcw.nhs.uk/ivf/treatments/ssr accessed 5th August 2015.
[190] Peter Schlegel and Li-Ming Su, 'Physiological Consequences of Testicular Sperm Extraction' (1997) 12(8) Human Reproduction 1688, 1688.
[191] ibid 1689.
[192] ibid.
[193] ibid 1691.
[194] Wichmann (n 76) 717.

for women the symptom severity was found to be higher.[195] However, male gamete providers can be susceptible to social pressures in the form of hurtful joking about infertility, according to one study about feelings towards IVF carried out by Karen Throsby and Rosalind Gill.[196] However, as mentioned previously for women, there is no case law that such distress could be considered as detriment for the purposes of estoppel. It is unlikely that it would be considered 'substantial' according to the requirement in *Gillett*.[197]

Fertility treatment for men, as with women, may begin before IVF. Testosterone replacement therapy carries a higher risk for men of the development of coronary heart disease than women,[198] as well as risks of sleep apnoea[199] although this study also indicates varied health benefits for men as a result of normalising levels of the hormone.[200] As with the female, hormonal treatment with gonadotropin also might be necessary for an infertile male, although there appears to be no documented risks associated with men taking this drug.

Potential issues beyond the direct physical burdens of the medical treatment may also be considered. The notion that IVF treatment as reproductive labour is analogous to work was addressed in the previous section, and there is limited scope to apply this notion here. Men may feel obligated to eat better in order to produce better quality sperm.[201] However, the level of responsibility they need to exercise over their bodies is not relevant once sperm donation has occurred, unless future cycles are considered possible, meaning that it is much more difficult to show that significant 'reproductive effort'/labour has been carried out by the male in this sense. He may be able to show 'reproductive effort'/labour in terms of any time and expense invested in assisting the female pursue treatment, or as in the case of *Nahmani*, helping in the selection of a surrogate.[202] In this case it was an arduous process involving three years significant economic and legal obstacles.[203] This expense is not atypical,

[195] ibid 719.
[196] Karen Throsby and Rosalind Gill, '"It's Different for Men"' (2004) 6(4) Men and Masculinities 330, 336-338
[197] 'The detriment need not consist of the expenditure of money or other quantifiable financial detriment, so long as it is something substantial'. *Gillett* (n 6) 232 (Robert Walker LJ).
[198] Eberhard Nieschlag and others, 'Testosterone Replacement Therapy: Current Trends and Future Directions' (2004) 10(5) Human Reproduction Update 409, 413.
[199] ibid 416.
[200] 'Testosterone therapy normally results in improvements in mood and well-being and thereby results in an improved quality of life'. ibid 416. 'It is generally well accepted that restoring testosterone levels to the normal range will improve quality of life parameters in the long term and will provide a range of benefits to muscle, bone and other testosterone-dependent functions'. ibid 471.
[201] Marijana Vujkovic and others, 'Associations between Dietary Patterns and Semen Quality in Men Undergoing
IVF/ICSI treatment' (2009) 24(6) Human Reproduction 1304.
[202] *Nahmani* (n 31) 52.
[203] *Nahmani* (n 31) 52-3.

illustrated by a survey of 332 couples in the US which found that those treated with IVF spent a median of $19,234.[204]

This section has shown that detriment may exist to the man seeking implantation, but in most cases it is significantly less than then woman's detriment.

3.4 Detriment to gamete providers not seeking implantation

In a similar manner to that mentioned above, estoppel might arise if the law or the contract (assuming there is one) were silent on the fate of the embryos if consent were varied, or if the law or contract provided a veto to the male gamete provider seeking implantation. It may also be raised as a counterclaim to the estoppel argued by this gamete provider.[205] Detriment would not be so significant for the female not seeking implantation for two reasons. First, she would not be able to rely on the loss of opportunity for genetic parenthood through use of the embryo(s) in question. Second, it would be more difficult to link the treatment she had received to her wish to not have the embryo implanted because the purpose of the treatment was to have a child. Authority from proprietary estoppel cases would be lacking, since there would be no property for the representee to inherit. However, the detriment that would flow from the representor resiling on a promise that she would, for example, destroy the embryos would be unwanted parenthood.

If detriment could be judged from the moment at which the representor does go back on his or her promise, then any anguish the gamete provider not seeking implantation suffers as a result of the knowledge that she will become an unwanted parent might be taken into account as part of the 'cumulative effect' of the claim of the gamete provider not seeking implantation on the 'conscience' of the gamete provider seeking implantation.[206] This may be relevant for men as well. For the man not seeking implantation, there would be no detriment beyond that which faces the female. Craig Lind sums up the issue, 'Men have the easier option to walk away from it'.[207]

3.5 Conclusions on estoppel

[204] Alex Wu and others, 'Out-of-Pocket Fertility Patient Expense: Data from a Multicenter Prospective Infertility Cohort' (2014) 191(2) The Journal of Urology 427, 429.
[205] A counterclaim of estoppel against a claim of estoppel is unusual. For an example of such a counterclaim in estoppel see *Mohammed Ghadami v Donegan* [2014] EWHC 4448 (Ch).
[206] *Gillett* (n 6) (Robert Walker LJ).
[207] Craig Lind, 'Evans v United Kingdom—Judgments of Solomon: Power, Gender and Procreation' (2006) 18(4) Child and Family Law Quarterly 576, 589.

The elements Panitch first identified, which can be understood under the heading of 'reproductive effort', have been elaborated and analysed in a discussion of estoppel. The analysis provided from case law and empirical studies strongly support her argument that the greater injustice would be to deny implantation to the spouse who detrimentally relied on the other's words and conduct. A representation that IVF treatment should be pursued with the aim of implantation, which can be shown was reasonably relied upon to pursue a course of IVF treatment, should especially allow for estoppel to arise for a female gamete provider due to her greater detriment. To prevent a gamete provider from varying his or her consent for the use of the embryos would require an amendment of Schedule 3 of the 1990 Act, which will be considered in Chapter 6.

Estoppel clearly draws out the gendered distinctions in IVF relating to the investment of the gamete providers' bodies. Specifically, it distinguishes a female gamete provider from a male gamete provider in terms of detriment. Furthermore, it distinguishes a female gamete provider seeking implantation from a female gamete provider not seeking implantation on the basis of detrimental reliance. The result is that the female gamete provider seeking implantation has by far the strongest position in an estoppel case. None of the conditions of estoppel are mutually exclusive,[208] and gender factors are therefore relevant for all of them. Specifically, a greater appreciation of the role of detriment shows that estoppel should be more readily available for the female who has begun receiving treatment for IVF. The old adage runs that hard cases make bad law,[209] but frozen embryo disputes, which have been exemplified as the 'hardest of cases' [210] can also 'test the law'[211] and 'make revealing law';[212] and one aspect they can reveal is the inequity of failing to recognise the detriment to the woman in these disputes.

In case law, even when estoppel has specifically been considered, as in *Roche*, considerations of detriment (not mentioned explicitly) were limited to the disadvantages of not achieving genetic parenthood. The detriment of undertaking IVF treatment *per se* was overlooked. The use of a balancing test is fair, but should also take into account the varied factors mentioned here, such as the ages of the parties involved, and the number of cycles undertaken. These factors can have a significant effect on detriment and the unconscionability of a representor resiling.

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[208] *Gillett* (n 6) 225 (Robert Walker LJ).
[209] *R v General Medical Council, ex parte Colman* [1990] 1 All ER 489 (CA) (Civ) 511 (Lord Donaldson).
[210] Mark Pieper, 'Frozen Embryos - Persons or Property: Davis v. Davis' (1990) 23 Creighton Law Review 807.
[211] Brian Schroeder, 'Damn the Contract, I Want to Use the Embryos' (*Schiller, DuCanto & Fleck LLP*, 15 May 2015) < http://www.familylawtopics.com/2015/05/damn-contract-want-use-embryos/#more-1511> accessed 4 January 2016.
[212] Pieper (n 210).

Equity has often been viewed with scepticism, and criticised for its uncertainty.[213] As Aristotle once remarked, 'There may indeed be cases which the law seems unable to determine, but in such cases can a man?'[214] The application of estoppel in any environment remains controversial in English law,[215] and under an alternative statutory framework, it is feasible such controversy would spread to frozen embryo disputes. The basis of this thesis however is not how much discretion should be afforded to judges in frozen embryo disputes. The point has been to show in this chapter that when an agreement fails to take into account detriment satisfactorily, equity allows for a solution avoiding unconscionability. Estoppel could be especially useful to avoid opportunistic conduct[216] by the representor which might involve allowing the representee to incur the risk of a relationship breakdown, or other unconscionable behaviour in which he allowed the woman to be treated in the knowledge her pursuit would be futile.

The equitable doctrine of estoppel can therefore provide moral and legal solutions in managing the gendered distinctions. Morality and equity are kindred spirits, as various commentators have reflected,[217] yet their methodology can differ. Equity can be more concerned with maintaining stable legal structures, which allow for the enforcement of law. Equity's application to frozen embryo disputes specifically addresses notions of what is fair and just to the expectations of both parties and can help avoid property transfers which were based on deception, coercion or unfairness. As mentioned in Chapter 1, the relationships between gamete providers and the very nature of reproduction has been reframed by assisted reproductive technologies such as IVF, and the frozen embryo disputes that have arisen are clearly complex, requiring a response from equity. Nils Hoppe has argued for the adoption of equitable principles in the application of property law to body parts,[218] considering that equity is the best solution in responding to the 'new complexities of society

[213] Michael Akehurst, 'Equity and General Principles of Law' (1976) 25(4) International and Comparative Law Quarterly 801, 809; Peter Birks, 'Equity in the Modern Law' (1996) 26(1) University of Western Australia Law Review 1, 97.
[214] Aristotle, *Politics* (Benjamin Jowett tr, HWC Davis ed, Cosimo 2008) 139.
[215] *Thorner v Major* [2009] UKHL 18 [29] (Lord Walker).
[216] Although as Henry Smith notes, 'Equity was not designed to root out every last bit of opportunism and courts recognized that equitable doctrines and remedies, not least injunctions, themselves could be exploited by opportunistic litigants unless courts were on their guard and were willing to stay the hand of equity'. Henry Smith, 'Property, Equity and the Rule of Law' in Lisa Austin and Dennis Klimchuk (eds), *Private Law and the Rule of Law* (Oxford University Press 2014) 233 quoted in Ben McFarlane, Nicholas Hopkins and Sarah Nield, *Land Law* (3rd edn, Oxford University Press 2015) 178. See also ibid, 343.
[217] Emily Sherwin, 'Law and Equity in Contract Enforcement' (1991) 50 Maryland Law Review 253, 254. Ronald Caplan, Donald Light and Norman Daniels, 'Benchmarks of Fairness: A Moral Framework for Assessing Equity' (1999) 29(4) International Journal of Health Services 853 (although this article considers equity less from a legal vantage and more a general notion of fairness). Equity is a 'branch of morality' according to Gary Watt, *Todd & Watt's Cases & Materials on Equity and Trusts* (6th edn, Oxford University Press 2007) 3.
[218] Nils Hoppe, *Bioequity—Property and the Human Body* (Ashgate 2009) 155-9.

using the mechanism which the law itself foresaw'.[219] The place of property law in resolving frozen embryo disputes will therefore be deliberated further in the following chapter to provide an alternative perspective which accounts for the 'reproductive effort' of gamete providers.

[219] ibid 163.

Chapter 4: An Assessment of the Use of Property Law in Resolving Frozen Embryo Disputes

> The Master replied, 'Your body is my property. You have given yourself up to me. How dare you think of destroying what is another's property? Cannot you distinguish between a crime and just deed? Your body is my chief instrument; with it I shall carry out many purposes.[1]

4.1 Introduction

The above quotation invites us to reflect on how and under what circumstances the body—and specifically parts of bodies, frozen embryos—can and should be used in IVF following a dispute between the gamete providers. This chapter addresses these questions through the perspective of property law. This involves a discussion as to whether property law can be applied to IVF; and how it would affect the interests of gamete providers, especially following a dispute over the disposition of embryos. That the construction of frozen embryos as property is sometimes opposed[2] and at other junctures accepted[3] in US cases is indicative that the interests of gamete providers can be affected variably by notions of property law. This chapter informs the thesis by considering that a de-gendered property approach to IVF is undesirable, and the analysis of 'reproductive effort' in Chapter 3, in terms of detriment, is applied here to notions of reproductive labour which have been discussed by academics from a property perspective.[4] Thus, main purpose of this chapter is twofold. First, to argue that greater recognition of the 'reproductive effort' of women, now expressed in terms of reproductive labour, should grant them decisional authority in frozen embryo disputes. Second, to consider which model of property law would be most suitable to account for 'reproductive effort' for the resolution of the type of frozen embryo dispute considered. As mentioned in the introduction, the analysis is therefore centred on the relationship between the effort required to produce the embryo(s) and the potential implications this has for property law.

[1] Krshnadasa Sarkar, *Chaitanya's Life and Teachings* (first published 1922, Forgotten Books 2013) 266.
[2] *In re Marriage of Dahl and Angle* 194 P 3d 834 (Or App 2008).
[3] *Reber v Reiss* No 1351 EDA 2011 (Pa Super 2012).
[4] Donna Dickenson, *Property, Women and Politics: Subjects or Objects?* (Rutgers University Press 1997) 160.

The favoured approach to resolution under property law involves a nuanced interpretation of Locke's theory of labour,[5] drawing on the work of Donna Dickenson[6] in the context of bioethical scenarios such as surrogacy and gamete donation. In contextualising Locke's understanding of the place of labour in property, there is greater scope to develop a notion of how reproductive labour could inform judicial decision making in frozen embryo disputes in the hypothetical situation that the consent requirements of the 1990 Act were not present. This chapter provides an extended analysis of the point made by JK Mason that there are 'good pragmatic reasons why it is positively right to vest the woman with a form of property rights in her embryo… she has done much more to produce the embryo than has the man—IVF treatment provides no easy road for the would-be mother'.[7]

The use of concepts of property to resolve legal issues stretches back millennia.[8] For the purposes of this thesis, property, generally speaking, is a relevant area of law to consider since it sets out the control of things. Mark Thompson elaborates, 'When one states that one owns property, one is using a form of shorthand to describe the rights which one possesses'.[9] Property law is also useful in that it can dictate not only legal relations between a person and a thing but, as Remigius Nwabueze observes, relations 'between persons with respect to things, and between persons without references to things'.[10] Property rights can specify 'how persons may be benefited and harmed'.[11] Avoiding a notion that the richer person decides what happens to a thing, property law, alternatively, decides 'which of the conflicting parties will be entitled to prevail'.[12] Jeremy Waldron adopts a similar position on property ownership in that it places a person in a 'privileged position' in relation to a thing.[13] Property law is therefore applied to determine which party should prevail in the event of a dispute, thereby addressing the central theme of how this area of law affects the particular interests of gamete providers in relation to their frozen embryo(s).

[5] John Locke, *The Second Treatise of Civil Government: A Letter Concerning Toleration* (first published 1689) <http://www.earlymoderntexts.com/assets/pdfs/locke1689a.pdf> accessed 5 September 2016 [27].
[6] Dickenson (n 4) 160.
[7] JK Mason, 'Discord and Disposal of Embryos' (2004) 8 Edinburgh Law Review 84, 91.
[8] James Harris, *Property and Justice* (Oxford University Press 1996) 3.
[9] Mark Thompson, *Modern Land Law* (5th edn, Oxford University Press 2012) 1.
[10] Remigius Nwabueze, *Biotechnology and the Challenge of Property: Property Rights in Dead Bodies, Body Parts, and Genetic Information* (Ashgate 2007) 8.
[11] Harold Demsetz, 'Toward a Theory of Property Rights' (1967) 57(2) Papers and Proceedings of the Seventy-ninth Annual Meeting of the American Economic Association 347, 347.
[12] Guido Calabresi and Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' in *Economic Analysis of the Law* (Donald Wittman ed, Wiley 2008) 2.
[13] Jeremy Waldron, 'What is Private Property' (1985) 5 Oxford Journal of Legal Studies 313, 333.

Invocation of property rights can dictate what gamete providers are able to do with their embryos, and thus how those property rights are framed is important. Ownership of property has been considered as the basis for allowing a person to deal with a thing in any way he or she pleases.[14] Ownership is the most common type of property right,[15] and what can flow from ownership are rights that gamete providers could exercise over embryos. Simon Douglas considers 'in most cases involving litigation over human biological material, the right being claimed by a litigant is that of ownership'.[16] The authors of the Warnock Report originally considered that the existence of frozen embryos 'raises potentially difficult problems as to ownership'[17] and set out that the 'concept of ownership of human embryos seems to us to be undesirable',[18] recommending that legislation ensured 'no right of ownership in a human embryo'.[19] Thus, in considering ownership within a property law approach, the highly qualified approach laid out by the Supreme Court of Tennessee in the seminal case of *Davis v Davis* that gamete providers 'do have an interest in the nature of ownership, to the extent that they have decision-making authority concerning disposition of the pre-embryos, within the scope of policy set by law' is recommended.[20] It should also be noted that ownership of a thing does not necessarily amount to a property right in the thing.[21] Nwabueze concurs with this point, but also notes that a full ownership interest in a thing exemplifies a property right.[22] The approach considered most prudent for the present context is that the qualified property right would grant gamete providers the ability to exercise a disposition decision through a possible right to use their embryos or exclude others from using them. This methodology is rooted in the work of Anthony Honoré'[23] who considers that ownership is based on a bundle of 'sticks'[24] which includes, the right to use, manage, possess, dispose and exclude.

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[14] Sarah Wilson, *Todd & Wilson's Textbook on Trusts & Equity* (12th edn, Oxford University Press 2015) 3
[15] Laura Underkuffler, *The Idea of Property: Its Meaning and Power* (Oxford University Press 2003) 14.
[16] Simon Douglas, 'Property Rights in Bodily Material' in *Persons, Parts and Property: How Should We Regulate Human Tissue in the 21st Century* (Imogen Goold and others, eds, Hart 2014) 91.
[17] *Report of the Committee of Inquiry into Human Fertilisation and Embryology (Warnock Report)* Cmnd 9314 (London, HMSO, 1984) [10.11].
[18] ibid.
[19] ibid.
[20] *Davis v Davis* 842 SW 2d 588 (Tenn 1992) 597 (Daughtrey J).
[21] Simon Douglas, 'Property Rights in Bodily Material' in *Persons, Parts and Property: How Should We Regulate Human Tissue in the 21st Century* (Imogen Goold and others, eds, Hart 2014) 92.
[22] Remigius Nwabueze, 'Body Parts in Property Theory: An Integrated Framework' (2014) 40 Journal of Medical Ethics 33.
[23] Anthony Honoré, 'Ownership' in *Oxford Essays in Jurisprudence* (Anthony Guest ed, Clarendon Press 1961) 107ff.
[24] Stephen Munzer, *A Theory of Property* (Cambridge University Press 1990) 22. The sense that sticks represent a bundle of rights emanates from antiquity, when the fasces were carried before the Roman Emperor to indicate rights and place limitations on the Emperor's powers. Jane Ball, 'The Boundaries of Property Rights in English Law' (2006) 10.3 Electronic Journal of Comparative Law July 1, 4.

The two rights singled out for deliberation are those most relevant to the resolution of frozen embryo disputes. First, the 'right to exclude' (the other gamete provider or fertility clinic from a disposition decision). Second, the 'right to use' (the frozen embryos for implantation or donation to a surrogate), since the language of 'use' of embryos most often arises in case law.[25] Both rights carry different nuances in their scope of application and are considered in the context of a discussion on the relevance of property theories to the thesis. Before entering this discussion, a Lockean theory of property is introduced, upon which is constructed a notion of reproductive labour.

4.2 Theories of property

4.2.1 Lockean theories and property

According to Locke, man has been granted authority by God to make use of the Earth and its resources 'to the best advantage of life and convenience'.[26] Locke postulated that property rights had to be defended against political absolutism through property rights, which themselves arise from rights which exist in the person (which 'nobody has any right to but himself').[27] These are extended to include Earth and its 'inferior creatures', such that the:

> [L]abour of his body, and the work of his hands, we may say, are properly his. Whatsoever then he removes out of the state that nature hath provided, and left it in, he hath mixed his labour with, and joined to it something that is his own, and thereby makes it his property. It being by him removed from the common state nature hath placed it in, it hath by this labour something annexed to it, that excludes the common right of other men: for this labour being the unquestionable property of the labourer, no man but he can have a right to what that is once joined to, at least where there is enough, and as good, left in common for others.[28]

The point constructed here is that the reproductive labour involved in the production ('mixed with' in Lockean terms) of gametes should dictate gamete providers' relative interests in their resultant embryos. Criticism of this is grounded in general theories of property. First, it could be counter-argued that just because a man or woman mixes their gametes with the other's, this does not

[25] *Davis* (n 20) 591; *Kass v Kass* 91 NE 2d 554 (NY 1998) 559; *Evans v Amicus Healthcare Ltd* [2003] EWHC 2161 (Fam) [10]; *In re Marriage of Dahl and Angle* (n 2).
[26] Locke (n 5) [26].
[27] ibid [27].
[28] ibid [27].

necessarily entitle them to the resultant mixture by virtue of their labour. Support for this view can be drawn from Robert Nozick[29] and Waldron.[30] Nozick argues that an owner of a can of tomato spilling it in the sea does not subsequently come to own the ocean.[31] However, such an analogy would be stretched since any owner of the seas would not likely agree to a tomato spiller appropriating her property right under such conditions. Moreover, a tomato spiller cannot be said to have contributed a significant proportion of the volume of the resultant admixture. Therefore, the tomato spiller may well argue he has property rights in the sea, but these will be defeated by those whose property rights are substantially greater. Thus, though a gamete provider in IVF could acquire property rights in their embryos under an alternative property regime through their labour, the nature of, for example, her property rights may supersede the property rights of another. Of course, the difference between a can of tomato and a sea is vast, and so the analogy to sperm and egg provider respectively breaks down on this point. However, Waldron's similar observation to Nozick's allows a renewed understanding of the analogy:

> Individual A mixes his labour with object Q, seems to involve some sort of category mistake. Surely the only things that can be mixed with objects are other objects. But labour consists of actions, not objects. How can a series of actions be mixed with a physical object?[32]

Waldron continues by imagining a sandwich dropped in cement, and that a subsequent claim to entitlement in the concrete block would be a 'joke'.[33] Adapting Waldron's argument would intimate that what is being 'mixed' are sperm and eggs, but the fallacy of application of this analogy to the rights and labour of the woman in relation to those of the man in IVF/reproduction is apparent: again the degree of effort involved is significantly greater as shown in Chapter 3, and there is also a much more of an intimate connection between subject and object. Another legal philosopher, Adam Mossoff, criticises Waldron's understanding of Locke's theory from a different angle. [34] For Mossoff, Locke's argument is based on a need to 'preserve' oneself'[35] and create products necessary to live through 'mixing labour', and thus it follows that this involves a moral obligation to a divine law to improve the Earth's resources for the benefit of life.[36] Importantly, he interprets Locke's labour to

[29] Robert Nozick, *Anarchy, State, and Utopia* (Basic Books, 1974).
[30] Jeremy Waldron, 'Two Worries about Mixing One's Labour' (1984) 33 Philosophical Quarterly 37.
[31] Nozick (n 29) 174-75.
[32] Waldron (n 30) 37.
[33] Waldron (n 30) 43.
[34] Locke (n 5) [6].
[35] Locke (n 5) [6].
[36] Adam Mossoff, 'Locke's Labor Lost' (2002) 9(1) The University of Chicago Law School Roundtable 155, 160.

also mean 'productive activity'.[37] In this chapter it is argued that seeking to 'produce' a child through the use of IVF is clearly a productive activity, as opposed to dropping a sandwich in cement. This labour should provide prioritisation in terms of property rights over frozen embryos.

The use of property law with reference to body parts indicates how the interests of gamete providers may be affected by a hypothetical application of the law to IVF, and whether John Locke's account of property rights should be extended to gamete providers. Dickenson has queried why women's labour is so 'routinely ignored' in new biotechnologies.[38] She regards the law as having 'failed to consider that women put greater labor into extraction of eggs, and thus into the creation of embryos, than men undergo in the collection of sperm'.[39] Her position is that property models should be reconstructed to allow them to be more women friendly and to recognise the role of reproductive labour.[40] She argues that 'women *labour* to produce extracted ova, in the purposeful manner characterising the sort of labour which grounds property rights in Locke'.[41] Dickenson's work is located within a feminist narrative on the role of property, and her interpretation of Locke acts as rejoinder[42] to feminist Carol Pateman who considered Locke's account of the individual to mean that men, not women, have property in their own body.[43] Although the approach in this thesis is gender neutral rather than feminist, in that a theory of 'reproductive effort' should apply to both men and women, the effect in practice would nonetheless be to normally grant greater property rights to women due to their greater investment. However, as explained in Chapters 2 and 3, this is not necessarily always the case. For example, the rare situation of men requiring extended medical treatment for IVF[44] may lead to them having greater property rights relative to other men.

4.2.2 Marxism and property

The notion of reproductive labour relayed here could also be supported by a Marxist critique which centres on the exploitation of women in their role as gamete providers. Writing during and after the industrial revolution, Karl Marx and Friedrich Engels also did not specifically entertain the idea of

[37] Adam Mossoff, 'Rethinking the Development of Patents: An Intellectual History' (2001) 52 Hastings Law Journal 1255, 1550ff.
[38] Donna Dickenson, *Property in the Body: Feminist Perspectives* (Cambridge University Press 2007) 54.
[39] Donna Dickenson, 'Disappearing Women, Vanishing Ladies and Property in Embryos' (2017) 8 Journal of Law and Biosciences 1, 5.
[40] Dickenson, *Property, Women and Politics: Subjects or Objects?* (n 4) 64ff; Donna Dickenson, 'Property and Women's Alienation from their Own Reproductive Labour' (2001) 15(3) Bioethics 205.
[41] Dickenson, *Property in the Body: Feminist Perspectives* (n 38) 68 (emphasis added).
[42] Dickenson, *Property, Women and Politics: Subjects or Objects?* (n 4) 90.
[43] Carole Pateman, *The Sexual Contract* (Stanford University Press 1988) 11, 13-14.
[44] See section 3.3 of Chapter 3.

exploitation of reproductive labour, but were primarily concerned with exploitation of the means of production of the proletariat,[45] with the end goal being the abolition of private property.[46] The premise for this was that a person can be alienated from the value of their labour; a key Marxist theory which resonates with a Locke's sense that property rights should be defended, and is of relevance in this chapter in considering how the property rights of gamete providers should be framed. Alienation can occur because the worker is coerced into accepting labour-power for wages as offered by the capitalist system, and is explained in *Critique of the Hegelian Philosophy of Right*.[47] Marxism perceives this transaction as alienating the worker from the true value of the content of the transaction and thus the 'degradation of his humanity, and since all that he receives in exchange is nothing other than the embodiment of value already expropriated from him'.[48]

With regard to gender, the solution, according to Engels, was to liberate women by providing them with greater public identity in industry.[49] Neither Marx nor Engels addressed the issue of re-allocation of interests between genders based on labour. Their theory was geared towards producing a fairer political governance system. Therefore, although this chapter refers to notions of exploitation generally which have a Marxist flavour to them, a purer *macro* Marxist approach is not interrogated with respect to the *micro* interests of a competing couple following IVF treatment. This chapter thus veers closest to Marxist views on exploitation and, in particular, that people can be alienated from their labour. The specific concept of alienation applied in this chapter has particular reliance on Dickenson's definition that alienation is defined 'not by the conditions under which labour is done, but by whether that labour is one's own property'.[50] In this chapter, the conditions of IVF are important for my thesis, but are not viewed in isolation from the labour done.

It is not the purpose of this thesis to justify a pre-industrial Lockean perspective that private property should be protected as opposed to the Marxist response to the industrialist society arguing for the abolishment of private property. Ultimately, the sense that property derives from labour intersects both Lockean and Marxist understandings, and that is consequently the focus here.

4.2.3 Utilitarianism and property

[45] Karl Marx and Frederick Engels, *Manifesto of the Communist Party* (first published 1848, Filiquarian Publishing 2007) 16ff.
[46] ibid 22.
[47] Karl Marx, 'Zur Kritik der Hegelschen Rechtsphilosophi' (1844) 1 Deutsch-Französische Jahrbücher 71.
[48] Harris (n 8) 193.
[49] Friedrich Engels, *The Origin of the Family, Private Property and the State* (first published 1884, Alick West tr, International 1972) 137ff.
[50] Dickenson, *Property, Women and Politics: Subjects or Objects?* (n 4) 129.

It would be possible to refer to a utilitarian theory of property following the tradition of Jeremy Bentham, to discuss the relative benefits of allowing a transfer of property to occur or not. This economic approach postulates that property should be allocated in order to optimise social utility.[51] The application of utilitarianism would be novel, yet as Jessica Berg remarks, would lead to difficulties in knowing how to weigh the utility and disutility to any individual, and is more likely to be absent of moral language.[52] As Marxism lends itself more to discussion of a political governance system, the consequentialism of utility is primed to the maximisation of economic welfare, which is not a priority for this thesis. The key concern is a just allocation of frozen embryos. Although Locke was also very much interested in political discussion, his notions that the power of the state should be limited have already largely been adopted in the West.[53] As such, there is much less political ramification involved in focussing on his theory of property, and thus Locke becomes more relevant for the scope of this chapter. There is the leeway to confine his theory to the *micro* level of this thesis: to the main actors in question as the competing interests of the gamete providers are considered. This allows a targeted discussion to identify how the reproductive labour of one party exceeds that of another, thus giving rise to property rights.

4.3 IVF as 'reproductive labour'

'Nature hath provided'[54] sperm to be within men and eggs to be within women, yet the stimulation of egg production and retrieval of eggs in women is more likely to count as labour than the retrieval of sperm due to the efforts and risks mentioned in Chapter 3. At this point, it is necessary to consider whether a woman does indeed 'mix' her labour during the IVF process due to the onerous requirements of egg stimulation and retrieval and, in a Lockean sense, thereby making (the eggs) her property. The purpose is to consider whether this form of labour would prioritise her property rights in the embryos over the man's, whose corresponding labour to produce his gametes is merely masturbation, unless he receives further medical treatment of the type mentioned in Chapter 3.

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[51] Ellen Paul, 'Natural Rights and Property Rights' (1990) 13 Harvard Journal of Law and Public Policy 10, 15.
[52] Jessica Berg, 'Owning Persons: The Application of Property Theory to Embryos and Fetuses' (2005) 40 Wake Forest Law Review 159, 178.
[53] On the subordination of the state to property in France, see John Markoff, *The Abolition of Feudalism: Peasants, Lords, and Legislators in the French Revolution* (The Pennsylvania State University Press 1996) 34; on the separation of powers in the US, see Mark Griffith, 'John Locke's Influence on American Government and Public Administration' (1997) 3(3) Journal of Management History 224; on the separation of powers in the UK, see Lawrence Stone, 'The Results of the English Revolutions of the Seventeenth Century' in *Three British Revolutions: 1641, 1688, 1776* (John Pocock ed, Princeton University Press 1980) 99.
[54] Locke (n 5) [27].

Before considering IVF explicitly, it should be noted that a sense that pregnancy involves 'labour' is well-founded.[55] Simone de Beauvoir described gestation as a 'fatiguing task… demanding heavy sacrifices'.[56] Mary O'Brien explained that 'women have no choice at all but to labour to bring forth the fruit of their wombs... [whereas] [m]en are biologically free from the necessity to labour reproductively'.[57] O'Brien expands further that 'reproductive labour is a synthesizing and mediating act. It confirms women's unity and nature experientially, and guarantees that the child is hers. Labour is inseparable from reproductive process in its biological involuntariness'.[58] The notion is not without criticism. Susan Okin argued by reduction ad absurdum that extending the notion of self-ownership to women's reproductive labour could lead to the undesirable outcome of mothers owning their 'babies'.[59] The (controversial) dichotomy between person and property discussed in Chapter 1 is relevant in this debate. In 1986, the American Fertility Society advised that 'gametes and concepti are the property of the donors. The donors therefore have the right to decide at their sole discretion the disposition of these items…'.[60] In the same year, the Louisiana State Legislature enacted law to specifically reject a property approach in preference of personhood by stating the,

> in vitro fertilized human ovum is a juridical person which cannot be owned by the in vitro fertilization patients who owe it a high duty of care and prudent administration. If the in vitro fertilization patients renounce, by notarial act, their parental rights for in utero implantation, then the in vitro fertilized human ovum shall be available for adoptive implantation in accordance with written procedures of the facility where it is housed or stored.[61]

State courts in the US have generally been reluctant to follow a similar approach in resolution of frozen embryo disputes however. In *Cahill v Cahill*,[62] the Alabama Court of Civil Appeals alluded to the frozen embryos in question as 'property' and as having an 'owner' when considering a dispute between a divorced couple.[63] Although the court did not substantially consider the consequences of such an approach, the fears of ownership of a person can be downplayed. Once born and with an

[55] The connection between the effort exerted in IVF prior to implantation and pregnancy is referred to in Chapter 6.
[56] Simone de Beauvoir, *The Second Sex* (Howard Parshley tr, first published 1949, Knopf 1975) 29.
[57] Mary O'Brien, *The Politics of Reproduction* (Routledge 1981) 15.
[58] Ibid 59.
[59] Susan Okin, *Women in Western Political Thought* (Princeton University Press 1979) 79-82.
[60] The Ethics Committee of the American Fertility Society, 'Ethical Considerations of the New Reproductive Technologies' (1986) 46 Fertility and Sterility 89.
[61] Section 1 of LA Acts 1986, No 964, as amended by section 9:130 of LA Revised Statute 2011.
[62] 757 So 2d 465 (Ala Civ App 2000).
[63] ibid 465-7.

existence independent of her mother,[64] the neonate would acquire property rights in herself, which would necessarily trump any pre-existing ones a gamete provider held. As Jennifer McKitrick reflects, 'Even if the mother owned the matter that became the fetus, it is not clear that she ever owned anything numerically identical to any subsequent adult'.[65]

In the context of IVF, objectifying the embryo also allows for the potential for it to be perceived as separable property, which requires labour to produce. The effort of this labour was clearly outlined in Chapter 3 as detriment, and a number of legal academics, especially in the US, refer to the greater investment made (normally by women) to produce embryos as 'sweat equity'.[66] The term 'sweat' recognises that significant and substantial effort is involved in the IVF procedure. Sarah Franklin has specifically described women's experiences in IVF as 'a form of reproductive labour',[67] and concludes that the experience is so intense that it becomes a 'way of life', [68] something that 'you "live" twenty-four hours a day'. [69] The notion of 'sweat equity' (which includes the contributions made by the woman in IVF already mentioned) also led lawyer Tracy Pachman to conclude on this basis that there should be a 'presumption that women have a greater right to control pre-embryos that result from IVF'.[70] A campaign for greater recognition of 'sweat equity' has also been promoted by writer Pamela Tsigdinos who experienced years of IVF without success.[71] She raises awareness about the high failure rates associated with assisted reproduction, and the ensuing trauma and loss.[72] Such risks, as analysed in Chapter 3, strongly indicate that significant labour is undertaken in IVF. It is to this end that Dickenson argues, 'Women do labour to create the bodies of their fetuses in pregnancy and childbirth. The labour which women put into superovulation, egg extraction and early pregnancy qualifies as labour which confers a property right in a Lockean model, and a feminist approach 'likewise supports women's property rights in the forms of embryonic tissue which they have laboured to create'.[73] This labour, according to Dickenson, is intentional.[74] Similarly, it is argued here

[64] *Re A (Children) (Conjoined Twins: Surgical Separation)* [2000] EWCA Civ 245, 406 (Brooke LJ).
[65] Jennifer McKitrick, 'Liberty, Gender and the Family' in *Liberty and Justice* (Tibor Machan ed, Hoover Institution press 2006) 85-86.
[66] This phrase was coined by John Robertson, 'Resolving Disputes over Frozen Embryos' (1989) 19(6) Hastings Center Report 7, 8.
[67] Sarah Franklin, *Embodied Progress: A Cultural Account of Assisted Conception* (Routledge 1997) 125.
[68] ibid 129, 131, 165.
[69] ibid 129.
[70] Tracey Pachman, 'Disputes Over Frozen Preembryos & the "Right Not to Be a Parent"' (2003) 12 Columbia Journal of Gender and Law 128, 146.
[71] Karen Barrow, 'Facing Life Without Children When It Isn't by Choice' *The New York Times* (New York, 10 June 2008) < http://www.nytimes.com/2008/06/10/health/10pati.html?_r=0> accessed 19 November 2016.
[72] Pamela Tsigdinos, 'Finally Heard: a Silent Sorority Finds Its Voice' http://blog.silentsorority.com/about-me/ accessed 16 November 2015.
[73] Dickenson, *Property, Women and Politics: Subjects or Objects?* (n 4) 215-6.
[74] Dickenson, 'Property and Women's Alienation from their Own Reproductive Labour' (n 40) 215.

that the medical treatment of a gamete provider in IVF also intentional and worthy of legal recognition.

A form of effort involved in IVF not mentioned in Chapter 3 concerns the emotional distress involved. Consideration can thus be given to emotional labour, which can be described as requiring workers 'to suppress, control, or elicit their own and others' emotions and job demands. In other words, their capacity to engage in, and their efficacy in exerting emotional labour is essential to job performance'.[75] Emotional labour can be defined as 'the *effort within* oneself to conjure appropriate feelings or subdue inappropriate ones, and the effort to induce particular feelings in another person or stifle other feelings'.[76] The areas of work which Sharon Mastracci, Mary Guy and Meredith Newman contemplate are jobs with highly charged situations, such as the police, therapists or emergency staff. However, they can also include more diverse roles such as carers[77] and call-centre employees.[78] There is scant literature on the emotional labour of IVF, but upon the definitions provided, its presence in practice is palpable. The emotional labour in IVF, especially for women, can arise from emotional distress and societal pressures, as now considered. Repeated cycles of IVF may be difficult for a woman to handle,[79] and may be considered humiliating.[80] The failure of IVF is considered by Franklin as 'undoubtedly the most emotionally wrenching feature of IVF',[81] with the difficulty of needing to accept having 'come so far'.[82] In one psychological study a woman commented after the first failed cycle: 'it absolutely crushed me',[83] and multiple cycles to another woman were 'emotionally… the worst thing I have ever done'.[84] As noted in Chapter 3, men can experience variable physiological consequences when surgery is required to retrieve sperm,[85] but men can also experience emotional distress in the pursuit of IVF treatment. One study found that

[75] Sharon Mastracci, Mary Guy and Meredith Newman, *Emotional Labor and Crisis Response: Working on the Razor's Edge* (Routledge 2015) 139.
[76] ibid 28.
[77] Rebecca Erickson and Clare Stacey, 'Attending to Mind and Body: Engaging the Complexity of Emotion Practice Among Caring Professionals' in *Emotional Labor in the 21st Century: Diverse Perspectives on Emotional Regulation at Work* (Deborah Rupp eds, Routledge 2013).
[78] Monica Molino and others, 'Inbound Call Centers and Emotional Dissonance in the Job Demands – Resources Model' (2016) 7 Frontiers in Psychology 1133.
[79] One woman recollected, 'When the Cycle didn't Work, I wasn't sure I could ever put myself through it again.' Fertility Matters, 'Kate's Story – Unexplained infertility' < http://fertilitymatters.org.uk/real-life-stories/kates-story/> accessed 10 September 2015.
[80] Robyn Rowland, *Living Laboratories* (Indiana University Press 1992) 21.
[81] Sarah Franklin, *Embodied Progress: A Cultural Account of Assisted Conception* (Routledge 1997) 121.
[82] ibid.
[83] Lesley Glover, Ashleigh McLellan and Susan Weaver, 'What Does Having a Fertility Problem Mean to Couples?' (2009) 27(4) Journal of Reproductive and Infant Psychology 401, 409.
[84] ibid.
[85] Peter Schlegel and Li-Ming Su, 'Physiological Consequences of Testicular Sperm Extraction' (1997) 12(8) Human Reproduction 1688, 1688-91.

men diagnosed with infertility were more likely to report loss of physical potency and self-esteem, and feelings of stigmatisation.[86] Another study found that men pursuing intracytoplasmic sperm injection reported marginally more distress before gamete retrieval than men not using this procedure in IVF.[87] A more recent study concluded there is:

> [N]o evidence that a diagnosis of male infertility influences mens' experience of infertility, view of life, relationship and psychological well-being at the time of a first IVF/ICSI treatment cycle. Men in this situation seem generally well adjusted before starting their first infertility treatment, independently of which partner has the infertility diagnosis.[88]

IVF treatment can lead to anxiety and depression,[89] which may take one or two years to recover from.[90] The only study to compare risk factors for depressive and anxiety disorders between men and women undergoing IVF found that no mood disorder was experienced among men following IVF treatment outcomes, although unexplained infertility could result in mood disorders.[91] Another study examined the circumstances and perspectives of decision making in 25 women who had decided to end treatment after unsuccessful IVF cycles.[92] Reports from the interviews vividly indicated the sense of loss of opportunity and stress:

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[86] Robert Nachtigall, Gay Becker and Mark Wozny, 'The Effects on Gender-Specific Diagnosis on Men´s and Women´s Response to Infertility' (1992) 57 Fertility and Sterility 113.

[87] Jacky Boivin, 'Distress Level in Men Undergoing Intracytoplasmic Sperm Injection Versus In-Vitro Fertilization' (1998) 13(5) Human Reproduction 1403.

[88] Herborg Holter and others, 'The Psychological Influence of Gender Infertility Diagnoses among Men about to Start IVF or ICSI Treatment Using their own Sperm' (2007) 22(9) Human Reproduction 2559, 2564. The study involved 65 men with male infertility diagnosis and 101 men in couples with female, mixed or unexplained infertility diagnoses.

[89] Karin Hammarberg, Jill Astbury and Hugh Baker, 'Women's Experience of IVF: A Follow-up Study' (2001) 16(2) Human Reproduction 374, 381. A similar conclusion relating to "major depression" was reached in Helena Volgsten and others, 'Risk Factors for Psychiatric Disorders in Infertile Women and Men Undergoing In Vitro Fertilization Treatment' (2010) 94(4) Fertility and Sterility 1088, 1093. The actress Brooke Shields vividly explains: 'The difficulty of IVF or of any fertility issues is the hope and the shattered hope, the dream that it might happen this time and then it doesn't happen'. New London Pharmacy, 'Fertility Services' <http://www.newlondonpharmacy.com/categories/58-fertility_services> accessed 18 June 2015. Another psychiatric study found, 'Not only is unsuccessful treatment associated with an increased risk of depression, a failed treatment may also cause an increase in preexisting depressive symptoms, which are unlikely to diminish shortly after treatment'. Helena Volgsten and others 'Risk Factors for Psychiatric Disorders in Infertile Women and Men Undergoing In Vitro Fertilization Treatment' (2010) 94(4) Fertility and Sterility 1088, 1093.

[90] Pauline Slade, Josephine Emery and Brian Lieberman, 'A Prospective, Longitudinal Study of Emotions and Relationships in In-Vitro Fertilization Treatment' (1997) 12(1) Human Reproduction 183.

[91] Volgsten and others (n 89) 1093.

[92] Valerie Peddie, Edwin Van Teijlingen, Siladitya Bhattacharya, 'A Qualitative Study of Women's Decision-Making at the End of IVF Treatment' (2005) 20(7) Human Reproduction 1944.

> Most women had spent the majority of their thirties going through investigations and treatment resulting in a sense of 'missed opportunities', which eventually influenced their decision to end treatment: 'I was so drained throughout treatment and never felt sociable. We had a great social life before IVF and a part of me wanted that back so badly'... Many were unable or unwilling to share their concerns and anxieties with close family and friends, distancing themselves from potential support networks… Some women actually described feelings of relief at the end of treatment, with one woman explaining in detail how she could now move on with her life: 'I wanted my life back, and I remember feeling great sadness at the thought of never being pregnant, more than that, never having a child, but also a huge relief that I wouldn't have to go through another IVF cycle and the disappointment and grief that it brings'... Being released from the incredible stressful cycle of events that surround IVF treatment was expressed by another respondent: 'I'm still grieving for the child I never had, for my fertility, but I feel a sense of relief that I don't have to go through the emotional upheaval of another cycle and that we can now move on… One professional woman commented not only on her sense of failure as a woman, but in failing to meet the expectations at work: 'I missed two chances of promotion at work. I was beginning to think if I gave any more time to IVF, I wouldn't have a career. [93]

Emotional distress was a factor not addressed in *Evans*.[94] Ms Evans reported to a newspaper that during the course of litigation depression set in and there were times she felt suicidal.[95] After losing the trial at the ECtHR, Ms Evans reports she was prescribed anti-depressants with a feeling that she had 'nothing left to live for' following the notice that her embryos had been destroyed,[96] indicating the gravity of the loss of the reproductive opportunity for her. Women can also feel a greater sense of vulnerability and pressure from the media, experiencing 'a social obligation to try new technology in order to reproduce'.[97]

These academic findings address the issue of emotional labour without specifically framing it as such. It is argued that the emotional distress in the labour of IVF, normally a greater burden to women,

[93] ibid 1947.
[94] *Evans v United Kingdom* [2008] 46 EHRR 34 [90].
[95] Rachel Halliwell, 'It Happened to Me: My Ex Destroyed My Embryos' *Daily Mail* (London, 3 August 2009) <http://www.dailymail.co.uk/femail/article-1203484/It-happened-My-ex-destroyed-embryos.html> accessed 9 February 2016.
[96] ibid.
[97] Peddie, Teijlingen and Bhattacharya (n 92) 1946.

should be ascribed significance in in law. In practice, this would indicate that in most circumstances women should have greater property rights in the embryos in the event of a dispute.

4.3.1 Reproductive labour in IVF in the context of property law

Consideration of property rights allows for recourse to the moral conversation appropriately fitting for frozen embryo disputes. This supports the claim that Locke's account is closely linked to notions of morality[98] and natural law.[99] As Loren Lomasky reflects, property rights 'demarcate moral space within which what one has is marked off as immune from predation'.[100] This morality of property rights speaks of rights which are not absolute or static; the rights I can exercise over a thing may be limited through such moral considerations. To reframe Lomasky's point, the question here is whether the reproductive labour taken to produce frozen embryos siphons off a 'moral space' which should be immune from the gamete provider who has invested significantly less reproductive labour.

Regardless of the extent to which morality would impress upon a Lockean application to frozen embryo disputes, it would not necessarily be a foregone conclusion that the gamete provider who exerted greater reproductive labour should decide exclusively what happens to all of the embryos. As Locke mentioned:

> I dig up ore, in any place where I have a right to these in common with others, the grass or turf or ore becomes my property, without anyone's giving it to me or consenting to my having it. My labour in removing it out of the common state it was in has established me as its owner.[101]

As labour is specifically connoted with removal of an object from its 'common state', or changing it from one state to another, then in comparison to gametes, their removal and transformation to produce embryos would seemingly apply equally to men and women. Nonetheless, the examples Locke provides infer that he gave regard to the scale of labour involved. For example, mining ore is a process, and one person can mine more ore than another. Therefore, the one who has mined more ore would have greater property rights because she has produced more ore. Ore is divisible and

[98] Locke argued that moral rules are divine in origin, and universal in application. Moreover, he laid out that such divine moral laws should be discernible by reason and rationality, and as such were obligatory. John Locke, *Essays on the Law of Nature and Associated Writings* (first published 1676, Wolfgang von Leyden ed, Oxford University Press 2002).
[99] Locke (n 5) [27].
[100] Loren Lomasky, *Persons, Rights, and the Moral Community* (Oxford University Press 1987) 121.
[101] Locke (n 5) [28].

separable, therefore it would make sense that the ore could be apportioned to the miners on the basis of what they have mined. Such a notion could be applied to property perspectives of gamete providers' relations to their embryos in IVF, but it would require deliberation over whether embryos can be considered separable.

The notion that a frozen embryo is a separate thing is viable in property law. An essential feature of property mentioned by Lady Hale in a tort case concerning economic loss is that it has an 'existence independent of a particular person'.[102] Property is a 'separable thing' according to James Penner,[103] and eminent property lawyer Margaret Radin considers that there is an 'intuition that property necessarily refers to something in the outside world, separate from oneself'.[104] This independence and separation allows for a thing to be, for example, traded. Although on one hand an embryo is not completely independent from its progenitors, and is sometimes referred to by gamete providers as 'a little piece of me';[105] on the other hand, frozen embryos operate in clear geographic separation to the gamete providers. Mary Ford has favoured an approach taking into account the separable nature of property to protect the fetus against actions of third parties in pregnancy, and not against the actions of the woman, indicating that the fetus is not without value, but whose value lies in being property of the owners.[106] Thus, under property law, 'she is entitled to dispose of her property without legal interference, and she is also entitled to seek compensation from -- and criminal sanctions for -- those who interfere with her property'.[107]

A reverberating issue in this chapter is, if the property is non-fungible such as land, a decision may have to be made as to whom a property right would fall to at the exclusion of the other entirely. Chapter 2 referred to a land case involving in a farmer who had exerted significant effort on a farming business and was allowed to inherit it, in part, on the basis of the labour he had exerted.[108] The argument introduced here is that the property rights of the gamete provider who has exerted greater reproductive labour would be prioritised. This can be cross-referenced to a further land analogy Locke made: 'A man owns whatever land he tills, plants, improves, cultivates, and can use

[102] *OBG Ltd v Allen* [2007] [2008] 1 AC 1, 88.
[103] James Penner, *The Idea of Property in Law* (Clarendon Press 1997) 152.
[104] Margaret Radin, 'Property and Personhood' (1982) 34(5) Stanford Law Review 957, 966. Radin criticises a Lockean approach to property, preferring a Hegelian personality-based theory of property. Margaret Radin, *Reinterpreting Property* (University of Chicago Press 1993).
[105] Michelle Blake, 'Poetry Therapy and Infertility Counselling' (2002) 15(4) Journal of Poetry Therapy 195. Various blogs of women describing their IVF journeys use this terminology, for example, 'Bean Journey', <http://beanjourney.blogspot.nl/2012_08_01_archive.html> accessed 10 October 2016.
[106] Mary Ford, 'A Property Model of Pregnancy' (2005) 1(3) International Journal of Law in Context 261, 263.
[107] ibid 263.
[108] *Thorner v Major* [2009] UKHL 18.

the products of. By his labour he as it were fences off that land from all that is held in common'.[109] The person who cultivates the land more than another receives a greater interest in 'fencing it off'. This supports my argument that by virtue of one gamete provider's relative labour she can 'fence off' another from exerting powers over her embryos. These examples so far indicate that there is scope to apply notions of labour to resolve property disputes, even to the promised land here of non-fungible frozen embryos. With a clearer idea of the application of a theory of property to my thesis, the chapter returns to consider two of Honoré's sticks. The first is the right to exclude, which more closely corresponds to a right to 'fence off'.

4.4 Right to exclude

A right to exclude is described as the *sine qua non* of the elements of property,[110] foundational to property rights[111]—determinative of whether someone has property. The right to exclude operates to exclude all others from controlling or using a thing signifying the bearer of the right becomes 'the last person standing after the exclusion of everyone else'.[112] The principal concern of a right not to exclude is not a gamete provider's relationship with her embryo, but rather with the other gamete provider. Notwithstanding, one gamete provider's right to use an embryo may clearly override the other gamete provider's rights over the embryo, thereby having the effect of excluding the other.

The key here is that the interest is not principally in the property; rather it may be the right, for example, to exclude or prevent a gamete provider[113] from exercising his/her own decisions in relation to the embryo without the other gamete provider's consent. It can establish a 'duty not to interfere'[114] not only on the other gamete provider, but also on the fertility clinic and indeed the rest of the world. Such an *in rem* right is a hallmark of property law, and a case[115] concerning a successful claim for the negligent storage of sperm samples can be understood on the basis of interference (see below). This indicates the possibility for such a right to be utilised in frozen embryo disputes in IVF.

[109] Locke (n 5) [32].
[110] Thomas Merrill, 'Property and the Right to Exclude' (1998) 77(4) Nebraska Law Review 730, 730.
[111] Penner (n 103) 68-71.
[112] Larissa Katz, 'Exclusion and Exclusivity in Property Law (2008) 58(3) University of Toronto Law Review 275, 277.
[113] Kansas Gooden, 'King Solomon' Solution to the Disposition of Embryos: Recognizing a Property Interest and using Equitable Division' (2008) 30(1) University of La Verne Review 66, 84.
[114] Simon Douglas and Ben McFarlane 'Defining Property Rights' in *Philosophical Foundations of Property Law* (James Penner and Henry Smith, Oxford University Press 2013) 239.
[115] *Yearworth and others v North Bristol NHS* [2009] EWCA Civ 37.

An alternative understanding could arise from the sense that a property right grants gamete providers a right *not* to be excluded. The sense would be that gamete providers have a right in using their embryos, but not in excluding others from the use of their embryos *per se*. In a bilateral dispute, the effect of such a negative right is likely to produce the same effect as the corresponding positive one. Prior to considering a second stick of Honoré's theory—the right to use, it is pertinent to consider the scope of this chapter's discussion in relation to placing not only gamete providers' interests, but also the embryo, within the parameters of property law.

4.5 Embryos as property

Margaret Radin argues that products of reproductive activity (such as embryos) should not be considered 'severable fungible object[s]' of property.[116] The argument for non-fungibility of frozen embryos would be stronger in the event that they represented a gamete provider's last chance of genetic parenthood as they could not be replaced. This would arise, for example following an oophorectomy of both ovaries or bilateral orchidectomy (of both testicles) without any gametes having been consigned to storage prior to the operation. There are other reasons for considering whether the special nature of embryos indicates whether property law would be a useful tool in judging disputes over them. As mentioned in Chapter 1, the Warnock Committee adopted an approach of recognising the 'special status' of the embryo.[117] The opaque concept of the special nature of embryos could influence whether they would be perceived as objects which can allow gamete providers to exert property rights over them. In Chapter 1 it was shown how Wall J in *Evans* considered that embryos require special protection under the law, and that, 'They are different from mere property'. [118] The judge opined that '"Specialness" alone would be a good reason not to give a veto over continued storage to one gamete provider alone'.[119] Special, but not special enough—the legal status of frozen embryos in *Evans* was not critical for the interests of gamete providers.[120]

Nonetheless, Wall J entertained analogies to property and pets, 'To risk a blunt submission, it was difficult to think of examples in domestic law in which the law permitted the destruction even of mere property on the whim of one of two co-owners. It would not do so in the case of a family pet'.[121] Of course, even with property rights in pets, this does not allow the owner to treat their

[116] Margaret Radin, *Contested Commodities* (Harvard University Press 1996) 127.
[117] *Warnock Report* (n 17) [11.17].
[118] *Evans* (HC) (n 25) [219].
[119] ibid.
[120] ibid.
[121] *Evans* (HC) (n 25) [221].

animal in any manner,[122] and as Jonathan Herring notes, property rights could still carry laws that prohibit, for example, the creation of embryo earrings.[123] Notwithstanding, Wall J set out plainly that his reflections were constrained by law: 'There is no property in an embryo, but in contrast to a fetus, both gamete donors have an interest in, and rights over, the embryos they have created. Those rights are governed by the Act'.[124] At the Court of Appeal, Arden LJ countenanced the possibility that a father might have 'some rights of property in his genetic material', and on that basis the question would be, 'why should he have any right of property in this regard since he would not have had any right of property if sexual intercourse had taken place in the normal course of events'?[125] Arden LJ also conceded such questioning was hypothetical due to the restriction of the 1990 Act requiring ongoing consent to store or use the embryos.[126]

The spin on 'specialness' took a different route in the US. The Supreme Court of Tennessee held that frozen embryos 'occupy an interim category that entitles them to special respect because of their potential for human life'.[127] The court held[128] that the embryos could not be considered persons under state statutes or under federal law due to *Roe v Wade*.[129] Therefore the gamete providers did not have a 'true property interest' in their embryos, but they did have 'have an interest in the nature of ownership, to the extent that they have decision-making authority concerning disposition of the preembryos, within the scope of policy set by law'.[130] To date, federal law in the US does not govern disputes arising from withdrawal of consent to use embryos created by IVF, and historically there has been disagreement between lawmakers in the US, as noted in a committee report to the American Medical Association, which states that there is 'no consensus on the exact nature of an individual's property interest in his own body'.[131]

Thus, difficulties in comprehending and classifying the embryo means certain US courts, such as the Supreme Court of Tennessee, have been reluctant to regard the embryo as property, which consequently severely limits a hypothetical application of property rights based on reproductive

[122] Sections 3 to 9 of the Animal Welfare Act 2006.
[123] See *R v Gibson* [1990] 2 QB 619 (CA) in Jonathan Herring, 'Why We Need a Statute to Regulate Bodily Material' in *Persons, Parts and Property: How Should We Regulate Human Tissue in the 21st Century* (Imogen Goold and others, eds, Hart 2014) 211.
[124] *Evans* (HC) (n 25) [178].
[125] *Evans v Amicus Healthcare Ltd* [2003] EWCA Civ 727 [88].
[126] ibid [90].
[127] *Davis* (n 20) 597 (Daughtrey J).
[128] *Davis* (n 20) 595 (Daughtrey J).
[129] 410 US 113 (1973). In this landmark decision the US Supreme Court held that a woman has a constitutional right of privacy to terminate a pregnancy through an abortion in the early stages of pregnancy.
[130] *Davis* (n 20) 597 (Daughtrey J).
[131] *Davis* (n 20) 597.

labour in frozen embryo disputes. Thus, reproductive labour can be overlooked through difficulties in classifications of the embryo.

4.6 Controlling and using embryos

The chapter now returns to consider how reproductive labour might be interpreted in IVF under a second stick of Honoré's—the right to use. The focal point of this thesis is who has, and should have, control and use of embryos in frozen embryo disputes, and on what basis this can be established. Property law grants the potential to *control* a thing and ER Gold notes that the discourse surrounding property involves a combination of conceptions, assumptions and language 'to decide to whom and in what circumstances we ought to grant rights of control over a good'.[132] JK Mason and Graeme Laurie also observe, 'Property is a powerful control device for the bundle of rights that it confers'.[133] Thus, in the context of frozen embryo disputes John Robertson questions, 'shall those who produce it control it, or may or should the government set limits'?[134] More recently Lyria Moses has argued that the 'control' over frozen embryos that property law permits makes it preferential to other laws such as those concerned with merely privacy or consent.[135] The issue of 'control' of the embryos is clearly heavily context specific as Gold might predict according to his point above.[136] In English law the discussion has centred almost exclusively on how embryos are 'used'.[137]

'The right to use' a thing was recognised by Anthony Honoré as a 'cardinal feature' of ownership,[138] and more recently, Penner views property as founded in 'the interest we have in the use of things'.[139] Reflecting on the functionality of property as a social institution, James Harris considers how it governs the 'use of things', and armed the individual 'with power over others by virtue of a capacity to dictate the use of the resource'.[140] The right can also indicate how an object should or should not be used, as Nozick explains a 'property right in my knife allow me to leave it where I will,

[132] ER Gold, *Body Parts: Property Rights and the Ownership of Human Biological Materials* (Georgetown University Press 1996) 43.
[133] JK Mason and Graeme Laurie, *Mason and McCall Smith's Law and Medical Ethics* (9th edn, Oxford University Press 2006) 478.
[134] John Robertson, 'Decisional Authority over Embryos and Control of IVF Technology' (1988) 28 Jurimetrics 285, 288.
[135] Lyria Moses, 'The Problem with Alternatives: The Importance of Property Law in Regulating Excised Human Tissue and *In Vitro* Embryos' in *Persons, Parts and Property: How Should We Regulate Human Tissue in the 21st Century* (Imogen Goold and others eds, Hart 2014) 201.
[136] n 130.
[137] *Evans* (HC) (n 25) [10].
[138] Anthony Honoré, 'Ownership' in *The Nature and Process of Law* (Patricia Smith ed, Oxford University Press 1993) 372.
[139] Penner (n 103) 71.
[140] Harris (n 8) 4.

but not in your chest'.[141] Thus, whether and how a person can 'use' embryos is decisive in judging frozen embryo disputes, especially if this pertains to all the embryos, and is a right which extinguishes another person's ability to store or use the embryos.

The functionality of property in allocating resources was also espoused by Jeremy Waldron,[142] and indicates that property law can be determinative in finding which gamete provider can use the embryos. However, Clarke and Paul Kohler note, 'It is quite wrong to say that *all* property rights in things give the right holder the right to use and enjoy the thing. Your landlord has a property interest in the house you rent from him… but this does not give [him]… the right to use and enjoy it'.[143] It is therefore pertinent to look at how case law has constructed the 'use' of embryos.

The *Warnock Report* originally recommended that gamete providers have 'rights to the use and disposal of the embryo'.[144] The sense of 'using' embryos was mentioned in *Evans* in the clinic's consent form which stated, to recap, 'Upon the cessation of our domestic relationship by divorce or legal separation we understand that the storage and use of the embryos must be reviewed'.[145] The 'use' of embryos was also mentioned in an HFEA form[146] which both parties signed. To restate, Paragraph 4(2) of Schedule 3 of the 1990 legislates for this requirement, stipulating the:

> [T]erms of any consent to the use of any embryo cannot be varied, and such consent cannot be withdrawn, once the embryo has been *used* —
>
> (a) in providing treatment services, or
>
> (b) for the purposes of any project of research…[147]

The ensuing debate over whether the objects in contention could be *used* was reminiscent of property disputes over the use of things,[148] albeit in this context 'use' refers only to the specific

[141] Robert Nozick, 'Distributive Justice' in *Justice (Oxford Readings in Politics and Government)* (Allan Ryan ed, Oxford University Press 2000) 110.
[142] Jeremy Waldron, *The Right to Private Property* (Clarendon Press 1988) 34.
[143] Alison Clarke and Paul Kohler, *Property Law: Commentary and Materials* (Cambridge University Press 2005) 177.
[144] *Warnock Report* (n 17) [10.11].
[145] Clause 2 of paragraph 4 of the Consent form, *Evans* (HC) (n 25) [52]. Wall J noted here that the use of the word 'review' was ambiguous and not consistent with the provisions of Schedule 3 of the 1990 Act. *Evans* (HC) (n 25) [83].
[146] 'You may vary the terms of this consent or withdraw this consent at any time except in relation to eggs or embryos which have already been used'. 'Consent to Storage and Use of Eggs and Embryos'. *Evans* (HC) (n 25) [75].
[147] Emphasis added.

action of transferring the embryo into the uterus in the process of fertility treatment. However, Ms Evans contended that since the embryos had already been subject to the selection process, they had been 'used' in the sense described above. She cited *Quintavalle v Human Fertilisation and Embryology Authority*,[149] a case involving the legitimacy of preimplantation genetic diagnosis, and whether the genetic analysis of a cell taken from an embryo constituted 'use' of an embryo as per paragraph 4(2).[150] Following this case, Wall J recognised that the '"use" of an embryo is not limited to its transfer to a woman'.[151] However, this did not assist Ms Evans as Wall J distinguished the instant case, considering that paragraph 1(d) of Schedule 2 of the 1990 Act described the 'examination and selection' of embryos as functions which occurred *prior* to use.[152] 'Use' therefore had to refer to implantation, and as such Paragraph 4 of Schedule 3 of the 1990 Act provided Mr Johnston with the necessary statutory authority to revoke his consent.[153] The Court of Appeal unhesitatingly supported Wall J's position, holding that an alternative construction would be 'almost absurd'.[154] In teasing out the meaning of what 'use' of embryos meant, such judicial reasoning would sit comfortably under the property heading albeit without the restrictions on consent of the 1990 Act.

English case law is not alone in considering that the use of embryos is significant in decision-making. In the case of *In re Marriage of Dahl and Angle*[155] the Court of Appeals of Oregon enforced a contract made by a couple that subsequently divorced. The contract stipulated that the disposition decision would fall to the woman in the event of a dispute. Her decision was for the embryos to be destroyed. The Court concluded that 'the contractual right to possess or dispose of the frozen embryos is personal property… is subject to a "just and proper" division'.[156] The Court conceded that what constitutes 'just and proper' is a more difficult question. In answering this, the Court applied case law[157] from other states to enforce the agreement since it reflected the parties' intent for the disposition of the embryos. In describing the embryos as property, the Court did not explore that the justice or propriety of the partners' property interests would be affected by their reproductive

[148] For example whether a kitchen could be used (*Haywood v Mallalieu* (1883) 25 ChD 437; the use of a letterbox (*Goldberg v Edwards* [1950] Ch 247) or a lavatory (*Miller v Emcer Products Ltd* [1956] Ch 304).
[149] [2003] EWCA Civ 667.
[150] ibid [160].
[151] *Evans* (HC) (n 25) [163].
[152] *Evans* (HC) (n 25) [164].
[153] *Evans* (HC) (n 25) [165].
[154] *Evans* (CA) (123) [33] (Thorpe LJ).
[155] 194 P 3d 834 (Or App 2008).
[156] ibid.
[157] *Davis* (n 20); *Kass* (n 25).

labour, regarding that the division of such property gives rise to 'deeply emotional conflict'.[158] The case illustrates that property rights can arise without any mention of the labour required to produce them, and has been used in providing rationale for quasi-property rights.

4.7 Quasi-property

'Quasi-property rights' present an alternative route which could be used to bestow upon gamete providers a type of limited property right. They have been described as rights in which the 'owner of the property has some but not all of the sticks in the bundle of property rights'.[159] The rights first surfaced in the US in which possessory and custodial interests were recognised in a corpse.[160] Considering that there was a property right in the dead, the court held: 'the burial of the dead is a subject which interests the feelings of mankind to a much greater degree than many matters of actual property. There is a duty imposed by the universal feelings of mankind to be discharged by someone towards the dead; a duty, and we may also say a right, to protect from violation'.[161] The application of a quasi-right in the US has been focussed on allowing claimants to sue for damages,[162] and has been interpreted as a 'strategic move'[163] to allow such actions involving emotional distress to arise. Any extension of quasi-property rights concerning emotional distress from the end to the beginning of life would likely provide damages at best to the disappointed party.

The quasi-property right proliferated throughout different jurisdictions in the US,[164] and commonly refers to 'the right to custody of the body; to receive it in the condition in which it was left, without mutilation to have the body treated with decent respect, without outrage or indignity thereto' and to bury or otherwise dispose of the body without interference'.[165] The difficulty in applying these

[158] *In re Marriage of Dahl and Angle* (n 2).
[159] Michelle Bray, 'Personalizing Personality: Toward a Property Right in Human Bodies' (1990) 69(1) Texas Law Review 209, 220.
[160] The Supreme Court of Rhode Island held that 'the body is not property in the usually recognized sense of the word, yet we may consider it as a sort of quasi property, to which certain persons may have rights, as they have duties to perform towards it, arising out of our common humanity. But the person having charge of it cannot be considered as the owner of it in any sense whatever; he holds it only as a sacred trust for the benefit of all who may from family or friendship have an interest in it'. *William G Pierce and Wife v Proprietors of Swan Point Cemetery and Almira T Metcalf* (1872) 14 Am Rep 667 (RI LEXIS) 681.
[161] ibid 676.
[162] *Scarpaci v Milwaukee County* 96 Wis 2d 663 (1980) 702-3 (Abrahamson J); *Carney v Knollwood Cemetery Assn* 33 Ohio App 3d 31 (Ohio Ct App 1986) [83] (Jackson PJ).
[163] Daniel Sperling, *Posthumous Interests: Legal and Ethical Perspectives* (Cambridge University Press 2008) 102.
[164] For example *Rivers v Greenwood Cemetery* (1985) 335 SE2d 127 (Ga LEXIS).
[165] *Whitehair v Highland Memory Gardens* [1985] 327 SE2d 438, 441 (W Va LEXIS).

notions to questions pertaining to the beginning of life[166] in frozen embryo disputes is that claimants are not faced with the consequence of a child being born. Nonetheless, part of the rationale behind this right in relation to corpses is that allows for the dignity owed to a person to continue after death.[167] Gamete providers' perceptions of their embryos, and whether this can reasonable take into account any dignitarian feelings they may have towards them is not a theme of this thesis. It can be noted briefly however that since there exists potential feelings of concern for their embryos, [168] this may indicate that any claims for negligent storage or even conversion take this factor into account, as well as the loss of reproductive labour. The lack of recognition of reproductive labour in areas other than frozen embryo disputes in IVF will now be considered for the sake of completeness.

4.8 The example of surrogacy

Surrogacy is a form of assisted reproduction in which another woman (surrogate) carries and gives birth to a baby for intended parent(s) or commissioning parent(s) who wish to have a child.[169] Disputes typically involve the surrogate changing her mind and not handing the child over after birth.[170] As with frozen embryo disputes, few of these disagreements ever reach court.[171] The actual reproductive labour of surrogacy reaches far beyond that involving IVF cycles in that it involves pregnancy and childbirth. Legal disputes are distinct to frozen embryo disputes in that the issue is often over who has the right to *become* a parent, whereas in surrogacy it is who has the right to *be* a legal parent.[172] The Warnock Committee declared that surrogacy 'becomes positively exploitative

[166] The Court of Appeals of Georgia has applied the right to a case involving a stillborn fetus, where the Court held that the extraction and testing of blood from a stillborn fetus without the mother's consent was a violation of her quasi-property right. *Jackson v State* (1993) 430 SE2d 781 (Ga Ct App).
[167] Peter Skegg, 'Medical Uses of Corpses and the "No Property" rule' (1992) 32(4) Medicine, Science and the Law 311, 314.
[168] In one study of gamete providers, when it became their spare embryos for donation would not be used for implantation, they found decisions of their fate 'much harder than they imagined and fraught with moral ramifications'; and for others 'embryos were considered part of their family that existed yet simultaneously did not exist'. Sheryl de Lacey, 'Parent Identity and "Virtual" Children: Why Patients Discard Rather Than Donate Unused Embryos' (2005) 20(6) Human Reproduction 1661, 1663-5. In another study of 1020 fertility patients, those who ascribed a high moral status to the embryos were more likely to use them for future pregnancy attempts, donate them to other couples or be present at a ceremony (known as compassionate transfer) for their disposal. In contrast, those ascribing a lower moral status were more likely to discard the embryos or donate them for research'. Anne Lyerly and others, 'Fertility Patients' Views about Frozen Embryo Disposition: Results of a Multi-Institutional U.S. Survey' (2010) 93(2) Fertility and Sterility 499, 506.
[169] *Warnock Report* (n 17) [8.1].
[170] *N (A Child)* [2007] EWCA Civ 1053; *Re TT (Surrogacy)* [2011] EWHC 33 (Fam); *H v S (Surrogacy Agreement)* [2015] EWFC 36.
[171] Louisa Ghevaert, 'Recent Surrogacy Disputes in Focus' (2013) 722 Bionews < http://www.bionews.org.uk/page_343312.asp> accessed 13 September 2015.
[172] In the UK, section 33 of the Human Fertilisation and Embryology Act 2008 provides that as the birth mother the surrogate will be the child's legal mother. For the commissioning couple to become legal parents they must apply for a parental order according to section 54 of the 2008 Act, or if they do not meet the criteria,

when financial interests are involved',[173] a position echoed by academics of different disciplines[174] and it is possible to ground this exploitation in Lockean terms. Part of Mossoff's interpretation of Locke is that labour 'means productive activity', and the 'root of property is production, and production is a creative activity'.[175] One might argue that women are not *producing* output in IVF per se, but *receiving* medical treatment. However, the position in this chapter is that the reception of medical treatment can indeed be classed as work,[176] and the conceptualisation of surrogate mothers as reproductive labourers[177] illustrates this. The notion is not without contention, with analogies drawn between surrogates and prostitutes[178] or alternatively as 'sexualised care workers'.[179] That surrogate mothers produce labour that should be bound by economic norms has been criticised by Anton van Niekerk, Liezl van Zyl and Elizabeth Anderson. Van Niekerk and van Zyl consider the possibility that 'if the surrogate is forced to hand over the child against her will, her labour would turn out to be alienated labour, since she is asked to separate herself from the fruit of her womb'.[180] This sense of alienation could be transposed, to a lesser degree, to frozen embryo disputes in IVF. Anderson argues against the treatment of women's labour in surrogacy as a commodity due to it

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adopt. If neither option is open to the court, other arrangements can be made (for example see Kirsty Horsey, 'Fraying at the Edges: UK Surrogacy Law in 2015: H v S (Surrogacy Agreement) [2015] EWFC 36, Re B v C (Surrogacy: Adoption) [2015] EWFC 17, Re Z (A Child: Human Fertilisation and Embryology Act: Parental Order) [2015] EWFC 73, A & B (Children) (Surrogacy: Parental Orders: Time Limits) [2015] EWHC 911 (Fam)' 24(4) Medical Law Review 608.

[173] *Warnock Report* (n 17) [8.17].

[174] Margaret Radin, 'Market-Inalienability' (1987) 100(8) Harvard Law Review 174 in *The Ethics of Reproductive Technology* (Kenneth Alpern ed, Oxford University Press 1992) 190-1; Angie McEwen 'So You're Having Another Women's Baby: Economics and Exploitation in Gestational Surrogacy' (1999) 32(1) Vanderbilt Journal of Law 271; Stephen Wilkinson, 'The Exploitation Argument against Commercial Surrogacy' (2003) 17(2) Bioethics 169; George Palattiyil and others, 'Globalization and Cross-Border Reproductive Services: Ethical Implications of Surrogacy in India for Social Work' (2010) 53(5) International Social Work 686, 697.

[175] Mossoff (n 37) 1310. See also Adam Smith for a distinction between productive and unproductive labour: 'There is one sort of labour which adds to the value of the subject upon which it is bestowed; there is another which has no such effect. The former, as it produces a value, may be called productive; the latter, unproductive labour'. Adam Smith, *The Wealth of Nations, Book 2* (First published 1776) <http://www.bartleby.com/10/203.html> accessed 7 October 2016.

[176] Human experimentation involving drug trials, medical or clinical research is an example. A recent newspaper article queried the ethics of paying thousands of pounds for experimental drug trials. Kate Palmer, 'Would you accept £3,750 to trial one drug?' *The Telegraph* (London, 15 October 2014) <http://www.telegraph.co.uk/finance/personalfinance/11089564/Would-you-accept-3750-to-trial-one-drug.html> accessed 30 October 2015. For a case study considering the unethical exploitation on the drug industry in carrying out human experimentation see Stevina Evuleocha, 'The Global Market in Human Experimentation: Pfizer and the Meningitis Experiment in Nigeria (2012) 2(6) Interdisciplinary Journal of Research in Business 46.

[177] Laura Harrison, *Brown Bodies, White Babies: The Politics of Cross-Racial Surrogacy* (New York University Press 2016) 195.

[178] Hugh McLachlan 'Defending Commercial Surrogate Motherhood Against Van Niekerk and Van Zyl' (1997) 23 Journal of Medical Ethics 244, 244.

[179] Amrita Pande 'Not an "Angel", not a "Whore": Surrogates as "Dirty" Workers in India' (2009) 16(2) Indian Journal of Gender Studies 141, 142.

[180] Anton van Niekerk and Liezl van Zyl, 'The Ethics of Surrogacy: Women's Reproductive Labour' (1995) 21 Journal of Medical Ethics 345

being degrading.[181] Anderson considers that the emotional context of surrogacy can (coupled with the potential vulnerability of the surrogate) motivate the woman to view her labour as a 'form of gift'.[182] It is right to question whether the labour involved in frozen embryo disputes is similarly unjustifiably and subconsciously also interpreted as a gift. The reproductive labourer should not be saddled with unwanted altruism.

Anderson concludes:

> When market norms are applied to the ways we treat and understand women's reproductive labor, women are reduced from subjects of respect and consideration to objects of use. If we are to retain the capacity to value children and women in ways consistent with a rich conception of human flourishing, we must resist the encroachment of the market upon the sphere of reproductive labor. Women's labor is not a commodity.[183]

Anderson also considers alienation for the surrogate in the form of her emotional labour. She must divert her labour 'from the end which the social practices of pregnancy rightly promote- an emotional bond with her child'.[184] Aside from her rejection of market forces, Anderson adopts a Kantian[185] rather than Lockean approach in relation to a woman's alienation from her labour on the basis of the psychological rather than physical burden of surrogacy. However, for Dickenson, who does argue from a more Lockean perspective, surrogacy provides an instance of women's alienation from their reproductive labour that can 'hardly be "bettered"'.[186] Compensation is provided for surrogates in certain jurisdictions for their effort during the entire reproductive process. Commercial surrogacy, however, is not permitted in the UK,[187] and only a few countries specifically allow this type of surrogacy by law.[188] However, in the UK, even if the surrogacy arrangement was commercial, the commissioning couple can still apply for a parental order according to section 54(8) of the Human Fertilisation and Embryology Act 2008, which provides that a court has discretion to authorise payments retroactively. A poignant example of this was *J v G*[189] in which a court

[181] Elizabeth Anderson, 'Is Women's Labor a Commodity' (1990) 19(1) Philosophy & Public Affairs 71, 77.
[182] ibid 85.
[183] ibid 92.
[184] ibid 80-87.
[185] ibid 72.
[186] Dickenson, *Property, Women and Politics: Subjects or Objects?* (n 4) 160.
[187] Section 2(1) of the Surrogacy Arrangements Act 1985.
[188] Armenia, Belarus, Cyprus, Georgia, Mexico, Russian Federation, South Africa, Ukraine, United States (Florida, Illinois, Massachusetts, Texas, Vermont, Arkansas), France. France Twine, *Outsourcing the Womb: Race, Class, and Gestational Surrogacy in a Global Market* (2nd ed, Routledge 2015) 5.
[189] [2013] EWHC 1432 (Fam).

retrospectively approved a payment to a surrogate in California of USD $56,750 plus expenses[190]. This relatively high figure[191] points to the importance and intensity of the labour provided by the surrogate, although in most cases of non-altruistic surrogacy, the figure will be dependent on market forces, meaning that the supply of surrogacy (and any labour involved therein) is determinative in conjunction with demand for the service.

The existence of commercial surrogacy on an international level allows citizens of many other countries to engage in reproductive tourism and purchase the services of a surrogate. Surrogacy can involve the surrogate labouring as an egg donor as well as the gestational mother to a child who is the genetic offspring of the intended father- a format often referred to as traditional surrogacy.[192] Payment is supposed to be commensurate for the entirety of the effort, which includes egg donation, and indicates that a transaction has occurred. Where such a transaction is not possible, Dickenson argues that the source of injustice for women in surrogacy is 'propertylessness in their reproductive labour'.[193] For Dickenson, a transaction should not be interpreted as a womb for rent, rather the sale is in the labour in childbirth, 'with concomitant pain and suffering'.[194] My argument runs in this chapter that if propertylessness can be regarded as unjust for the surrogate then it should also be so regarded for the IVF gamete provider.

Louisa Ramskold and Marcus Posner have argued that the manner in which to limit the potential to exploit a surrogate is with appropriate monetary remuneration supported by international law.[195] However, exploitation in surrogacy may be conceptualised in quite a different way to IVF. For the surrogate, exploitation may merely be financial since compensation may be all she seeks. However, for gamete providers in IVF and the type of scenarios under discussion, the intention, from the outset, is that their reproductive labour gives rise to parenthood. Financial compensation may not be able to offset this loss, if it occurs. The loss is akin to a thing that cannot be replaced, as

[190] The figures consisted of (i) USD $2,750 as an allowance for unspecified 'incidental expenses'; (ii) USD $1,000 inconvenience fee for the IVF transfer; and (iii) USD $53,000 pregnancy compensation fee. The last figure was made up of the base fee of USD $45,000, an additional payment of USD $5,000 for a twin pregnancy and a further sum of USD $3,000 as compensation for giving birth by caesarean section. *J v G* [2013] EWHC 1432 (Fam) [14].

[191] In the largest UK survey of surrogates and intended parents, it was found that the mean average for compensation paid to surrogates was £10,859. Kirsty Horsey and others, *Report of the Surrogacy UK Working Group on Surrogacy Law Reform* (Surrogacy UK, 2015) 23.

[192] Amanda Holliday, 'Who's Your Daddy (and Mommy)? Creating Certainty for Texas Couples Entering into Surrogacy Contracts' (2003) 34 Texas Tech Law Review 1101, 1102.

[193] Dickenson, *Property, Women and Politics: Subjects or Objects?* (n 4) 163.

[194] Dickenson, *Property, Women and Politics: Subjects or Objects?* (n 4) 164.

[195] Louisa Ramskold and Marcus Posner, 'Commercial Surrogacy: How Provisions of Monetary Remuneration and Powers of International Law Can Prevent Exploitation of Gestational Surrogates' (2013) 39 Journal of Medical Ethics 397.

previously mentioned regarding Radin's analysis of non-fungibility. *Frisina v Women and Infants Hospital*[196] is important in showing an application of this idea, whereupon the Superior Court of Rhode Island allowed recovery for emotional distress for the negligent destruction of embryos by the defendant, the Women and Infants Hospital of Rhode Island, at the defendant's IVF clinic on the basis that the embryos could be understood as irreplaceable property.[197]

In this sense, the property interest a gamete provider in IVF has in their labour can actually be less fungible than that which a surrogate has in her labour. However, there are also surrogacy cases in which the surrogate does not seek financial compensation, but to be the parent of the child. In the UK, the woman who gives birth to the child will be the child's legal mother. [198] In one of the most famous US cases on surrogacy, the gestational mother wished to keep the baby intended by a contract for the genetic parents who commissioned the surrogacy.[199] In a dissenting judgment, Kennard J consider that 'both physically and emotionally; the hormones used for superovulation produce bodily changes similar to those experienced in pregnancy, while the surgical removal of mature eggs has been likened to caesarian-section childbirth'.[200] Kennard J's approach of valuing the 'indispensable and unique biological contribution' of the gestational mother is more akin to English and Welsh law where, as mentioned above, the gestational mother is also the legal parent, regardless of any contract.

For Debra Satz, the issue with surrogacy goes beyond a gift of labour or propertylessnes, rather it is based on a traditional gender-hierarchical division of labour where women are mere 'incubators of men's seeds'[201] and 'the court's inattention to women's unique labor contribution is itself a form of unequal treatment'.[202] This forms part of her 'asymmetry thesis', underpinning her argument by reference to the social relations of gender domination.[203] Satz explains, 'By defining women's rights and contributions in terms of those of men, when they are different, the courts fail to recognize an adequate basis for women's rights and needs'.[204] This point rings true in in frozen embryo disputes in

[196] WL 1288784 (RI Super Ct 2002) 2.
[197] ibid 10.
[198] Section 33(1) of the Human Fertilisation and Embryology Act 2008.
[199] *Johnson v Calvert* 5 Cal 4th 84 (Cal Sup Ct 1993).
[200] ibid 105.
[201] Debra Satz, 'Markets in Women's Reproductive Labor' (1992) 21(2) Philosophy and Public Affairs 107, 128.
[202] ibid 128.
[203] ibid 130.
[204] ibid 128.

IVF as well, where the labour of a woman's body can be left 'under the control of others' which 'serves to perpetuate gender inequality'.[205]

It was considered above how IVF can involve emotional labour, and scholarly work has also indicated that surrogates engage in emotional labour as they express or repress certain emotions.[206] There is scope for exploitation, as anthropologist Nicole Constable notes 'emotional labor is extracted from poor regions of the world to benefit richer ones at a low cost'.[207] This is further evidence that for women in particular, emotional labour (or the risk thereof) can be exerted during the reproductive process. Taken in conjunction with the physical effort involved, it provides a platform for providing a surrogate with legal protection. This same rationale should also be available for gamete providers in IVF. It should lead to a broader inquiry relating to reproductive labour to allocate embryos to gamete providers following a dispute in IVF.

4.9 The example of gamete donation

Emotional labour has specifically been discussed in the context of gamete donation. Rene Almeling, in a sociological study comparing how egg agencies and sperm banks recruit, market and compensate donors, considers the gendered difference:

> While most egg donors will never meet their genetic children, women are expected to reproduce wellworn patterns of "naturally" caring, helpful femininity, guiltily hiding any interest they might have in the promise of thousands of dollars. This same emotional labor is not required of sperm donors. Men, who are more likely to be contacted through the banks' identity release programs, often do not even consider that children will result from regular deposits at the sperm bank.[208]

Gamete donation therefore indicates that the donors, and women in particular, are reproductive labourers. Sarah Devaney provides the comparison to the financial value placed on the body for the participation in clinical research,[209] with payments reflecting 'time, inconvenience, travel or incurring

[205] ibid 130.
[206] Anderson (n 181) 82.
[207] Nicole Constable, 'The Commodification of Intimacy: Marriage, Sex, and Reproductive Labor' (2009) 38 The Annual Review of Anthropology 49, 51.
[208] Rene Almeling, 'Selling Genes, Selling Gender: Egg Agencies, Sperm Banks, and the Medical Market in Genetic Material' (2007) 72 American Sociological Review 319, 335
[209] Sarah Devaney, 'Human Embryos in Stem Cell Research: Property and Recompense' in *Stem Cells: New Frontiers in Science & Ethics* (Muireann Quigley, Sarah Chan and John Harris eds, World Scientific 2012) 120.

risk'.[210] Devaney argues that 'in terms of the physical risk to which the woman has been exposed, she would be entitled to greater recompense than her male counterpart'.[211] However, since the male gamete donor does not expose himself to 'risk', and 'therefore an analogy with the position of a research subject… cannot be made'.[212]

That an egg donor can be paid £750 in the UK 'to reasonably cover any financial losses incurred in connection with the donation'[213] exemplifies that compensation is required. An EU Directive[214] sets out that 'Member States shall endeavour to ensure voluntary and unpaid donations of tissues and cells'. In the US the figure can be much higher, with egg donors receiving between $4,000 and $10,000,[215] and even up to $100,000,[216] which is far more commensurate with her labour once the 'reproductive effort' of treatment discussed in Chapter 3 is taken into account. However, the higher figures are based not only on the labour involved in the production of eggs, but also whether egg donors meet certain physical and personality traits.[217] By way of contrast, sperm donors can receive compensation of £35 per clinic visit in the UK,[218] and between $40 to $100 in the USA according to one source.[219] Therefore, although the purpose of the treatment is not normally to benefit the gamete donor or surrogate with children of their own, these payments illustrate that there is significant recognition[220] of the labour involved in gamete donation and usually a distinction is made based on gender.

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[210] Royal College of Physicians, *Guidelines on the Practice of Ethics Committees in Medical Research with Human Participants* (4th edn, RCP 2007) [10.13].
[211] Devaney (n 209) 121.
[212] Devaney (n 209) 120-1.
[213] Human Fertilisation and Embryology Authority, Code of Practice (8th edn, HFEA 2012) [13A]. The Nuffield Council on Bioethics recommended that the clear aim of compensating gamete donors 'should be to ensure that the donor is in the same financial position as a result of their donation, as they would have been if they had not donated'. Nuffield Council on Bioethics, *Human Bodies: Donation for Medicine and Research* (Nuffield Council on Bioethics 2014) [47].
[214] Article 12(1) of Directive 2004/23/EC of the European Parliament and of the Council of 31 March 2004 Council of 31 March 2004 on Setting Standards of Quality and Safety for the Donation, Procurement, Testing, Processing, Preservation, Storage and Distribution of Human Tissues and Cells OJ L102.
[215] Egg Donor America, 'Egg Donor Compensation' <https://www.eggdonoramerica.com/become-egg-donor/egg-donor-compensation>accessed 30 October 2015. An egg donor described the donation process as 'work' in an interview with ABC News. 'The Big Business of Egg Donation' (*YouTube*) < https://www.youtube.com/watch?v=8zV8SVLMP1w> at 4:13, accessed 28 June 2016.
[216] Radhika Rao, 'Coercion, Commercialization, and Commodification: The Ethics of Compensation for Egg Donors in Stem Cell Research' (2006) 21(3) Berkley Technology Law Journal 1055, 1063.
[217] ibid.
[218] Human Fertilisation and Embryology Authority (n 213).
[219] Stanford University, 'What Does Sperm Donation Involve?' <http://web.stanford.edu/class/siw198q/websites/reprotech/New%20Ways%20of%20Making%20Babies/spermint.htm> accessed 30 October 2015.
[220] Such recognition may not always be translated into benefits the egg donor receives personally. For example, in *AB v CT (Parental Order: Consent of Surrogate Mother)* [2015] EWFC 12 [30] the applicants paid £16,000 to an Indian surrogacy centre, of which the surrogate received £2,250.

This could also lead to an applied Marxist critique of exploitation[221] of the labour of women. However, if the British and US systems (in this context) were simplified so as to represent a planned economy and market economy respectively, such a scenario would present a Marxist with an apparent paradox: market forces provide more commensurate fees, yet the need to avoid the commercialisation of gamete donation, would nonetheless be expectant that 'antagonism' would occur 'between capitalists and wage-labourers' under a market model. Likewise it would present the Marxist revisionist feminist with a paradox, 'in general agreement that capitalist society is intransigently patriarchal, and that the cessation of the exploitation of women would create insurmountable problems for capitalism, which is dependent on… cheap and/or unpaid labour, both in industry and the family'. [222]

With specific reference to egg donation for stem cell research, Radhika Rao argues against market forces determining a price for egg donation so as to protect women from the 'possible medical complications' of egg retrieval, rejecting recognition of only the 'symbolic value of that which is donated'.[223] Dickenson notes that in a Nuffield Council on Bioethics' report on stem cell research,[224] ethical debate considered the status of the embryo but fell short of considering whether egg retrieval indicates 'lack of respect for the woman'.[225] Thus, it is noteworthy that in more than one context, egg retrieval is specifically regarded as requiring special recognition which is not afforded to sperm donation. This is due, at least in part, to the greater reproductive labour required to produce the eggs, and indicates a requirement for greater property rights to exercise disposition decision(s).

4.10 Further gendered differences in reproductive labour

Frozen embryos should not therefore be perceived in isolation from their history of production. To do so would open up Rao's objection of merely considering their 'symbolic value', which echoes Dickenson's criticism that women can 'become invisible in these procedures'.[226] For Dickenson, this emanates from traditional narratives[227] such as the Artistotlean account of property in which

[221] Karl Marx, *Capital: A Critique of Political Economy Volume II Book One: The Process of Circulation of Capital* (Friedrich Engels ed, Doug Hockin and others trs, Progress Publishers first published 1885) 31.
[222] O'Brien (n 59) 78.
[223] Rao (n 216) 1058-59.
[224] Nuffield Council on Bioethics, *Stem Cell Therapy: The Ethical Issues, a Discussion paper* (Nuffield Council on Bioethics 2000).
[225] Dickenson, *Property in the Body: Feminist Perspectives* (n 38) 53.
[226] Donna Dickenson, *Risk and Luck in Medical Ethics* (Cambridge: Polity Press 2003) 143.
[227] Dickenson, *Property, Women and Politics: Subjects or Objects?* (n 4) 40.

women's activity in the household is not recognised.[228] These more general arguments concerning the place of reproductive labour and egg donation are transposable to IVF, indicating there should be gendered differences in the appreciation of the gamete providers respective contributions in IVF. To provide an economic brush, the embryo should be interpreted not merely as a commodity—a raw material appearing *ex nihilo*; but rather a product, in which there is recognition that value has been added. The absence of such an understanding confirms the feminist critique that, 'Reproductive labour has been valued less than productive labour by men because this task has been performed by women'.[229]

Dickenson elaborates on this point with reference to alienation from labour, providing the examples of coverture and the situation of women in agrarian regions of sub-Saharan Africa where 'women's productive labour creates property in land and crops for men, as do the efforts of the children on whom their reproductive work concentrates. Men often have no responsibility to maintain those children, or indeed their wives'.[230] Absent property rights, the greater the women's work, the greater the wealth of men. There is also a substantial body of feminist literature on how women's work should be valued in marriage.[231] These landscapes are very different to the bioethical ones contemplated in this thesis, but it is nonetheless prudent to be aware of the wider historical lack of recognition of women's work. The point is to make 'women's work both visible and valued'.[232] Visibility is therefore required not only of proceedings in the fertility clinic, but also of reproductive labour outside the clinic. Though a monetary value may be difficult to ascribe to reproductive labour, the very fact that it is 'unpaid' should not preclude it from being classed as work.

The purpose of undertaking IVF treatment is usually to have a child. The benefit of receiving the chance to have a child by IVF should not detract from an understanding that a gamete provider has 'worked', and thus may be entitled to a property right, despite the fears raised by Okin above.[233]

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[228] Dickenson, *Property, Women and Politics: Subjects or Objects?* (n 4) 42.
[229] Janice Tait, 'Ethical Issues in Reproductive Technology: A Feminist Perspective' (1985) 6(2) Canadian Woman Studies 40, 40.
[230] Dickenson, *Property, Women and Politics: Subjects or Objects?* (n 4) 121.
[231] For example in the context of enforceable marriage contracts, Katharine Silbaugh has recommended that the unpaid labour of women should attract property interests. Katharine Silbaugh, 'Marriage Contracts and the Family Economy' (1998) 93 Northwestern University Law Review 65, 142.
[232] Pat Armstrong and Hugh Armstrong, 'Thinking it Through: Women, Work and Caring in the New Millenium' in *Caring For/Caring About: Women, Home Care and Unpaid Caregiving* (Karen Grant and others, eds, Garamond Press 2004) 6.
[233] Okin (n 57).

Although altruism can be a motivation for gamete donation[234] and surrogacy,[235] this should not be a premise to argue that gamete providers in IVF are also not necessarily altruistic in wanting to have children[236] and therefore not subject to property rights. But there may be a premise to argue that altruism based upon a desire to gift a partner with genetic parenthood or gametes should indicate a transferral of property rights. Such an issue became more poignant in Canadian case *CC v AW* [237] which concerned a dispute between gamete providers over four surplus frozen embryos, in which the man had donated sperm to the woman as 'an act of friendship'.[238] An informed consent form had originally specified how the embryos were to be administered. The parties were 'lovers' but had never lived together, and had never made a commitment to a long term relationship.[239] For the Court of Queen's Bench of Alberta, the lack of an interdependent relationship altered expectations in the case: 'He anticipated that she would use it in order to conceive a child'.[240] In Chapter 2 the role of expectations in relation to unconscionability in estoppel was highlighted, and their importance in *CC* was also evident. A lack of expectations led Sanderman J to hold that the donation of sperm by Mr AW to Ms CC was an 'implicit gift' and 'an unqualified gift given in order to conceive children'. [241] Consequently, he had no property rights in the embryos, and they were held to be her property.[242] Sanderman J noted that the embryos are 'chattels that can be used as she sees fit'.[243] The sense of alienability was manifest in the Court's decision holding Mr AW was 'not in a position to control or direct their use in any fashion'.[244]

The original altruistic intentions of Mr CC could be considered as incidental to the transferral of property that occurred. However, had the roles been reversed, and the woman gifted her eggs to the man, with a third party surrogate being arranged to carry the embryos; there would be less scope to argue that the woman had divested herself of property rights due to the greater labour she had invested in the embryos throughout the egg retrieval process. Though facts of the case were particular, *CC* draws out again the imbalance of gamete providers' positions in IVF.

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[234] In a study of 181 egg donors and 119 sperm donors in Sweden, it was found that 95% donate for altruistic reasons. Agneta Svanberg and others, 'Gamete Donors' Motivation in a Swedish National Sample: Is There Any Ambivalence? A Descriptive Study' (2012) 91(8) Acta Obstetricia et Gynecologica Scandinavica 944.
[235] Matthew Tieu, 'Altruistic Surrogacy: The Necessary Objectification of Surrogate Mothers' (2009) 35 Journal of Medical Ethics 171.
[236] 'To be sure, motivation for parenthood is a rather complex issue'. Albert Rabin and Robert Greene, 'Assessing Motivation for Parenthood' (1968) 69 The Journal of Psychology 39, 39.
[237] (2005) ABQB 290 (CanLII).
[238] ibid [2].
[239] ibid [1].
[240] ibid [20].
[241] ibid [21].
[242] ibid [21].
[243] ibid [21].
[244] ibid [21].

Men might expend labour as well, not only if medical treatment is required to extract healthy sperm, but also in terms of supporting their partners in their treatment. However, unless the man did require treatment to extract sperm, the 'stick' the woman would receive from the bundle of rights, would supersede his, either giving her a right to use the embryos, or a right to exclude him on the basis of her reproductive labour. This type of recognition has the effect, as Katherine Guzman argues, of allowing those who expend capital or effort to produce a good to have rights which are 'paramount to all others claiming an interest therein'. [245]

4.11 Further implications of the application of property law to IVF

To summarise, it is recommended that under a property approach, a Lockean interpretation of reproductive labour is applied to normally allow women to use their embryos, and/or to exclude the interests of men in the event of dispute, so long as the reproductive labour they have invested has been greater. However, even without the restrictions of the 1990 Act, further hurdles would exist in law for such an approach.

The first would be the desirability of reinventing a settled legal system by considering that people can have property rights in embryos, and what this implies for perceptions of the embryo more generally. Certainly other areas of law, such as intellectual property,[246] have struggled to define the embryo when considering its place in patenting. Criticism of the language of dichotomisation of body/person and non-body/property prevalent in discourses surrounding IVF has sometimes failed to suggest an alternative approach.[247] For Dickenson, the dichotomy is more nuanced—a Lockean property right can exist in 'tissue' but only that 'which does not constitute a separate person'.[248] To recapitulate, the main issue resides in whether property rights can be applied to frozen embryos since they are parts of the body. In other areas of law such an application of property has been problematic. In criminal case law the traditional approach is that no property rights exist in relation to human tissue or body parts (the 'no-property rule'),[249] a deeply rooted concept since the abolition of slavery,[250] though not without exception in criminal case law where the removal of 'property' of

[245] Katheleen Guzman, 'Property, Progeny, Body Part: Assisted Reproduction and the Transfer of Wealth' (1997) 31 UC Davis Law Review 193, 206.
[246] Jeremy Green, 'Patenting: European Stem-Cell Ruling is Misleading' (2011) 479 Nature 41.
[247] Karin Webster, 'Whose Embryo Is It Anyway? A Critique of Evans v Amicus Healthcare [2003] EWHC 2161 (Fam)' (2006) 7(3) Journal of International Women's Studies 71, 84.
[248] Dickenson, *Property in the Body: Feminist Perspectives* (n 38) 102.
[249] *R v Sharpe* [1857] Dearsly and Bell 160, 163.
[250] Slavery was formally abolished throughout the US in 1865.

blood[251] and urine[252] without permission after they have been extracted from the body amounts to theft.[253] Section 32(1)(a) of the Human Tissue Act 2004 also states that it is an offence if a person 'gives or receives a reward for the supply of, or for an offer to supply'[254] certain bodily material, although the ambit of the Act excludes gametes and embryos, and 'material which is the subject of property because of an application of human skill'. [255]

The High Court of Australia provided an exception to the no-property rule in *Doodeward v Spence*,[256] where lawful application of work and skills carried out on the corpse(s) of stillborn conjoined twins could qualify as property to vest in the person who performed the procedure, entitling them to keep the material in their possession; an approach which has since been adopted by the Court of Appeal of England and Wales.[257] Marrying the *Doodeward* exception and the aforementioned Lockean account thus becomes the crux of the issue since it allows a property right to be established in reproductive labour. Although not without issue, as shall be explored below, scholars such as Nwabueze already regard Locke's theory as explanatory for *Doodeward* and its applications.[258]

The Court of Appeal more recently extended the ambit of the *Doodeward* exception in *Yearworth v North Bristol NHS*,[259] in which cancer patients had their sperm samples frozen and stored by the defendant hospital prior to chemotherapy. Following a failure in the storage system, the sperm samples were thawed and permanently damaged so as to be unusable. The facts of the case had strayed into an unknown territory as Lord Judge CJ noted that the law was 'noticeably silent about part or products of a living human body'.[260] The defendants contested that the aforementioned damage did not relate to a negligent loss of property due to the sperm being a human body part. The Court of Appeal however rejected the notion that this case was 'founded upon the principle in *Doodeward*'[261] and held that the claimants had ownership of and, consequently, property rights in

[251] *R v Rothery (Henry Michael)* [1976] 63 Cr App R 231 (CA) (Crim).
[252] *R v Welsh* [1974] RTR 478 (CA) (Crim).
[253] 'A person is guilty of theft if he dishonestly appropriates property belonging to another with the intention of permanently depriving the other of it…'. Section 1(1) Theft Act 1968. Definitions of the terms contained within this statement are contained in sections 2-6 of the 1968 Act.
[254] Sections 32(9) and 53 of the Human Tissue Act 2004.
[255] ibid.
[256] [1908] 6 CLR 406.
[257] *Dobson v North Tyneside Health Authority* [1997] 1 WLR 596; *R v Kelly* [1999] QB 621 (CA).
[258] Remigius Nwabueze, 'Body Parts in Property Theory: An Integrated Framework' (2014) 40 Journal of Medical Ethics 33, 34.
[259] [2009] EWCA Civ 37.
[260] *Yearworth* (n 259) [29].
[261] *Yearworth* (n 259) [45(d)].

their sperm.[262] The law's approach to ownership of body parts was brought about by 'developments in medical science' according to Lord Judge CJ.[263] In applying property law, the Court of Appeal considered that the claimants alone generated and ejaculated the sperm, with the sole object of it later being used for their benefit (reproduction).[264] The deposit of sperm samples for later use was viewed as bailment,[265] and the arrangements tantamount to contracts.[266] However, the right to use the sperm was not key since, as Lord Judge CJ considered 'there are numerous statutes which limit a person's ability to use his property… without eliminating his ownership of it'.[267]

In an interesting turn on the interpretation of the right, the Court of Appeal's judgment indicated a right of how *not* to use the sperm in a certain way.[268] The Court of Appeal considered that Schedule 3 of the 1990 Act 'assiduously preserves the ability of the men to direct that the sperm be not used in a certain way: their negative control over its use remains absolute'.[269] Nwabueze considered this to be indicative of rights which operate in areas such as restrictive covenants.[270] The use of a restrictive covenant outside land law, and especially in the context of a bioethical scenario such as frozen gamete or frozen embryo disputes would also be novel. Whether or not a right not to use frozen embryos could be founded in this way, such an application, instead of a right to use, could allay concerns of the potential for commercialisation. The emphasis is not on the power of the gamete providers to exercise decisions in whichever way they choose over the embryo(s), but rather a duty owed to a gamete provider. A right not to use the embryo(s) could be constructed from the reproductive labour both parties had invested in the production of the embryo(s), which would clearly benefit the gamete provider not seeking implantation.

Yearworth could be interpreted alternatively such that the gamete providers had a right to exclude others from inflicting damage on their sperm samples. Jesse Wall elaborates that since 'exclusionary rights protect spheres of undefined activity, it follows that the interferer—the one that caused an intrusion into the sphere—ought to bear the loss'.[271] The loss in a frozen embryo dispute would be over his disposition decision since he interfered with the reproductive labour that the woman had

[262] *Yearworth* (n 259) [45].
[263] *Yearworth* (n 259) [45].
[264] *Yearworth* (n 259) [45(f)].
[265] *Yearworth* (n 259) [50].
[266] *Yearworth* (n 259) [57].
[267] *Yearworth* (n 259) [45(f)].
[268] *Yearworth* (n 259) [45(f)(ii)].
[269] *Yearworth* (n 259) [45(f)(ii)].
[270] Remigius Nwabueze, 'Death of the No-Property Rule for Sperm Samples' (2010) 21(3) King's Law Journal 561, 563. See also *Yearworth* (n 259) [45(f)].
[271] Jesse Wall, 'The Boundaries of Property Law' in *Persons, Parts and Property: How Should We Regulate Human Tissue in the 21st Century* (Imogen Goold and others, eds, Hart 2014) 116.

invested in producing the embryos. Here, the notion of interference is not as clear-cut as in the negligent treatment of sperm samples, in which there is much less dispute over the consent of gamete providers as to how their gametes should be used. Property law could be invoked to provide the necessary protection of a legal landscape in which gamete providers and fertility clinics know the point at which they will be excluded from interfering in the other's interests, with reproductive labour providing the necessary signpost.

The *Yearworth* decision has led some commentators to query the extent to which property law could be used in other contexts and purposes concerning gametes and embryos,[272] such as possible rights to control the human body and its parts and products; and the case has also been regarded as the next step in the 'slow creep of the property paradigm'.[273] Yet this observation is theoretical, and there is scant evidence elsewhere in the law that the limited erosion of the no-property rule to date would or could extend to embryos. And as Luke Rostill points out, the 'ownership' that the court purported to vest in the men was not a right *in rem*, a right 'binding the world', and as such not true property right.[274] This implies that *Yearworth* is useful in demonstrating how legal relationships might be construed under a property approach between gamete providers and a fertility clinic, rather than between the gamete providers themselves. The effect could be to hold fertility clinics accountable to gamete providers over how they disposed of their embryos. There is of course, absent in *Yearworth*, the same notion of reproductive labour inherent to the extraction and storage of women's gametes. But if sperm donors can be considered baillees, as they were in *Yearworth,*[275] a Lockean analysis of reproductive labour in the context of IVF (or egg donation) more easily follows. This does not have to signal the death knell for the 'no property' rule. Dickenson herself qualifies her application of Locke such that it does not imply a 'generalised property right in our own bodies. I have insisted all along that we only have such a right in tissue which we have laboured to create'.[276] This position is favourable in that it limits the scope for commodification; an issue explored shortly.

The aforementioned US case of *Frisina* does indicate that *Yearworth* could be extended to include frozen embryos in IVF. In this case there was a claim for emotional distress due to breach of

[272] Nils Hoppe, *Bioequity—Property and the Human Body* (Ashgate 2009) 115; Shawn Harmon and Graeme Laurie, 'Yearworth v North Bristol NHS Trust: Property, Principles, Precedents and Paradigms' (2010) 69(3) Cambridge Law Journal 476; Erin Nelson, *Law, Policy and Reproductive Autonomy* (Hart 2013) 295.
[273] Shawn Harmon and Graeme Laurie, 'Yearworth v North Bristol NHS Trust: Property, Principles, Precedents and Paradigms' (2010) 69(3) Cambridge Law Journal 476, 483.
[274] Luke Rostill, 'The Ownership That Wasn't Meant to Be: Yearworth and Property Rights in Human Tissue' (2014) 40 Journal of Medical Ethics 14.
[275] ibid [50].
[276] Dickenson, *Property in the Body: Feminist Perspectives* (n 38) 102.

contract.[277] In the UK, the *Doodeward* exception remains the main legal obstacle to the *ratio decidendi* in *Yearworth* extending to embryos. This exception would prevent property rights being vested in the gamete provider because, according to *Doodeward,* any such right should be conferred specifically to the person applying work and skill to the relevant body part. In *Evans*, this would have been the clinic. The clinicians are the workers who treat the gamete providers and patients by diagnosing their infertility, prescribing the correct medication and carrying out complex medical procedures to retrieve the eggs, fertilise them and store them, whilst preparing for implantation. However, this work, which does involve skilful application, will not override the reproductive labour of either gamete provider in the production of the embryos.

An alternative application of property law principles in a gamete dispute was discussed in another Australian case, *Re the Estate of the Late Mark Edwards*,[278] in which a widow sought possession of stored semen as administrator of her deceased husband's estate. The couple had planned to conceive through ART but the husband died before his semen was deposited for use.[279] The New South Wales Court recognised the deceased's sperm as property, entitling Ms Edwards to possession.[280] Interests were vested in the widow since the sperm had been removed for her purposes.[281] Circumventing the no-property rule by reconceptualising the *Doodeward* exception which ordinarily requires the interests to be vested in the professionals who performed work and skill on the deceased's body, Hulme J suggested that these professionals acted as agents on behalf of the widow.[282] Skene considers that although agency was not mentioned in *Yearworth*, it might have been presumed from the claimants' intention that the sperm samples were stored for later use.[283] In this sense, the North Bristol NHS Trust was acting on behalf of the sperm donors as their agents. A similar notion might be applied to a fertility clinic as well since, following egg retrieval, a clinic can also be interpreted to act as agents on behalf of gamete providers to use the frozen embryos under their direction. The issue, as mentioned in section 2.4.1 of Chapter 2 in the context of estoppel, becomes one of determining the presumed intention of the parties. For the present purposes, it is interesting to note the rule in *Doodeward* remains open-ended, with the sense that purpose and

[277] *Frisina* (n 196).
[278] [2011] NSWSC 478. In facts of a similar nature, the English case of *R v Human Fertilisation and Embryology Authority ex parte Blood* [1999] Fam 151 concerned a widow who was allowed to use the sperm of her deceased husband, although not in her own country of the United Kingdom.
[279] *Re the Estate of the Late Mark Edwards* [2011] NSWSC 478 [7]-[10] (Hulme J).
[280] ibid [78] (Hulme J).
[281] ibid [91] (Hulme J).
[282] ibid [88] (Hulme J).
[283] Loane Skene, 'Proprietary Interests in Human Bodily Material: Yearworth, Recent Australian Cases on Stored Semen and their Implications' (2012) 20(2) Medical Law Review 227.

intention in bioethical scenarios can give rise to proprietary interests. This could provide scope for their hypothetical application to gamete providers pursuing IVF treatment.

The notion of bailment prevalent in *Yearworth*[284] has already been considered in US case law, which also illustrates that attaching property law to embryos affects the interests of gamete providers in disputes with others. *York v Jones*[285] was one of the first cases worldwide to consider a frozen embryo dispute. In this case six embryos were fertilised using the gametes of the Yorks, a married couple.[286] Five of the embryos were transferred to Ms York's uterus, and the remaining embryo was frozen.[287] A year later, the Yorks sought to transfer the remaining embryo from the Jones Institute for Reproductive Medicine in Virginia to the Institute for Reproductive Research at the Hospital of the Good Samaritan in California.[288] The Jones Institute refused to approve the transfer.[289] The District Court for Eastern District of Virginia cited that a 'cryopreservation agreement' between the Yorks and the Jones Institute indicated a bailment relationship. It was held that the Yorks exerted property rights over the frozen embryo which gave them 'rights as bailee to exercise dominion and control',[290] which flowed from the fact that they were the original owners of the gametes.[291] This followed the logic that a property rights regime should apply to both gametes and embryos due to the derivation of the former from the latter.[292] Consequently, the Institute was required by law to return the subject of the bailment to the Yorks once the conditions and purpose of the bailment were met.[293] Under a bailment relationship in IVF, a frozen embryos dispute would require a fertility clinic to decide what the purpose of the treatment was (employing similar rationale discussed in Chapter 2), whether that included notions of reproductive labour and whether the ongoing consent of gamete providers was necessary until fertilisation, a certain degree of treatment or implantation.

4.12 Public policy

Robertson notes that, 'Although the bundle of property rights attached to one's ownership of an embryo may be more circumscribed than for other things, it is an ownership or property interest

[284] *Yearworth* (n 259) [46]- [50].
[285] 717 F Supp 421 (ED Va 1989).
[286] ibid 424.
[287] ibid.
[288] ibid.
[289] ibid.
[290] ibid 427.
[291] ibid 424.
[292] ibid.
[293] ibid.

nonetheless';[294] and consequently there may be public policy implications for allowing property rights to exist in the form of the ownership of embryos. For Katherine Guzman, this would blur the distinction between person and property, as considered in Chapter 1, and 'affront traditional categorical sensibilities'.[295] Such a comment is however highly subjective, and Barry Brown has rejected the notion that property rights should be overlooked for policy reasons due to 'distaste', claiming that, 'Proprietary rights can enhance the public policy debate regarding the limits of dispositional authority over pre-embryos'.[296] There are certain perceived advantages to such an approach in that those owning property could freely exercise disposition decisions. Also, the right to exclude others as mentioned above is foundational to property rights[297] and could correspond to the current legislative framework which primarily grants gamete providers with the ultimate say on disposition decisions.

Regarding embryos as property may be obstructed by policy due to the point mentioned above that it could lead to them being subject to non-commercial and even commercial transaction. Lady Hale stated, from a tort perspective, an 'essential feature' of property is that, amongst other things, under certain circumstances, 'it can be bought and sold'.[298] Without appropriate regulation or stipulation of the meaning of property rights, the owner of embryo(s) could use them as he or she wishes, in particular he or she may give or sell them to others. There could even be pressures leading to the commodification of the IVF process with respect to surplus embryos, contravening Article 21 of the European Convention on Human Rights and Biomedicine, which states that 'the human body and its parts shall not, as such, give rise to financial gain'[299] (although the UK is not a signatory of the Convention). The fear is that a person could sell a kidney to an exploitative purchaser in order to cover, for example, a utility bill.

Such concerns could be, in part at least, allayed through allowing the ascription of property rights to certain types of human body parts, namely regenerative human tissue. Body parts such as semen, blood and skin cells, which can be regenerated may be less likely to be open to exploitative practices

[294] John Robertson, 'In the Beginning: The Legal Status of Early Embryos' (2005) 76 Virginia Law Review 437, 455.
[295] Katherine Guzman, 'Property, Progeny, Body Part: Assisted Reproduction and the Transfer of Wealth' (1997) 31(1) UC Davis Law Review 195, 250.
[296] Barry Brown, 'Reconciling Property law with Advances in Reproductive Science' (1995) 6(2) Stanford Law and Policy Review 73, 74.
[297] Penner (n 103) 68-71.
[298] *OBG Ltd v Allen* [2007] [2008] 1 AC 1, 88.
[299] Committee on Bioethics of the Council of Europe, Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine: Convention on Human Rights and Biomedicine [1997] ETS No 164.

since sellers would not face the same risk of being deprived of a body part. Thus, some states in the US have exempted regenerative tissue from the no-property rule.[300] To buttress a policy of property, restrictions could be enacted to prevent sale and transfer of embryos for profit. This would not inhibit the sense embryos could be owned much, in the same way, licensing restrictions on the manufacture, sale,[301] modification,[302] possession and purchase[303] of firearms in the UK does not mean that a person cannot own a firearm. Public policy recognises that goods such as firearms are special, and the application of property law to them requires measures which protect users and society. In comparison, property law could be tailored to protect gamete providers in IVF to take into account their legal relationship with their embryos and their investment in producing them. Recognising a property right in embryos does not mean that embryos can be transferred without restriction—all that is required is for the law to specify the limitations of, for example, how frozen embryos can be transferred. This of course could bring us back to UK law—embryos cannot be used without the consent of both parties, with the add-on of a property right. The functionality of property is therefore in relation to how it can inform lawmakers about the rights that property law imbues, and as discussed, whether those rights adequately take into account reproductive labour. Taken in tandem with the specialness requirement, such a qualified legal perspective could satisfactorily provide recognition that the function of property rights in embryos is not to foster economic relations.

Without limitation by law, the right to use an embryo could therefore involve undesirable outcomes. The significance of a right to use a thing is noted by Alison Clarke:

> To say that the defining characteristic of my ownership of a book is my right to exclude you from it is an extraordinarily negative, and potentially misleading, way of putting it. On the whole, the importance to me of book-owning is that it gives me free use of the book—I can read it whenever I want, or put it on the shelf to admire it.[304]

A right to use an embryo could signify that an embryo might be used for whatever purpose, even significantly after the 14-day period which would contravene the current law.[305] Legal restrictions, whether for the use of firearms or embryos, are necessary. An unfettered right could, for example,

[300] Donna Gitter, 'Ownership of Human Tissue: A Proposal for Federal Recognition of Human Research Participants' Property Rights in Their Biological Material' (2004) 61 Washington and Lee Law Review 257, 267.
[301] Section 3 of the Firearms Act 1968.
[302] Section 4 of the 1968 Act.
[303] Sections 1, 2 and 5 of the 1968 Act.
[304] Alison Clarke, 'Use, Time, and Entitlement' (2004) 57 Current Legal Problems 239, 241-2.
[305] Section 3(3)-(4) of the Human Fertilisation and Embryology Act 1990.

allow a gamete provider to alter an embryo by introducing a sequence of nuclear or mitochondrial DNA of an animal into one or more of its cells, and implant it in a human.[306] At an early enough stage, cells could be extracted from the embryo to grow other embryos. Much like Clarke's book, the gamete provider could tear out some bits, keep, destroy, implant or sell the embryo. A right interpreted thus could again pave the way to the commodification of embryos and exploitation of gamete providers. These reasons *per se* are not enough to jettison the right to use in frozen embryo disputes, but rather signal that any adoption of it must be qualified and subject to regulations.

The application of property law to IVF may therefore require policies and law to ensure the commercial arm of the multi-billion pound fertility industry[307] is not over-extended. Wary of the slippery slope, Dickenson notes her ascription of a Lockean property right to reproductive labour should not lead to unbridled market forces: 'I am more inclined to limit those rights in order to prevent the untrammelled commodification of practically everything'.[308] Thus, although concerns about the commodification of surplus embryos are distant, especially in the UK, nonetheless, distinct influences of market forces are already extant with regard to gamete donation. For example, in 1999 Ron Harris launched a bid for three models' eggs starting from $15,000 up to $150,000, with the following sales pitch: 'Choosing eggs from beautiful women will profoundly increase the success of your children and your children's children, for centuries to come'![309] Such a market is not possible in the UK where the compensation an egg donor can receive per cycle of donation is capped,[310] and is also severely restricted across the EU, since donors only receive 'compensation, which is strictly limited to making good the expenses and inconveniences related to the donation'.[311] And although the authenticity of Mr Harris' auction is dubious, the rhetoric used of taking advantage of natural selection[312] could hypothetically be transposable to the sale of genetically superior spare embryos to infertile couples. An example of a not uncommon advertisement in a university student newspaper

[306] Such activity is prohibited by section 4A(6)(c) of the Human Fertilisation and Embryology Act 1990 as amended by section 4(2) of the Human Fertilisation and Embryology Act 2008.
[307] For evidence of the US market see Harris Williams & Co, 'Fertility Market Overview' (2015) <http://www.harriswilliams.com/sites/default/files/content/fertility_industry_overview_-_2015.05.19_v10.pdf> accessed 25 October 2016.
[308] Dickenson, *Property in the Body: Feminist Perspectives* (n 38) 69.
[309] Tracy Connor, 'Egg-Squisite Models on Auction Block' *New York Post* (New York, 23 October 1999) <http://nypost.com/1999/10/23/egg-squisite-models-on-auction-block/> accessed 27 April 2014.
[310] Human Fertilisation and Embryology Authority (n 213) [13A].
[311] Article 12(1) of Directive 2004/23/EC (n 214).
[312] Ron Harris opined that such egg donation represents 'Darwin's "Natural Selection" at its very best. The highest bidder gets youth and beauty' in Ann Gerhart and John Schwartz, 'The Donor Egg Scheme Hatched on the Web' *The Washington Post* (Washington 26 October 1999) <www.washingtonpost.com/wp-srv/WPcap/1999-10/26/016r-102699-idx.html> accessed 27 April 2014.

in the US offers $50,000 for the eggs of 'tall, athletic women who have high IQs'.[313] Donor profiles in the US are recorded at sperm banks and egg agencies and include physical characteristics, family health history, education achievements and are then sorted by race.[314] Society may be wary of the eugenic implications, and such concern may lead to a prohibition of the ascription of property law principles even in a non-eugenic situation such as the type of frozen embryo dispute mentioned here.

The US narratives indicate in some quarters that the gamete is becoming the centre of a process that resembles aspects of a dating agency.[315] Gender differences may not be accounted for in such a marketplace and they may not extend only to the varying degrees of burden in gamete retrievals. Sociological studies show that gender differences exist according to the motivation of gamete donors: for a majority of male donors it is financial, whereas for female donors altruism is more determinative.[316] In part at least, this reflects the different amount of inconvenience and effort—reproductive labour, involved for men and women. As Elizabeth Dedrick argues, 'the failure to acknowledge the reproductive nature of the labor performed by egg donors… seems to draw on historically prevalent ideas that women's reproductive labor should be required as unpaid work'.[317] In a similar sense, as mentioned above, the reproductive labour of gamete providers should not be overlooked, and should take into account appropriate gender distinctions.

Gamete providers should be respected as autonomous agents in any application of reproductive labour, as Okin considers: 'The way we divide the labor and responsibilities in our personal lives seems to be one of those things that people should be free to work out for themselves, but because of its vast repercussions it belongs clearly within the scope of things that must be governed by principles of justice'.[318] The notion of autonomy is explored further in Chapter 5, but thus far it is worth noting a feminist philosophical account that, 'Permitting the commodification of reproductive

[313] David Resnik, 'Regulating the Market for Human Eggs' (2002) 15(1) Bioethics 2.
[314] Rene Almeling, 'Gender and the Value of Bodily Goods' (2009) 72 Law and Contemporary Problems 37, 49.
[315] This could be argued to the case in the UK as well with the introduction of a sperm donor app which allows users to search for donors' physical characteristics. May Bulman, 'Women Can Now Use App Dubbed "Order a Daddy" to Pick a Sperm Donor' *The Independent* (London, 25 September 2016) <http://www.independent.co.uk/news/uk/home-news/sperm-donor-app-order-a-daddy-women-fertility-london-a7328691.html> accessed 12 February 2016.
[316] Rachel Cook and Susan Golombok, 'A Survey of Semen Donation: Phase II—the View of the Donors' (1995) 10(4) Human Reproduction 951, 953. 'In sum, the vast majority of women responded to the profile question about motivations by suggesting their reasons for donating are altruistic. Of the few women who did mention financial motivations, they tempered this response by also referencing an interest in helping the agency's clients. In stark contrast, 59% of men reported financial motivations, either alone or in conjunction with altruistic motivations'. Rene Almeling, '"Why Do You Want to Be a Donor?": Gender and the Production of Altruism in Egg and Sperm Donation' (2006) 25(2) New Genetics and Society 143, 152.
[317] Elizabeth Dedrick, 'The Politics of Being an Egg "Donor" and Shifting Notions of Reproductive Freedom (2004) University of South Florida Scholar Commons, Graduate Theses and Dissertations 1, 57.
[318] Susan Okin, *Justice, Gender, and the Family* (Basic Books 1989) 171.

labour acknowledges that women can do what they want with their lives and with their bodies'.[319] However, in considering future commodification as 'all but assured', Suzanne Holland feared in 2001 that clinicians might be tempted to pressurise couples for embryo donations, encouraging women to undergo hyperstimulation in order to harvest more eggs to create surplus embryos.[320] There was little that evidence such fears have materialised, until a recent report found that women on low incomes who have healthy eggs but cannot get pregnant were being provided complimentary treatment or offered a discount to donate their eggs.[321] The allegations were described by the Health Secretary, Jeremy Hunt MP as 'serious and worrying'.[322]

The potential for the commodification of spare frozen embryos under a property regime could thus affect the gamete providers in terms of financial pressure, regardless of how much reproductive labour has been invested. Fertility clinics offering incentives for cheaper IVF cycles for women who are willing to share their eggs could be commonplace. How wealthy gamete providers are, as well as the routine driver of whether or not their own fertility treatment has been successful, may influence whether they want to keep their spare embryos or trade/donate them to others. Kari Karsjens argued that 'the social inequalities caused by allowing boutique egg donations should be curtailed as violative of basic social justice norms',[323] and such a critique could be amplified if property application to frozen embryos led to financial pressures and exploitation of reproductive labour. Certainly questions could arise in IVF as to whether the interests of the wealthier gamete provider would have unfair superiority regarding disposition decisions. A frozen embryo dispute could be resolved by one gamete provider pressurising another to buy her property rights in the embryos at a price that does not reflect her labour, and which causes her to lose her last chance of genetic parenthood.

4.13 Further considerations on the distribution of frozen embryos

The degree to which reproductive labour is recognised may be affected by the number of embryos created following egg retrieval under a property approach whereby the embryos are regarded as

[319] Carolyn Mcleod, 'For Dignity or Money: Feminists on the Commodification of Women's Reproductive Labour' in *Oxford Handbook of Bioethics* (Bonnie Steinbock ed, Oxford University Press 2007) 272.
[320] Suzanne Holland, 'Contested Commodities at both Ends of Life: Buying and Selling Gametes, Embryos, and Body Tissue' (2001) 11(3) Kennedy Institute of Ethics Journal 263, 269.
[321] Paul Bentley and Sara Smyth, 'Exploited by Cash-For-Eggs IVF Clinics: Mail Investigation Finds Desperate Women are Told to Donate Eggs for Free Treatment' *Mail Online* (London, 1 May 2017) < http://www.dailymail.co.uk/news/article-4463792/Exploited-cash-eggs-IVF-clinics.html#ixzz4fuOw8V00> accessed 2 May 2017.
[322] ibid.
[323] Kari Karsjens, 'Boutique Egg Donations' (2002) 5 DePaul Journal of Health Care Law 57, 88.

(jointly) divisible between the gamete providers in the event of a dispute.[324] However, if the resolution of property disputes in divorce settlements would be persuasive, then a 50:50 division of the embryos would not be applicable *prima facie* according to *White v White*.[325] This case involved the redistribution of property and finances on divorce, and it was held that although property should not necessarily be divided equally, there would need to be 'good reason' for not doing so.[326] Whether 'good reason' would be available for departing from the 'yardstick of equality'[327] is a moot point. If not, and the frozen embryos were divided equally between parties, clearly the gamete providers would have an interest in the number of embryos created and frozen before embarking on treatment. The more embryos frozen at the point of dispute (presuming no fresh embryos are available), the greater the chance the gamete provider seeking implantation will have of becoming a parent. Under such a framework, parties may be influenced as to how many embryos are subject to fresh transfer and how many are consigned to frozen storage. The costs of cryopreservation may be prohibitive for less wealth gamete providers.[328] There are also health considerations. Multiple embryo transfer (of fresh embryos) can increase the success rate of pregnancy, but single embryo transfer can reduce the risk of multiple-order pregnancy; and in recent years single embryo transfer has been viewed with increasing favour,[329] in part due to screening methods to select the best embryo,[330] which would imply a policy to freeze greater numbers of embryos.[331] Some clinics have reportedly transferred over seven embryos in a single cycle,[332] although the Hazel Biggs and Caroline Jones discussed these options in relation surrogacy to consider that 'prospective parents may regard the potential risks associated with transferring multiple embryos as more acceptable than the

[324] Such an approach could also involve financial distribution.
[325] *White v White* [2001] 1 AC 596 (HL).
[326] ibid 605 (Lord Nicholls).
[327] ibid 605.
[328] One UK fertility clinic charges £500 for embryo cryopreservation for one year, and £265 per year thereafter. Complete Fertility Centre, 'Price List' <http://www.completefertility.co.uk/price_list/complete-fertility-price-list.pdf> accessed 16 February 2017.
[329] Jan Gerris, Single-Embryo Transfer Versus Multiple-Embryo Transfer' (2009) 18(2) Reproductive Biomedicine Online 63; David McLernon and others, 'Clinical Effectiveness of Elective Single Versus Double Embryo Transfer: Meta-Analysis of Individual Patient Data from Randomised Trials' (2010) 341 BMJ 6945; Roy Tammie and others, 'Single-Embryo Transfer of Vitrified-Warmed Blastocysts Yields Equivalent Live-Birth Rates and Improved Neonatal Outcomes Compared with Fresh Transfers (2014) 101(5) Fertility and Sterility 1294.
[330] Eric Forman and others, 'Single Embryo Transfer with Comprehensive Chromosome Screening Results in Improved Ongoing Pregnancy Rates and Decreased Miscarriage Rates' (2012) 27(4) Human Reproduction 1217; Eric Forman and others, 'Obstetrical and Neonatal Outcomes from the BEST Trial: Single Embryo Transfer with Aneuploidy Screening Improves Outcomes after In Vitro Fertilization without Compromising Delivery Rates' (2014) 210(2) American Journal of Obstetrics and Gynecology 157.
[331] Kai Wong, Sebastiaan Mastenbroek and Sjoerd Repping, 'Cryopreservation of Human Embryos and Its Contribution to In Vitro Fertilization Success Rates' (2014) 102(1) Fertility and Sterility 19; Matheus Roque and others, 'Freeze-All Policy: Fresh vs. Frozen-Thawed Embryo Transfer' (2015) 103(5) Fertility and Sterility 1190.
[332] Philip Peters, *Hose Safe is Safe Enough?* (Oxford University Press 2004) 210.

prospect of failing to achieve a pregnancy'.[333] Biggs and Jones analysed an 'unsurprising' case on surrogacy which contained 'no discussion as to the potential health risks to the surrogate mother'.[334] A gamete provider seeking implantation, who perhaps has doubts as to whether her partner will waiver his consent, may also be in a vulnerable position, such that she feels pressurised to implant more embryos than she would have otherwise done, although in line with HFEA limits.

An approach of an equal division of embryos, where embryos are regarded as property and owners of that property have rights to use them as they see fit subject to legal restrictions, would therefore be more favourable to the gamete provider seeking implantation with policies promoting increasing the number of embryos frozen, notwithstanding the costs of cryopreservation. Nonetheless, such an approach has the potential to frustrate the wishes of both gamete providers, with the knowledge that some of the embryos will disposed of against their will. In *Evans* six embryos were frozen,[335] which would have meant three apportioned to both gamete providers, meaning a low chance[336] she would have achieved a successful pregnancy were implantation undertaken. Such an equal distribution could also lead to further dispute about which embryos are allocated in the division according to any characteristics shown through genetic profiling from preimplantation genetic diagnosis. Resolution of such a dispute would also be complex, and is beyond the confines of this thesis.

An alternative approach would be to allow joint distribution, but to limit the use of the embryos for implantation. This was the approach of the Missouri Court of Appeals, which upheld a decision by the Circuit Court of St Louis County by 2:1 to jointly distribute two frozen embryos between the gamete providers, but in doing so ordered that 'no transfer, release, or use of the frozen [pre-]embryos shall occur without the signed authorization of both [parties]'.[337] This effectively meant that the wishes of the woman seeking implantation were frustrated in favour of the man's decision not to use the embryos.

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[333] Hazel Biggs and Caroline Jones, 'Legally Vulnerable: What is Vulnerability and Who is Vulnerable?' in *Law and Global Health: Current Legal Issues Volume 16* (Michael Freeman, Sarah Hawkes and Belinda Bennett, eds, Oxford University Press 2014) 144-5.
[334] ibid 145.
[335] *Evans v United Kingdom* [2006] 43 EHRR 21 [11].
[336] Elizabeth Sullivan and Yueping Wang, 'How to Report IVF Success Rates' in *How to Improve Your ART Success Rates: An Evidence-Based Review of Adjuncts to IVF* (Gab Kovacs, ed, Cambridge University Press 2011). 237; María Cruz, Manuel Muñoz and Marcos Meseguer, 'Real-Time Imaging Strategies to Improve Morphological Assessment' in *Human Gametes and Preimplantation Embryos: Assessment and* Diagnosis (David Gardner and others, eds, Springer 2013) 45.
[337] *McQueen* (n 54) (Clayton III J).

Alternatively, *White* could be interpreted to allow 'good reason' for an unequal distribution of frozen embryos. For such an outcome the court must have regard to the parties' respective contributions.[338] The good reason in *White* for a departure from equality was the significant inheritance of one party.[339] However, Lord Nicholls also considered that differences in contributions can be non-financial[340] and can allow for a justifiably unequal distribution of property. From a Lockean perspective, such a rationale could be applied to frozen embryo disputes- the greater contribution is provided by the woman, and thus a greater number of embryos (if not all) should be distributed to her on this basis. In practice, of course, if there are only a few embryos apportioned to a gamete provider seeking implantation, the likelihood is that she still will not achieve a successful pregnancy even if she uses them for implantation; whereas the gamete provider, for example, seeking the destruction of the embryos is assured of having his or her intentions fulfilled.

4.13.1 Joint distribution on the basis of genetic material

A joint distribution of the embryos may be argued on the basis that gamete providers have property rights in their embryos due as they carry, or actually are, genetic information. The notion of the embryos as genetic material is not fanciful. Arden LJ was the only judge in the course of the Evans litigation who specifically referred to the embryos as 'genetic material', being that of 'two individuals, which, if implanted, can lead to the birth of a child'.[341] Use of the word 'material' is more becoming to proprietary language and worthy of further investigation. It should first be noted that Arden LJ was not consistent in categorising the embryos as exclusively genetic material, rather she discussed the 'embryos containing her [Ms Evans'] genetic material'[342] and 'embryos resulting from the genetic material'.[343] With at least a connection to genetic material established, Arden LJ then proceeded to explicitly consider that property rights could be attached to such material.[344] The debate in *Evans* was then framed as one involving conflicting property rights. Arden LJ stated that the 'difficulty for Ms Evans is that the genetic material is now not simply *hers* alone'.[345] This is a statement which points towards possession of the material in terms of co-ownership.

[338] *White v White* [2001] 1 AC 596 (HL) 609 (Lord Nicholls).
[339] ibid 612 (Lord Nicholls).
[340] ibid 605-6.
[341] *Evans* (CA) (123) [80].
[342] *Evans* (CA) (123) [90].
[343] Ibid [92].
[344] *Evans* (CA) (123) [88].
[345] *Evans* (CA) (123) [90] (emphasis added).

Susan Chan and Muireann Quigley postulate that two types of genetic material exist: physical and informational.[346] By 'proposing to create an embryo… each party is offering to cede some part of their informational rights in the gametes that are given with that intent, for the purpose of creating a new form of information: the new genetic entity'.[347] This means that embryos should be considered immiscible joint property according to Chan and Quigley since a 'new genetic entity'[348] has been formed.

> The implication of this is plain and simple: once you have given up your genetic informational rights in this manner you cannot take them back. The creation of IVF embryos involves both parents giving up some rights over their genetic information in pursuit of the creation of the embryos. Once this has occurred, any right of the parents not to have those embryos created (as new genetic entities from their genetic information) is lost, and only the physical rights to the embryos persist.[349]

By this token, Chan and Quigley dismiss the argument that a gamete provider should have a right to choose not to have a genetically related child using embryos created by IVF. The weakness in this argument is that it does not take into account that although a new genetic entity has been created, it is not devoid, genetically speaking at least, of a connection to its progenitors. Moreover, if the gamete providers no longer have any property rights due to the end of the gametes, it does not *prima facie* follow that the one party or another would have more rights in the embryo.

A legal construction may be problematic in resolving frozen embryo disputes when considering the clinical or research context, in that it appears a person's genetic information may be used without his or her express or prior consent 'where a person's genetic information is anonymized, and there is no risk of his or her identification with the genetic data'.[350] Simon Brown LJ held that a 'patient's privacy will have been safeguarded, not invaded' in a case involving a data company seeking to release anonymous prescription information by pharmacists to pharmaceutical companies to assist in the research of prescription habits of doctors.[351] Thus, any consideration that the embryos are genetic material would require a distinct legal understanding of the consent requirements to use in ART.

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[346] Sarah Chan and Muireann Quigley, 'Frozen Embryos, Genetic Information and Reproductive Rights' (2007) 21(8) Bioethics 439, 442.
[347] ibid 447.
[348] ibid 447.
[349] ibid 448.
[350] Nwabueze (n 10) 176.
[351] *R v Department of Health Ex p Source Informatics Ltd (No 1)* [2001] QB (Civ) 424, 440.

Aside from legitimate concerns over the exercise of consent in IVF, an approach that recognises property rights in the embryos solely in understanding that gametes or embryos are genetic material may also have scope to overlook reproductive labour invested in the embryos. As Evelyn Glynn postulated, the perception might be held that women are unskilled workers who are merely 'containers for genetic material'.[352] The extent to which genetic material is mere information is debatable, but it is important to remember the origin and effort invested in the production of this material that has been described in this thesis.

4.14 Conclusions on property

This chapter has presented a legal framework which although established, is more flexible[353] than estoppel. An application of a nuanced interpretation of property law to IVF should recognise that in the normal course of events the women's 'reproductive effort', interpreted as labour, undertaken in the creation of the embryo is greater and should consequently vest her with decisional authority over the disposition of a frozen embryo(s) in the event of dispute. Not adhering to this approach can lay frozen embryo disputes open to the criticism that a gamete provider is able to exercise interests in the other's labour, even to the point of exploitation. The intention of this statement is not to strip either putative parent of selflessness in their parenting, but rather to protect the reproductive labour of gamete providers from a legal perspective.

The use of property law in regulating disposition decisions of frozen embryos may lead to fears in some quarters that the specialness of embryos is undermined. The conception of property is one of 'powerful, rhetorical force' carrying 'almost emotional importance'.[354] Indeed, the emotional nature of frozen embryo disputes has been used to argue against the adoption of property law.[355] Moses argues that the 'risk associated with a mere "property" label is to some extent unknown, and depends in part on whether popular conceptions of property's meaning embrace notions of commodity and market, even where this is excluded from a legal definition'.[356] Law is fluid, and lawmakers should be aware of the wholesale migration to a new area of law. The plethora of

[352] Evelyn Glenn, 'Social Constructions of Mothering: A Thematic Overview' in *Mothering: Ideology, Experience and Agency* (Evelyn Glenn, Grace Chang and Linda Forcey eds, Routledge 1994) 12.
[353] 'Malleability is an important feature of property'. Nwabueze (n 10) 7.
[354] Laura Underkuffler, 'On Property: An Essay' (1990) 100 Yale Law Journal 127, 129.
[355] Alyssa Yoshida, 'The Modern Legal Status of Frozen Embryos' (2017) 68 Hastings Law Journal 711, 730.
[356] Lyria Moses, 'The Problem with Alternatives: The Importance of Property Law in Regulating Excised Human Tissue and *In Vitro* Embryos' in *Persons, Parts and Property: How Should We Regulate Human Tissue in the 21st Century* (Imogen Goold and others, eds, Hart 2014) 212.

commercial nuances imbedded in property law is perhaps one reason why many jurisdictions have hesitated to apply it to frozen embryo disputes or, indeed, human tissue. This chapter has demonstrated that a specific interpretation of property law can, however, appropriately determine gamete providers' interests in their frozen embryos following a dispute. Those property rights in terms of use, exclusion and transferability would be highly defined by law to avert the type of slippery slope dignitarians fear.[357] Property law, thus, provides a comprehensive, established legal framework with the tools to recognise the greater investment in terms of reproductive labour, particularly of women, in producing embryos.

To further address fears over commodification, property rights ascribed to the embryo should be limited to a right to use or a right to exclude. Property rights in IVF should not be allowed to give rise to financial gain to avoid the pitfalls of exploitation. The avoidance of the application of property law to administrating embryos may have been pragmatic in the UK, as Karin Webster points out 'in saying that eggs and embryos aren't objects of property the law avoids entering into debate concerning the nature of the rights and interests the gamete providers have in the embryos'.[358] The classification of the embryo is key to this chapter and fears of commercial and market influences prove a significant hurdle to perceiving the embryo as property. The use of quasi-property rights may also be useful to avoid the pressures of commodification,[359] although it is unclear whether their application could extend to more than mere damages.

This chapter has demonstrated that the status of the embryo is pertinent to a discussion of gamete providers' interest. The effect of a personhood status would be clear—no-one could own the embryos and, therefore, the potential to apply a Lockean interpretation of reproductive labour would be greatly diminished. If the law does recognise the embryos as property, then a variety of property conceptions could apply. For example, gamete providers could transfer their property through donation or sell it under laws regulated specifically by statute or contract law. Even if the greater contributions and investment of the woman are recognised, this may not grant her the type of property rights over the disposition of the embryo she seeks. Her 'reproductive labour' may be compensated financially by the party objecting to her disposition decision. But she may not receive the embryos by virtue of the fact that she has merely greater property rights. Judging frozen embryo

[357] The Warnock Report considered the argument that 'it is inconsistent with human dignity that a woman should use her uterus for financial profit'. *Warnock Report* (n 17) [8.10]. Roger Brownsword, 'Bioethics Today, Bioethics Tomorrow: Stem Cell Research and the "Dignitarian Alliance"' (2003)15 Notre Dame Journal of Law, Ethics & Public Policy 15, 39.
[358] Webster (n 247) 79-80.
[359] Shyamkrishna Balganesh, 'Quasi-Property: Like, but not Quite Property' (2012) 160 University of Pennsylvania Law Review 1889, 1915.

disputes through the lenses of property law produces no certain results; being contingent on the type of property model used. The most favourable approach involves a Lockean notion that 'labour affects the value of everything'[360] to support the greater investments made normally on the part of the female gamete provider, which would result in her property rights conferring upon her control over at least the vast majority of the embryos. This approach is best supported by Locke's further recommendation of recourse to justice to arrive at an appropriate resolution, taking into account gendered distinctions which pervade IVF and frozen embryo disputes. The tension between the justice, broadly conceived, of allowing a gamete provider to choose whether or not to become a parent, and the justice of recognising 'reproductive effort' follows in the next chapter in the context of rights.

[360] Locke (n 5) [40] accessed 5 September 2016.

Chapter 5: An Assessment of a Rights-Based Approach to Resolving Frozen Embryo Disputes

'I saw that his delicacy was avoiding the right word'.[1] --- Charles Dickens

'The question is,' said Alice, 'whether you can make words mean so many different things.'

'The question is,' said Humpty Dumpty, 'which is to be master — that's all'.[2] --- Lewis Carroll.

5.1 Introduction

The notion of 'reproductive effort' discussed in different forms in the previous chapters is now applied under a rights-based regime to argue against a gender neutral approach in the resolution of frozen embryo disputes in IVF. Karin Webster builds on Gene Corea's work mentioned in Chapter 1 to discuss the significance of the gendered differences in 'reproductive effort' between men and women in IVF:[3]

> In the vast majority of cases the woman undergoes all the surgical treatment whereas the man's provision of sperm is usually a simple procedure, yet the framing of the law ensures that these differences remain well hidden. This is not to say that the man does not have an interest and investment in the embryo, but I would submit that the positions and perspectives of the two parties are, in any given case, sufficiently different for a gender-blind approach to be inappropriate.[4]

Equality is generally considered to be of significant importance to a rights regime in healthcare,[5] and the aforementioned gendered differences in 'reproductive effort' provide a bedrock for the argument that formal equality does not lead to substantive equality between the sexes in resolving frozen embryo disputes in IVF. Thus, it is argued that since a woman's body is engaged significantly

[1] Charles Dickens, *Great Expectations* (Estes and Lauriat, 1881) 487.
[2] Lewis Carroll, *Through the Looking-Glass and What Alice Found There* (Macmillan & Co, 1875) 124.
[3] Gena Corea, 'What the King Can Not See' in *Embryos, Ethics and Women's Rights* (Elaine Baruch, Amadeo D'Adamo, Jr and Joni Seager eds, Harrington Park Press 1988) 85.
[4] Karin Webster, 'Whose Embryo is it Anyway? A Critique of Evans v Amicus Healthcare [2003] EWHC 2161 (Fam) (2006) 7(3) Journal of International Women's Studies 71, 77.
[5] For example, Leslie London considers that rights-based approach is a proactive method of supporting equal and free access to healthcare services Leslie London, 'What is a Human-Rights Based Approach to Health and Does it Matter?' (2008) 10(1) Health and Human Rights 1.

more than a man's in IVF treatment, she should be granted greater recognition under Articles 8 and 14 of the European Convention on Human Rights (ECHR)[6] with respect to her decisional authority over the frozen embryo(s). Article 1 of the Convention requires its signatories, such as the UK, to 'secure for everyone within [its] jurisdiction the rights and freedoms… of this Convention'. Since UK law and policy must therefore be compatible with the Convention and the judgments of the European Court of Human Rights (ECtHR)

Article 8(1) of the ECHR provides that: 'Everyone has the right to respect for his private and family life, his home and his correspondence',[7] and it is specifically considered that a right to private life which encompasses a person's physical integrity,[8] should not be gender neutral following fertilisation in IVF due to the differences in 'reproductive effort' in IVF. As has been considered, IVF is 'an extremely invasive procedure',[9] and the notion that physical integrity, broadly conceived, should be pivotal for women pursuing reproductive treatment is argued by Marsha Darling since it is, 'inextricably linked with women's health and well-being'.[10] Tracy Pachman also reflects that, 'An appropriate feminist standard for resolving preembryo dispute cases is one that respects women's bodily integrity and ensures that women have rights that balance their significant responsibilities'.[11] These arguments are therefore specifically viewed through the lens of physical integrity under Article 8 in this chapter. Physical integrity is accordingly construed as a form of 'reproductive effort' as discussed in previous chapters.

Thus, not only does the woman undertake more significant medical treatment, which requires protection of her physical integrity under Article 8, the position of the person who alters the course of treatment proposed and initiated should also be given less weight in any balancing of rights between the gamete providers. This argument is supplemented by applying a gloss to a legal understanding of 'treatment' to consider that a man is not 'treated' after gamete provision. What

[6] These Articles were given effect in UK law on 2 October 2000 by section 1(2) of the Human Rights Act 1998, which incorporates into UK law certain rights and fundamental freedoms set out in the ECHR.

[7] Article 8(2) provides that, 'There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others'.

[8] *X and Y v Netherlands* [1986] 8 EHRR 235 [22]. See also *NHS Trust A v M* [2001] Fam 348, 361 (Butler-Sloss P); *Pretty v United Kingdom* (2002) 35 EHRR 1 [63].

[9] Sofia Kaliarnta, Jessica Nihlén-Fahlquist and Sabine Roeser, 'Emotions and Ethical Considerations of Women Undergoing IVF-Treatments' (2011) 23(4) HEC Forum 281, 288.

[10] Marsha Darling, 'Gender and Justice in the Gene Age: The Challenges Presented by Reproductive and Genetic Biotechnologies' in *Women in Biotechnology: Creating Interfaces* (Francesca Mofino and Flavia Zucco eds, Springer 2008) 287.

[11] Tracey Pachman, 'Disputes over Frozen Preembryos & the "Right Not to Be a Parent"' (2003) 12 Columbia Journal of Gender and Law 128, 149.

this word means and how it is applied is therefore important and specifically connected to considerations of physical integrity under Article 8. The gloss buttresses a notion that a balance of rights under this Article should weigh in the woman's favour. The balancing test introduced in Chapter 2 is accordingly revisited and elaborated upon in the context of rights. This also leads to considerations as to whether an under-appreciation of the burdens of the treatment she receives indicates discrimination under Article 14 when taken in conjunction with Article 8.

A rights-based regime could utilise rights other than those under Articles 8 and 14. Under the ECHR those could be Article 2 and 12. For the reasons given in Chapter 1, Article 2 is not considered at all in this chapter. Article 12 was raised in *Evans*, but only in the High Court, with Wall J providing a brief judgment on it.[12] Moreover, since case law has focussed on Article 8 rather than Article 12 to address the significance of 'treatment', this chapter accordingly avoids a discussion of Article 12 rights, aside from a brief discussion regarding a right (not) to procreate.

5.2 *Evans* and Article 8

Ms Evans pleaded that the inability to use her embryos for implantation constituted an unnecessary interference with her right to respect for her private and/or family life under Article 8 of the ECHR.[13] Wall J held that the 'family' element of Article 8 was not engaged as the parties were living separately,[14] but a right to respect for 'private life' which 'can reflect a distinct area of life' was engaged for both gamete providers.[15] The right of Ms Evans under Article 8 was not independent of Mr Johnston's in relation to the IVF treatment,[16] indicating a horizontal conflict of rights. Furthermore, Wall J found that the right to respect for private life applied 'equally' to Mr Johnston (and Ms Evans) in this context.[17] Article 8 has been referred to as 'amorphous'[18] and the 'least defined and most unruly of the rights enshrined'[19] in the ECHR. The rights espoused in Article 8 can function as negative rights in the sense that they seek to limit interference by a public authority

[12] *Evans v Amicus Healthcare Ltd* [2003] EWHC 2161 (Fam) [261]- [265].
[13] ibid [4].
[14] ibid [181].
[15] ibid [182].
[16] ibid.
[17] ibid [184].
[18] Nicole Moreham, 'The Right to Respect for Private Life in the European Convention on Human Rights: A Re-examination' (2008) 1 European Human Rights Law Review 44, 45.
[19] *Wright v Secretary of State for Health* [2006] EWHC 2886 (Admin) [66] (Burton J).

rather than establishing specific entitlements.[20] This tallies well with the Select Committee on Science and Technology's considerations:

> [T]he state should withdraw from people's reproductive decision-making. Parents rather than the State must be assumed to be the right decision-makers for their families. While this reproductive freedom must be balanced against the impacts against other individuals and society, any such claims must be clearly demonstrable.[21]

Article 8 can also impose positive obligations on States to protect the private lives of individuals, especially against interference from others, which may 'involve the adoption of measures designed to secure respect for private life even in the sphere of relations of individuals between themselves'.[22]

Wall J held that Article 8 applied 'equally' to both parties.[23] The judge explained:

> An unfettered right on the claimants' part to have the embryos transferred into them would, by parity of reasoning, constitute an interference with respect of the men's Article 8 rights, in the same way that any attempt on their part to insist that the claimants have the embryos transferred into them against their will would undoubtedly constitute an interference both with the claimants' right to autonomy over their own bodies, and with respect for their private lives.[24]

Nevertheless, such a comparison of rights is a strained one. There is a clear distinction between a man becoming a father against his will once treatment for IVF has commenced, and forcing a woman to become pregnant and deliver a child against her will. The latter would be a grave invasion of bodily integrity for the purposes of Article 8 and this is a further indication that Wall J may not have fully appreciated the differences in physical burdens both parties faced that have so far been introduced.

The Court of Appeal was slightly more cautious than the High Court in its approach in comparing rights, considering the difficulty of the conflict. Arden LJ was clearly aware of the statutory

[20] Aaron Fellmeth, *Paradigms of International Human Rights Law* (Oxford University Press 2016) 227.
[21] Select Committee on Science and Technology, *Eight Special Report* (HC 491, 2005) Annex A.
[22] *van Kück v Germany* [2003] 37 EHRR 51 [70].
[23] *Evans* (HC) (n 12) [184].
[24] ibid. As previously mentioned, the case of Ms Evans and Ms Hadley were heard together.

restrictions mentioned in the previous section, considering that Parliament 'could have taken view that, as in sexual intercourse, a man's procreative liberty should end with the donation of sperm but that, in the light of the woman's unique role in making the embryo a child, she should have the right to determine the fate of the embryo'. [25] However, Arden LJ was also aware it was 'difficult for a court to judge whether the effect of Mr Johnston's withdrawal of his consent on Ms Evans is greater than the effect that the invalidation of that withdrawal of consent would have on Mr Johnston'.[26] The judge considered that both parties enjoy 'equivalent rights' under Article 8, but that the 'extent of their rights' had not yet been identified.[27]

At the ECtHR, Ms Evans contended that Mr Johnston:

> [W]as not subject to any further medical intervention or treatment requiring his consent, and there would thus be no inequality of treatment between the parties if a man were held to his consent, there being no true comparison between the situation of the woman in refusing consent to the implantation of an embryo in her body or refusing to carry it to term and that of the man in withholding his consent to such implantation.[28]

The ECtHR dismissed this argument, stating:

> While there is clearly a difference of degree between the involvement of the two parties in the process of IVF treatment, the Court does not accept that the Art.8 rights of the male donor would necessarily be less worthy of protection than those of the female; nor does it regard it as self-evident that the balance of interests would always tip decisively in favour of the female party.[29]

Although the ECtHR accepted that 'a different balance might have been struck by Parliament',[30] it nonetheless held that the UK Government did not exceed the margin of appreciation afforded to it under Article 8.[31] Case law at the ECtHR has indeed clarified when conflicting interests exist 'it is

[25] *Evans v Amicus Healthcare Ltd* [2004] EWCA (Civ) 727 [109].
[26] ibid [110].
[27] ibid.
[28] *Evans v United Kingdom* (2006) 43 EHRR 21 [52].
[29] ibid [66].
[30] ibid [68].
[31] ibid [69].

engaged in an exercise of balancing the rights of the parties'.[32] Article 8(2) provides a justification to protect one person's rights for what would otherwise be considered a wrongful interference with another person's Article 8(1) rights.[33] One of the methods to adjudicate whose rights should prevail is by balancing the parties' interests 'and the relative burdens that will be imposed by differing resolutions'.[34] This provides for scope for criticism, in that the balance did not satisfactorily take into account 'reproductive effort'.

At the Grand Chamber of the ECtHR, Ms Evans elaborated upon her point of the 'reproductive effort' of the treatment she had received:

> The female's role in IVF treatment was much more extensive and emotionally involving than that of the male, who donated his sperm and had no further active physical part to play in the process. The female gamete provider, by contrast, donated eggs, from a finite limited number available to her, after a series of sometimes painful medical interventions designed to maximise the potential for harvesting eggs… Her emotional and physical investment in the process far surpassed that of the man and justified the promotion of her Art.8 rights.[35]

In this court Ms Evans argued most keenly that 'her greater physical and emotional expenditure during the IVF process, and her subsequent infertility' should entail that her Article 8 rights take precedence over Mr Johnston's.[36] In response, the Grand Chamber considered that 'a balance between the competing public and private interests'[37] would be subject to a wide 'margin of appreciation to be afforded to the respondent State',[38] due to 'sensitive moral and ethical issues against a background of fast-moving medical and scientific developments'.[39] The Grand Chamber considered that 'private life' is 'a broad term encompassing, inter alia, aspects of an individual's

[32] Shazia Coudhry, Jonathan Herring and Julie Wallbank, 'Welfare, Rights, Care and Gender in Family Law' in *Rights, Gender and Family Law* (Julie Wallbank, Shazia Coudhry and Jonathan Herring eds, Routledge 2010) 5. For example, under Article 8 the ECtHR in a criminal case that a 'balancing act between public health considerations… and the personal autonomy of the individual' is required. *Laskey, Jaggard and Brown v UK* (1997) 24 EHRR 39. In an environmental case a 'fair balance that has to be struck between the competing interests of the individual and of the community as a whole'. *Lopez Ostra v Spain* (1995) 20 EHRR 277 [51]. See also *Stjerna v Finland* [1997] 24 EHRR 195 [38].
[33] *In Re A (Children) (Conjoined Twins: Surgical Separation)* [2001] Fam 147, 239 (Brooke LJ).
[34] J Ralph Lindgreen and others, *The Law of Sex Discrimination* (4th edn, Wadsworth 2011) 364.
[35] *Evans v United Kingdom* [2008] 46 EHRR 34 [62].
[36] ibid [80].
[37] ibid [82].
[38] ibid [81].
[39] ibid.

physical and social identity'.[40] Citing a 'lack of any European consensus' on all the factors pertaining to frozen embryo disputes,[41] the Grand Chamber gave short shrift to attempting to weigh the competing rights under Article 8 on the basis of differing physical and emotional expenditure,[42] ruling instead that there was a 'fair balance'.[43] The court held that Parliament had not exceeded the margin of appreciation afforded to it by the Article as there was no consensus within the Members States regarding relative importance of the interests at stake.[44] The approach of the majority judges in interpreting Article 8 rights in this context was also taken by the legislature.[45]

The dissenting judges at the Grand Chamber considered that the 1990 Act precludes the possibility of balancing the competing interests of the gamete providers.[46] Rejecting the 'bright-line rule' of the statute,[47] the dissenting judges considered that the majority had effectively eradicated any possibility of Ms Evans having a genetically related child.[48] It is of noteworthy interest here that the dissenting judges considered (without reference to sperm), that the 'act of destroying an embryo also involves destroying the applicant's eggs',[49] (which were her only remaining eggs) which could be interpreted as a tacit reference to the effort required to specifically produce the eggs. The dissenting judges' approach is preferred in that it opens the door to factoring in 'reproductive effort'.

This chapter will argue that the woman's 'reproductive effort' should play a much greater role in protecting Article 8 rights. The points mentioned so far concerning 'reproductive effort' are specific to the woman concerning Article 8. However, comparisons are not only possible between the man and woman to adduce the value of 'reproductive effort' for Article 8, it is also possible to contrast her position relative to that of a fertile woman who has been impregnated. This discussion necessarily involves consideration of whether the female gamete provider is being discriminated against for the purposes of Article 14.

5.3 Balancing test

[40] ibid [71].
[41] ibid [92].
[42] ibid [80].
[43] ibid [91].
[44] ibid 34 [77].
[45] 'The Government has correctly identified that the use of genetic material to create an embryo without consent will engage the right to private life, as protected by Article 8 ECHR'. Joint Committee on Human Rights, Fifteenth Report, Human Fertilisation and Embryology Bill (2007/2008) [4.38].
[46] *Evans* (ECtHR) (GC) (n 35) [O-17].
[47] *Evans* (ECtHR) (GC) (n 35) [O-16].
[48] *Evans* (ECtHR) (GC) (n 35) [O-16].
[49] *Evans* (ECtHR) (GC) (n 35) [O-18].

A balancing test will clearly be dependent on the factors selected for balancing and the weight (if any) assigned to them; and the significance of this as drawn out in frozen embryo disputes from other jurisdictions is discussed now, augmenting the analysis in Chapter 2. Clearly in *Evans* the courts were bound by the ECHR and 1990 Act. However, US jurisprudence, which inevitably takes a more constitutional focus in rights discussions,[50] has adopted balancing tests in the resolution of five frozen embryo disputes, and surveyed a greater range of factors in doing so. A balancing approach was applied by the Supreme Court of Tennessee in the absence of a prior agreement regarding disposition of embryos.[51] The Supreme Court of New Jersey applied a balancing test after finding a consent form was not binding.[52] In the absence of a contract, the Superior Court of Pennsylvania held that the woman's inability to have any other biological children was the deciding factor.[53] For the Missouri Court of Appeals, Eastern District, the 'potential life of the frozen pre-embryos are not sufficient to justify any infringement upon the freedom and privacy' based on a weighting of the interest in not forcing a gamete provider to become a parent.[54] Demonstrating the potential for accounting for a wide variety of factors in a balancing exercise, the Illinois Appellate Court considered the possibility of a boyfriend's fears that other women would not desire a relationship with him if he fathered a child with his ex-girlfriend through the embryos were not given any weight.[55]

In a case referred to in Chapter 3, *Davis v Davis*,[56] the woman wished to have the embryos implanted,[57] whilst the man wished to have them destroyed.[58] Following remarriage, the woman changed her mind and requested the embryos be donated to another infertile couple,[59] whilst the man continued to request their destruction.[60] The Supreme Court of Tennessee considered that as a starting point 'an agreement regarding disposition of any untransferred preembryos in the event of contingencies (such as the death of one or more of the parties, divorce, financial reversals, or abandonment of the program) should be presumed valid and should be enforced as between the

[50] *Davis v Davis* 842 SW 2d 588 (Tenn 1992) 598–603. Such an approach is due to the supremacy clause of the US Constitution (Clause 2, Article 6 of the United States Constitution).
[51] ibid 603-04.
[52] *JB v MB* 783 A 2d 707 (NJ 2001) 719-20.
[53] *Reber v Reiss* No 1351 EDA 2011 (Pa Super 2012).
[54] *McQueen v Gadberry* ED 103138 (Mo Ct App 2016) 23-24.
[55] *Szafranski v Dunston* 122975-B (IL App (1st) 2015) [125]-[127], [130] (Liu and Simon JJ). However, the woman's ovarian failure and inability to create any more pre-embryos with her own eggs meant here interests prevailed over the man's ultimately. [131].
[56] *Davis v Davis* 842 SW 2d 588 (Tenn 1992).
[57] ibid 589.
[58] ibid 590.
[59] ibid 590.
[60] ibid 604.

progenitors'.[61] However, in this case no agreement had been present between the parties, and the Court held that such decisions should therefore involve:

> [L]ooking to the preferences of the progenitors. If their wishes cannot be ascertained, or if there is dispute, then their prior agreement concerning disposition should be carried out. If no prior agreement exists, then the relative interests of the parties in using or not using the pre-embryos must be weighed.[62]

This approach would leave scope to account for 'reproductive effort', but would also be dependent on which factors are selected for the test and the weight assigned to them. Thus, the particular feature of Mr Davis' past, in which the experience of growing up in an orphanage[63] led to vehement opposition to fathering a child that would not live with both parents, was a factor in the balance.[64] The balancing test adopted weighed the interest in donating the embryos to another couple against the interest in avoiding parenthood.[65] For Ms Davis, Daughtrey J balanced the issues thus:

> Refusal to permit donation of the preembryos would impose on her the burden of knowing that the lengthy IVF procedures she underwent were futile, and that the preembryos to which she contributed genetic material would never become children. While this is not an insubstantial emotional burden, we can only conclude that Mary Sue Davis's interest in donation is not as significant as the interest Junior Davis has in avoiding parenthood.[66]

Two criticisms from this balancing exercise are possible, and would be relevant to considerations of physical integrity under Article 8. First, the judge failed to mention that the woman's physical burden, in addition to the emotional one, is also not insubstantial. Second, if the burden of knowledge of futility of the IVF procedures can be balanced, then so too should the burden/ 'reproductive effort' of the IVF procedures themselves.

[61] ibid 597.
[62] ibid 597.
[63] ibid 603.
[64] ibid 604.
[65] ibid 604.
[66] ibid 604.

A preferable approach was adopted in *Nahmani*, where the balancing of interests test was also applied.[67] Dorner J considered that the 'balance between the rights of the spouses' will take into account 'the current stage of the procedure, the representations made by the spouses, the expectations raised by the representations and any reliance on them, and the alternatives that exist for realizing the right of parenthood'.[68] Crucially, the judge also mentioned that the 'adverse change in the wife's position is a major consideration in the balance of interests between the spouses'.[69] As mentioned in Chapter 2, a key factor in this regard will be whether the gamete provider seeking implantation has any genetic children or has recourse, other than the frozen embryos, to pursue genetic parenthood. Neither of these was available to Ms Evans.

There are questions as to what other factors should be taken into account, and in the absence of specific legislation, judges from other jurisdictions have been seen to exercise a wide discretion.[70] A balancing test for Article 8 rights can provide scope for the 'reproductive effort' involved to produce the embryos to be taken into account. Significantly, a balancing test, framed in terms of Article 8 rights, will also take into account the right to procreate or not to procreate.

5.3.1 Right to (not) procreate

In this and the following subsection the analysis of the balancing tests leads to consideration of rights beyond those explicitly mentioned by the Human Rights Act 1998 (i.e. Articles 8 and 14 of the ECtHR for the purposes of this chapter), yet which could hypothetically be incorporated into a balancing test under Article 8. These rights could indeed have been referred to by the High Court and Court of Appeal in *Evans* since such a scenario had not been ruled upon in the ECtHR meaning the national courts had 'no choice but to adopt their own interpretation'.[71]

[67] CA 2401/95 *Nahmani v Nahmani* [1995-96] IsrSC 50(4) 661, 54 (Dorner J). *Nahmani* was a case Wall J was aware of, but which he pointed out he could not read as it was only available in Hebrew (*Evans* (HC) (n 12) [313]).
[68] *Nahmani* (n 67) (Dorner J) 297.
[69] *Nahmani* (n 67) (Dorner J) 65.
[70] *Roche v Roche* [2010] 2 IR 321 [38].
[71] David Harris and others, *Law of the European Convention on Human Rights* (3rd edn, Oxford University Press 2014) 28.

The decision over whether or not to become a parent has been considered as foundational to self-determination.[72] Jackson argues that 'the freedom to decide for oneself whether or not to reproduce is integral to a person's sense of being the author of their own life plan'[73] and goes to the 'heart of an individual's identity'.[74] The debate over whether a right to be a parent exceeds the right not to be a parent has already been in addressed from the angle of treatment received, and can also be argued from a biological[75] and socio-political[76] perspectives to inform understandings of a right to private and family life under Article 8.

For the Supreme Court of Tennessee the issue of balancing interests 'centers on the two aspects of procreational autonomy the right to procreate and the right to avoid procreation'.[77] In *Evans* the Grand Chamber found that respect for the decision to become a parent in the genetic sense fell within the scope specifically of 'private life' under Article 8.[78] In the 'balance to be struck' the Court held that it '[did] not consider that the applicant's right to respect for the decision to become a parent in the genetic sense should be accorded greater weight than [Mr Johnston]'s right to respect for his decision not to have a genetically related child with her'.[79]

There are different approaches to the balancing test under Article 8, but as the two seminal cases of *Davis* and *Evans* indicate respectively, a right (not) to procreate or a 'right to respect for the decision (not) to become a parent in the genetic sense' is significant for the courts. In terms of a balancing test, some consider a right to procreate should take precedence,[80] whilst others give priority to a

[72] John Harris, 'The Right to Found a Family' in *Children's Rights Re-Visioned: Philosophical Readings* (Rosalind Ladd ed, Cengage Learning 1995) 71; Emily Jackson, 'Conception and the Irrelevance of the Welfare principle' (2002) 65 Modern Law Review 176, 177.
[73] Jackson, 'Conception and the Irrelevance of the Welfare Principle' (n 72) 177.
[74] ibid 178.
[75] Although the instinct to pass on one's genes is foundational to biological and evolutionary thought (Richard Dawkins, *The Selfish Gene* (2nd edn, Oxford University Press 1989)) the choice not to pass them, for the male, carries less impetus in terms of biological influence upon a male. See also John Hill, 'What Does it Mean To Be a 'Parent'? The Claims of Biology as the Basics for Parental Rights' (1991) 66 New York University Law Review. 353.
[76] O'Brien considers the masculine inclination to continuity as not just biological, but also manifest in politics and society, in areas such as hereditary monarchy and primogeniture. Mary O'Brien, *The Politics of Reproduction* (Routledge 1981) 33. O'Brien also looks to origins of this concept in Plato and Aristotle, and their espousal of political community as a stabiliser of human relations. 33.
[77] *Davis* (n 56) 603.
[78] *Evans* (ECtHR) (n 28) [71]-[72]. However, the ECtHR has since held that genetic parenthood concerns both the right to 'private *and* family life' with regards to prisoners who apply to use artificial insemination to conceive naturally. *Dickson v United Kingdom* [2008] 46 EHRR 41 [66], [70] (emphasis added).
[79] *Evans* (ECtHR) (GC) (n 35) [90].
[80] Amel Alghrani asserts it is 'unjust to allow the right to avoid reproduction to prevail over an individual's right to reproduce'. Amel Alghrani, 'Commentary- Deciding the Fate of Frozen Embryos' (2005) 13(2) Medical Law Review 244.

right not to procreate.[81] On frozen embryo disputes, Nils Hoppe and José Miola reflect on the difficult judgment required: 'Whichever way the court decided, someone would have his or her rights infringed'.[82] International laws recognise the right to establish a family, which would be relevant for a discussion of Article 12.[83] For the Warnock Committee, this provided a justification for assisted reproduction:

> For those who long for children, the realisation that they are unable to found a family can be shattering. It can disrupt their picture of the whole of their future lives. They may feel that they will be unable to fulfil their own and other people's expectations: They may feel themselves excluded from a whole range of human activity and particularly the activities of their child-rearing [*sic*] contemporaries. In addition to social pressures to have children there is, for many, a powerful urge to perpetuate their genes through a new generation.[84]

The ECtHR has however refused to interpret the 'right to found a family' under Article 12 as providing a 'right to procreation' in a case concerning the prohibition on the use of donated sperm and ova for IVF.[85] Nonetheless, it has been postulated that '[a]lthough there may be no right of procreation under Article 12, it is arguable that a right to found a family implies that where a couple can procreate by whatever means, the state should not impose unreasonable restrictions on their possibility of doing so'.[86] Article 12 is a negative right, and in the context of IVF, Wall J held that the right 'to found a family' according to this Article[87] only meant a right to have *access* to IVF treatment;

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[81] John Robertson, *Children of Choice: Freedom and the New Reproductive Technologies* (Princeton University Press 1994).
[82] Nils Hoppe and José Miola, *Medical Law and Medical Ethics* (Cambridge University Press 2014) 167.
[83] The right to establish a family has been recognized internationally since the Universal Declaration of Human Rights (UDHR) of 1948. Lyria Moses, 'Understanding Legal Response to Technological Change: The Example of In Vitro Fertilization' (2005) 6 Minnesota Journal of Law, Science & Technology 505, 518. Under Article 16 of the UDHR, the family is the natural and fundamental group unit of society and is entitled to protection by society and the State. It further provides for the right to marry and found a family 'without any limitation due to race, nationality or religion'. Universal Declaration of Human Rights (10 Dec. 1948), UNGA Res. 217 A (III) Article 16(1) (1948). This right has also been recognized by Article 23 of the International Covenant on Civil and Political Rights. International Covenant on Civil and Political Rights (New York, 16 December 1966) 999 UNTS 171 and 1057 UNTS 407 entered into force 23 March 1976 (the provisions of article 41 (Human Rights Committee) entered into force on 28 March 1979].
[84] *Report of the Committee of Inquiry into Human Fertilisation and Embryology (Warnock Report)* (Cmnd 9314, 1984) [2.2].
[85] *SH v Austria* [2011] 52 EHRR 6 [66], [69].
[86] Harris and others (n 71) 762.
[87] 'Men and women of marriageable age have the right to marry and to found a family, according to the national laws governing the exercise of this right'.

and not a right to be treated successfully.[88] It followed that since the 'consensual scheme' did not violate Article 8, Article 12 was also not violated by Mr Johnston's actions of revoking his consent.[89] Wall J's assessment that the qualified right 'to found a family through IVF can only, put at its highest, amount to the right to have access to IVF treatment',[90] is dependent on how 'treatment' is construed, as will be deliberated further below.

In the varied frozen embryo disputes that have arisen in the US, the trend has been for a right not to procreate to outweigh the significance of a right to procreate.[91] The balance may be affected by whether the embryos represent the gamete provider's last chance of genetic parenthood.[92] Therefore in *Davis* Daughtrey J stated, 'had the wife wanted the fertilized material for herself, and had the situation been such that she had no alternative for realizing her right to motherhood, the court inclined to the opinion that the wife's right to motherhood should take precedence over the husband's right not to become a father.[93] In *Reber v Reiss*[94] this factor was pivotal in awarding the embryos to the woman seeking implantation.[95] Craig Lind has queried in this context, 'If having a child genetically related to a person remains of considerable importance in this society, we should be slow to terminate a person's final capacity to do so- even if to do so would compel another, who wishes to avoid genetic parenthood, into parenthood (with or without parental responsibility)'.[96] Alternatively, the Court may be persuaded by the finality of procreation against someone's will, as Jennifer Carow mentions, '[o]nce a child is born, there is no way to end biological ties, and very few ways to end emotional ones'.[97]

[88] *Evans* (HC) (n 12) [264].
[89] *Evans* (HC) (n 12) [264].
[90] *Evans* (HC) (n 12) [264].
[91] *JB* (n 52) 717-20. Helen Shapo notes 'the courts have used biology in the negative sense by favoring individual autonomy and the right not to procreate over parental ties…'. Helen Shapo, 'Frozen Embryos and the Right to Change One's Mind' (2002) 12 Duke Journal of Comparative & International Law 75, 97.
[92] Sonia Harris-Short is an example of one author who has stated that 'if the embryos represent the mother's last chance of genetic parenthood, should be decisive line. Sonia Harris-Short,'Regulating Reproduction: Frozen Embryos, Consent, Welfare and the Equality Myth' in *The Legal, Medical and Cultural Regulation of the Body: Transformation and Transgression* (Stephen Smith and Ronan Deazley eds, Routledge 2009) 48.
[93] *Davis* (n 56) [47].
[94] 1351 EDA 2011 (Pa Super 2012).
[95] 'Because Husband and Wife never made an agreement prior to undergoing [in vitro fertilization], and these pre-embryos are likely Wife's only opportunity to achieve biological parenthood and her best chance to achieve parenthood at all, we agree with the trial court that the balancing of the interests tips in Wife's favor'. ibid.
[96] Craig Lind, 'Evans v United Kingdom—Judgments of Solomon: Power, Gender and Procreation' (2006) 18(4) Child and Family Law Quarterly 576, 587.
[97] Jennifer Carow, 'Davis v Davis, An Inconsistent Exception to an Otherwise Sound Rule Advancing Procreational Freedom and Reproductive Technology' (1990) 43 De Paul Law Review 523, 566.

The Supreme Court of Israel took a natalist position in balancing the rights to be a parent and not to be a parent, as Tal J stated:

> When we come to balance these conflicting interests, we should remember that despite the symmetrical forms of speech, 'to be a parent' and 'not to be a parent', these interests are not equal. The interest in parenthood constitutes a basic and existential value both for the individual and for the whole of society. On the other hand, there is no inherent value in non-parenthood. [98]

This is a controversial statement, and the discussion of an absence of 'value' belies the issue concerning the feelings a person might have for becoming a genetic parent against their wishes. Türkel J considered the positions of the male and female gamete providers as not equivalent as the 'ethical weight' of the right to be a parent is 'immeasurably greater than the weight of the right not to be a parent'.[99] The force of the yearning for a child 'is unrivalled in its intensity' according to the judge.[100] The extent of this force may be dependent on whether women already have either biological, genetic or adopted[101] children. If they do, evidence suggests they will be better able to cope with the disappointment that accompanies unsuccessful IVF than childless women are.[102]

In *Evans*, Arden LJ considered whether a man should have an equivalent 'right of choice' to the woman:

> Is it to be supposed that, if a father in this situation some years after the birth of the child met the child, in whom the spark of human life had by then been kindled by his ex-partner, he would be bound to say 'I wish you had never been'? These are difficult questions… Indeed, even without meeting the child, the father's own freedom of action may be inhibited by feelings of guilt or even responsibility, for instance if the mother became unable to look after the child.[103]

[98] *Nahmani* (n 67) 39 (Tal J).
[99] *Nahmani* (n 67) 85.
[100] *Nahmani* (n 67) 85.
[101] US courts have suggested that frozen embryos should not be used against one party's objection since the party seeking parenthood can seek to adopt children. *Davis* (n 56) 604; *Kass* v Kass 91 NE 2d 554 (NY 1998) 593.
[102] Sandra Leiblum, Ekkehard Kemmann and Michelle Lane, 'The Psychological Concomitants of In Vitro Fertilization' (1987) 6 Journal of Psychosomatic Obstetrics & Gynecology 165, 175.
[103] *Evans* (CA) (n 25) [89] (Arden LJ).

This can be compared to Daughtrey J's comments that if implantation occurred 'he would face a lifetime of either wondering about his parental status or knowing about his parental status but having no control over it'.[104] Arden LJ also mentioned above that the distress to the child of (not) meeting her genetic father. However, this would not necessarily outweigh the utility of his/her existence, and engages a much wider legal[105] and philosophical[106] discussion beyond the scope of this thesis. The sense of distress at the existence of a child or embryo(s) could be compared to the benefit to the gamete provider seeking implantation of their existence. This gamete provider could also have a comparable sense of distress in knowing that the embryo(s) have been destroyed. There is no definitive literature which conclusively states whose distress might be comparatively greater, but it is sufficient to say they can be equivalent, unlike 'reproductive effort'.

5.3.1.1 Rights and genetic parenthood

In *Evans*, Mr Johnston's choice not to be a genetic parent was decisive, and in law, of greater significance than Ms Evans' desire to be one. However, the argument could, on equivalent terms, be argued from reverse perspective. The dissenting judges at the Grand Chamber considered the significance of the burden to Ms Evans:

> Where the effect of the legislation is such that, on the one hand, it provides a woman with the right to take a decision to have a genetically related child but, on the other hand, effectively deprives a woman from ever again being in this position, it inflicts in our view such a disproportionate moral and physical burden on a woman that it can hardly be compatible with Art.8…[107]

Ms Evans and Mr Johnston both believed in 'the importance of genetic links in grounding parenthood'.[108] As far as may be relevant to an Article 8 right, the instinct to pass on one's genes is

[104] *Davis* (n 56) 604.
[105] This chapter has not considered the welfare of a child born, and whether it is in her interests or society's interests that a child is born unwanted by one of her parents since 'reproductive effort' and the treatment a gamete provider receives are considered overriding interests.
[106] David Bentar, *Better Never to Have Been* (Oxford University Press 2006); Len Doyal, 'Is Human Existence Worth it Consequent Harm?' (2007) 33 Journal of Medical Ethics 573; Ingmar Persson, 'Rights and the Asymmetry Between Creating Good and Bad Lives' in *Harming Future Persons* (Melinda Roberts and David Wasserman eds, Springer 2009) 29.
[107] *Evans* (ECtHR) (n 28) [O-I14] (Türmen, Tsatsa-Nikolovska, Spielmann and Ziemele JJ).
[108] Sally Sheldon, 'Gender Equality and Reproductive Decision-Making' (2004) 12 Feminist Legal Studies 303, 315.

foundational to biological and evolutionary thought,[109] but a recognised biological desire *not* to pass them on is also largely absent in literature, especially for men.[110] The value of genetic ties is recognised throughout all human societies,[111] and Katherine De Gama goes as far to state that the 'question for genetic parenthood… informs and underpins all new reproductive technologies'.[112] The existence of such ties has been interpreted as a reason to allow the right not to procreate to trump the right to procreate. 'Genetic ties may form a powerful bond between an individual and his or her progeny even if the progenitor is freed from the legal obligations of parenthood',[113] and insisting on forcing such genetic ties on a person would be a 'quiet form of violence'.[114]

Government policy as well as law has maintained a shift towards emphasising the importance of the paternal genetic link. In a broad sense, government policy has sought to challenge the assumption that 'families are synonymous with mothers' and to promote fatherhood during pregnancy.[115] Reproductive technologies have had an effect on the 'geneticization of fatherhood in law',[116] which has led to increased concerns about the role a father should play in the family.[117] Nonetheless, the seemingly greater political motivation to promote the importance of genetic fatherhood could be checked by a realisation of the greater 'reproductive effort' undertaken by women during IVF and pregnancy.

Lind views progeny as being of increasing relevance with the advent of reliable genetic testing, which allows people to know much more definitively who their parents (especially fathers) are in situations

[109] Richard Dawkins, *The Selfish Gene* (2nd edn, Oxford University Press 1989).
[110] 'the factors that influence men's childbearing intentions have been relatively unexplored in the literature'. Evan Roberts and others, 'Factors That Influence the Childbearing Intentions of Canadian Men' (2011) 26(5) Human Reproduction 1202.
[111] Craig Lind refers to it as a 'gene obsession'. Lind (n 95) 585, cf 583.
[112] Katherine De Gama, 'A Brave New World? Rights Discourse and the Politics of Reproductive Autonomy' (1993) 20 Journal of Law and Society 114, 114.
[113] Patricia Martin and Martin Lagond, 'The Human Preembryo, the Progenitors, and She state: Toward a Dynamic Theory of Status, Rights, and Research Policy' (1990) 5(2) Berkley Technology Law Journal 257, 290.
[114] ibid.
[115] 'Policies focused on children and families have tended in the past to operate on the assumption that families are synonymous with mothers. Mothers were, and still are, the main carer in most cases and they play a vital role. However, fathers are becoming increasingly involved and their involvement with their children is important in contributing to child development; as well as being good for mothers. The Government wants to support and encourage fathers' involvement.' Department for Children, Schools and Families, *Support for Families* (Green Paper, Cm 7787, 2010) 113 [6.6] quoted in Richard Collier, 'The Responsible Father in New Labour's Legal and Social Policy' in *Regulating Family Responsibilities* (Jo Bridgeman, Heather Keating and Craig Lind eds, Ashgate 2011) 47.
[116] Richard Collier and Sally Sheldon, *Fragmenting Fatherhood: A Socio-Legal Study* (Hart 2008) 1
[117] Richard Collier, 'The Responsible Father in New Labour's Legal and Social Policy' in *Regulating Family Responsibilities* (Jo Bridgeman, Heather Keating and Craig Lind (eds), Ashgate 2011).

of doubt.[118] He highlights that such new technologies mean that modern society is much more genetically obsessed, which could have further implications for a balancing test under Article 8:

> [I]n law our ability to privilege genetic parenthood has, historically, been undermined by our inability to prove fatherhood adequately. Some people may have thought that they were being raised by their genetic parents (or by a genetic parent) when they were not being so raised. People were often not to know that children they regarded as 'theirs' might not be 'theirs' after all. The advent of reliable genetic testing, however, has changed that. We can now be gene obsessed and, in the case of dispute, test our genetic knowledge reliably. In addition, infertility clinics are now much more able to help couples who are unable to have their own children to procreate successfully. There is no longer an urgent need to adopt (and to do so secretly), or even to 'borrow' gametes for successful procreation. 'Real' parents can be assisted to have their own children.[119]

The balancing test may be further complicated when considering the potential availability of donor gametes and donor embryos casts further doubt on the *a priori* reification of genetics. From an alternative perspective, there may be value to the future child to be genetically related to the parent. Reuven Brandt has commented that 'the relevance of genetic ties in disputes over parental responsibility is legally justified by the welfare interests of the child; presumably the court's view is that children benefit in a special way from having contact with their genetic parents'.[120] The benefit to a child of being in relationship with their genetic parent is not part of the discussion of this thesis,[121] but it noteworthy that the ongoing dialogue over the value of genetic ties could, under an alternative statutory scheme, influence a balancing test.

A right to procreate and a right not to procreate, whether or not emphasised in terms of a genetic link, can clearly be argued for the positions of both gamete providers. As previously mentioned,

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Lind (n 96) 584.

[119] Lind (n 96) 584.

[120] Reuven Brandt, 'Genetic Ties, Social Ties and Parental Responsibility' (2015) 819 Bionews < http://www.bionews.org.uk/page.asp?obj_id=565696&PPID=565631&sid=393> accessed 15 September 2015.

[121] Lord Nicholls stated that, 'In reaching its decision the court should always have in mind that in the ordinary way the rearing of a child by his or her biological parent can be expected to be in the child's best interests, both in the short term and so, and importantly, in the longer term. I decry any tendency to diminish the significance of this factor. A child should not be removed from the primary care of his or her biological parents without compelling reason'. *Re G (Children)* [2006] UKHL 43. However, the Supreme Court has recently clarified that, 'It is only as a contributor to the child's welfare that parenthood assumes any significance. In common with all other factors bearing on what is the best interests of the child, it must be examined for its potential to fulfil that aim'. [37].

under a balancing test, *ceteris paribus*, these rights can be seen as equivalent, and with the potential to cancel one another out.[122] Other considerations may affect the balance, such as whether the embryo(s) represent the last chance of genetic parenthood for one gamete provider. However, the sense that both rights are neutralised by one another leaves scope for 'reproductive effort' to be the counterweight in the resolution of frozen embryo disputes.

Before moving on to consider the role that discrimination plays in a rights discussion, it should be noted that overriding a man's choice not to procreate with the frozen embryos would potentially require him by law[123] to pay maintenance to the child(ren) in the future. This requirement may be unaffected even if the gamete providers reached a prior agreement.[124] A legal proposition forwarded by JK Mason is that the same immunity granted to (then) anonymous sperm donors for artificial insemination could be extended to men who withdraw their consent for continuing IVF treatment once the embryo has been created.[125] He considers that this would lead to only the man's loss in genetic individualism and freedom to choose.[126] Nonetheless, any such change to the law[127] could impinge upon a child's opportunity to be receive financial support from two parents. This might reverse the asymmetry in the law which provides that the woman's genetic link with the child as a parent does not confer an automatic responsibility in terms of financial provision or upbringing, but for a man almost always does. The move could be seen as a concession to the male gamete provider whose wishes over the embryo(s) are not enforced. Although not avoiding genetic parentage, he could at least avoid any associated fiscal responsibilities. Analogising his position to a sperm donor would not be unproblematic. Susan Apel considers the analogy with sperm donation[128] a weak one, raising the spectre of historic situations 'in which women bargained in divorce cases for custody of

[122] Vincent Stempel makes a similar points from the perspective of a US constitutional right to privacy: 'there is no constitutional authority to support the proposition that the right to avoid procreation is a superior constitutional right than the right to procreate'. Vincent Stempel, 'Procreative Rights in Assisted Reproductive Technology: Why the Angst?' (1999) 62(3) Albany Law Review 1187, 1195.
[123] Section 1 of the Child Support Act 1991.
[124] Ms Evans stated there was an agreement between her and Mr Johnston 'that she could use the embryos provided he was not named on the birth certificate as the father and would not be financially liable for any maintenance'. *Evans* (HC) (n 12) [89].
[125] JK Mason, 'Discord and Disposal of Embryos' (2004) 8(1) Edinburgh Law Review 84, 92. This was also suggested by Ellen Waldman, 'The Parent Trap: Uncovering the Myth of "Coerced Parenthood" in Frozen Embryo Disputes' (2004) 53 American University Law Review 1021, 1060. Such an indemnification was also recommended in *Nahmani* (n 67) 78 (Goldberg J), 119 (Mazza J). Bach J however doubted whether this would be possible due to the child's right (*Nahmani* (n 67) 92).
[126] ibid.
[127] Mason's proposal would require an amendment to section 1(1) of the Child Support Act 1991.
[128] She considers that the insulation of the sperm donor from paternity may traditionally have been to avoid competing claims to the parenthood between the donor and the husband/male partner. Susan Apel, 'Cryopreserved Embryos: A Response to "Forced Parenthood"' (2005) 39(3) Family Law Quarterly 663, 675.

children by giving up claims for child support and other financial considerations'.[129] Although arguably undesirable, it may represent the best compromise for a man who has not been able to exercise his autonomy over the embryo(s) he created following fertilisation.

5.4 *Evans*, Article 14 and equivalency of gamete providers

Discrimination could be argued under Article 14, which provides that, 'The enjoyment of the rights and freedoms set forth in this Convention shall be secured without discrimination on any ground such as sex, race, colour, language, religion, political or other opinion, national or social origin, association with a national minority, property, birth or other status' and can only be relied upon following the engagement of another Convention right.[130] Ms Evans thus argued that Article 14 was violated when taken in conjunction with Article 8.[131] Her position was that a woman who could only conceive via IVF, such as herself, was being treated in a discriminatory manner compared to women who were able to conceive without assistance (of IVF) whose embryos are afforded protection of their human rights from conception.[132]

Wall J accepted the Secretary of State for Health's argument that:

> [A] woman whose gametes have been used in the creation of a frozen embryo and who hopes that it will be implanted in due course is simply not in the same position as a woman who has become pregnant through sexual intercourse. Quite simply, the latter is pregnant and the former is not. If the former becomes pregnant, she will be treated in exactly the same way. [133]

Wall J's judgment closed the door in the context of Article 14 to compare and contrast the 'reproductive effort' of women undertaking IVF (which is not necessarily required of a fertile woman) to the 'reproductive effort' which women must go through to have a successful pregnancy. Clear differences concern the location of the embryo(s), and that fertilisation is not equivalent to implantation.[134] As Sally Sheldon considered:

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[129] ibid 676.
[130] The purpose of Article 14 is to ensure that other Convention rights are not being protected in a discriminatory manner.
[131] *Evans* (ECtHR) (n 28) [70]; *Evans* (ECtHR) (GC) (n 35) [93].
[132] *Evans* (HC) (n 12) [269]- [271].
[133] *Evans* (HC) (n 12) [276]. Thorpe and Sedley LJJ agreed in *Evans* (CA) (n 25) [73].
[134] It should be noted that in 'natural' reproduction, implantation occurs approximately 11-12 days after conception. Michael Kent, *Advanced Biology* (Oxford University Press 2000) 256.

> [T]he male contributor to the creation of frozen embryos is anyway in exactly the same moral situation as any man who makes a woman pregnant but later separates from her. An embryo represents the beginning of a pregnancy; no moral difference is made by the merely geographical matter of whether it is in a womb or a refrigerator. If a woman has the right to choose to bring that embryo to term when it is in her womb, she surely has the same right if it is currently in a fridge.[135]

At the Court of Appeal, Arden LJ alone accepted the proposition that there could be discrimination between Ms Evans and a fertile woman :

> [I]t seems to me that the focus should be on the father and the position of a fertile woman and an infertile woman in relation to the father. Seen from that perspective, there is discrimination between the position of Ms Evans and that of a woman who conceives through normal sexual intercourse. The genetic father is allowed to withdraw his consent in IVF later than he could do so in ordinary sexual intercourse.[136]

Nonetheless, on whether or not there was discrimination, Arden LJ agreed with Thorpe and Sedley LJJ that Mr Johnston's rights were justifiably protected[137] due to the 'genetic father's right to decide not to become a parent'.[138]

At the ECtHR Ms Evans highlighted her powerlessness by arguing that she was 'at the whim of the sperm donor' who could withdraw consent at any point prior to implantation.[139] Mr Johnston might have argued the same, although he may have had other reproductive possibilities open to him. The Courts found that there was no violation of the prohibition of discrimination per Article 14, since States enjoy a margin of appreciation in assessing whether and to what extent differences in otherwise similar situations justify a different treatment' of 'persons in analogous or relevantly similar positions'[140]. The Court considered the national courts' judgments that that the transfer to the woman of the *in vitro* embryo corresponded to the fertilisation of the egg inside a woman

[135] Sheldon (n 108) 311.
[136] *Evans* (CA) (n 25) [117].
[137] *Evans* (CA) (n 25) [118].
[138] *Evans* (CA) (n 25) [111], [118].
[139] *Evans* (ECtHR) (GC) (n 35) [70].
[140] *Evans* (ECtHR) (n 28) [73]. The Grand Chamber followed suit without adding any further analysis. *Evans* (ECtHR) (GC) (n 35) [95]- [96].

following sexual intercourse,[141] and that this provided a 'reasonable and objective justification',[142] due to the difference in conception methods.[143] Though it could be considered that the transfer of the embryo corresponded to fertilisation of the egg following sexual intercourse, an alternative perspective is that the fertilisation of the egg *in vitro* corresponds to fertilisation *in utero* due to the 'reproductive effort' involved. Indeed, the effort to produce the *in vitro* embryo is normally much higher. Crucially therefore, the comparators deployed for assessing discrimination affect legal perceptions of the gamete providers' positions.

In dissenting judgments at the ECtHR, Traja and Mijovic JJ considered that exceptions to the 'bright-line' rule should be provided if:

> [T]he interests of the party who withdraws consent and wants to have the embryos destroyed should prevail (if domestic law so provides), unless the other party: (a) has no other means to have a genetically-related child; and (b) has no children at all; and (c) does not intend to have recourse to a surrogate mother in the process of implantation.[144]

Such a rule would have availed Ms Evans of the opportunity to have the embryos implanted. The judges opined that their rule 'can equally apply to female and male parties'.[145] This proposition rests on a questionable foundation: unless the woman cannot have the embryos implanted for a medical reason, she will not require recourse to a surrogate; whereas the man's only hope of genetic parenthood rests on the availability of a surrogate or a new partner. Denying the man the opportunity to use the embryos due to his intention to have recourse to surrogacy could breach Article 14 for reasons of discrimination, unless shown that his effort is relatively less than the woman's, and for this specific reason, not giving rise to discrimination.

The proposition of aligning the rights of women trying to conceive via IVF and those conceiving through sexual intercourse to avoid discrimination is an argument the Government flatly rejected in a Consultation following the Court of Appeal decision, without providing reasoning.[146] However, it

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[141] *Evans* (HC) (n 12) [277]; *Evans* (CA) (n 25) [73].
[142] *Evans* (ECtHR) (n 28) [74]; *Evans* (ECtHR) (GC) (n 35) [95].
[143] *Evans* (ECtHR) (n 28) [71].
[144] *Evans* (ECtHR) (n 28) [O-10].
[145] *Evans* (ECtHR) (n 28) [O-10].
[146] Department of Health, Review of the Human Fertilisation and Embryology Act: A Public Consultation (2005) http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4117872.pdf [4.19] accessed 18 February 2014.

did consider in a Report,[147] and a subsequent White Paper,[148] an alternative approach that the withdrawal of one of the parties' consent should not automatically result in the embryo's destruction, but rather lead to a 'cooling-off' period, with the embryo(s) staying in storage for one year[149] to allow for the potential for agreement. This recommendation was adopted as Paragraph 7 of Schedule 3 to the Human Fertilisation and Embryology Act 2008 amended the 1990 Act.[150] A Public Bill Committee considered further amendments to schedule 3 of the 1990 Act in the drafting of the Human Fertilisation and Embryology Bill 2008. It was deemed that a 'cooling-off' period of 12 months would give both parties an opportunity to reconsider their initial decision'.[151] The amendment was also subsequently introduced by the Human Fertilisation and Embryology Act 2008.[152] Although the cooling-off period may allow for the gamete providers to reflect more on their own and each other's 'reproductive effort', nonetheless, after the 12 months have expired, the woman is still vulnerable to having her greater 'reproductive effort' overlooked when decisions are made concerning the frozen embryos.

The 'cooling-off' period could of course be argued for both sides—to allow implantation, destruction or another disposition decision after a year. Lind considered that 'people who have sexual relations (and even those who approach clinics for procreative help) take a risk of children emerging that they were not planning to have, however carefully they set out to protect themselves against that eventuality'.[153] In IVF, it could be argued that both gamete providers consent to not only the use of the embryos, but also the *risk* that one of them will be used or not used. Consent to risk can, however, be used to argue for both positions. Amel Alghrani observes that, 'Ironically, the very reason the [1990] Act was drafted was to regulate reproductive science that could reverse nature's discrimination and assist the infertile'.[154] She reflects, 'It is regrettable therefore that there is the legal anomaly that the infertile are granted less reproductive rights than the fertile'.[155]

Ivana Radacic provides an alternative perspective that may be applied here. She researched gender equality jurisprudence at the ECtHR and found that, 'The Court's jurisprudence has been largely

[147] ibid [4.20].
[148] Department of Health, Review of the Human Fertilisation and Embryology Act (Cm. 6989, 2006) http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_073098?IdcService=GET_FILE&dID=135664&Rendition=Web accessed 19 February 2014 .
[149] In the 2005 Report the Government considered a 'maximum storage period'. [4.20].
[150] By inserting the new paragraph 4A in Schedule 3.
[151] Human Fertilisation and Embryology Deb 5 June 2008 col 121 (Mark Simmonds).
[152] Human Fertilisation and Embryology Act 2008 c22 amended Paragraph 4 of Schedule 3 of the 1990 Act by inserting Paragraph 4A(4).
[153] Lind (n 96) 583.
[154] Amel Alghrani, 'Deciding the Fate of Frozen Embryos' (2005) 13(2) Medical Law Review 244, 253.
[155] ibid.

impotent in challenging gender discrimination and achieving gender equality'.[156] She suggests in the context of whether a ban or Islamic headscarves is discriminatory that the State should 'take measures to empower women from these communities by securing their education (including education on women's rights) and employment opportunities, and by fighting the gender and racial/religious discrimination that they face'.[157] Greater education of course would be of benefit, but the sense of the State taking a positive rather than backseat role. This should be prevalent in IVF, so that the State ensure that consent and 'reproductive effort' are valued in the steps to pursue treatment in fertility clinics. Radacic also argued that 'the interpretation of the comparability of situations and an assessment of justification are often based on a dominant norm'.[158] Her point again speaks into the significance of the comparator deployed. The dominant norm, encapsulated in Schedule 3 of the 1990 Act, overlooked the role of 'reproductive effort' that women such as Ms Evans had undertaken.

How might this dominant norm have arisen? Whether the gender dimension involved in frozen embryo disputes and the allocation of interests and rights (especially under Article 8) has been overlooked by primarily male lawmakers is open to debate.[159] Michael Mulkay considered speeches in House of Lords[160] and House of Commons[161] debates concerning the Human Fertilisation and Embryology Bill 1990 in which men dominated proceedings,[162] and analysed the differences between men's and women's contributions.[163] He found that the dominant view expressed in the debates underplayed women's involvement in embryonic research and assisted reproductive technology, and that 'women's involvement was taken by most men to be unproblematic. The great majority of men seem to have assumed… that the treatment of women, unlike the treatment of embryos, was in no need of careful, public scrutiny'.[164] More recently Jenni Millbank has observed in Australia at 'no

[156] Ivana Radacic, 'Gender Equality Jurisprudence of the European Court of Human Rights' (2008) 19(4) European Journal of International Law 841, 842.
[157] ibid 854.
[158] ibid 856.
[159] In frozen embryo disputes, taking the *Evans* litigation as an example, only three of the twenty-seven judges to hear the *Evans* litigation were women. Arden LJ at the Court of Appeal, Mijoviĉ J at the ECtHR and Vajić J at the Grand Chamber of the ECtHR. For more on the under-representation of women in judicial office and the need to enrich notions of judging through distinctive approaches, see Dermot Feenan, 'Women Judges: Gendering Judging, Justifying Diversity' (2008) 35(4) Journal of Law and Society 490.
[160] HL Deb 7 December 1989, vol 513, cols 1002-1116.
[161] HC Deb 23 April 1990, vol 171, cols 31-133.
[162] Michael Mulkay, *The Embryo Research Debate: Science and Politics of Reproduction* (Cambridge University Press 1997) 84.
[163] ibid 83-95.
[164] ibid 86.

stage has there ever been an equal representation of women on the working groups responsible for the ART ethical guidelines. If anything gender parity has declined with the passage of time'.[165]

Finding a dominant norm in judicial decision-making is more difficult. Although both legislators and judges can make norms, the former make policy decisions more than the latter.[166] In *Evans*, although interpreting the 1990 Act in Mr Johnston's favour, her Ladyship Arden LJ was the only judge in the UK courts to consider how there could be discrimination between Ms Evans and a fertile woman.[167] The only female judge at the Chamber of the ECtHR, Mijoviĉ J, dissented and, along with Traja J, gave an opinion that differences between the gamete providers as well as 'the burden imposed on… each party' were of the 'utmost importance'.[168] This chapter is not arguing that female judges will always recognise 'reproductive effort' more,[169] but there are signs of why the legal allocation of rights in IVF may require greater scrutiny in a context in which the procedures are also 'carried out by a male dominated medical profession in order to control fertility'.[170]

An equal application of the veto to men and women leads to indirect discrimination against women. If the veto is effectively left in the male's hands, it is susceptible to a feminist critique that it is an example of male authoritarian domination, as Karen Throsby and Rosalind Gill argue in a study drawing on interview data with men and women who have engaged in IVF:

> Men almost always defended their veto in terms of the physical and emotional effects the treatment was having on their wives. In this context, it is a protective rather than an authoritarian act, although it preserves the familiar gender trope of masculine rationality and feminine emotionality, which leaves no space for either rational female agency or male emotionality in relation to treatment.[171]

[165] Jenni Millbank, 'Reflecting on the "Human Nature" of IVF embryos: Disappearing Women in Ethics, Law and Family Practice' (2016) journal of Law and the Biosciences 70, 84.
[166] Luc Wintgens, *Legisprudence: Practical Reason in Legislation* (Routledge 2012) 255.
[167] *Evans* (CA) (n 25) [117].
[168] *Evans* (ECtHR) (n 28) [O-16].
[169] Female judge, Vajić, J was part of the majority judgment at the Grand Chamber of the ECtHR and found in favour of the UK.
[170] Elaine Denny, 'Liberation or Oppression? Radical Feminism and In Vitro Fertilisation' (1994) 16(1) Sociology of Health and Illness 62, 63.
[171] Karen Throsby and Rosalind Gill, '"It's Different for Men"' (2004) 6(4) Men and Masculinities 330, 343.

Frozen embryo disputes reveal an adversarial model between gamete providers in which they are framed as 'two equally opposing advocates who present to a neutral third party'.[172] Angela Upchurch considers that this focus limits the consideration of gamete providers' interests,[173] which leads to a reduced examination based on opposing autonomous decisions in which autonomy is characterised in terms of whether one gamete provider should be given the ability to procreate over the other's objection to procreate.[174] The place of autonomy will be discussed further below, but the sense of equivalency here is critiqued in that it does not take into account 'reproductive effort' for the purposes of Article 14 discrimination, taken in conjunction with Article 8.

5.4.1 Discrimination and equivalency

Wall J interpreted the need to respect equality in decision-making in reproductive choices between men and women by stating:

> [I]t is not difficult to reverse the dilemma. If a man has testicular cancer and his sperm, preserved prior to radical surgery which renders him permanently infertile, is used to create embryos with his partner; and if the couple have separated before the embryos are transferred into the woman, nobody would suggest that she could not withdraw her consent to treatment and refuse to have the embryos transferred into her. The statutory provisions, like Convention Rights, apply to men and to women equally.[175]

The assertion that a 'reversal of the dilemma' is not difficult is contentious; in reality men should be treated in an equivalent fashion in the reproductive processes. Rosy Thornton criticised the comparison of reproductive interests between Ms Evans and a man with testicular cancer in this context as a 'flawed comparison'[176] and as having failed to take into account the 'very different bodily realities for men and women'.[177] She argues that, 'To treat as like two such unlike situations

[172] Angela Upchurch, 'A Postmodern Deconstruction of Frozen Embryo Disputes' (2007) 39(5) Connecticut Law Review 2107, 2113.
[173] ibid 2115.
[174] ibid 2115.
[175] *Evans* (HC) [320]. Arden LJ followed suit in the Court of Appeal. *Evans* (CA) [111].
[176] Rosy Thornton comments that reliance 'upon such a flawed comparison as the basis for justifying equal application of the legislation serves to underscore the defects in the model of equality it employs'. Rosy Thornton, 'European Court of Human Rights: Consent to IVF treatment' (2008) 6(2) International Journal of Constitutional Law 317, 327.
[177] Sally Sheldon, 'Stored Embryos, Gender Equality and the Meaning of Parenthood' (*Bionews,* 8 December 2006) <http://www.bionews.org.uk/page_37912.asp> accessed 4 April 2015.

does not produce true equality in terms of the law's effects'.[178] Sally Sheldon considers Wall J's analogy implies:

> Mr. Johnston cannot subject Ms. Evans to an unwanted and invasive medical procedure followed by nine months of unwanted pregnancy and the pain and risks of childbirth in order to create a child which he can raise is represented as equivalent to the fact that Ms. Evans cannot insist on making use of the embryos herself with the result that Mr. Johnston has an unwanted genetic child in the world. [179]

A more accurate analogy would have been whether the man could arrange for the embryo(s) to be implanted into *another* woman without the female gamete provider's consent as this would avoid the obstacle of violating a female gamete provider's bodily integrity by treating her against her will. However, even this scenario does not take into account the different bodily realities in terms of effort to retrieve gametes which is involved in IVF. Equivalency of men and women in this context is perhaps reminiscent of what has been described as the 'paradox of the equal treatment of unequals',[180] such that 'if we treat unequals equally, we may well be treating them unequally; and the only way to treat unequals equally may be to treat them unequally'.[181] Equality, although a virtue in so many contexts,[182] may not *always* provide an adequate solution. As Emily Jackson notes, 'Complete equalisation of reproductive roles is an interesting thought experiment, but, in practice, the need to defend women's rights to take decisions about their pregnant bodies remains'.[183] This rationale which seeks to protect the engagement of a woman's body in pregnancy should also be relevant to protecting a right to physical integrity under Article 8 in IVF.

Although from one perspective IVF offers greater scope for equality,[184] an equal allocation of Article 8 and Article 14 rights between men and women is not preferable if it does not take into account the gendered differences of 'reproductive effort'. The point Joanne Conaghan makes becomes relevant

[178] Thornton (n 174) 328.
[179] Sheldon (n 108) 309.
[180] Warren Samuels, Marianne Johnson and William Perry, *Erasing the Invisible Hand* (Cambridge University Press 2011) 231.
[181] ibid.
[182] For example, economic empowerment, educational empowerment and political empowerment.
[183] Emily Jackson, 'Degendering Reproduction?' (2008) 16(3) Medical Law Review 346, 368.
[184] IVF has been interpreted to involve a move to substantive equality by allowing women the chance to pursue careers whilst delaying pregnancy in the hope that IVF will provide a solution to diminishing fertility with age. Thomas Baldwin, 'Reproduction without Sex: Social and Ethical Implications' (2012) 13(12) EBMO Reports 1049.

here: 'formal legal equality offers an inadequate and misleading account of the place of gender in law. The simple solution of 'adding' women to the privileges of legal personhood by removing formal distinctions… from law has not resulted in any great leap towards substantive gender equality'.[185] It follows that it is erroneous to perceive men and women who pursue IVF as equivalent due to differences in 'reproductive effort'. A 'commitment to gender neutrality' is undesirable if it overlooks differences in treatment.[186] The type of injustice flowing from gender neutrality (in certain contexts) is referred to by feminist legal theorist Martha Fineman: 'There are more and more empirical studies that indicate that mothers' relative positions have worsened in our new ungendered doctrinal world. Ignoring differences in favor of assimilation has not made the differences in gender expectations and behavior disappear'.[187]

In line with Conaghan and Fineman, the dissenting judgment of the Grand Chamber of the ECtHR in *Evans*, voting for a violation of Article 14 in conjunction with Article 8, found that, as noted in Chapter 4, a 'woman is in a different situation as concerns the birth of a child'.[188] The dissenting judges prudently applied *Thlimennos v Greece*[189] which found that 'different situations require different treatment'. [190] The dissenting judges were clear that this was relevant to Ms Evans because of the 'excessive physical and emotional burden and effects caused by her condition'.[191] The dissenting judgment indicates understanding that the burdensome factors in IVF uniquely affect women, and should be specifically taken into account in law and the allocation of Article 8 rights in frozen embryo disputes.

The balancing of interests between a choice of genetic parenthood and the burdens of IVF is in some senses a futile exercise: the two factors operate in an incommensurable manner. John Alder notes the difficulty of such a balancing act in that it 'presupposes a common scale which in the case of incommensurable values does not exist'.[192] As Bornhoff and Zucca note, this may have influenced

[185] Joanne Conaghan, *Law and Gender* (Clarendon Law Series 2013) 83.
[186] Derek Morgan, 'Book Reviews -- Regulating Reproduction: Law, Technology and Autonomy' (2003) 11 Medical Law Review 262, 263.
[187] Martha Fineman, *The Neutered Mother, the Sexual Family and Other Twentieth Century Tragedies* (Routledge 1995) 26.
[188] *Evans* (ECtHR) (GC) (n 35) [O-I15].
[189] [2001] 31 EHRR 411.
[190] *Evans* (ECtHR) (GC) (n 35) [O-I15].
[191] *Evans* (ECtHR) (GC) (n 35) [O-I15].
[192] John Alder, 'Incommensurable Values and Judicial Review: The Case of Local Government' (2001) Public Law 717, 717.

the court in giving up its 'favourite tool ever, the balancing technique' and deferring to the UK national authority.[193]

5.4.2 Analogy to pregnancy through sexual intercourse

Ms Evans indeed argued that during 'natural' conception a male loses his veto in between sexual intercourse and childbirth,[194] and that children are often born against a father's wishes.[195] Whether discrimination occurs between a woman in a similar position to Ms Evans and a fertile woman requires greater understanding of the comparison between two such women. Moreover, to broaden an enquiry into discrimination between men and women specifically, consideration is given to whether the possible inherent discrimination in pregnancy may be translated to women in IVF, and whether a 'genderic differentiation in consciousness of reproductive process'[196] should be applied to both scenarios. Jackson provides a useful introduction, recounting the gendered involvements in pregnancy:

> Once the act of sexual intercourse is over, if fertilisation occurs, the man's role in the reproductive process is at an end until childbirth, when he will acquire duties of support and may, but also may not, assume parental responsibility for the child. For women, fertilisation is only the beginning of a tiring and physically demanding process which will culminate in spontaneous miscarriage, abortion or childbirth. Unless she loses the fertilised egg before implantation, or in the very earliest stages of pregnancy, all three 'endings' are potentially stressful and uncomfortable, to say the least.[197]

Elsewhere, Jackson has considered that in pregnancy, no preference is given to a man's desire to avert abortion since this would mean the woman would be effectively:

> [C]ompelled to submit herself, against her will, to the physical strain of pregnancy and childbirth. Thus we can interfere with a man's desire for his pregnant partner to carry her

[193] Jacco Bomhoff and Lorenzo Zucca, 'The Tragedy of Ms Evans: Conflicts and Incommensurability of Rights' (2006) 2 European Constitutional Law Rev 424, 424.
[194] *Evans* (HC) (n 12) [200].
[195] *Evans* (HC) (n 12) [203].
[196] Mary O'Brien, *The Politics of Reproduction* (Routledge 1981) 29.
[197] Jackson (n 183) 348.

> pregnancy to term because to respect it would cause greater harm to his partner's freedom to make critical choices about her body and her life.[198]

Lisa Vogel summarises that the 'gender-neutral approach to pregnancy devalues its special biological and social nature, attempts inappropriately to standardize women's experience within male-defined medical and work norms, and represents pregnancy as, literally, an abnormal and unhealthy condition'.[199] The gender-neutral approach in pregnancy should be extended to frozen embryo disputes in IVF, to denote the potential for discrimination against the woman as there is validity in a qualified analogy between IVF prior to implantation and pregnancy through sexual intercourse. The analogy is not straightforward. Robbie Davis-Floyd considers that the origin of the term 'pregnant' as the Latin word *praegnans* which is derived from *prae* (meaning before) and *gnans* (meaning being born); which translates literally as 'the state of being before being born'.[200] Mukkaddes Gorar has gone as far as to state that, 'Once the embryo is created this should be considered, as "a pregnancy started" which means there can be no withdrawal of consent by either party'.[201] This thesis does not take the position that women receiving IVF treatment prior to implantation are 'pregnant'. However, that there is no universal term that classifies women who embark on IVF treatment prior to implantation is indicative that their 'reproductive effort' is not so easily recognised by lawmakers. As mentioned in Chapter 1, reproductive technologies require us to revisit and re-comprehend 'universal truths'[202] and that IVF lacks terminology recognising 'reproductive effort' is noteworthy.

The angle from which the analogy is explored here indicates that some of the physical symptoms of IVF are comparable to pregnancy, and thus relevant for consideration of discrimination under Article 14 and a right to private life under Article 8. Differences clearly exist concerning the potential existence of sexual pleasure and intimacy. IVF is a medical procedure normally pursued for no other reason than reproduction. Both involve penetration, albeit occurring in rather different contexts. The sense that the woman alone receives treatment is clearer in pregnancy through sexual

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[198] Emily Jackson, *Regulating Reproduction* (Hart Publishing 2001) 321.

[199] Lise Vogel, 'Debating Difference: Feminism, Pregnancy, and the Workplace' (1990) 16(1) Feminist Studies 9, 23. Karen Throsby also concludes that IVF often reaffirms longstanding discourses on the nature of motherhood according to reproductive norms. Karen Throsby, '"Doing What Comes Naturally…" Negotiating Normality in Accounts of IVF Failure' in *Governing the Female Body: Gender, Health and Networks of Power* (Lori Reed and Paula Saukko eds, State University of New York Press 2010) 234ff.

[200] Robbie Davis-Floyd, *Birth as an American Rite of Passage* (2nd edn, University of California Press 2003) 23.

[201] Mukkaddes Gorar, 'Not Sympathy but Justice: Natalie Evans v Human Fertilisation and Embryology Act 1990' (2006) 4(1) Hertfordshire Law Journal 44, 46.

[202] Peter Singer and Karen Dawson, 'IVF Technology and the Argument for Potential' (1988) 17(2) Philosophy & Public Affairs 87, 88.

intercourse, with the location of the embryo(s) *in utero*. However, the site of the embryos does not rule out that there are still differences in 'reproductive effort' in IVF. One medical study considers that, 'Painful diagnostic tests, surgeries, and treatments are often part of becoming pregnant for the infertile couple, and the side effects of therapy *mimic* early pregnancy'.[203] Pregnancy can involve fatigue and headaches or emotional lability, and these factors may also be present during IVF and prior to embryo transfer.[204]

The notion that women in IVF would be protected under rights akin to those afforded to pregnant women under Article 8[205] has been considered in the US. Under the Illinois Human Rights Act pregnancy is a class protected against discrimination,[206] and pregnancy is stipulated to mean 'pregnancy, childbirth, or medical or common conditions related to pregnancy or childbirth'.[207] Marina Merjan argues that since infertility is a medical condition related to pregnancy or childbirth, women who conceive via IVF should also fall under this category to grant them decisional authority over their embryos.[208] Merjan's analysis could be extended to Article 8 and Article 14 rights on pregnancy. For example, the ECtHR has found that women who were not free to choose whether to give birth at home had their Article 8 rights to private and family life violated.[209] Similarly, the notion of 'choice' over where and how to use the embryos could also play a greater role for the gamete provider who has undertaken greater 'reproductive effort' in IVF. The analysis could also provide for protection against employment discrimination for women who are undergoing IVF treatment in a manner similar to that which section 18 of the Equality Act 2010 provides for pregnant women, although it is beyond the scope of this thesis to fully appraise this consideration.

The analogy between pregnancy via sexual intercourse and IVF is clearly imperfect: for the former, pregnancy can be a continuous and uninterrupted process but that is not the case for the latter, until implantation occurs. In pregnancy, a woman may have experienced greater physical strain during her pregnancy, and to terminate or deliver against her choice constitutes an immense invasion of privacy and bodily integrity.[210] Not only is the physical strain women face in IVF much less than

[203] Beth Black and others, 'Comparison of Pregnancy Symptoms of Infertile and Fertile Couples' (1995) 9(2) The Journal of Perinatal & Neonatal Nursing 1, 2 (emphasis added).
[204] Leiblum, Kemmann and Lane (n 102) 165
[205] Marlies Eggermont, 'The Impact of European Human Rights on Childbirth' in Human Rights and Civil Liberties in the 21st Century (Yves Haeck and Eva Brems eds, Springer 2013) 213ff.
[206] Illinois Human Rights Act, 775 Illinois Compiled Statute 5/2-102 (A).
[207] ibid 5/2-103 (L-5).
[208] Marina Merjan, 'Rethinking the "Force" Behind "Forced Procreation": The Case for Giving Women Exclusive Decisional Authority over Their Cryopreserved Pre-Embryos' (2015) 64(2) DePaul Law Review 737, 761-4, 767.
[209] *Ternovszky v Hungary* [2010] ECHR 208; *Dubská and Krejzová v the Czech Republic* [2015] 61 EHRR 22.
[210] Kaliarnta, Nihlén-Fahlquist and Roeser (n 9) 288.

pregnancy, it may be perceived as being limited to a past occurrence, unless the woman specifically argues that she will have to seek further IVF treatment in the event the embryo(s) are destroyed.[211] However, physical strain, whether occurring in the past or future, may clearly be taken into account for the purposes of a person's right to private life under Article 8.

Diane Blood[212] commented on *Evans*: 'I can understand why destroying their embryos must feel a little like the women are being forced to have an abortion against their wishes'.[213] However, it might be counter-argued that if women have a 'right to abort at the beginning of their pregnancy on the basis of their right to control their lives' so too ought men in the position of Mr Johnston have a right to stop implantation.[214] Tal J flatly rejected this comparison as 'imaginary and spurious' as the legal preference given to the woman, discriminating against the man, 'derives solely from the fact that we are speaking of a decision concerning her body'.[215] Focussing on the 'body', Tal J implicitly recognised the comparison between IVF and pregnancy on the basis of physical factors.

The comparison with pregnancy to avoid discrimination between fertile and infertile women could lead to an argument to make the man's consent for treatment irrevocable for a period of time.[216] Judith Daar suggests a period of nine months to reflect gestational pregnancy, considering that this would also help 'equalize the fundamental rights surrounding natural and assisted conception'.[217] Daar comments that providing a longer period after the sperm donor abandons an expectation of procreation and gives the woman more rights than she would have in a traditional pregnancy situation.[218] Nonetheless, a period of nine months would not have assisted Ms Evans who required two years to recover from ovarian cancer before embryo transfer.[219]

To conclude on the analogy with pregnancy, a woman's preferential right to decide the course of her pregnancy over the man's, is based on the control she has over her body and the effort exerted by it.

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[211] Ms Evans could not have argued this particular physical point due to having had an oophorectomy. *Evans* (HC) (n 12) [308].
[212] A woman who pursued litigation to use her deceased partner's sperm. *R v Human Fertilisation and Embryology Authority, ex parte Blood* [1999] Fam 151.
[213] Diane Blood, 'Why They Should Be Given the Right to Appeal' *The Guardian* (London, 2 October 2003) < https://www.theguardian.com/uk/2003/oct/02/health.healthandwellbeing1> accessed 10 May 2017.
[214] Charim Gans, 'The Frozen Embryos of the Nachmani Couple – A Reply to Andrei Marmor' (1994) 18 Tel-Aviv University Law Review 83, 91.
[215] *Nahmani* (n 67) 47 (emphasis excluded).
[216] Judith Daar, 'From Bastardy to Cloning: Adaptations of Legal Thought for Unorthodox Reproduction' (1999) 25(4) American Journal of Law & Medicine 455.
[217] ibid.
[218] Judith Daar goes as far as to say that this gives the woman 'infinite control'. ibid.
[219] *Evans* (HC) (n 12) [88].

This control should extend to IVF, to allow her control over the physical effort she has invested in the creation of the embryos. The comparator with pregnancy should prove a weighty if not determinative factor in a balancing test on Article 8 rights. It should also require that a woman is not discriminated against under Article 14, either on the basis of a comparable situation with a fertile woman, or on the basis of the distinction of her 'reproductive effort' to the man's.

5.5 Autonomy

Consideration will now be given to whether the autonomy of the gamete providers should inform legal decision making over frozen embryo disputes. An overview of principles relevant to autonomy in IVF will be provided, before proceeding to discuss the relevance for gamete providers' Article 8 rights. Ronald Dworkin provides a useful introduction:

> [T]he value of autonomy… derives from the capacity it protects: the capacity to express one's own character—values, commitments, convictions, and critical as well as experiential interests—in the life one leads. Recognising an individual right of autonomy makes self-creation possible. It allows each of us to be responsible for shaping our lives according to our own coherent or incoherent—but, in any case, distinctive—personality. It allows us to lead our lives rather than be led along them, so that each of us can be, to the extent a scheme of rights can make this possible, what we have made of ourselves… we acknowledge his right to a life structured by his own values.[220]

John Stuart Mill famously stated, 'Over himself, over his body and mind, the individual is sovereign', [221] and in considering a right based on physical integrity, Millian autonomy provides a relevant, though not uncontested framework for analysis in the family setting[222] of frozen embryo disputes. The liberal conception of autonomy holds that the individual is rational, autonomous and unrestrained in relation to others, though for Fineman this overlooks, tolerates and perpetuates social inequalities.[223] Fineman considers that instead the individual should be appreciated by the law

[220] Ronald Dworkin, *Life's Dominion: An Argument about Abortion, Euthanasia and Individual Freedom* (Vintage Books 1993) 224.
[221] John Stuart Mill, *On Liberty and Other Essays* (John Gray ed, first published 1859, Oxford University Press 1998) 14.
[222] In a discourse over neonatal euthanasia American legal academic Carl Schneider considers that the 'Mills paradigm' in allocating rights, which traditionally pits the individual against the state breaks down in family law conflicts as the conflict is between individuals, not the state. Carl Schneider, 'Rights Discourse and Neonatal Euthanasia' (1988) 76(1) California Law Review 151, 157.
[223] Martha Fineman, *The Autonomy Myth: A Theory of Dependency* (The New Press 2004) 31.

as being physically vulnerable, at times dependent on others for care and susceptible to injury.[224] Applying Fineman's thesis, the relative vulnerability of the woman in IVF would therefore be pertinent in an allocation of rights.

However, even operating within a liberal conception of autonomy, the woman's physical position remains a pertinent argument against gender neutrality in the application of Article 8 rights. This is because the notion of a right over one's body discussed by Mill is also understood in this chapter as a right over the effort produced by one's body, which bears some resemblance to the property rights discussed in the previous chapter. 'The fundamental principle, plain and incontestable, is that every person's body is inviolate',[225] and the decision over not only what happens, but also what *has* happened to a gamete provider's body is of relevance.

Hale LJ (as she then was) explained in a tort case that arose from a failed sterilisation that the right includes a 'right to physical autonomy: to make one's own choices about what will happen to one's own body'.[226] Autonomy is indeed particularly important when exercised in relation to reproductive choices:

> The right of procreative autonomy has an important place ... in Western political culture more generally. The most important feature of that culture is a belief in individual human dignity: that people have the moral right- and the moral responsibility- to confront the most fundamental questions about the meaning and value of their own lives for themselves, answering to their own consciences and convictions ... The principle of procreative autonomy, in a broad sense, is embedded in any genuinely democratic culture.[227]

That the state should not interfere with the liberty of patients in exercising their reproductive choices is a fundamental argument supported by prominent scholars.[228] Jackson describes these

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[224] ibid.
[225] *Collins v Wilcock* [1984] 1 WLR 1172, 1177 (Robert Goff LJ).
[226] *Parkinson v St James and Seacroft University Hospital NHS Trust* [2001] EWCA (Civ) 530 [56] (Hale LJ).
[227] Dworkin (n 220) 166.
[228] Ronald Dworkin thus considered that individuals have rights to 'follow their own reflective convictions in the most personal, conscience-driven, and religious decisions'. Dworkin (n 220) 172. Julian Savulescu considers the need for people to have the freedom to do what is 'disagreeable for others'. Julian Savulescu, 'Deaf Lesbians, "Designer Disability", and the Future of Medicine' (2002) 325 British Medical Journal 771. See also John Robertson, *Children of Choice: Freedom and the New Reproductive Technologies* (Princeton University Press 1994); John Harris, 'Rights and Reproductive Choice' in *The Future of Human Reproduction: Ethics, Choice and Regulation* (John Harris and Soren Holm eds, Clarendon Press 1998); Jackson, 'Conception and the Irrelevance of the Welfare Principle' (n 72) 177.

choices as 'among the most momentous choices that we will ever make'[229] and considers that, 'When we disregard an individual's reproductive preferences, we undermine their ability to control one of the most intimate spheres of their life'.[230] Jackson's test considers whether the deprivation of a decision to reproduce or not 'significantly interferes with their capacity to live their life according to their own beliefs and practices'.[231]

The autonomy narrative is relevant for discussion to Article 8 rights. Article 8 rights can operate to guard against violations of a patient's personal autonomy[232] and, more specifically, a connection to a right to physical integrity is evident: 'Article 8 protects the right to personal autonomy, otherwise described as the right to physical and bodily integrity. It protects a patient`s right to self-determination and an intrusion into bodily integrity must be justified'.[233] The connection between physical integrity and autonomy was ruled out by Wall J: a pregnant woman 'has autonomy over her body and over the fetus',[234] but no such autonomy existed for an embryo 'created outside the human body'.[235] The Supreme Court of Tennessee explored such a notion further by referring[236] to case law concerning reproductive liberty.[237] Daughtrey J considered that 'the right of procreational autonomy is composed of two rights of equal significance the right to procreate and the right to avoid procreation'.[238] The judge stated that this equivalence is 'nowhere more evident than in the context of in vitro fertilization',[239] and consequently:

> None of the concerns about a woman's bodily integrity that have previously precluded men from controlling abortion decisions is applicable here… We are not unmindful of the fact that the trauma (including both emotional stress and physical discomfort) to which women are subjected in the IVF process is more severe than is the impact of the procedure on men. In this sense, it is fair to say that women contribute more to the IVF process than men. Their

[229] Emily Jackson, *Regulating Reproduction* (Hart 2001) 7.
[230] ibid.
[231] ibid.
[232] *NHS Trust A v M* [2001] Fam 348, 358 (Butler-Sloss P). Personal autonomy was referred to as an 'important principle underlying the interpretation of the guarantees in Article 8'. *Pretty v United Kingdom* (2002) 35 EHRR 1 [4]. *Re M (Adult Patient) (Minimally Conscious State: Withdrawal of Treatment)* [2011] EWHC 2443 (Fam) [94] (Baker J).
[233] *NHS Trust A v M* [2001] Fam 348 (HC) [41] (Butler-Sloss P).
[234] *Evans* (HC) (n 12) [178].
[235] *Evans* (HC) (n 12) [178].
[236] *Davis* (n 56) 601.
[237] *Griswold v Connecticut* (1965) 381 US 479; *Roe v Wade* (1973) 410 US 113.
[238] *Davis* (n 56) 601 (Dauhgtrey J).
[239] *Davis* (n 56) 601.

> experience, however, must be viewed in light of the joys of parenthood that is desired or the relative anguish of a lifetime of unwanted parenthood.[240]

If it is true that the right to procreate and not to procreate are of equal significance and equivalence, then in a frozen embryo dispute, there is reason to consider that they cancel each other out for the purposes of a balancing test mentioned below.

The legal discourse in frozen embryo disputes thus involves the competing interests involved in the autonomy of disputing gamete providers. Hoppe and Miola consider that *Evans* is a case 'very much trying to determine the lesser of two evils'.[241] Whichever outcome, one person's autonomy would not be exercised. Ruth Chadwick frames the question succinctly: 'What does reproductive autonomy amount to where one person's exercise of it appears to deny it to someone else'?[242] Autonomy is always contingent on specific conditions,[243] such as not causing 'harm to others' by setting back their interests.[244] Thus, in a frozen embryo dispute, one person's autonomy has to trump the others', or carry a veto. In reproduction through sexual intercourse, the point at which a woman gains a right to make a choice without significant interference from the man, occurs once ejaculate is received into her body. She has autonomy over that which occurs within her body. In conception through intercourse there is no 'male veto';[245] the man relinquishes control over reproductive decisions following ejaculation. Therefore, if IVF were to mirror natural conception as far as possible, the legally defining moment would be when the *in vitro* embryos were placed inside the woman. Conversely, if the analogy with natural conception is viewed from the perspective of when the male loses his reproductive choice, the loss of the veto may be seen to occur once fertilisation becomes a possibility. In natural conception, this is the point of ejaculation into the woman;[246] in IVF, it is the period during which the gametes are mixed. On this basis alone, there is little to choose between the

[240] *Davis* (n 56) 601.
[241] Nils Hoppe and José Miola, *Medical Law and Medical Ethics* (Cambridge University Press 2014) 180.
[242] Ruth Chadwick, 'Reproductive Autonomy' (2007) 21 Bioethics ii.
[243] Brian Jacobs, 'Dialogical Rationality and the Critique of Absolute Autonomy' in *Critical Theory: Current State and Future Prospects* (Peter-Uwe Hohendahl and Jaimey Fisher eds, Berghahn Books 2001) 145.
[244] Joel Feinberg, *The Moral Limits of the Criminal Law Volume 1: Harm to Others* (Oxford University Press 1984) 34-6.
[245] Counsel for Ms Evans used this terms in the context of Mr Johnston's Article 8 right, considering it 'unwarranted and disproportionate'. *Evans* (HC) (n 12) [184].
[246] Although in rare 'sperm bandit' cases, ejaculation may not be in the woman. Sally Sheldon, '"Sperm Bandits", Birth Control Fraud and the Battle of the Sexes' (2001) 21(3) 460.

two autonomies, save the analogy with 'natural' biological processes.[247] Therefore, further interrogation of autonomy is required.

Joseph Raz maintains that autonomy requires a connection to certain interests and that rights can be derived from it.[248] Following Raz's reasoning, in the instance of competing rights, no right should impose too burdensome a duty on the conflicting party, and this returns the chapter to considering the analogy between IVF and pregnancy. In *Paton v UK*,[249] the procreative interests of a man to reproduce clearly played second fiddle to a woman's autonomous decision to discontinue a pregnancy. *Paton* is useful in showing that the respective reproductive rights between men and women which allow them to exercise their autonomous choices are not always equivalent. Similarly, in *St George's Healthcare NHS Trust v S*[250] it was held that a pregnant woman has the right to refuse medical treatment and a caesarean section against her will amounted to a trespass against her autonomy.[251] Jackson provides further reasoning to these type of scenarios: 'we can interfere with a man's desire for his pregnant partner to carry her pregnancy to term because to respect it would cause *greater* harm to his partner's freedom to make critical choices about her body and her life'.[252] In abortion, a right[253] to avoid procreation may be considered greater; and if the principle, also common to *Paton* and *St George's Healthcare NHS Trust* centres on whether bodily autonomy is triggered, then it may rightly be applied to 'reproductive effort' in IVF as well.

An application of Razian autonomy therefore indicates that the least burdensome outcome leads to the woman deciding the disposition of the embryo(s). This could specifically be construed under a right to private life under Article 8 as interference with the man's rights would be less burdensome in terms of physical integrity and is 'proportionate to the need which makes it legitimate'.[254] Webster's comments also point to this connection:

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[247] The assumption that rights regimes should mirror natural orders is not uncontested. Giuseppe Testa and John Harris argue in the context of stem cell derived gametes that the 'whole practice of medicine is a comprehensive attempt to frustrate the course of nature. If we always preferred the natural as a matter of principle, we would have to abjure medicine altogether'. Giuseppe Testa and John Harris, 'Ethical Aspects of ES Cell-Derived Gametes' (2004) 305 Science 1719.

[248] Joseph Raz, 'Right-Based Moralities' in *Theories of Rights* (Jeremy Waldron ed, OUP 1984) 195.

[249] [1980] 3 EHRR 408. In *Paton* the European Commission of Human Rights ruled that: 'The "life" of the foetus is intimately connected with, and cannot be regarded in isolation from, the life of the pregnant woman'. [19].

[250] *St George's Healthcare NHS Trust v S* [1998] 3 WLR 936.

[251] ibid 967.

[252] Jackson, *Regulating Reproduction* (n 230) 321.

[253] Emily Jackson has powerfully rebutted the notion that access to abortion is a right in England & Wales. Emily Jackson, 'Abortion, Autonomy and Prenatal Diagnosis' (2000) 9 Social & Legal Studies 467, 470. In the US, following the 'right to personal privacy' according to the Fourteenth Ammendment established in *Roe v Wade* (1973) 410 US 113, 164, a comparison between abortion and IVF is more possible on a rights basis.

[254] *Re W and B (Children) (Care Plan)* [2001] EWCA Civ 757 [54] (Hale LJ).

> Following the importance afforded to bodily integrity it could alternatively be argued that as the woman only agreed to be invaded for the purposes of pursuing an opportunity to have a child, the fact that the male gamete provider changes his mind should render the interference with her bodily integrity unlawful.[255]

The significance of 'reproductive effort', related to as bodily integrity is again of relevance. Thus, although the autonomy of both gamete providers should be promoted, as far as possible, it should only be done so insofar as there is no conflict with the other's autonomy. A final point on the promotion of autonomy emanates from a point by the ECtHR:

> The freedom to accept or refuse specific medical treatment, or to select an alternative form of treatment, is vital to the principles of self-determination and personal autonomy. A competent adult patient is free to decide, for instance, whether or not to undergo surgery or treatment, or, by the same token, to have a blood transfusion.[256]

The personal nature of autonomy referred to by the Court may be unpacked. Mariana Oshana mentions four conditions for the promotion of personal autonomy (with a social focus), which could be applicable: i) critical reflection- time to reflect and appraise his motivations and actions;[257] ii) procedural independence-[258] which would require both gamete providers to be free from pressure or coercion from the fertility clinics, one another and/or their families; iii) access to a range of relevant options;[259] and iv) social-relational properties- they should find themselves within a set of relationships with others that will help safeguard them from abuse,[260] and this could indicate a need to receive counselling (from the fertility clinic). Simply inviting parties to consider what their decision would be in the event of a relationship breakdown would again be highly useful. With these more personal measures in place, an autonomous decision, for example for the male to agree to waive his veto, would be on firmer ground with regard to Article 8. Autonomy and consent, as in all areas of law is highly contextualised. In frozen embryo disputes, the notions cannot be divorced from the treatment instigated and proposed. However, separation may be possible between autonomy and the consent form. Anne Donchin reflects in IVF that, 'A purportedly informed consent may come

[255] Webster (n 4) 82.
[256] *Jehovah's Witnesses of Moscow v Russia* (2011) 53 EHRR 4 [136].
[257] Marina Oshana, 'Personal Autonomy and Society' (1998) 29(1) Journal of Social Philosophy 81, 93.
[258] ibid.
[259] ibid 94.
[260] ibid.

down to no more than an absence of opposition and a willingness to go along with the treatment plan offered by the patient's practitioner'.[261] A woman, as such, may have no choice to pursue the proposed treatment, meaning she has to sign the consent form. But this does not mean is expressing her 'character—values, commitments, convictions, and… experiential interests' and shaping her life according to her 'coherent or incoherent—but, in any case, distinctive—personality'[262] as Dworkin would have it. These points indicate the requirement for a further consideration of the notion of consent in the context of Article 8.

5.6 Consent and rights

In section 1.5 of Chapter 1 the decisive requirement for ongoing consent in law was related. Indeed, the current law on consent remains the main obstacle for any reformulated law based on Articles 8 and 14 which takes into account 'reproductive effort'. Due to the significance of consent, and its link to ECtHR law, it is worth evaluating the nature of consent in frozen embryo disputes.

Roger Brownsword clarifies the limits of consent in embryo screening technologies as not being something that can be 'simply '"read off" the facts'.[263] Brownsword concedes that it is fairly straightforward to observe 'whether a person has said "Yes" or ticked a particular box on a consent form' but this does not necessarily mean they are 'instances of what we conceive of as the giving of consent'.[264] Moreover, it might be considered that the issue is not that the gamete providers did not *consent* to the embryos being used or allowed to perish against their will, but simply that they did not *want* this to happen. Wall J accepted specifically in reference to Ms Evans that 'she had always wanted to conceive a child, and was bitterly disappointed when all her attempts at doing so failed'.[265] As Ms Evans stated, 'I wanted to try IVF now before it was too late'.[266] Ms Evans also related that Mr Johnston, 'told me that he loved me, that he wanted to have a family and that I was the woman he wanted to share his life with. He told me that he would never leave me, and that he wanted to be the father of my children'.[267] Mr Johnston also understood that in the event of a relationship breakdown there would be 'freedom to choose… whether we wanted to start a family

[261] Anne Donchin, 'Toward a Gender-Sensitive Assisted Reproduction Policy' (2009) 25(1) Bioethics 28, 32.
[262] Dworkin (n 220) 224.
[263] Roger Brownsword, 'Happy Families, Consenting Couples, and Children with Dignity: Sex Selection and Saviour Siblings' (2011) 17(4) Child and Family Law Quarterly 435.
[264] ibid.
[265] *Evans* (HC) (n 12) [41].
[266] *Evans* (HC) (n 12) [46].
[267] *Evans* (HC) (n 12) [47].

together'.[268] Thus, at one point he 'wanted to be the father of her children'[269] and at a latter point he did not. The judge concluded that, 'It is perfectly reasonable for him, in the changed circumstances which appertain, not to want to father a child by Ms Evans'.[270]

David Gurnham illustrates the issue arising from the distinction between consent and wanting in a different context by reference to 'survival sex', in which a young homeless girl takes up a man's offer to sleep on his sofa in return for performing a sexual act, despite being tired and wanting to be left alone.[271] Gurnham is clear that the acts are exploitative in an ethical sense since the man uses the homeless girl in her disadvantaged and vulnerable state.[272] However, in legal terms, he notes that, 'The sex is certainly unwanted, but wanting and consenting are separate things and should be assessed separately'.[273] Gurnham reflects that 'a good deal of "grey" lies between the solid "black" of choice-negating constraint and the brilliant "white" of ideal full freedom'.[274] Frozen embryo disputes also involve shades of freedom in choice-making that may be affected by fluid wishes and understandings of the medical situations. Gurnham's and Brownsword's points are useful in understanding that consent in IVF is highly complex for both gamete providers.

For consent to be effective in medical contexts it should be free, voluntary and informed,[275] and it is the freedom of the consensual process as understood in frozen embryo disputes, and how this may affect Article 8 rights, which will now be considered. The issue of whether a decision to sign a form is 'free' arose in *Centre for Reproductive Medicine v U*.[276] In this case a widow sought to use the sperm

[268] *Evans* (HC) (n 12) [49].
[269] *Evans* (HC) (n 12) [63].
[270] *Evans* (HC) (n 12) [309].
[271] David Gurnham, 'Victim-Blame as a Symptom of Rape Myth Acceptance? Another Look at How Young People in England Understand Sexual Consent' (2016) 36(2) Legal Studies 258, 275.
[272] ibid.
[273] ibid 277.
[274] ibid 276.
[275] *Freeman v Home Office (No 2)* [1984] QB 524 (CA). According to Lord Scarman, informed consent allows patients to assess the risks of treatment *Sidaway v Board of Governors of the Bethlem Royal Hospital* [1985] AC 871, 882 (HL), and is understood in the US as arising from a right to decide whether to receive medical treatment. 886. 'A surgeon owes a legal duty to a patient to warn him or her in general terms of possible serious risks involved in the procedure'. *Chester v Afshar* [2005] 1 AC 134 (HL) [16] (Lord Steyn). *R v Kennedy (No 2)* [2007] UKHL 38 [14] (Lord Bingham). 'People should have the opportunity to make informed decisions regarding their care and treatment via access to evidence-based information. These choices should be recognised as an integral part of the decision-making process. Verbal information should be supplemented with written information or audio-visual media'. NICE Guidelines, 'Fertility: Assessment and Treatment for People with Fertility Problems' (2013) CG156, [1.1.1.2] < https://www.nice.org.uk/guidance/cg156/Chapter/recommendations#principles-of-care> accessed 12 April 2015.
[276] [2002] EWCA Civ 565. A well quoted definition in the literature is that, 'Informed consent means a voluntary, uncoerced decision, made by a sufficiently competent or autonomous person on the basis of adequate

of her deceased husband who, after initially consenting on a form that his sperm could be used posthumously, later changed that aspect following a consultation with a specialist.[277] The appellant argued regarding the deceased, 'I feel that he thought that the treatment would not continue if he did not amend the form'.[278] The judge at first instance noted that the pressure in signing 'must have been considerable'.[279] Similarly, in IVF, as mentioned in Chapter 2, the understanding and expectations of the parties may affected by pressure due to time constraints and the physical and emotional factors to take into account, thus undermining the ethical force of Schedule 3 of the 1990 Act. It is not unusual for couples to rush into fertility treatment,[280] and parties should have the freedom to ruminate on the implications of IVF treatment and a possible relationship breakdown.

The facts of *Evans* indicate that Ms Evans, in particular, was neither given the necessary time and space to necessarily make a free and informed decision. The news Ms Evans received in a consultation with the clinic was momentous: she had pre-cancerous tumours in both ovaries, necessitating their removal,[281] however, it was first possible to extract some eggs for IVF treatment.[282] This information was conveyed to the parties in a consultation which lasted 90 minutes, during which time the parties committed to an agreement to embark on the course of treatment.[283] That agreement, in which the parties reportedly only had *60 seconds* to speak privately ('in whispers') to one another whilst the clinic staff went to retrieve an IVF kit,[284] would likely have been rushed. Angela Coulter has questioned whether brief consultations are 'feasible to determine patients' preferences and sensitivities and provide full and unbiased information'.[285] It is illogical to consider partnership between healthcare practitioners and patients 'until they have realised the possible harms and benefits entailed and their associated probabilities'.[286] Whilst describing the process to Ms Evans, a member of the clinic's staff recalled that Ms Evans 'seemed quite tense during our

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information and deliberation, to accept rather than reject some proposed course of action that will affect him or her'. Raanan Gillon, *Philosophical Medical Ethics* (John Wiley & Sons 1986) 113.

[277] *Centre for Reproductive Medicine v U* [2002] EWCA Civ 565 [2].

[278] ibid [15].

[279] Butler-Sloss P quoted in ibid [15] (Hale LJ). Hale LJ approved Butler-Sloss P's assessment of the facts that, 'it seems to me that it is difficult to say that an able, intelligent, educated man of 47, with a responsible job and in good health, could have his will overborne so that the act of altering the form and initialling the alterations was done in circumstances in which Mr U no longer thought and decided for himself'. ibid [19].

[280] Lesley Glover, Ashleigh McLellan and Susan Weaver, 'What Does Having a Fertility Problem Mean to Couples?' (2009) 27(4) Journal of Reproductive and Infant Psychology 401.

[281] *Evans* (HC) (n 12) [43].

[282] ibid.

[283] *Evans* (HC) (n 12) [49] (10).

[284] *Evans* (HC) (n 12) [49] (10).

[285] Angela Coulter, 'Paternalism or Partnership? Patients Have Grown Up—and There's No Going Back' (1999) 319(7212) BMJ 719, 720.

[286] Glyn Elwyn and others, 'Towards a Feasible Model for Shared Decision Making: Focus Group Study with General Practice Registrars' (1999) 319(7212) BMJ 753, 756.

meeting and she was very naturally upset about the operation she was going to have'.[287] Ms Evans more graphically described the meeting as like 'being in a room full of water. It felt, she said, as if everybody was under water and she could not hear what he or she were saying'.[288] As Thorpe and Sedley LJJ noted, she had to comprehend her potentially fatal but operable cancer and changing reproductive options, 'Without interval for reflection or adjustment'.[289] Jackson also reflected that, 'It may be hard to talk to someone who is in what they consider to be a permanent relationship about the possibility that it will not last, but anything less than full and frank advice, and time to digest it, cannot count as properly informed consent'.[290]

Awareness of the risks of treatment[291] and how circumstances may change and evolve is key for consent to be informed[292] and the right of autonomy to be realised. In a frozen embryo dispute in the US, the Supreme Court of Tennessee considered that consent will often not be 'truly informed because of the near impossibility of anticipating, emotionally and psychologically, all the turns that events may take as the IVF process unfolds'.[293] Similarly, the New York Court of Appeal considered:

> All agreements looking to the future to some extent deal with the unknown. Here, however, the uncertainties inherent in the IVF process itself are vastly complicated by cryopreservation, which extends the viability of pre zygotes indefinitely and allows time for minds, and circumstances, to change. Divorce; death, disappearance or incapacity of one or both partners; aging; the birth of other children are but a sampling of obvious changes in individual circumstances that might take place over time.[294]

The value of consent in terms of an ability to foresee (and thus consent) to future outcomes is relevant to Article 8 as well. The ECtHR have considered the importance of informed consent in a case involving a violation of Article 8 rights, in which doctors overrode a mother's wishes in their

[287] *Evans* (HC) (n 12) [53] (23).
[288] *Evans* (HC) (n 12) [45].
[289] *Evans* (CA) (n 25) [5].
[290] Jackson (n 183) 352.
[291] The promotion of patient awareness regarding risks and alternatives was referred to in a recent Supreme Court ruling on case involving negligent failure to inform of treatment risks in a high risk pregnancy, where it was held that it is 'the doctor's responsibility to explain to her patient why she considers that one of the available treatment options is medically preferable to the others, having taken care to ensure that her patient is aware of the considerations for and against each of them'. *Montgomery v Lanarkshire Health Board (General Medical Council intervenin*g) [2015] UKSC 11 [95] (Lord Kerr and Lord Reed).
[292] See the dissenting judgement of Strasberg-Cohen J in *Nahmani* (n 67) 21.
[293] *Davis* (n 56) 597.
[294] *Kass* (n 101) 566.

treatment of a disabled child.[295] The ECtHR also confirmed in a case concerning the sterilisation of a Roma woman that patients provide 'fully informed consent' to comply with Article 8.[296] In *Elberte v Latvia* the use of tissue of a deceased person, the deceased's wife was unable to foresee what was expected from her if she wished to refuse consent for the tissue removal,[297] and the ECtHR subsequently found a violation of Article 8.[298] In comparison, the scenario that Ms Evans and Mr Johnston faced was, particularly pressured and may have affected their ability to foresee what was expected from them. Susan Heenan suggests that Ms Evans may have been unaware that Mr Johnston could have withdrawn his consent at any time, 'but it is not something that she would have contemplated given the level of stress that she was under'.[299] As Sally Sheldon indicates, it is doubtful whether either Ms Evans or Mr Johnston were informed sufficiently of the relevant circumstances.[300] She notes that 'any woman might have doubts about her relationship or questions which she would not want to ask in front of her partner'.[301] Moreover, neither 'was she given any time away from the clinic's employees so that the couple could discuss their options together'.[302] Likewise, in a US frozen embryos dispute, the woman testified that she signed an agreement regarding the disposition of frozen embryos due to 'time pressure' and that she has 'no other alternative'.[303]

Difficulties in anticipating the contingencies of reproductive options thus present a challenge for ensuring that men and women provide informed consent in IVF. The greater 'reproductive effort' for women also indicate that procedures to ensure her consent is informed may need to be more rigorous. Consent might be obtained over the course of more than one appointment, allowing time for reflection. These points may not affect the outcome of a frozen embryos dispute, but they might help to avert a dispute occurring in the first place. It is thus important that gamete providers have the opportunity to weigh up their options and consider the ramifications of pursuing treatment. Fertility clinics, with regard to best practice, and the law should be alive to such points concerning pressure, and how they might impinge on Article 8 rights, which shall now be discussed.

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[295] *Glass v the United Kingdom* (2004) 39 EHRR 15 [82].
[296] *VC v Slovakia* [2011] ECHR 1888 [148].
[297] *Elberte v Latvia* [2015] 61 EHRR 7 [115].
[298] ibid [117].
[299] Susan Heenan, 'IVF Treatment and Consent: The Rights of the Individual and the Public Interest' *Family Law* <http://www.familylaw.co.uk/news_and_comment/ivf-treatment-and-consent-the-rights-of-the-individual-and-the-public-interest#.VuRhALwtGJ9> accessed 12 March 2016.
[300] Sally Sheldon, 'Evans v. Amicus Healthcare; Hadley v. Midland Fertility Services—Revealing Cracks in the "Twin Pillars"?' (2004) 16(4) Child and Family Law Quarterly 437, 441 and 446.
[301] ibid 447.
[302] ibid.
[303] *Vitakis-Valchine v Valchine* 793 So 2d 1094 (Fla Dist Ct App 2001) 1097.

The notion of physical integrity, shown thus far to be key to a discussion of Article 8, autonomy and consent, is now discussed with reference to the meaning of treatment.

5.7 Treatment (together) and Article 8

This section will discuss how a man's right to private life under Article 8, as interpreted as a right to physical integrity, is not engaged to the degree of the woman's when considering he is not treated nor undertaking the same treatment course that a woman does.

Before considering what (IVF) treatment is, the first question to be considered regarding this treatment is whether Article 8 grants either gamete provider a right to continue receiving or not continue receiving medical treatment. Legal cases concerning treatment under Article 8 often refer to a right not to receive treatment,[304] with a right to receive or require treatment not established in English law. A right to continue receiving treatment was considered in *R (Burke) v General Medical Council*,[305] in which a patient suffering from a degenerative physical disease sought a declaration that guidance offered to doctors by the General Medical Council in respect of the withholding and withdrawal of life prolonging treatments, including artificial nutrition and hydration (ANH), was incompatible with Article 8[306] as it did not state that patients have the right to require treatment. The Court of Appeal stated that 'autonomy and the right to self-determination do not entitle the patient to insist on receiving a particular medical treatment regardless of the nature of the treatment'.[307] Accordingly, an Article 8 right on the basis that the gamete provider has a right to *continue* receiving treatment once instigated may not have a legal footing.

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[304] The administration of artificial respiration against her wishes of a patient with a serious physical disability with mental capacity amounted to an unlawful trespass. *B v NHS Hospital Trust* [2002] EWHC 429 (Fam). 'In the sphere of medical treatment, the refusal to accept a particular treatment might, inevitably, lead to a fatal outcome, yet the imposition of medical treatment, without the consent of a mentally competent adult patient, would interfere with a person's physical integrity in a manner capable of engaging the rights protected under Article 8(1) of the Convention'. *Pretty v United Kingdom* [2002] 35 EHRR 1 [63]. A forced gynaecological examination represented a violation of physical integrity under Article 8. *YF v Turkey* [2003] 39 EHRR 34 [43], [44]. 'The Court considers that the decision to impose treatment on the first applicant in defiance of the second applicant's objections gave rise to an interference with the first applicant's right to respect for his private life, and in particular his right to physical integrity'. *Glass v the United Kingdom* [2004] 39 EHRR 15 [70].

[305] [2004] EWHC 1879 (Admin).

[306] *R (Burke) v General Medical Council* [2004] EWHC 1879 (Admin) [130]. He also sought to rely on Article 2 (*R (Burke) v General Medical Council* [2004] EWHC 1879 (Admin) [152]-[162]), and Article 3 (*R (Burke) v General Medical Council* [2004] EWHC 1879 (Admin) [131]-[151]).

[307] *R (on the application of Burke) v General Medical Council* [2005] EWCA Civ 1003 [31] (Lord Phillips MR). Nonetheless, the Court of Appeal also clarified that the patient would receive artificial nutrition and hydration. [13]. This was because doctors have a duty to take reasonable steps to keep patients alive if, when competent, they made plain their wishes for life-prolonging treatment. The duty is not derived from the patient's wishes,

However, in the very different context of assisted reproduction, the sense that one party is in the process of receiving treatment, more significant than that of the other, should be relevant for an Article 8 discussion. This causes reflection on what actually constitutes 'treatment' may involve uncertainty regarding who, in effect, receives it. Hazel Biggs has considered that the importance of Munby J's High Court judgment in *Burke* was that it engaged with 'whether and when ANH should properly be regarded as medical treatment'.[308] Similarly, the importance of what should be regarded as medical treatment, in light of the engagement of gamete providers' bodies also leads to an evaluation here of whether parties in IVF are treated together, and how this might affect their Article 8 rights. The analysis begins with the relevant legal provisions relevant to a link between Article 8 and treatment.

To recap, Ms Evans' Article 8 argument was not successful because of the consent provisions of Schedule 3 of the 1990 Act. Consent was required not only for 'treatment' but, specifically, treatment together[309] according to paragraph 6(3) of Schedule 3 of the 1990 Act and as defined by case law discussed below. Wall J considered that the phrase 'treatment together' 'is to be interpreted differently in differing circumstances'.[310] Thorpe and Sedley LJJ considered that 'treatment together' was satisfied 'so long as the couple are united in their pursuit of treatment, whatever may otherwise be the nature of the relationship between them'.[311] Arden LJ concurred and elaborated:

> The requirement for treatment together appears to reflect an expectation that, if two persons are jointly involved in the creation of an embryo and its transfer to the woman, both will be responsible for the upbringing of the child when born. As I have sought to show, this aim is not necessarily achieved simply by a requirement for two people to be involved together at that stage. It may one day be possible for a child to have only one genetic parent. Even now, there is no need for a child to be brought up by two persons and very often these days this does not happen. However, the appellant has not argued that the word 'together' must be given a contemporary meaning to reflect this change in social conditions and

rather it will 'merely underscore that duty' ([32]) regardless of the pain, suffering or dignity of their condition. [34].

[308] Hazel Biggs, 'Taking Account of the Views of the Patient', but Only If the Clinician (and the Court) Agrees - *R (Burke) v General Medical Council*' (2007) 19 Child and Family Law Quarterly 225, 237.

[309] The judgment that Ms Evans consented to treatment was supported by the fact that she signed a form which apparently consented to treatment of her *and* Mr Johnston. *Evans* (CA) (n 25) [9].

[310] *Evans* (HC) (n 12) [132].

[311] *Evans* (CA) (n 25) [29].

accordingly this is not an argument on which it would be appropriate for me to express a view in this case.[312]

Arden LJ was open to the possibility that 'treatment' could occur, in a different context and without a man in the future, but she did not explore what type of context this might be or what factors might be implicated therein. The term 'treated together' was referred to by the House of Lords in the Explanatory Notes of the Human Fertilisation and Embryology Bill 2007 as 'a somewhat loose concept'.[313] The effect of the liberal use of language to interpret 'treatment together' is now investigated. The ambiguities over the term belie a sense that the physical engagement of a woman's body is not satisfactorily taken into account for the purposes of Article 8.

5.7.1 Considerations on the meaning of 'treatment'

Thus far, it has been shown that in *Evans* consent was intimately connected to the pursuit of 'treatment together' in reference to the 1990 Act. Since the meaning of treatment and who it implicates is crucial in terms of considering the right to private life under Article 8, it is necessary to further interrogate the basis of the interpretation of 'treatment together' in *Evans*. Marcia Inhorn comments in the context of reproductive health of women 'the importance of analyzing language, including who produces this language and how it used by powerful constituencies (e.g., biomedicine) to control women'.[314] Analysis of the language of treatment in assisted reproduction also causes questions in this context, not so much as to whether the 'reproductive effort' of women is being controlled, but overlooked by Article 8, which should be applied to show that treatment is specifically linked to physical integrity, which uniquely engages women. To make this point, it is first necessary to continue consideration of the handling of 'treatment' in the courts.

Wall J conceded that there are 'of course, elements of artificiality about the argument because, in conventional terms, the only "treatment" undergone by Mr. Johnston was the provision of his

[312] *Evans* (CA) (n 25) [97].
[313] HL Bill 6, Human Fertilisation and Embryology Bill 2007, 2.
[314] Marcia Inhorn, 'Defining Women's Health: A Dozen Messages from more than 150 Ethnographies' in *Reproductive Disruptions: Gender, Technology, and Biopolitics in the New Millennium* (Marcia Inhorn ed, Berghahn Books 2007) 13. Inhorn's work in part of an analysis of ethnography research by Emily Martin (Emily Martin, *The Woman in the Body: A Cultural Analysis of Reproduction* (3rd edn, Beacon Press, 2001)) where a feminist Marxist critique of the way in which the reproductive health of women has been characterised in Western liberal societies, found that women of different classes perceive reproductive procedures (including menstruation, childbirth, and menopause) in different ways linguistically. She finds in various occasions that body imagery is linked to capitalist terminology such production and productivity.

sperm'.[315] Wall J referred to case law to justify this 'artificiality' that both parties were being treated together. The first was *Re B (Parentage)*,[316] in which a man and woman sought IVF treatment, and the man provided sperm for donor insemination. By the time the insemination occurred he had separated from the woman, although it was deemed he had not withdrawn his consent.[317] The legal question was whether the couple were receiving treatment services together according to the requirement in paragraph 5(3) of Schedule 3 of the 1990 Act to mean the man was a legal parent under section 28(3) of the 1990 Act. Bracewell J noted that there was no guidance in the Act as to what constitutes 'receiving treatment services together' but held that it required a 'joint enterprise'.[318] She held that the donation of sperm was not a 'casual favour' as he,

> knew what was involved and after some initial hesitation he consented to the giving of sperm as part of a joint enterprise and he made a journey involving an air flight in order to do so. His version that… an agreement merely as a casual favour to give sperm… makes no sense at all and I reject it. I do not find he donated as though he was an anonymous donor doing a favour which could have no repercussions for him. On the contrary, he was playing his essential role in aiding the applicant to achieve what both had been trying for, namely a pregnancy.[319]

Wall J notes that *Re B* 'turns very largely on its facts',[320] and it would have been an unwarranted extension of precedent to apply the ruling to *Evans* as Mr Johnston had clearly withdrawn consent. *Re B* does demonstrate however that the legal status of gamete providers in assisted conception is distinct to that of sperm donors, which is noteworthy since the latter are not to be treated as the father of the child.[321] Since sperm donors are no longer anonymous,[322] the contrast between the man in IVF and a sperm donor is weakened; they can both be identified by the future child.

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[315] *Evans* (HC) (n 12) [135].
[316] [1996] 3 FCR 697. However, *Re Q (A Minor) (Parental Order)* [1996] 2 FCR 345 was actually the first case to consider the issue of the requirement of 'treatment together'.
[317] ibid.
[318] [1996] 3 FCR 697, 702. This was approved by Lord Woolf MR as he held that there could not be 'treatment together' for the purpose of the 1990 Act when the man had died. *Human Fertilisation and Embryology Authority, ex p Blood* [1997] [1999] Fam 151 (CA) 179-80. The notion of joint enterprise has also been affirmed in the US as the Court of Appeals of New York held that a 'joint decision' was required for implantation. *Kass* (n 101) 181.
[319] [1996] 3 FCR 697 702.
[320] *Evans* (HC) (n 12) [112].
[321] Section 28(6)(a) of the Human Fertilisation and Embryology Act 1990 and section 41(1) of the Human Fertilisation and Embryology Act 2008. This is subject to the caveat that the sperm donation occurs in an HFEA licensed clinic.
[322] Human Fertilisation and Embryology Authority (Disclosure of Donor Information) Regulation 2004.

The question of whether a gamete provider not seeking implantation should be absolved of legal parenthood in a manner similar to a gamete donor will be revisited below. At this point it can be marked out that although sperm donation in IVF is clearly more than a 'casual favour', it is seemingly not always considered a part of 'medical' treatment as it can refer to 'non-medical services', which are 'services that are provided, in the course of a business, for the purpose of assisting women to carry children, but are not medical, surgical or obstetric services provided to the public or a section of the public for the purpose of assisting women to carry children' according to section 2(1) of the 1990 Act (as amended). In the same subsection of the Act, a distinction is drawn between 'treatment services' and 'non-medical fertility services'.[323] The possibility that the physical act of sperm donation is not considered part of 'medical treatment' may indicate that, unless the man is treated for infertility, at no point during the IVF procedure does he receive treatment.

Wall J also referred to *Re R (A Child)*,[324] which also considered the meaning of 'treatment together'.[325] Here, a couple pursued IVF treatment by way of anonymous sperm donation[326] with twelve embryos created, and two placed in the woman without resulting in a successful pregnancy.[327] The couple then separated and the woman began a relationship with another man. She became pregnant following further treatment using two of the surplus embryos without her ex-partner's knowledge.[328] The man then sought a declaration of paternity against the woman's wishes, and she appealed that the embryos had not been placed in her in the course of treatment services provided for her and the man together according to section 28(3) of the 1990 Act.[329] The couple were held to have been no longer receiving 'treatment together' at the time of implantation and thus the man was not to be treated as the child's father. Hale LJ (as she then was) considered the meaning of section 28(3) of the 1990 Act:[330]

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[323] In '…relation to a donor of gametes or a person who receives treatment services or non-medical fertility services…'. Section 2(1)(a) of the 1990 Act.

[324] [2003] EWCA Civ 182. This case was later appealed to the House of Lords, which upheld the Court of Appeal's decision (*Re R (A Child) (IVF: Paternity of Child)* [2005] UKHL 33). The case is sometimes referred to by commentators by its alternative name *Re D (A Child) (IVF: Paternity of Child)*.

[325] *Evans* (HC) (n 12) [119].

[326] *Re R (A Child) (IVF: Paternity of Child)* [2003] EWCA Civ 182. This case appears to be the correct approach and was confirmed in the House of Lords in *Re (A Child) (IVF: Paternity of Child)* [2005] UKHL 33 (also known as *Re D (A Child) (IVF: Paternity of Child))*.

[327] *Re R (A Child) (IVF: Paternity of Child)* [2003] EWCA Civ 182 [3].

[328] ibid.

[329] ibid [6]- [8].

[330] Section 28(3) stated that the male gamete provider shall be treated as father of the child if '(a) the embryo or the sperm and eggs were placed in the woman, or she was artificially inseminated, in the course of treatment services provided for her and a man together by a person to whom a licence applies, and (b) the creation of the embryo carried by her was not brought about with the sperm of that man'. After April 2009 section 28(3) was replaced by section 37 of the Human Fertilisation and Embryology Act 2008 which set out 'fatherhood conditions' whereby legal fatherhood could be acquired by the consent of mother and father:

> Gametes and embryos can be stored for up to ten years or even longer in some circumstances. There must be a point in time when the question has to be judged. The simple answer is that the embryo must be placed in the mother at a time when treatment services are being provided for the woman and the man together.[331]

The Court of Appeal decision in *Re R (A Child)* was affirmed by the House of Lords.[332] Wall J applied Hale LJ's interpretation to *Evans*,[333] holding that the situation in which Ms Evans sought the transferral of the stored embryos to herself, without the consent of Mr Johnston, could not constitute both parties receiving 'treatment together'.[334]

Under an alternative reading, *Re R (A Child)* could be applied to a frozen embryo dispute to find that the man is neither being treated, nor pursuing treatment together at the point of implantation. His consent to the use of the embryos as well as his right to physical integrity under Article 8 would consequently be less the woman's. Counsel for Ms Evans also argued that denying her the opportunity to use the embryos for lack of 'treatment together' gave an,

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'(1)The agreed fatherhood conditions referred to in section 36(b) are met in relation to a man ("M") in relation to treatment provided to W under a licence if, but only if,—
(a)M has given the person responsible a notice stating that he consents to being treated as the father of any child resulting from treatment provided to W under the licence,
(b)W has given the person responsible a notice stating that she consents to M being so treated,
(c)neither M nor W has, since giving notice under paragraph (a) or (b), given the person responsible notice of the withdrawal of M's or W's consent to M being so treated,
(d)W has not, since the giving of the notice under paragraph (b), given the person responsible—
(i)a further notice under that paragraph stating that she consents to another man being treated as the father of any resulting child, or
(ii)a notice under section 44(1)(b) stating that she consents to a woman being treated as a parent of any resulting child, and
(e)W and M are not within prohibited degrees of relationship in relation to each other.
(2)A notice under subsection (1)(a), (b) or (c) must be in writing and must be signed by the person giving it.
(3)A notice under subsection (1)(a), (b) or (c) by a person ("S") who is unable to sign because of illness, injury or physical disability is to be taken to comply with the requirement of subsection (2) as to signature if it is signed at the direction of S, in the presence of S and in the presence of at least one witness who attests the signature.' The impact of the new legislation envisages a clearer process in that notice of consent is required (section 1(a)) (albeit with the same purpose that couples seeking IVF are legally recognised as mother and father of the resulting child).

[331] *Re R (A Child) (IVF: Paternity of Child)* [2003] EWCA Civ 182 [22]. According to sections 3 and 4 the Human Fertilisation and Embryology (Statutory Storage Period for Embryos and Gametes) Regulations 2009 the statutory storage period for premature infertility may be extended to 55 years.

[332] *Re R (A Child) (IVF: Paternity of Child)* [2005] UKHL 33.

[333] *Evans* (HC) (n 12) [23], [132].

[334] *Evans* (HC) (n 12) [134].

> unwarranted meaning to the word 'together'. The Act, they argued, did not require two persons presenting for treatment together to be a 'couple'. There is merely the person giving consent and 'another specified person' (Schedule 3, paragraph 1(2)(a)). It is the fact that the one consents which means that they are treated 'together'. [335]

Wall J referred to these types of argument as providing 'a sophisticated gloss to essentially very simple words and an equally straightforward concept' [336] in relation to the mutual consent requirements of Schedule 3. However, under an alternative statutory scheme, a more accurate understanding *would* be that 'treatment' necessarily only involves the person whose body is engaged or to be engaged for reasons of healthcare. A variation of this point was most poignantly made by Ms Evans at the ECtHR to argue that once Mr Johnston had donated his sperm he was not subject to,

> any further medical intervention or treatment requiring his consent, and there would thus be no inequality of treatment between the parties if a man were held to his consent, there being no true comparison between the situation of the woman in refusing consent to the implantation of an embryo in her body or refusing to carry it to term and that of the man in withholding his consent to such implantation.[337]

The notion of treatment together derived from section 28 of the 1990 Act has been replaced by sections 36-37 of the Human Fertilisation and Embryology Act 2008 to require instead 'agreed fatherhood conditions' to make provision for unmarried male partners to achieve legal fatherhood. However, the notion that the male gamete provider cannot be 'treated' after provision of his semen is still relevant and leads to recognition that the woman alone embarks on a course of treatment after fertilisation. Thus, although 'treatment together' is now more inconspicuous since the new legislative provisions removed the 'troubling', [338] 'puzzling'[339] and 'peculiar'[340] notion of requiring that treatment can only be provided 'for the man and woman together', the on-going requirement for

[335] *Evans* (HC) (n 12) [127].
[336] *Evans* (HC) (n 12) [141].
[337] *Evans* (ECtHR) (n 28) [52].
[338] Nigel Lowe and Gillian Douglas, *Bromley's Family Law* (11th edn, Oxford University Press 2015) 255.
[339] Emily Jackson, *Medical Law: Texts, Cases and Materials* (3rd edn, Oxford University Press 2013) 804.
[340] 'Where a man merely attends a clinic with a woman to whom he is not married, giving her no more than emotional support, he would, if asked, be likely to say that he consents to her treatment, but will not think anything of it, save perhaps that it is a peculiar question to ask of him', Stuart Bridge 'Assisted Reproduction and the Legal Definition of Parentage' in Andrew Bainham, Shelley Sclater and Martin Richards (eds) *What is a Parent? A Socio-Legal A*nalysis (Hart 1999) 86.

the man's consent in Schedule 3 implies that the practice remains the same. As Julie McCandless and Sally Sheldon consider:

> Rejecting the test of 'treatment together' and the similarly ambiguous notion of 'joint enterprise' which the courts had developed to give it meaning, the 2008 Act nevertheless remains true to the spirit of the 1990 legislation. It maintains the position that, where a woman seeks treatment with her husband, he will be the legal father unless it can be shown that he did not consent to the treatment.[341]

Thus, the underlying notion that the man is treated remains, not least since his consent is required for its furtherance. Since the man's treatment has ended following fertilisation, there should be no further scope for him to vary consent as to the separate treatment the woman receives to begin her pregnancy. Consent in this sense can only be treatment specific and person specific—a person should not normally be able to consent on behalf of another person with capacity as to whether or not they continue to receive treatment which he or she has already embarked upon.

The 1990 Act would not permit would not permit such an understanding of consent, but a revised one could accommodation additional protection of Article 8 rights with an understanding that in practice the man does not receive treatment after semen retrieval. This would rightly point to the woman as being the primary decision maker regarding her future IVF treatment options following gamete donation. Consequently, it respects her private life, as interpreted as physical integrity, under Article 8 to understand that she has begun undertaking a significant treatment process.

5.7.2 Purpose of treatment

As previously mentioned, the definition of 'treatment services' from section 2(1) of the 1990 Act relates to services that are only relevant to a woman after a man has provided his semen. This reflects debate in the House of Lords that 'treatment services are to be provided for the purpose of assisting women and not for anything else'.[342] Amel Alghrani has speculated that the 'treatment

[341] Julie McCandless and Sally Sheldon, 'The Human Fertilisation and Embryology Act (2008) and the Tenacity of the Sexual Family Form' (2010) 73(2) Modern Law Review 175, 185. Kate Standley and Paula Davies considered that the 2008 Act will follow the same approach regarding the requirement of 'treatment together' in IVF. Kate Standley and Paula Davies, *Family Law* (8th edn, Palgrave Macmillan 2013) 255.
[342] HL Deb 6 February 1990, vol 515, col 747 (Lord Mackay).

together' stipulation was inserted to deter single women from seeking IVF.[343] Clearly part of the rationale of the pre-2008 Act law was to promote the involvement of both parents in the future child's life. Arden LJ referred to this by explaining that the consent of the father is required at all stages 'to ensure that he will be involved in the upbringing of the child'.[344] Upbringing is however a significantly different concept to fertility treatment. In *Re R*, Hale LJ stated that the term '"treatment services" was very widely defined',[345] although she did not go so far as to explicitly indicate that treatment could be non-physical (such as counselling). However, she did imply that attendance at a clinic or even one party's signature to consent to the use of the embryos[346] could fulfil the 'being provided with treatment services together'[347] requirement. By implication, Wall J held that the same rang true in *Evans.*[348]

It could be counter-argued that what is relevant is not consent to treatment *per se*, but consent to the *purpose* of treatment, thus rendering the 'reproductive effort' argument made under Article 8 less significant. Wall J considered the notion of 'purpose of the treatment' when discussing 'treatment together':

> The purpose of the treatment is the creation of a pregnancy. That pregnancy begins when the embryos are successfully transferred and implanted. It is at that moment that one looks to see if the couple are being treated together for the purposes of section 28(3). In the instant case the only material difference is that the embryos in question have been frozen. The claimants now wish to have them unfrozen and transferred into them. The question is whether or not that process would constitute treatment together. In this analysis, I see no material difference in the approach to or use of the phrase 'treatment together'. [349]

It appears here that the judge conflated the idea of 'purpose of the treatment' with 'treatment' itself. The purposive approach was developed further by Arden LJ in *Evans* to cover the expectation/purpose of treatment. As mentioned above, the purpose Arden LJ alludes to is upbringing: 'The requirement for treatment together appears to reflect an expectation that, if two

[343] Amel Alghrani, 'Commentary—Deciding The Fate Of Frozen Embryos' (2005) 13(2) Medical Law Review 244, 247.
[344] *Evans* (CA) (n 25) [88].
[345] *Re R (A Child) (IVF: Paternity of Child)* [2003] EWCA Civ 182 [22].
[346] ibid [26].
[347] ibid [24].
[348] *Evans* (HC) (n 12) [133]- [134].
[349] *Evans* (HC) (n 12) [137].

persons are jointly involved in the creation of an embryo and its transfer to the woman, both will be responsible for the upbringing of the child when born'.[350]

Discussion relating to the 'purpose of treatment' should not detract from the reality that the 'treatment' itself is distinct. There is a substantive difference between the concepts of the purpose of an action and the action itself. My purpose in climbing a mountain may be to reach the top, but being at the top of the mountain and enjoying the mountain view (the purpose of the action) is a very different experience to the hard work of climbing the mountain (the action). In IVF, such a conflation has the potential to undermine the autonomy and right to private life of a patient to choose which treatment she regards as best for herself, although such an expression of autonomy is restricted by the paternalistic[351] approach in *Burke* referred to above in which a 'medical practitioner's assessment of the patient's best interests takes primacy in the determination of which treatments should be made available and that a patient may not demand a treatment not recommended by her or his doctor.[352] Thus, following fertilisation, she may be pursuing the purpose of treatment together with the man (i.e. pregnancy), but she is not pursuing treatment with the man as his body is no longer engaged in a literal and embodied sense. By not confusing the 'purpose of treatment' with 'treatment' the woman's right to physical integrity may be better protected, by recognising how treatment affects her.

In the wake of the 1990 Act questions were asked about the 'purpose of treatment' by one ethicist from the perspective of HIV screening of gamete providers.[353] As alluded to in Chapter 1, the twin pillars of 1990 Act do not contain ethical reference[354] to the unique treatment the woman receives, nor is there a prioritisation of the relevant ethics principles.[355] The Grand Chamber of the ECtHR did,

[350] *Evans* (CA) (n 25) [97].
[351] Hazel Biggs, '"Taking account of the views of the patient", but only if the clinician (and the court) agrees!' Child and Family Law Quarterly (2007) 19(2) 225, 238.
[352] ibid. See *R (on the application of Burke) v General Medical Council* [2005] EWCA Civ 1003 [31] (Lord Phillips MR).
[353] David Seedhouse, 'Medical Ethics' in JR Smith and others, 'Infertility Management in HIV positive Couples: A Dilemma' (1991) 302 BMJ 1447, 1448.
[354] In the context of a comparative law analysis of the regulation of ART, it has also been observed that neither the 1990 Act nor the 2008 Act 'lay out an explicit set of underlying ethical principles'. Pamela White, '"A Less than Perfect Law": The Unfulfilled Promise of Canada's Assisted Human Reproduction Act' in *Revisiting the Regulation of Human Fertilisation and Embryology* (Kirsty Horsey ed, Routledge 2015) 175.
[355] A list of such principles was drawn up by David Seedhouse to consider the prioritisation of these principles:
'*To treat people on request
* To treat all people who might benefit clinically
* To treat only those people for whom there is a probability above a given value that treatment will succeed
* To treat according to any of these criteria but to exclude from treatment those people who themselves ill in any way
* To treat according to one of the first three criteria but to exclude those people who already have children

however, list some of these principles, and cited, with respect to consent, the importance that gamete providers could 'know in advance that no use could be made of his or her genetic material without his or her continuing consent'. [356] This was based on a, 'Respect for human dignity and free will, as well as a desire to ensure a fair balance between the parties to IVF treatment'.[357] On this basis there was no inconsistency with Article 8. However, it was not explained why respect for 'human dignity and free will' engaged Mr Johnston more than Ms Evans. Moreover, the extent to which Ms Evans' greater physical investment should be factored into the 'fair balance' was not deliberated.

An earlier surrogacy case to have considered 'treatment together' was not referred to by the courts in *Evans*, but attached a more coherent meaning to the term, dealing with treatment in its inherent sense. The facts of *Re Q (A Minor) (Parental Order)*[358] involved a child born to an unmarried woman as a result of an arrangement whereby eggs and sperm had been placed in her. The husband and wife applied for a parental order,[359] and it was necessary to judge whether they were eligible. Although the embryo placed in the unmarried woman was fertilised using the wife's egg, it had not been fertilised by the sperm of the husband.[360] The husband was not considered as being treated 'together' with the carrying woman as Johnson J elaborated, by explaining what is not 'treatment':

> As a matter of ordinary language when a woman receives medical treatment and both she and a man together visit a doctor and it is understood that he is to pay the doctor's fee, then of course on one interpretation one might say that medical treatment was being 'provided' for him as well as for her because of his undertaking to pay for it. Surely that is not what Parliament intended by s 28(3).[361]

Johnson J then explained that 'treatment' should be 'medical':

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* To treat according to the first three criteria but to exclude those not in stable relationships…'. David Seedhouse, 'Medical Ethics' in JR Smith and others, 'Infertility Management in HIV Positive, Couples: A Dilemma' (1991) 302 BMJ 1447, 1448.

[356] *Evans* (ECtHR) (GC) (n 35) [89].

[357] *Evans* (ECtHR) (GC) (n 35) [89].

[358] [1996] 2 FCR 345.

[359] According to section 30 of the Human Fertilization and Embryology Act 1990. This section has since been repealed and replaced by section 54 of the Human Fertilisation and Embryology Act 2008 which enables parental orders to be granted to not only married couples but also civil partners and two persons living as partners in an enduring family relationship, provided certain conditions are met (although orders made before 6th April 2010 under section 30 remain effective).

[360] *Re Q (A Minor) (Parental Order)* [1996] 2 FCR 345.

[361] ibid 348. Under section 28 and Schedule 3 of the 1990 Act therefore avoided the need for a section 30 order. There was therefore no man who was the child's legal father.

> It seems plain to me that the subsection envisages a situation in which the man involved himself received medical treatment, although as presently advised I am not sure what treatment is envisaged since the subsection refers to a man whose sperm was not used in the procedure.[362]

The judge then acknowledged he would 'need further instruction as to who might be a man treated together with the carrying woman but who is not the sperm donor'.[363] Johnson J's *dicta* was not applied by subsequent courts, and the notion of 'joint enterprise' mentioned by *Re B* has held sway, but his understanding of treatment could be applied in frozen embryo disputes to recognise the woman solely as being treated after gamete donation, since 'treatment' is 'medical', it is only pursued 'together' until the point of fertilisation. After this point, as in the case of 'natural' pregnancy, the woman's body uniquely becomes the site of medical intervention and treatment. Generally, treatment in obstetrics is only associated with the woman,[364] and this understanding indicates that her Article 8 rights on the basis of physical integrity are more significant and should ensure she has greater dispositional authority.

To recapitulate, since treatment is normally not present *after* the point at which a man donates his gametes, it is inappropriate to discuss the couple as pursuing treatment 'together'. It is a moot point whether the *in vitro* embryo(s) itself receives treatment, but nonetheless, once implanted, it is the woman's body alone which receives any further treatment, and that for the purpose of reproduction. As such, for the woman, egg retrieval represents only the first stage of her physical treatment. As JK Mason notes, it is the woman who is 'solely responsible for the hoped-for metamorphosis from embryo to fetus to neonate'.[365] Thus, the subsequent treatment denied to Ms Evans could never have been pursued 'together' with Mr Johnston in the conventional and limited sense described in frozen embryo disputes; it was exclusive to Ms Evans' body, and thus her Article 8 rights based on private life are engaged to a much greater degree.

5.7.3 IVF treatment as an integral and (in)divisible procedure: relationship to Article 8

[362] *Re Q (A Minor) (Parental Order)* [1996] 2 FCR 345, 348.
[363] ibid 349.
[364] In recent guidance given by Keehan J in the Court of Protection it was considered that obstetric care concerns the woman, and covers 'all care and treatment needs brought about by P's [the woman's] pregnancy including antenatal care, management of labour and delivery, and postnatal care'. *NHS Trust 1 v G* [2014] EWCOP 30 [Annex 1]. Parentheses added.
[365] JK Mason, 'Discord and Disposal of Embryos' (2004) 8(1) Edinburgh Law Review 84, 91.

Wall J considered that, 'As an ongoing series of events over time, treatment together must be something which can change and, in particular, come to an end in different ways'.[366] Fertility treatment can be long and protracted, lasting several years, and leads to questions about the legal ramifications of whether IVF should be interpreted as a series of procedures or one integrated treatment. Sally Sheldon questioned with respect to *Re R*, 'at what moment must the issue of whether treatment was provided for the couple ''together'' be judged'?[367] Consent to long term treatment should be assessed for the individual patient in the same way as short term treatment—a patient can and should be able to make or remove consent any stage of treatment. If treatment is considered as being undertaken 'together' following fertilisation, this could lead to difficulties of ascertaining whether consent is ongoing from two parties throughout the course of the treatment, especially considering that one of the parties might not necessarily be physically present at the clinic during the time of treatment.

The central critique of this chapter is that once treatment is initiated following gamete donation, it normally only implicates the woman physically; and since she has already invested more physically, this provides her a greater right under Article 8. This is connected to the notion introduced above—IVF is an integrated course of treatment, and to reconfigure the pre-arranged plans for treatment violates the private life of the one who wishes to maintain the status quo. This perspective was given credence in *Nahmani v Nahmani*,[368] where Strasberg-Cohen J, in dissension, discussed IVF in terms of two stages which are different in nature:

> The two decisive stages in the fertilization treatment are: first, *in-vitro* fertilization of the woman's ova with the man's sperm; and second, the implanting of these in the body of a surrogate mother. The two stages are different in nature and they are carried out on different dates. The two spouses are partners in all the stages of the procedure, and they should not be regarded as having done their part when they have given over the genetic material.[369]

[366] *Evans* (HC) (n 12) [139].
[367] Sally Sheldon, 'Reproductive Technologies and the Legal Determination of Fatherhood' (2005) 13 Feminist Legal Studies 349, 354.
[368] *Nahmani* (n 67) 9 (Goldberg J); 95 (Bach J).
[369] *Nahmani* (n 67) 661, 16.

In contrast, the majority of the Supreme Court of Israel provided an alternative perspective of how treatment should be understood. As mentioned in Chapter 2, Goldberg J discussed IVF in terms of a *unified* procedure: 'If we say that the *status quo* is the procedure in its entirety, then Daniel [Mr Nahmani] is the one seeking to change the *status quo* in that he wants to stop the procedure, thereby adversely affecting Ruth's [Ms Nahmani's] position, in that she will lose the experience of parenthood'.[370] The judge depicted IVF as a 'hazardous road' which the couple 'travel together along'.[371] It seems the type of road the judge had in mind was one with no safe opportunity to turn off or stop on until reaching the next junction, which would be symbolic of implantation. The treatment can be a long, uncertain and potentially unsuccessful procedure once implantation occurs. The upshot is that IVF should be considered holistically:

> If we say that the procedure should be divided into stages, then it is Ruth who wishes to change the status quo by trying to move on to the next stage of the procedure — the stage of implanting the ova—thereby changing the status quo for Daniel, who will become a father against his will. The answer to the question whether the initial consent includes agreement to the entire procedure cannot be no merely because moving from one stage to another adversely affects Daniel, when we have already established that refraining from moving from one stage to another adversely affects Ruth.[372]

The majority judgment in *Nahmani* takes an approach that should be applied to women in the position of Ms Evans, concurring more with what 'treatment' means in practice, as discussed above, and as relevant to Article 8 rights. Significantly, the six stages of IVF treatment mentioned on the NHS website mention only the involvement of the woman:

1) Suppressing the woman's natural cycle
2) Boosting the woman's egg supply
3) Monitoring the woman's progress and maturing her eggs
4) Collecting the woman's eggs
5) Fertilising her eggs
6) Transferring the embryo(s).[373]

[370] *Nahmani* (n 67) 661, 72 (Goldberg J).
[371] *Nahmani* (n 67) 661, 72 (Goldberg J).
[372] *Nahmani* (n 67) 661, 72-73 (Goldberg J).
[373] 'IVF', NHS, http://www.nhs.uk/Conditions/IVF/Pages/Introduction.aspx accessed 28 July 2015.

The stages are presented on the NHS website as separate elements of an integrated treatment, with every stage engaging the woman's body. Clearly, at one stage (5), the man's involvement is required, although even then, a woman may be involved.[374] Thereafter, there is a reversion to the treatment affecting the woman alone again.

Tracy Pachman reflects that, 'The integrity of their [women's] bodies and their right to choose what is done to their bodies are implicated in the entire process'.[375] It might be countered that the time lapses between gamete donation, fertilisation and implantations are significant and indicative of a separable treatment process. However, there are often phases and time lapses to treatment. To provide but two examples, the removal of a verruca may require cryotherapy with liquid nitrogen, up to four times, two to three weeks apart.[376] The time lapse between the applications of liquid nitrogen to the skin does not detract from the fact that the treatment of the verruca is integrated. Even if an alternative treatment, such as salicylic acid, were used it would still be treatment that is part of a unified approach, and which addresses the same medical issue, continuing to engage the identical part of the patient's body. Chemotherapy for a cancer such as acute lymphoblastic leukaemia (ALL) may require remission induction (to rid the ALL), consolidation (to stop ALL returning) and maintenance (to keep ALL away).[377] The phases of the treatment may take a few months,[378] but it is all considered part of the chemotherapy, not chemotherapies, provided.

In IVF, the woman has similarly undertaken indivisible medical treatment. She has prepared her body in a significant manner for the rest of the treatment by having eggs extracted, and her consent to continue *her* course of treatment should not be interrupted by the man's variation of consent. Article 8 should therefore protect the physical integrity associated with this 'reproductive effort'.

Donchin provides a final perspective on the issue of IVF being an integral treatment. In a critique of *Evans*, and returning the chapter to another parallel between IVF and pregnancy, she argues:

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[374] '[S]ick, drowsy and sore from the operation she has just had, the woman is sometimes asked to arouse her husband sexually so he can masturbate for the sperm sample'. Gena Corea, 'What the King Can Not See' in *Embryos, Ethics and Women's Rights* (Elaine Baruch, Amadeo D'Adamo, Jr and Joni Seager eds, Harrington Park Press 1988) 85.

[375] Tracey Pachman, 'Disputes over Frozen Preembryos & the "Right Not to Be a Parent"' (2003) 12 Columbia Journal of Gender and Law 128, 148.

[376] Sarah Cockayne and others, 'Cryotherapy Versus Salicylic Acid for the Treatment of Plantar Warts (Verrucae): A Randomised Controlled Trial' (2011) 342 BMJ 3271.

[377] 'Acute Lymphoblastic Leukaemia (ALL)', Cancer Research UK, http://www.cancerresearchuk.org/about-cancer/acute-lymphoblastic-leukaemia-all/treatment/chemotherapy/about accessed 10th July 2017.

[378] ibid.

> Many women value the pregnancy experience, some for the experience itself, others for the continuity that joins pregnancy to its origins and outcome. It is unjust to deprive a woman of the opportunity to fulfil this capacity unless she unjustly deprive [*sic*] others of their reproductive autonomy in a comparably serious respect. [Mr] Johnston's core reproductive interests are not comparable.[379]

The fulfilment of the capacity Donchin refers to is a train of treatment commenced. The anticipation of pregnancy in IVF to which Donchin alludes may be augmented at each stage of the treatment process. But this only makes sense if treatment is a unified process. This argument is further supported by considering which patient(s) is administered the IVF treatment.

The primary duty of healthcare professionals at fertility clinics should be to care for their patients. As Lord Phillips stated, 'Once a patient is accepted into a hospital, the medical staff come under a positive duty at common law to care for the patient'.[380] Following the argument constructed thus far, the position further postulated here is that the woman alone is the true patient in IVF following gamete donation, thereby more emphatically engaging her right to private life under Article 8. As treatment can only be carried out on a patient, it is thus good reason to say that women alone are (in most cases) described as the 'true patients in IVF'.[381] Irma Van Der Ploeg criticises the notion that both men and women seeking IVF are classified as patients as 'rendering invisible the asymmetrical positioning of women and men'.[382] Recognising women as the sole patients in IVF, especially after the man has provided his semen, is an important step to ascribing the correct value to 'reproductive effort'.

It could be counter-argued that the possible lack of status of being a patient for a man should not affect Article 8 rights. Julia Neuberger (as she then was) interrogated the meaning of the word patient and, disparagingly, argued that the term indicates that the 'Patient comes from the Latin "patiens," from "patior," to suffer or bear. The patient, in this language, is truly passive—bearing

[379] Donchin (n 262) 37.
[380] *R (on the application of Burke) v General Medical Council* [2005] EWCA Civ 1003 [31] (Lord Phillips MR).
[381] Lene Koch, 'Physiological and Psychosocial Risks of the New Reproductive Technologies' in *Tough Choices: In Vitro Fertilization and the Reproductive Technologies* (Patricia Stephenson and Marsden Wagner eds, Temple University Press 1993) 122.
[382] Irma Van Der Ploeg, 'Hermaphrodite Patients: In Vitro Fertilization and the Transformation of Male Infertility' (1995) 20(4) Science, Technology, & Human Values 460, 465.

whatever suffering is necessary and tolerating patiently the interventions of the outside expert'.[383] The man may be said to wait patiently for the intervention of healthcare professionals to bring about a pregnancy, and his suffering may include psychological elements. Neuberger reflects that, 'Many of the encounters between healthcare professionals and the public are not about healing as such, but about the activities of normal life—making choices about lifestyle, optional services we might want, or advice on matters such as fertility or cosmetic surgery'.[384] She hesitatingly prefers the term 'users' to reflect those who are 'active recipients' of healthcare services and are 'informed and participative'.[385] Both gamete providers could clearly be considered as making lifestyle choices and seeking advice following gamete donation. However, in terms of being an 'active recipient', only the woman actively receives anything physical in her relationship with a fertility clinic following gamete donation. Again, even under Neuberger's alternate understanding of 'users' of healthcare services, the woman's private life under Article 8 could be engaged more.

Bringing these points together, the observation is that following gamete donation, the woman alone is the patient receiving integrated treatment. That she alone is engaged in a unified treatment process requires the physical integrity involved in this to be protected by Article 8.

5.7.4 Rebuttals to possible counter-arguments

Three possible counter-arguments to the claim the couple is not, in practice, pursuing treatment together, will now be provided, which would have the effect of equalising the Article 8 rights of gamete providers on the basis of the comparative engagement of their physical integrities; leading to the position that the man has a right not to be treated.[386]

[383] Julia Neuberger, 'Let's Do Away with "Patients"' (1999) 318 BMJ 1756, 1756. The discourse on the removal of the term 'patient' has continued, with a recent conference devoted to the subject. 'The Future of People Powered Health 2017 Conference', London, 9 May 2017 <http://www.nesta.org.uk/event/future-people-powered-health-2017> accessed 18 May 2017.

[384] Julia Neuberger, 'Let's Do Away with "Patients"' (1999) 318 BMJ 1756, 1756.

[385] ibid 1757.

[386] This could be founded upon common law, which requires that, 'An adult patient… who suffers from no mental incapacity has an absolute right to choose whether to consent to medical treatment, to refuse it or choose one rather than another of the treatments being offered...'. *Re T (Adult: Refusal of Treatment)* [1993] Fam 95, 102 (CA) (Lord Donaldson MR). With regard to the ECHR, dicta from *Pretty v United Kingdom* [2002] 25 EHRR 1 [63] would be applicable: 'the imposition of medical treatment, without the consent of a mentally competent adult patient, would interfere with a person's physical integrity in a manner capable of engaging the rights protected under Article 8(1)'.

First, it could be considered that what is being treated is the *couple's* infertility. This was the approach taken by Wilson J in *U v W (Attorney General Intervening)*,[387] in which an unmarried couple sought fertility treatment in Italy using donated sperm. The man signed an agreement to paternity, but following a relationship breakdown denied legal parentage.[388] Wilson J held 'what has to be demonstrated is that, in the provision of treatment services with donor sperm, the doctor was responding to a request for that form of treatment made by the woman and the man as a couple, notwithstanding the absence in the man of any physical role in such treatment'.[389] To that end, they are engaged in a joint enterprise to alleviate this issue, which is only achieved at the point of implantation. Even if this interpretation is accepted, it can still be understood that not only is the woman's infertility being treated, but also her body is engaged; and this should normally tip any balance of rights in her favour to decide the fate of the embryo(s).

A second argument may be constructed from *U*. In finding that treatment services were provided for the man and woman together when the embryos were placed in her, the judge stated there was 'a mental element inherent in the notion of "treatment together"'[390] as he went,

> to the clinic together with the applicant. As usual, he participated in the discussion with Mrs. B. And, together with the applicant, he signed the declaration. That he chose to add his signature to hers on a form which, as he knew, purported to permit the use of donor sperm is in my view a clear indication that the treatment with such sperm was "treatment… together." That he was then obliged to leave the clinic prior to the placement of the embryos in the applicant is irrelevant'.[391]

For Wilson J, this satisfied the 'treatment together' requirement,[392] although the judge did not explicitly say that the above actions demonstrated he was being treated, but merely that they 'associated himself with the new treatment',[393] which is notionally distinct. This idea that physical treatment is not involved may be considered uncontroversial since psychiatric practices such as

[387] 2 FLR 282 (Fam) 29.
[388] ibid 30-31.
[389] ibid 40.
[390] ibid 39.
[391] ibid 39.
[392] Nonetheless, section 28(3) of the 1990 Act could not operate to confer paternity on the man was nonetheless not since the treatment had taken place abroad and had not been administered by a licence holder under the 1990 Act. *U v W (Attorney General Intervening)* 2 FLR 282 (Fam) 29, 36-37.
[393] *U v W (Attorney General Intervening)*2 FLR 282 (Fam) 29, 40.

counselling are considered as treatment.[394] Nonetheless, the intention of such practices is the alleviation of mental disorders, and the mind is, at least in a monist sense, part of the body. Therefore, the question could become whether a gamete provider not seeking implantation would be mentally or psychologically harmed if the embryo(s) are used against his/her consent, and whether this would engage Article 8. This does not extend to consider the harm of unwanted birth, or even the unwanted pregnancy, but rather the harm to him/her from the knowledge that a person is being treated with the use of his embryos.

A psychological element mentioned could indeed engage Article 8 rights.[395] However, in Convention case law, Article 3,[396] which prohibits 'inhuman or degrading treatment', is more likely to be engaged when considering the mental effects of ill-treatment, if considered 'intense'.[397] The type of degrading treatment referred to 'arouse in their victims feelings of fear, anguish and inferiority capable of humiliating and debasing them and possibly breaking their physical or moral resistance';[398] and is therefore unlikely to be of application considering the relative burdens in frozen embryo disputes. In the previously mentioned *Elberte* the 'long period of uncertainty, anguish and distress as to what organs or tissue had been removed from her husband's body'[399] violated Article 3. However, the ECtHR also held unanimously that the 'circumstances'[400] of the removal did interfere with her Article 8 rights. Although this case therefore presents a good option for showing that the private life of the man is interfered with, it does not attempt to indicate that he is being treated, and thus would have limited scope in outweighing Ms Evans' Article 8 rights.

The extent to which harm to the mind can constitute physical injury has been discussed in criminal law,[401] and under tort case law[402] and so an argument might be adapted to show that the man is

[394] Louis Appleby and others, 'A Controlled Study of Fluoxetine and Cognitive-Behavioural Counselling in the Treatment of Postnatal Depression' (1997) 314 BMJ 932. As the title indicates, this article considers that cognitive-behavioural counselling is treatment.
[395] *Glass v the United Kingdom* [2004] 39 EHRR 15.
[396] 'No one shall be subjected to torture or to inhuman or degrading treatment or punishment'.
[397] *The Republic of Ireland v The United Kingdom* [1979-80] 2 EHRR 25 [167].
[398] ibid.
[399] *Elberte v Latvia* [2015] 61 EHRR 7 [139].
[400] ibid [107].
[401] The Courts have held that psychiatric injury can amount to bodily harm, but not mere emotion, fear or hysteria. *R v Chan-Fook* [1994] 1 WLR 689. *Chan-Fook* was applied by Lord Bingham CJ as he discussed harm of the mind as if the mind were akin to the body. *R v Burstow (Anthony Christopher*) [1997] 1 Cr App R (CA) (Crim Div) 144, 147-9.
[402] José Miola, 'Book Review, Policing Pregnancy: The Law and Ethics of Obstetric Conflict' (2007) 21 International Journal of Law, Policy and the Family 128, 128.

being 'treated' by having his embryos used.[403] Mr Johnston might have argued that his brain would have been physically altered, and thus harmed, as a result of the birth against his will, signifying that the subsequent IVF process would have involved his body indirectly so as to be considered 'treatment' for himself as well for the purposes of Article 8. Recent work by Eyal Abraham and others suggest that caring for new-borns engages parenting brain circuitry in the brain, and that such an 'awakening' is not only true for the mother but also the father.[404] However, it would be a significant leap to argue that mere knowledge of the existence of one's child, without contact, may likewise affect the father's brain circuitry.[405] The same line of reasoning might be applied to the hormonal changes which fathers undergo as a result of parenting.[406] Even if Mr Johnston were considered to be 'treated' after fertilisation of the embryos, it would still be a disproportionate level of treatment to that received by Ms Evans.

The counter-arguments to the notion that the man is not treated are therefore weak. The woman's Article 8 rights require more protection on the basis of her physical integrity, especially with the employment of a balancing test.

5.8 Conclusions on rights

Alan Norrie considers that 'law dresses us with a veneer of rights, duties and responsibilities (legally conceived) that have nothing to do with the real needs and attributes of human beings'.[407] The oversight of the unique place of the woman in receiving treatment in rights language requires us to consider whether the real needs of gamete providers are overlooked. Thus, an Article 8 right which encompasses physical integrity should be used to recognise the greater 'reproductive effort' involved in IVF, thereby allocating dispositional authority over the embryo(s) to the woman in most cases. This will substantively lead to greater equality between men and women as their 'reproductive effort' is adjudged more accurately and proportionately. The courts in *Evans* did not describe or account for the relative differences in 'reproductive effort' in their considerations of

[403] Conor Gearty discusses the potential for an interaction between the right to privacy under Article 8 and tort law. Conor Gearty, 'Tort Law and the Human Rights Act' in *Sceptical Essays on Human Rights* (Tom Campbell, Keith Ewing and Adam Tomkins eds, Oxford University Press 2001) 245, 254.
[404] Eyal Abraham and others, 'Father's Brain is Sensitive to Childcare Experiences' (2014) 111(27) Proceedings of the National Academy of Sciences of the United States of America 9792.
[405] ibid 1. The network of the father's brain engaged involved the socio-cognitive circuits. Mothers demonstrated greater activation in the emotional processing network.
[406] Katherine Wynne-Edwards, 'Hormonal Changes in Mammalian Fathers' (2001) 40(2) Hormones and Behavior 139. For further discussion of the effects of parenting of on the male see Michael Numan and Thomas Insel, *The Neurobiology of Parental Behaviour* (Springer-Velag 2003) 246ff.
[407] Alan Norrie, *Crime, Reason and History* (2nd edn, Cambridge University Press 2001) 12.

rights. As such, in concluding his discussion on Article 8, Wall J reflected that, 'Ms Evans is the victim of her physical condition and has had the misfortunate to suffer relationship breakdowns both with her former husband and Mr. Johnston'.[408] However, the physical condition she was a 'victim' of was not merely her infertility, but also with regard to the proportionally greater physical subjection of her body to produce the embryos and enter into a course of treatment.

The balancing approach is clearly complex and not always decisive. Whether 'reproductive effort' would be adequately accounted for by a court is questionable. Sarah Chan and Muireann Quigley reflect in this context that,

> arguments may be produced for each side of the case from perspectives of natural law, justice, sexual morality, bodily integrity, investment theory and more. Balancing these arguments against each other is nigh-impossible and likely to lead to subjective and relativistic conclusions…'.[409]

If a balancing test is adopted by a court, the difficulty in carrying it out should not cast a shadow on the relative burdens and 'reproductive effort' involved in IVF. A balance of rights which is least burdensome or appreciates the 'reproductive effort' of a gamete provider most should weigh in favour of the woman in terms of Articles 8 and 14. An understanding that she alone is treated following gamete donation, as the patient, and as part of a process of treatment which has already been instigated indicates that her right to private life under Article 8 is greater, providing her with more dispositional authority over the frozen embryo(s).

[408] *Evans* (HC) (n 12) [260].
[409] Sarah Chan and Muireann Quigley, 'Frozen Embryos, Genetic Information and Reproductive Rights' (2007) 21 Bioethics 439, 441.

Chapter 6: Conclusions

We shall not attempt to predict the evolution of the law in this new area. New solutions will have to be found to unusual problems.[1] --- Peter Singer & Deane Well

Margaret Radin once concluded in reference to market-inalienabilities that 'there is no magic formula that will delineate them with utter certainty, or once and for all'.[2] The difficulty in finding an overarching formula or solution in the context of frozen embryo disputes is, in part, because the narrative surrounding each couple's dispute over their frozen embryos in IVF is novel, varied and complex. The representations the parties make to one another, and how much they are relied upon may vary. The parties may have children already, or the embryo(s) may represent the last possibility of genetic parenthood for them. Such differences could indicate that each case should be determined on the merit of its own facts. Nonetheless, this thesis has taken the original approach to demonstrate that an appropriate common denominator for resolving frozen embryo disputes under three different legal models is 'reproductive effort'.

The formula is not magic—there is always the risk that one party will feel strongly aggrieved at having their wishes over what should be done with 'their' embryo(s) frustrated. In deliberating how estoppel could respond to frozen embryo disputes, it was shown how equity would be concerned with the expectations of the parties. This would inform whether it would be unconscionable to resile a representation that IVF could be continued. The place of the party who has undertaken the greater detriment is key here, and the palpable link described in Chapter 3 to reproductive effort indicates that the woman's decision making in frozen embryo disputes should normally take precedence over the man's.

A property perspective drew similar conclusions, and Chapter 4 explored how 'reproductive effort' could be applied under a property law regime, which it was argued would be best supported by a Lockean notion of labour to allocate property rights in the embryos. This would result in the woman

[1] Peter Singer & Deane Well, *The Reproduction Revolution: New Ways of Making Babies* (Oxford University Press 1984) quoted in Bonnie Steinbock*, Life Before Birth: The Moral and Legal Status of Embryos and Fetuses* (Oxford University Press 2011) 212.
[2] Margaret Radin, 'Market-Inalienability' (1987) 100(8) Harvard Law Review 174 in *The Ethics of Reproductive Technology* (Kenneth Alpern ed, Oxford University Press 1992) 192.

being able to use, excluding from use and/or having control over at least the vast majority of the embryo(s).

In a discussion of rights under the European Convention on Human Rights (ECHR), how equality is understood and framed is crucial. For the purposes of Article 8 of the ECHR, Chapter 5 found that an appreciation of reproductive effort more keenly tallied with substantive equality as opposed to the more formal equality which in effect is embedded in Schedule 3 of the Human Fertilisation and Embryology Act 1990 through its equal application of consent.

This thesis stresses that any of the above three legal models can be adapted to resolve frozen embryo disputes more adequately. Moreover, any legal response to frozen embryo disputes in IVF which does not take into account 'reproductive effort' is fallacious, premised on a colour-blind understanding of the very different bodily realities men and women undertake embarking upon IVF. Thus, an amendment to the 1990 Act could create space for the application for any of the aforementioned models discussed to resolve disputes such as *Evans v Amicus Healthcare Ltd*.[3]

Considering which of the three models should be appropriately applied points to a choice that is consequently largely centred on which would have the most desirable effect in terms of legal and policy ramifications outside the specific remit of frozen embryo disputes in IVF. Chapter 4 considered how an application of property law may lead to difficult questions regarding commodification and/or an overextension of restricted property rights over time, which follows a history of property being used to frame unjust relations between people.[4] Therefore, estoppel or rights as discussed in Chapters 2, 3 and 5 are preferential because they are not necessarily subject to these same ideological influences. The selection between estoppel and a rights model under the ECHR involves a choice between significantly different legal regimes. The former is based on case law, whereas the latter is primarily based on legislation. Roger Dworkin broadly commented on the regulation of a variety of bioethical issues,[5] and considered that the common law, not the legislature, is better

[3] [2003] EWHC 2161 (Fam).

[4] Romulus instituted a law of marriage at the founding of Rome which required: '…the married woman, as having no other refuge, to conform themselves entirely to the temper of their husbands and the husbands to rule their wives as necessary and inseparable possessions'. Julia O'Faolain and Lauro Martins, *Not in God's Image: Women in History from the Greeks to the Victorians* (Harper and Row, 1973) 34. Francis Cobbe noted that 'the notion that a man's wife is his property, in the sense in which a horse is his property… is the fatal root of incalculable evil and misery. Every brutal-minded man, and many a man who in other relations in life is not brutal, entertains more or less vaguely the notion that his wife is his *thing…'.* Francis Cobbe 'Wife-Torture in England' (1878) 32 Contemporary Review 55, 64 quoted in Fiona Montgomery, *Women's Rights: Struggles and Feminism in Britain c. 1770-1970* (Manchester University Press 2006) 66.

[5] Roger Dworkin, *Limits: The Role of the Law in Bioethical Decision Making* (Indiana University Press 1996).

placed to respond to bioethical innovations, recommending an incremental approach.[6] He argued, 'If a legal response to a problem is necessary, the common law should be the presumptive first-line response'.[7] In frozen embryo disputes a common law approach based on estoppel could provide the flexibility[8] to resolve disputes on a case by case basis through an appropriate reference to a wide body of case law on detriment, reliance and unconscionability which is able to account for 'reproductive effort'.

Nevertheless, were the judiciary the principal authority for the source of law in frozen embryo disputes, there may be 'an apparent willingness, on occasion, to set aside principle in order to do what the court feels to be right (either way) in the individual case'.[9] In cases requiring the 'wisdom of Solomon',[10] the uncertainty that might be involved in this decision-making could be exacerbated. Regulation should be efficient, certain and reduce the scope for disputes, whilst justly accounting for 'reproductive effort' in IVF. Legal uncertainty might follow over whether a gamete provider is able to withdraw his consent according to the facts of a case. Moreover, if withdrawal of consent is possible, uncertainty may exist for either gamete provider about the other's future plans.[11] A rights-based regime, based on statutory law amending Schedule 3 of the 1990 Act, with the example of the nuanced interpretation of Articles 8 and 14, which accounts for 'reproductive effort', as detailed in Chapter 5, would provide the most suitable methodology to define the legal boundaries between gamete providers pursuing IVF in certain and just terms. Statute as opposed to common law could also help to avoid the disparate judgments to frozen embryo disputes witnessed in the US, which have been predicted to continue.[12]

The main advantage of legal certainty is that gamete providers would be aware of the legal consequences of IVF before they embarked on treatment. As John Robertson argues, the law should

[6] 'Less is more, slow and steady wins the race, half-a-loaf is better than a whole one'. ibid 169.
[7] ibid 170.
[8] Gary Slapper and David Kelly, *The English Legal System* (Routledge 2016, 17th edn) 168.
[9] James Richardson quoted in Gary Slapper and David Kelly, *The English Legal System* (Routledge 2016, 17th edn) 174.
[10] See section 1.3 of Chapter 1.
[11] In a minority opinion in *Nahmani*, Strasberg-Cohen J conceded that a right to withdraw initial consent to an agreement 'creates a degree of uncertainty'. CA 2401/95 *Nahmani v Nahmani* [1995-96] IsrSC 50(4) 661, 18. Strasberg-Cohen J nonetheless proceeded to state that such uncertainty 'exists in many spheres of married life' and that the 'refusal of a spouse to continue the procedure is merely one of the possible risks'. 18.
[12] Sonia Harris-Short considers that 'disputes over the storage and use of frozen embryos will almost certainly constitute a growing problem'. Sonia Harris-Short, 'Regulating Reproduction: Frozen Embryos, Consent, Welfare and the Equality Myth' in *The Legal, Medical and Cultural Regulation of the Body: Transformation and Transgression* (Stephen Smith and Ronan Deazley eds, Ashgate 2009) 48. See also Susan Apel, 'Cryopreserved Embryos: A Response to "Forced Parenthood" and the Role of Intent' (2005) 39 Family Law Quarterly 663, 664; Charles Kindregan, 'The Current State of Assisted Reproduction Law' (2011) 34(2) Family Advocate 10, 12.

'give advance certainty to couples and IVF programs, and to minimize disputes and their costs'.[13] Under the recommendation of the thesis, the absence of the male veto could lead to more considered decisions on his part, in the knowledge that he will not be able to withdraw his consent on a whim. No male veto could also deter the possibility of the embryo being used as a pawn in the type of 'pre-emptive custody battle' suggested by Nicolette Priaulx.[14]

Legal certainty is not merely an additional benefit—it is required for compliance with the ECHR.[15] With reference to Article 8, the ECtHR has stated that domestic law must be 'formulated with sufficient precision' and that it should 'afford adequate legal protection against arbitrariness'.[16] The legal certainty of the current regime seems to have played a significant role in the courts' decisions in frozen embryo disputes. Thorpe and Sedley LJJ considered that the removal of bilateral consent to implantation would make 'the withdrawal of the man's consent relevant but inconclusive'[17] and 'would create new and even more intractable difficulties of arbitrariness and inconsistency'.[18] For the judges it could require clinics to be involved in difficult and time-consuming investigations of the status of relationships[19] and,

> the legislation would have to require the HFEA or the clinic or both to make a judgment based on a mixture of ethics, social policy and human sympathy. It would also require a balance to be struck between two entirely incommensurable things. Whatever decision was arrived at might be capable of being explained but would be practically impossible to justify.[20]

The Grand Chamber of the ECtHR justified compliance of the legislative framework of the 1990 Act with Article 8 on the basis that 'the case does not involve simply a conflict between individuals; the legislation in question also served a number of wider, public interests, in upholding the principle of

[13] John Robertson, 'Prior Agreements for Disposition of Frozen Embryos' (1990) 51 Ohio State Law Journal 407, 414.
[14] Nicolette Priaulx, 'Rethinking Progenitive Conflict: Why Reproductive Autonomy Matters' (2008) 16 (2) Medical Law Review 169.
[15] The ECtHR stated that certain Russian laws were 'neither precise nor foreseeable in their application and fell short of the "quality of law" standard required under the Convention'. *Nasrulloyev v Russia* [2010] 50 EHRR 18 [77]. The requirement that law is sufficient certain and predictable is also enshrined in EU Law. Article 49 of the Charter of Fundamental Rights of the European Union 2007/C 303/01.
[16] *Elberte v Latvia* [2015] 61 EHRR 7 [104].
[17] *Evans v Amicus Healthcare Ltd* [2004] EWCA (Civ) 727 [69].
[18] ibid.
[19] ibid [29].
[20] ibid [66].

the primacy of consent and promoting legal clarity and certainty'.[21] The Grand Chamber did not consider that certainty may also be attained if a man consents to treatment of which he is informed that his right to the use of the embryos will be subordinate to the woman's after their creation. Legal measures enshrined by rights-based statutory law which recognise the more significant treatment women receive treatment in IVF do not have to lead to less legal certainty than the current regime.

An overhaul of the consent provisions relating to IVF might seem pedantic and time-consuming. Justifications for reconsidering the 1990 Act were the following:

> The HFE Act has stood the test of time well, and is a tribute to the foresight of its creators... The Act and the regulatory system it established have instilled public confidence in the safe and ethical use of assisted reproduction technology subject to appropriate safeguards. However, it was never expected that the Act would remain forever unchanged in this area of fast-moving science.[22]

A medico-legal reconsideration of IVF duly requires legislative amendments which appreciate and protect the 'reproductive effort' involved in the production of frozen embryos. Sally Sheldon and Julie McCandless once posited that the dynamic for reform of the 1990 Act was 'not "what model of law do we want?" but rather "what needs to be changed?"'.[23] Likewise, whichever legal model is employed in this context, the pragmatism involved in recognising 'reproductive effort' should be applied to recognise the greater effort a woman, in particular, undertakes to produce the embryo(s). Such recognition, which would require an amendment to Schedule 3 of the 1990 Act, may appear to be shifting the goalposts in terms of consent in IVF, but the effect does not have to be deleterious if expectations are carefully managed, with both parties informed appropriately regarding their positions and given time to consider all their options. Accordingly, the twin pillars of the 1990 Act noted in Chapter 1 of consent and the welfare of the child should remain unshaken by a statutory amendment. Thus, any amendment to the 1990 Act need not require drastic redrafting. Paragraph 6(3) of Schedule 3 of the Human Fertilisation and Embryology Act 1990 should be amended to provide as follows:

[21] *Evans v United Kingdom* [2008] 46 EHRR 34 [74].
[22] Caroline Flint MP, Department of Health, *Review of the Human Fertilisation and Embryology Act: A Public Consultation* (2005) 3.
[23] Julie McCandless and Sally Sheldon, 'The Human Fertilisation and Embryology Act (2008) and the Tenacity of the Sexual Family Form' (2010) 73(2) The Modern Law Review 175, 180.

An embryo the creation of which was brought about *in vitro* must not be used for any purpose unless there is an effective consent by each person whose gametes were used to bring about the creation of the embryo to the use for that purpose and the embryo is used in accordance with those consents, [or in the case of IVF, the gamete provider who has invested significantly greater reproductive effort in the production of the embryo uses the embryo in the manner originally agreed upon by gamete providers, despite any variation of consent by the other gamete provider].

Explanatory notes to the Act should indicate that in most cases, significantly greater reproductive effort will have been undertaken by the female in creation of the embryos by virtue of the effort involved in egg retrieval.

Bibliography

Articles

Eyal Abraham and others, 'Father's Brain is Sensitive to Childcare Experiences' (2014) 111(27) Proceedings of the National Academy of Sciences of the United States of America 9792.

Michael Akehurst, 'Equity and General Principles of Law' (1976) 25(4) International and Comparative Law Quarterly 801

Rene Almeling, 'Gender and the Value of Bodily Goods' (2009) 72 Law and Contemporary Problems 37

Rene Almeling, 'Selling Genes, Selling Gender: Egg Agencies, Sperm Banks, and the Medical Market in Genetic Material' (2007) 72 American Sociological Review 319

Rene Almeling, '"Why Do You Want to Be a Donor?": Gender and the Production of Altruism in Egg and Sperm Donation' (2006) 25(2) New Genetics and Society 143

Amel Alghrani, 'Commentary- Deciding the Fate of Frozen Embryos' (2005) 13(2) Medical Law Review 244

Amel Alghrani, 'Deciding the Fate of Frozen Embryos' (2005) 13(2) Medical Law Review 244

Elizabeth Anderson, 'Is Women's Labor a Commodity' (1990) 19(1) Philosophy & Public Affairs 71

Frederick Anderson and Frederick Spencer, 'Risk Factors for Venous Thromboembolism' (2003) 107(23) Circulation I9-16

JA Andrews, 'Estoppels against Statutes' 29(1) 1966 The Modern Law Review 1

Leigh Anenson, 'From Theory to Practice: Analyzing Equitable Estoppel under a Pluralistic Model of Law' (2007) 11(3) Lewis & Clark Law Review 633

Ellen Annandale and Judith Clark, ‘What is Gender? Feminist Theory and the Sociology of Human Reproduction’ (1996) 18(1) Sociology of Health & Illness 17

Tim Annett, ‘Balancing Competing Interests over Frozen Embryos: The Judgment of Solomon? Evans v. United Kingdom’ (2006) 14(3) Medical Law Review 425

Susan Apel, ‘Cryopreserved Embryos: A Response to “Forced Parenthood” and the Role of Intent’ (2005) 39 Family Law Quarterly 663

Louis Appleby and others, ‘A Controlled Study of Fluoxetine and Cognitive-Behavioural Counselling in the Treatment of Postnatal Depression’ (1997) 314 BMJ 932

Sophie Arie, ‘Is Too Much Hope Placed in Egg Freezing?’ (2015) 351 BMJ 5955

Foad Azem and others, ‘Increased Rates of Thrombophilia in Women with Repeated IVF failures’ (2004) 19(2) Human Reproduction 368

Thomas Baldwin, ‘Reproduction without Sex: Social and Ethical Implications’ (2012) 13(12) EBMO Reports 1049

Shyamkrishna Balganesh, ‘Quasi-Property: Like, but not Quite Property’ (2012) 160 University of Pennsylvania Law Review 1889

Jack Balkin, ‘Deconstructive Practice and Legal Theory’ (1987) 96 The Yale Law Journal 743

Jane Ball, ‘The Boundaries of Property Rights in English Law’ (2006) 10.3 Electronic Journal of Comparative Law July 1

Elise Bant and Michael Bryan, ‘Fact, Future and Fiction: Risk and Reasonable Reliance in Estoppel’ (2015) 35(3) Oxford Journal of Legal Studies 427

Michael Barnes, ‘Estoppels as Swords’ (2011) Lloyd's Maritime and Commercial Law Quarterly 387, 387-91

Françoise Baylis and Timothy Krahn, 'The Trouble with Embryos' (2009) 22(2) Science Studies 31

Yaakov Bentov and Robert Casper, 'The Aging Oocyte—Can Mitochondrial Function be Improved?' (2013) 99(1) Fertility & Sterility 18

Jessica Berg, 'Owning Persons: The Application of Property Theory to Embryos and Fetuses' (2005) 40 Wake Forest Law Review 159

Peter Birks, 'Equity in the Modern Law' (1996) 26(1) University of Western Australia Law Review 1

Beth Black and others, 'Comparison of Pregnancy Symptoms of Infertile and Fertile Couples' (1995) 9(2) The Journal of Perinatal & Neonatal Nursing 1

Michelle Blake, 'Poetry Therapy and Infertility Counselling' (2002) 15(4) Journal of Poetry Therapy 195

Marie Blomberg, Rasmus Tyrberg and Preben Kjølhede, 'Impact of Maternal Age on Obstetric and Neonatal Outcome with Emphasis on Primiparous Adolescents and Older Women: A Swedish Medical Birth
Register Study' (2014) 4(11) BMJ Open 5840

Jacky Boivin, 'Distress Level in Men Undergoing Intracytoplasmic Sperm Injection Versus In-Vitro Fertilization' (1998) 13(5) Human Reproduction 1403

Jacky Boivin, E Griffiths and Christos Venetis, 'Emotional Distress in Infertile Women and Failure of Assisted Reproductive Technologies: Meta-Analysis of Prospective Psychosocial Studies' (2011) 342 BMJ 481

Nico Bollen and others, 'The Incidence of Multiple Pregnancy after In Vitro Fertilization and Embryo Transfer, Gamete, or Zygote Intrafallopian Transfer' (1991) 55 Fertility and Sterility 314

Penny Booth, 'Frozen Embryos, Frozen Hearts, Frozen Law?' (2004) 154(7140) New Law Journal 1206

Andrea Borini and others, ‘Pregnancies and Births after Oocyte Cryopreservation’ (2004) 82(3) Fertility and Sterility 601

Wendy Bonython, ‘Whose Reason is Reasonable? Reasonableness, Negligence, and the Mentally Ill Defendant’ (2013) 3 Juridical Review 181

Didi Braat and others, ‘Maternal Death Related to IVF in the Netherlands 1984–2008’ (2010) 25(7) Human Reproduction 1782

Michelle Bray, ‘Personalizing Personality: Toward a Property Right in Human Bodies’ (1990) 69(1) Texas Law Review 209

Philip Bridwell, ‘The Philosophical Dimensions of the Doctrine of Unconscionability’ (2003) 70 The University of Chicago Law Review 1513

Louise Brinton and others, ‘Ovulation Induction and Cancer Risk’ (2005) 83(2) Fertility and Sterility 261

Gail Brod, ‘Premarital Agreements and Gender Justice’ (1994) 6 Yale Law Journal 229

Frank Broekmans and others, ‘Female Reproductive Ageing: Current Knowledge and Future Trends’ (2007) 18(2) Trends in Endocrinology and Metabolism 58

Barry Brown, ‘Reconciling Property law with Advances in Reproductive Science’ (1995) 6(2) Stanford Law and Policy Review 73

Roger Brownsword, ‘Bioethics Today, Bioethics Tomorrow: Stem Cell Research and the “Dignitarian Alliance”’ (2003)15 Notre Dame Journal of Law, Ethics & Public Policy 15

Laura Burson, ‘A.C. Aukerman and the Federal Circuit: What is the Standard of Review for a Summary Judgment Ruling on Laches or Equitable Estoppel’ (1999) 32(3) Loyola Law Review 799

Naomi Cabenda-Narain and others, ‘Conservatively Treated Borderline Ovarian Tumours, followed by IVF

Treatment: A Case Series' (2011) 31(4) Journal of Obstetrics and Gynaecology 327

Ronit Calderon-Margalit, 'Cancer Risk after Exposure to Treatments for Ovulation Induction' (2009) 169(3) American Journal of Epidemiology 365

Ronald Caplan, Donald Light and Norman Daniels, 'Benchmarks of Fairness: A Moral Framework for Assessing Equity' (1999) 29(4) International Journal of Health Services 853

Jennifer Carow, 'Davis v Davis, An Inconsistent Exception to an Otherwise Sound Rule Advancing Procreational Freedom and Reproductive Technology' (1990) 43 De Paul Law Review 523

John Cartwright, 'Protecting Legitimate Expectations and Estoppel in English Law' (2006) 10.3 Electronic Journal of Comparative Law 1

Ruth Chadwick, 'Reproductive Autonomy' (2007) 21 Bioethics ii

Sarah Chan and Muireann Quigley, 'Frozen Embryos, Genetic Information and Reproductive Rights' (2007) 21(8) Bioethics 439

Janie Chen, 'Note: The Right to Her Embryos: An Analysis of Nahmani v. Nahmani and its Impact on Israeli In Vitro Fertilization Law' (1999) 7 Cardozo Journal of International and Comparative Law 325

Alison Clarke, 'Use, Time, and Entitlement' (2004) 57 Current Legal Problems 239

Francis Cobbe 'Wife-Torture in England' (1878) 32 Contemporary Review 55

Ruth Colker, 'Pregnant Men Revisited or Sperm is Cheap, Eggs are Not' (1996) 47 Hastings Law Journal 1063

Nicole Constable, 'The Commodification of Intimacy: Marriage, Sex, and Reproductive Labor' (2009) 38 The Annual Review of Anthropology 49

Rachel Cook and Susan Golombok, 'A Survey of Semen Donation: Phase II—the View of the Donors' (1995) 10(4) Human Reproduction 951

Judith Daar, ‘From Bastardy to Cloning: Adaptations of Legal Thought for Unorthodox Reproduction’ (1999) 25(4) American Journal of Law & Medicine 455

Emile Daraï and others, ‘Fertility and Borderline Ovarian Tumor: A Systematic Review of Conservative Management, Risk of Recurrence and Alternative Options’ (2013) 19(2) Human Reproduction Update 151

Harold Demsetz, ‘Toward a Theory of Property Rights’ (1967) 57(2) Papers and Proceedings of the Seventy-ninth Annual Meeting of the American Economic Association 347

Elaine Denny, ‘Liberation or Oppression? Radical Feminism and In Vitro Fertilisation’ (1994) 16(1) Sociology of Health and Illness 62

Donna Dickenson, ‘Disappearing Women, Vanishing Ladies and Property in Embryos’ (2017) 8 Journal of Law and Biosciences 1

Donna Dickenson, ‘Property and Women’s Alienation from their Own Reproductive Labour’ (2001) 15(3) Bioethics 205

Dov Dicker and others, ‘Severe Abdominal Complications after Transvaginal Ultrasonographically Guided Retrieval of Oocytes for In Vitro Fertilisation and Embryo Transfer’ (1993) 49 Fertility & Sterility 726

Martin Dixon, ‘Confining and Defining Proprietary Estoppel’ (2010) 30(3) Legal Studies 408

Martin Dixon, ‘Estoppel: A Pancea for All Wills?’ (1999) Conveyancer and Property Lawyer 46

Anne Donchin, ‘Toward a Gender-Sensitive Assisted Reproduction Policy’ (2009) 25(1) Bioethics 28

Donna Dowling-Lacey and others, ‘Live Birth from a Frozen–Thawed Pronuclear Stage Embryo almost 20 years after its Cryopreservation’ (2011) 95(3) Fertility and Sterility 1120

Len Doyal, ‘Is Human Existence Worth it Consequent Harm?’ (2007) 33 Journal of Medical Ethics 573

Renee Dunnington and Greer Glazer, ‘Maternal Identity and Early Mothering Behaviour in Previously Infertile Women’ (1991) 20(4) Journal of Obstetric, Gynaecological and Neonatal Nursing 309

David Dunson, Bernardo Colombo and Donna Baird, ‘Changes with Age in the Level and Duration of Fertility in the Menstrual Cycle’ (2002) 17(5) Human Reproduction 1399

James Edelman, 'Remedial Certainty or Remedial Discretion in Estoppel after Giumelli?' (1999) 15(2) Journal of Contract Law 179

John Eekelaar, ‘Beyond the Welfare Principle’ (2002) 14(3) Child and Family Law Quarterly 237

Margie Eget, ‘The Solomon Decision: A Study of Davis v. Davis’ (1991) 42(3) Mercer Law Review 1113

Tore Ellingsen and Magnus Johannesson, ‘Promises, Threats and Fairness’ (2004) 114 The Economic Journal 397

Kellyann Everly, ‘Reasonable Burden: The Need for a Uniform Burden of Proof Scheme in Reasonable Accommodation Claims’ (2003) 29 University of Dayton Law Review 37

Stevina Evuleocha, ‘The Global Market in Human Experimentation: Pfizer and the Meningitis Experiment in Nigeria (2012) 2(6) Interdisciplinary Journal of Research in Business 46

Dermot Feenan, ‘Women Judges: Gendering Judging, Justifying Diversity’ (2008) 35(4) Journal of Law and Society 490

Laurie Fett, ‘The Reasonable Expectations Doctrine: An Alternative to Bending and Stretching Traditional Tools of Contract Interpretation’ (1992) 18 William Mitchell Law Review 1113

Anne Fleming, ‘The Rise and Fall of Unconscionability as the “Law of the Poor”’ (2014) 102(5) Georgetown Law Journal 1383

Lie Fong and others, ‘Anti-Müllerian Hormone: A Marker for Oocyte Quantity, Oocyte Quality and Embryo Quality?’ (2008) 16(5) Reproductive Biomedicine Online 664

Mary Ford, ‘A Property Model of Pregnancy’ (2005) 1(3) International Journal of Law in Context 261

Eric Forman and others, ‘Obstetrical and Neonatal Outcomes from the BEST Trial: Single Embryo Transfer with Aneuploidy Screening Improves Outcomes after In Vitro Fertilization without Compromising Delivery Rates’ (2014) 210(2) American Journal of Obstetrics and Gynecology 157

Eric Forman and others, ‘Single Embryo Transfer with Comprehensive Chromosome Screening Results in Improved Ongoing Pregnancy Rates and Decreased Miscarriage Rates’ (2012) 27(4) Human Reproduction 1217

Elpida Fragouli, Dagan Wells and Joy Delhanty, ‘Chromosome Abnormalities in the Human Oocyte’ (2011) 133(2-4) Cytogenetic and Genome Research 107

Katherine De Gama, ‘A Brave New World? Rights Discourse and the Politics of Reproductive Autonomy’ (1993) 20 Journal of Law and Society 114

Charim Gans, ‘The Frozen Embryos of the Nachmani Couple – A Reply to Andrei Marmor’ (1994) 18 Tel-Aviv University Law Review 83

Simon Gardner ‘Remedial Discretion in Proprietary Estoppel’ (1999) 115 Law Quarterly Review 438

Jan Gerris, Single-Embryo Transfer Versus Multiple-Embryo Transfer’ (2009) 18(2) Reproductive Biomedicine Online 63

Donna Gitter, ‘Ownership of Human Tissue: A Proposal for Federal Recognition of Human Research Participants' Property Rights in Their Biological Material’ (2004) 61 Washington and Lee Law Review 257

Lesley Glover, Ashleigh McLellan and Susan Weaver, ‘What Does Having a Fertility Problem Mean to Couples?’ (2009) 27(4) Journal of Reproductive and Infant Psychology 401

Kara Goldman and others, ‘Oocyte Efficiency: Does Live Birth Rate Differ When Analyzing Cryopreserved and Fresh Oocytes on a Per-Oocyte Basis?’ (2013) 100(3) Fertility and Sterility 712

Kansas Gooden, 'King Solomon's Solution to the Disposition of Embryos: Recognizing a Property Interest and Using Equitable Division' (2008) 30(1) University of La Verne Law Review 66

Imogen Goold and Julian Savulescu, 'In Favour of Freezing Eggs for Non-Medical Reasons' (2009) 23(1) Bioethics 27

Mukkaddes Gorar, 'Not Sympathy but Justice: Natalie Evans v Human Fertilisation and Embryology Act 1990' (2006) 4(1) Hertfordshire Law Journal 44

Jeremy Green, 'Patenting: European Stem-Cell Ruling is Misleading' (2011) 479 Nature 41

Dorothy Greenfield, Michael Diamond and Alan Decherney 'Grief Reactions following In-Vitro Fertilization Treatment' (1988) 8(3) Journal of Psychosomatic Obstetrics & Gynecology 169

Mark Griffith, 'John Locke's Influence on American Government and Public Administration' (1997) 3(3) Journal of Management History 224

Katheleen Guzman, 'Property, Progeny, Body Part: Assisted Reproduction and the Transfer of Wealth' (1997) 31 UC Davis Law Review 193

Prince Gyekye and others, 'Cancer Incidence Risks to Patients due to Hysterosalpingography' (2012) 37(2) Journal of Medical Physics 112

Ruth Halperin-Kaddari, 'Redefining Parenthood' (1999) 29 California Western International Law Journal 313

Karin Hammarberg, Jill Astbury and Hugh Baker, 'Women's Experience of IVF: A Follow-up Study' (2001) 16(2) Human Reproduction 374

Stephen Hanson, 'More on Respect for Embryos and Potentiality: Does Respect for Embryos Entail Respect for *In Vitro* Embryos?' (2006) 27(3) Theoretical Medicine and Bioethics 215

Shawn Harmon and Graeme Laurie, 'Yearworth v North Bristol NHS Trust: Property, Principles, Precedents and Paradigms' (2010) 69(3) Cambridge Law Journal 476

Laura Harrison, *Brown Bodies, White Babies: The Politics of Cross-Racial Surrogacy* (New York University Press 2016)

Shireen Hassim, 'Gender, Social Location and Feminist Politics in South Africa' (1991) 15 Transformation 65

Elizabeth Heitman, 'Social and Ethical Aspects of In Vitro Fertilization' (1999) 15(1) International Journal of Technology Assessment in Health Care 22

Kristian Heldal and others, 'Acute Renal Failure following IVF: Case Report' (2005) 20(8) Human Reproduction 2250

Lisa Hemphill, 'American Abortion Law Applied to New Reproductive Technology' (1992) 32 Jurimetrics 361

Carl Heneghan, 'Lack of Evidence for Interventions Offered in UK Fertility Centres' (2016) 355 BMJ 6295

Brenda Hermsen and others, 'No Efficacy of Annual Gynaecological Screening in BRCA1/2 Mutation Carriers; an Observational Follow-Up Study' (2007) 96(9) British Journal of Cancer 1335

Leyre Herrero, Mónica Martínez and Juan Garcia-Velasco, 'Current Status of Human Oocyte and Embryo Cryopreservation' (2011) 23(4) Current Opinion in Obstetrics & Gynecology 245

John Hill, 'What Does it Mean To Be a 'Parent'? The Claims of Biology as the Basics for Parental Rights' (1991) 66 New York University Law Review. 353

Michael Hirshfield and Donald Tinkle, 'Natural Selection and the Evolution of Reproductive Effort' (1975) 72(6) Proceedings of the National Academy of Sciences 2227

Suzanne Holland, 'Contested Commodities at both Ends of Life: Buying and Selling Gametes, Embryos, and Body Tissue' (2001) 11(3) Kennedy Institute of Ethics Journal 263

Amanda Holliday, ‘Who’s Your Daddy (and Mommy)? Creating Certainty for Texas Couples Entering into Surrogacy Contracts’ (2003) 34 Texas Tech Law Review 1101

Herborg Holter and others, ‘The Psychological Influence of Gender Infertility Diagnoses among Men about to Start IVF or ICSI Treatment Using their own Sperm’ (2007) 22(9) Human Reproduction 2559

Kirsty Horsey, ‘Fraying at the Edges: UK Surrogacy Law in 2015: H v S (Surrogacy Agreement) [2015] EWFC 36, Re B v C (Surrogacy: Adoption) [2015] EWFC 17, Re Z (A Child: Human Fertilisation and Embryology Act: Parental Order) [2015] EWFC 73, A & B (Children) (Surrogacy: Parental Orders: Time Limits) [2015] EWHC 911 (Fam)’ 24(4) Medical Law Review 608

Aleida Huppelschoten and others, ‘Differences in Quality of Life and Emotional Status between Infertile Women and Their Partners’ (2013) 28(8) Human Reproduction 2168

Emily Jackson, ‘Abortion, Autonomy and Prenatal Diagnosis’ (2000) 9 Social & Legal Studies 467

Emily Jackson, 'Conception and the Irrelevance of the Welfare Principle' (2002) 65 Modern Law Review 176

Emily Jackson, ‘Degendering Reproduction?’ (2008) 16(3) Medical Law Review 346

Sherri Jayson, ‘"Loving Infertile Couple Seeks Woman Age 18-31 to Help Have Baby. $6,500 Plus Expenses and a Gift": Should We Regulate the Use of Assisted Reproductive Technologies by Older Women?’ (2001) 11(2) Albany Law Journal of Science and Technology 287

Ligia Jesus, ‘*Artavia Murillo v Costa Rica*: The Inter-American Court on Human Rights' Promotion of Non-Existent Human Rights Obligations to Authorize Artificial Reproductive Technologies’ (2014) 18 UCLA Journal of International Law and Foreign Affairs 275

Matthew Jolly and others, ‘The Risks Associated with Pregnancy in Women Aged 35 years or Older’ (2000) 15(11) Human Reproduction 2433

Sofia Kaliarnta, Jessica Nihlén-Fahlquist and Sabine Roeser, ‘Emotions and Ethical Considerations of Women Undergoing IVF-Treatments’ (2011) 23(4) HEC Forum 281

Kari Karsjens, ‘Boutique Egg Donations’ (2002) 5 DePaul Journal of Health Care Law 57

Larissa Katz, ‘Exclusion and Exclusivity in Property Law (2008) 58(3) University of Toronto Law Review 275

Daniela Katz and others, ‘Beginning IVF Treatments after age 30 Increases the Risk of Breast Cancer: Results of a Case–Control Study’ (2008) 14(6) The Breast Journal 1524

Sally Keeble, ‘Fertility Lottery’ (1999) 13(37) Nursing Standard 1999. See also Richard Ashcroft, ‘In Vitro Fertilisation for All?’ (2003) 327 BMJ 511

James Kelly, Ciara Hughes and Robert Harrison, ‘The Hidden Costs of IVF’ (2006) 99(5) The Irish Medical Journal 142

Norbert Kerr and Cynthia Kaufman-Gilliland, ‘Communication, Commitment, and Cooperation in Social Dilemma’ (1994) 66(3) Journal of Personality and Social Psychology

Charles Kindregan, ‘The Current State of Assisted Reproduction Law’ (2011) 34(2) Family Advocate 10

Renate Klein, ‘IVF Research: A Question of Feminist Ethics’ (1990) 3(3) Reproductive and Genetic Engineering: Journal of International Feminist Analysis 1

Reija Klemetti and others, ‘Complications of IVF and Ovulation Induction’ (2006) 20(12) Human Reproduction 3293

Hillary Klonoff-Cohen, ‘Female and Male Lifestyle Habits and IVF: What is Known and Unknown’ (2005) 11(2) Human Reproduction Update 180

Hillary Klonoff-Cohen and others, ‘A Prospective Study of Stress among Women undergoing In Vitro Fertilization or Gamete Intrafallopian Transfer’ (2001) 76(4) Fertility and Sterility 675

Lene Koch, 'IVF—an Irrational Choice?' (1990) 2 Reproduction and Genetic Engineering: International Journal of Feminist Analysis 235

Isabelle Laffont and Robert Edelmann, 'Psychological Aspects of In Vitro Fertilization: A Gender Comparison' (1994) 15(2) Journal of Psychosomatic Obstetrics & Gynecology 85

Monica Laronda and others, 'A Bioprosthetic Ovary Created Using 3D Printed Microporous Scaffolds Restores Ovarian Function in Sterilized Mice' (2017) 10 (1038) Nature Communications 15261

Olivia Lin, 'Rehabilitating Bioethics: Recontextualizing In Vitro Fertilization Outside Contractual Autonomy' (2004) 54 Duke Law Journal 485

Sheryl de Lacey, 'Parent Identity and 'Virtual' Children: Why Patients Discard rather Than Donate Unused Embryos' (2005) 20(6) Human Reproduction 1661

Darren Langdridge and Eric Blyth, 'Regulation of Assisted Conception Services in Europe: Implications of the New Reproductive Technologies for "the Family"' (2001) 23(1) Journal of Social Welfare and Family Law 45

Flora van Leeuwen, 'Risk of Borderline and Invasive Ovarian Tumours after Ovarian Stimulation for In Vitro Fertilization in a Large Dutch Cohort' (2011) 26(12) Human Reproduction 3456

Sandra Leiblum, Ekkehard Kemmann and Michelle Lane, 'The Psychological Concomitants of In Vitro Fertilization' (1987) 6 Journal of Psychosomatic Obstetrics & Gynecology 165

Craig Lind, 'Evans v United Kingdom—Judgments of Solomon: Power, Gender and Procreation (2006) 18(4) Child and Family Law Quarterly 576

Leslie London, 'What is a Human-Rights Based Approach to Health and Does it Matter?' (2008) 10(1) Health and Human Rights 1

Anne Lyerly and others, 'Fertility Patients' Views about Frozen Embryo Disposition: Results of a Multi-Institutional U.S. survey' (2010) 93(2) Fertility and Sterility 499

Anne Lyerly, Sage Nakagawa and Miriam Kuppermann 'Decisional Conflict and the Disposition of Frozen Embryos: Implications for Informed Consent' (2011) 26(3) Human Reproduction 646

Jonathan Macey, 'Public Choice: The Theory of the Firm and the Theory of Market Exchange' (1989) 74 Cornell Law Review 43

Yehezkel Margalit, 'To Be or Not to Be (a Parent)? – Not Precisely the Question: The Frozen Embryo Dispute' (2012) 18 Cardozo Journal of Law & Gender 355

Patricia Martin and Martin Lagond, 'The Human Preembryo, the Progenitors, and She state: Toward a Dynamic Theory of Status, Rights, and Research Policy' (1990) 5(2) Berkley Technology Law Journal 257

Karl Marx, 'Zur Kritik der Hegelschen Rechtsphilosophi' (1844) 1 Deutsch-Französische Jahrbücher 71

Shlomo Mashiach and others, 'Adenxal Torsion of Hyperstimulated Ovaries in Pregnancies after Gonadotropin Therapy' (1990) 53 Fertility and Sterility 76

JK Mason, 'Discord and Disposal of Embryos' (2004) 8 Edinburgh Law Review 84

Julie McCandless and Sally Sheldon, 'The Human Fertilisation and Embryology Act (2008) and the Tenacity of the Sexual Family Form' (2010) 73(2) The Modern Law Review 175

Angie McEwen 'So You're Having Another Women's Baby: Economics and Exploitation in Gestational Surrogacy' (1999) 32(1) Vanderbilt Journal of Law 271

Hugh McLachlan 'Defending Commercial Surrogate Motherhood Against Van Niekerk and Van Zyl' (1997) 23 Journal of Medical Ethics 244

David McLernon and others, 'Clinical Effectiveness of Elective Single Versus Double Embryo Transfer: Meta-Analysis of Individual Patient Data from Randomised Trials' (2010) 341 BMJ 6945

Carrie Menkel-Meadow, 'The Trouble with the Adversary System in a Postmodern, Multicultural World' (1996) 38 William & Mary Law Review 5

Eleftherios Meridis, Stuart Lavery, ‘Drugs in Reproductive Medicine’ (2006) 16 Current Obstetrics & Gynaecology 281

Marina Merjan, ‘Rethinking the “Force” Behind “Forced Procreation”: The Case for Giving Women Exclusive Decisional Authority over Their Cryopreserved Pre-Embryos’ (2015) 64(2) DePaul Law Review 737

Thomas Merrill, ‘Property and the Right to Exclude’ (1998) 77(4) Nebraska Law Review 730

Heidi Mertes, ‘Does Company-Sponsored Egg Freezing Promote or Confine Women’s Reproductive Autonomy?’ (2015) 32(8) Journal of Assisted Reproduction and Genetics 1205

José Miola, ‘Book Review, Policing Pregnancy: The Law and Ethics of Obstetric Conflict’ (2007) 21 International Journal of Law, Policy and the Family 128

Monica Molino and others, ‘Inbound Call Centers and Emotional Dissonance in the Job Demands – Resources Model’ (2016) 7 Frontiers in Psychology 1133

Eliran Mor, Melanie Landay, and Richard Paulson, ‘Endometrial Receptivity is Preserved in Diethylstilbestrol-Associated and Other Müllerian Anomalies: Evidence from Tubal Embryo Transfer’ (2009) 26(1) Journal of Assisted Reproduction and Genetics 65

Nicole Moreham, ‘The Right to Respect for Private Life in the European Convention on Human Rights: A Re-examination’ (2008) 1 European Human Rights Law Review 44

Derek Morgan, ‘Book Reviews -- Regulating Reproduction: Law, Technology and Autonomy’ (2003) 11 Medical Law Review 262

Lyria Moses, ‘Understanding Legal Response to Technological Change: The Example of In Vitro Fertilization’ (2005) 6 Minnesota Journal of Law, Science & Technology 505

Adam Mossoff, ‘Locke’s Labor Lost’ (2002) 9(1) The University of Chicago Law School Roundtable 155

Adam Mossoff, ‘Rethinking the Development of Patents: An Intellectual History’ (2001) 52 Hastings Law Journal 1255

Andrea Mulligan, ‘Frozen Embryo Disposition in Ireland after Roche v Roche’ (2011) 46 The Irish Jurist 202

Robert Nachtigall and others, ‘Parents’ Conceptualization of their Frozen Embryos Complicates the Disposition Decision’ (2005) 84(2) Fertility and Sterility 431

Robert Nachtigall, Gay Becker and Mark Wozny, ‘The Effects on Gender-Specific Diagnosis on Men´s and Women´s Response to Infertility’ (1992) 57 Fertility and Sterility 113

Julia Neuberger, ‘Let’s Do Away with “Patients”’ (1999) 318 BMJ 1756

Christopher Newton and others, ‘Embryo Donation: Attitudes toward Donation Procedures and Factors Predicting Willingness to Donate’ (2003) 18(4) Human Reproduction 878

Anton van Niekerk and Liezl van Zyl, ‘The Ethics of Surrogacy: Women's Reproductive Labour’ (1995) 21 Journal of Medical Ethics 345

Eberhard Nieschlag and others, ‘Testosterone Replacement Therapy: Current Trends and Future Directions’ (2004) 10(5) Human Reproduction Update 409

Remigius Nwabueze, ‘Body Parts in Property Theory: An Integrated Framework’ (2014) 40 Journal of Medical Ethics 33

Remigius Nwabueze, ‘Death of the No-Property Rule for Sperm Samples’ (2010) 21(3) King’s Law Journal 561

Francois Olivennes and Rene Frydman, ‘Friendly IVF: The Way of the Future?’ 1998 13(5) Human Reproduction 1121

Willem Ombelet and John van Robays, ‘Artificial Insemination History: Hurdles and Milestones (2015) 7(2) Facts, Views and Vision in ObGyn 137

Denis Ong, 'Equitable Estoppel: Defining the Detriment' (1999) 11(1) Bond Law Review 136

Elinor Ostrom, James Walker and Roy Gardner, 'Covenants with and without a Sword: Self-Governance Is Possible' (1992) 86(2 American Political Science Review) 404

Tracey Pachman, 'Disputes over Frozen Preembryos & the "Right Not to Be a Parent"' (2003) 12 Columbia Journal of Gender and Law 128

George Palattiyil and others, 'Globalization and Cross-Border Reproductive Services: Ethical Implications of Surrogacy in India for Social Work' (2010) 53(5) International Social Work 686

Amrita Pande 'Not an "Angel", not a "Whore": Surrogates as "Dirty" Workers in India' (2009) 16(2) Indian Journal of Gender Studies 141

Alise Panitch, 'The *Davis* Dilemma. How to Prevent Battles over Frozen Embryos' (1999) 41 Case Western Law Review 543

Ellen Paul, 'Natural Rights and Property Rights' (1990) 13 Harvard Journal of Law and Public Policy 10

Margaret Radin, 'Market-Inalienability' (1987) 100(8) Harvard Law Review 174

Hussein Qublan and others, 'Acquired and Inherited Thrombophilia: Implication in Recurrent IVF and Embryo Transfer Failure' (2006) 21(10) Human Reproduction 2694

Valerie Peddie, Edwin Van Teijlingen, Siladitya Bhattacharya, 'A Qualitative Study of Women's Decision-Making at the End of IVF Treatment' (2005) 20(7) Human Reproduction 1944

Andrew Phang, 'The Uses of Unconscionability' (1995) 111(Oct) Law Quarterly Review 559

Mark Pieper, 'Frozen Embryos - Persons or Property: Davis v. Davis' (1990) 23 Creighton Law Review 807

Michael Pratt, ‘Equitable Estoppel: Defining the Detriment – A Reply to Denis Ong’ (2000) 12(1) Bond Law Review 48

Nicolette Priaulx, ‘Rethinking Progenitive Conflict: Why Reproductive Autonomy Matters’ (2008) 16 (2) Medical Law Review 169

Carlos Quintans and others, ‘Birth of Two Babies Using Oocytes That Were Cryopreserved in a Choline-Based Freezing Medium’ (2002) 17(12) Human Reproduction 3149

Ivana Radacic, ‘Gender Equality Jurisprudence of the European Court of Human Rights’ (2008) 19(4) European Journal of International Law 841

Margaret Radin, ‘Property and Personhood’ (1982) 34(5) Stanford Law Review 957

David Rameden, ‘Note: Frozen Semen as Property in Hecht v. Superior Court: One Step Forward, Two Steps Backward’ (1993) 62(2) UMKC Law Review 377

Louisa Ramskold and Marcus Posner, ‘Commercial Surrogacy: How Provisions of Monetary Remuneration and Powers of International Law Can Prevent Exploitation of Gestational Surrogates’ (2013) 39 Journal of Medical Ethics 397

Albert Rabin and Robert Greene, ‘Assessing Motivation for Parenthood’ (1968) 69 The Journal of Psychology 39

Radhika Rao, ‘Coercion, Commercialization, and Commodification: The Ethics of Compensation for Egg Donors in Stem Cell Research’ (2006) 21(3) Berkley Technology Law Journal 1055

Marte Reigstad and others, ‘Risk of Breast Cancer Following Fertility Treatment—A Registry Based Cohort Study of Parous Women in Norway’ (2015) 136(5) International Journal of Cancer 1140

David Resnik, ‘Regulating the Market for Human Eggs’ (2002) 15(1) Bioethics 2

Evan Roberts and others, ‘Factors That Influence the Childbearing Intentions of Canadian Men’ (2011) 26(5) Human Reproduction 1202

John Robertson, ‘In the Beginning: The Legal Status of Early Embryos’ (2005) 76 Virginia Law Review 437

John Robertson, ‘Prior Agreements for Disposition of Frozen Embryos’ (1990) 51 Ohio State Law Journal 407

John Robertson, ‘Resolving Disputes over Frozen Embryos’ (1989) 19(6) Hastings Centre Report 7

John Robertson, ‘Symbolic Issues in Embryo Research’ (1995) 25(1) Hastings Center Report 37

Matheus Roque and others, ‘Freeze-All Policy: Fresh vs. Frozen-Thawed Embryo Transfer’ (2015) 103(5) Fertility and Sterility 1190

Luke Rostill, ‘The Ownership That Wasn't Meant to Be: Yearworth and Property Rights in Human Tissue’ (2014) 40 Journal of Medical Ethics 14

David Ryley and others, ‘Characterization and Mutation Analysis of the Human FORMIN-2 (FMN1) Gene in Women with Unexplained Infertility’ (2005) 83(5) Fertility and Sterility 1363

Luca Sabatini and others, ‘Relevance of Basal serum FSH to IVF Outcome Varies with Patient’ (2008) 17 Reproductive BioMedicine Online 10

David Sally ‘Conversation and Cooperation in Social Dilemmas: A Meta-Analysis of Experiments from 1958 to 1992’ (1995) 7(1) Rationality and Society 58

Joseph Saltarelli, ‘Genesis Retold: Legal Issues Raised by the Cyropreservation of Preimplantation Human Embryos’ (1985) 36 Syracuse Law Review 1021

Abbaa Sarhan and Suheil Muasher, ‘Surgical Complications in IVF’ (2007) 12(1) Middle East Fertility Society Journal 1

Debra Satz, ‘Markets in Women's Reproductive Labor’ (1992) 21(2) Philosophy and Public Affairs 107

Julian Savulescu, ‘Deaf Lesbians, “Designer Disability”, and the Future of Medicine’ (2002) 325 British Medical Journal 771

Rosamund Scott and others, ‘Donation of “Spare” Fresh or Frozen Embryos to Research: Who Decides that an Embryo is “Spare” and How Can we Enhance the Quality and Protect the Validity of Consent?’ (2012) 20(3) Medical Law Review 255

Ryan Schacht and Monique Mulder, ‘Sex Ratio Effects on Reproductive Strategies in Humans’ (2015) 2(1) Royal Society of Open Science 1

Laura Schieve and others, ‘Spontaneous Abortion among Pregnancies Conceived Using Assisted Reproductive Technology in the United States’ (2003) 101 Obstetrics & Gynecology 959

Peter Schlegel and Li-Ming Su, ‘Physiological Consequences of Testicular Sperm Extraction’ (1997) 12(8) Human Reproduction 1688

Amy Schmitz, ‘Embracing Unconscionability’s Safety Net Function’ (2006) 58(1) Alabama Law Review 73

Carl Schneider, ‘Rights Discourse and Neonatal Euthanasia’ (1988) 76(1) California Law Review 151

Jennifer Schneider, Jennifer Lahl and Wendy Kramer, ‘Long-Term Breast Cancer Risk following Ovarian Stimulation in Young Egg Donors: A Call for Follow-Up, Research and Informed Consent’ (2017) 34(5) Reproductive BioMedicine Online 480

David Seifer, Valerie Baker and Benjamin Leader, ‘Age-Specific Serum Anti-Müllerian Hormone Values for 17,120 Women Presenting to Fertility Centers within the United States’ (2011) 95(2) Fertility and Sterility 747

Helen Shapo, ‘Frozen Embryos and the Right to Change One’s Mind’ (2002) 12 Duke Journal of Comparative & International Law 75

Sally Sheldon, 'Evans v. Amicus Healthcare; Hadley v. Midland Fertility Services—Revealing Cracks in the “Twin Pillars”?' (2004) 16(4) Child and Family Law Quarterly 437

Sally Sheldon, 'Gender Equality and Reproductive Decision-making' (2004) 12 Feminist Legal Studies 303

Sally Sheldon, '"Sperm Bandits", Birth Control Fraud and the Battle of the Sexes' (2001) 21(3) 460

Sally Sheldon, Ellie Lee and Jan Macvarish, '"Supportive Parenting", Responsibility and Regulation: The Welfare Assessment under the Reformed Human Fertilisation and Embryology Act (1990)' (2015) 78(3) The Modern Law Review 461

Jens Sherpe, 'Fairness, Freedom and Foreign Elements – Marital Agreements in England and Wales after *Radmacher v Granatino*' (2011) 23(4) Child and Family Law Quarterly 429

Emily Sherwin, 'Law and Equity in Contract Enforcement' (1991) 50 Maryland Law Review 253

Lee Silver and Susan Silver, 'Confused Heritage and the Absurdity of Genetic Ownership' (1998) 11(3) Harvard Journal of Law & Technology 593

Peter Singer and Karen Dawson, 'IVF Technology and the Argument for Potential' (1988) 17(2) Philosophy & Public Affairs 87

Peter Skegg, 'Medical Uses of Corpses and the "No Property" rule' (1992) 32(4) Medicine, Science and the Law 311

Katharine Silbaugh, 'Marriage Contracts and the Family Economy' (1998) 93 Northwestern University Law Review 65

Loane Skene, 'Proprietary Interests in Human Bodily Material: Yearworth, Recent Australian Cases on Stored Semen and their Implications' (2012) 20(2) Medical Law Review 227

Pauline Slade, Josephine Emery and Brian Lieberman, 'A Prospective, Longitudinal Study of Emotions and Relationships in In-Vitro Fertilization Treatment' (1997) 12(1) Human Reproduction 183

Nicole Smith and others, ‘Sexual Function and Fertility Quality of Life in Women Using In Vitro Fertilization’ (2015) 12 The Journal of Sexual Medicine 985

Viveca Söderström-Anttila and others, ‘Embryo Donation: Outcome and Attitudes Among Embryo Donors and Recipients’ (2001) 16(6) Human Reproduction 1120

Jeffrey Steinberg, ‘Promissory Estoppel as a Means of Defeating the Statute of Frauds’ (1975) 44(1) Fordham Law Review 114

Vincent Stempel, ‘Procreative Rights in Assisted Reproductive Technology: Why the Angst?’ (1999) 62(3) Albany Law Review 1187

Patrick Steptoe and Robert Edwards, ‘Birth after the Reimplantation of a Human Embryo’ (1978) 2 The Lancet 366

Alastair Sutcliffe and others, ‘Ovarian Tumor Risk in Women after Assisted Reproductive Therapy (ART); 2.2 million person years of observation in Great Britain’ (2015) 104(3) Fertility and Sterility e-37

Sonia Suter, ‘In Vitro Gametogenesis: Just Another Way to Have a Baby?’ (2015) 3(1) Journal of Law and the Biosciences 87

Elaine Sutherland, ‘”Man Not Included” - Single Women, Female Couples and Procreative Freedom in the UK' (2003) 15(2) Child and Family Law Quarterly 155

Agneta Svanberg and others, ‘Gamete Donors' Motivation in a Swedish National Sample: Is There Any Ambivalence? A Descriptive Study’ (2012) 91(8) Acta Obstetricia et Gynecologica Scandinavica 944

Janice Tait, ‘Ethical Issues in Reproductive Technology: A Feminist Perspective’ (1985) 6(2) Canadian Woman Studies 40

Roy Tammie and others, 'Single-Embryo Transfer of Vitrified-Warmed Blastocysts Yields Equivalent Live-Birth Rates and Improved Neonatal Outcomes Compared with Fresh Transfers (2014) 101(5) Fertility and Sterility 1294

Rhys Taylor, 'Predicting the Remedy in a Proprietary Estoppel Claim: Which Route Home?' *Family Law* (24 February 2015) http://www.jordanpublishing.co.uk/practice-areas/family/news_and_comment/predicting-the-remedy-in-a-proprietary-estoppel-claim-which-route-home#.V4gRRWP0jcs

Giuseppe Testa and John Harris, 'Ethical Aspects of ES Cell-Derived Gametes' (2004) 305 Science 1719

David Theyssen, 'Balancing Interests in Frozen Embryo Disputes: Is Adoption Really a Reasonable Alternative?' (1999) 74(2) Indiana Law Journal 711

Lynne Thomas, 'Abandoned Frozen Embryos and Texas Law of Abandoned Personal Property: Should There Be a Connection?' (1997) 29(1) St Mary's Law Journal 255

Rosy Thornton, 'European Court of Human Rights: Consent to IVF treatment' (2008) 6(2) International Journal of Constitutional Law 317

Karen Throsby and Rosalind Gill, '"It's Different for Men"' (2004) 6(4) Men and Masculinities 330

Matthew Tieu, 'Altruistic Surrogacy: The Necessary Objectification of Surrogate Mothers' (2009) 35 Journal of Medical Ethics 171

Laura Underkuffler, 'On Property: An Essay' (1990) 100 Yale Law Journal 127

Angela Upchurch, 'A Postmodern Deconstruction of Frozen Embryo Disputes' (2007) 39(5) Connecticut Law Review 2107

Irma Van Der Ploeg, 'Hermaphrodite Patients: In Vitro Fertilization and the Transformation of Male Infertility' (1995) 20(4) Science, Technology, & Human Values 460

Egbert Velde and Peter Pearson, 'The Variability of Female Reproductive Ageing' (2002) 8(2) Human Reproduction Update 141

Zdravka Veleva and others, 'High and Low BMI Increase the Risk of Miscarriage after IVF/ICSI and FET' (2008) 23(4) Human Reproduction 878

Alison Venn and others, 'Mortality in a Cohort of IVF Patients' (2001) 16(12) Human Reproduction 2691

Lise Vogel, 'Debating Difference: Feminism, Pregnancy, and the Workplace' (1990) 16(1) Feminist Studies 9

Helena Volgsten and others, 'Risk Factors for Psychiatric Disorders in Infertile Women and Men Undergoing In Vitro Fertilization Treatment' (2010) 94(4) Fertility and Sterility 1088

Marijana Vujkovic and others, 'Associations between Dietary Patterns and Semen Quality in Men Undergoing
IVF/ICSI treatment' (2009) 24(6) Human Reproduction 1304

David Vukadinovich, 'Assisted Reproductive Technology Law: Obtaining Informed Consent for the Commercial Cryopreservation of Embryos' (2000) 21 Journal of Legal Medicine 67

Ellen Waldman, 'The Parent Trap: Uncovering the Myth of "Coerced Parenthood" in Frozen Embryo Disputes' (2004) 53(5) American University Law Review 1021

Julie Wallbank, 'Reconstructing the HFEA 1990: Is Blood Really Thicker Than Water?' (2004) Child and Family Law Quarterly 3

Yueping Wang and others, 'Age-Specific Success Rate for Women Undertaking Their First Assisted Reproduction Technology Treatment Using Their Own Oocytes in Australia, 2002–2005' (2008) 23(7) Human Reproduction 1633

Mary Warren, 'IVF and Women's Interests: An Analysis of Feminist Concerns (1988) 2(1) Bioethics 37

Alice Whittemore, Robin Harris and Jacqueline Itnyre, 'Characteristics Relating to Ovarian Cancer Risk: Collaborative Analysis of 12 US Control Studies' (1992) 136(10) American Journal of Epidemiology 1184

Christina Wichmann and others, 'Comparison of Multiple Psychological Distress Measures between Men and Women Preparing for In Vitro Fertilization' (2011) 95(2) Fertility and Sterility 717

Kai Wong, Sebastiaan Mastenbroek and Sjoerd Repping, 'Cryopreservation of Human Embryos and Its Contribution to In Vitro Fertilization Success Rates' (2014) 102(1) Fertility and Sterility 19

Diane Yang, 'What's Mine is Mine, but What's Yours Should Also Be Mine: An Analysis of State Statutes That Mandate the Implantation of Frozen Preembryos' (2002) 10(2) Journal of Law and Policy 587

Jeremy Waldron, 'Two Worries about Mixing One's Labour' (1984) 33 Philosophical Quarterly 37

Jeremy Waldron, 'What is Private Property' (1985) 5 Oxford Journal of Legal Studies 313

Karin Webster, 'Whose Embryo Is It Anyway? A Critique of Evans v Amicus Healthcare [2003] EWHC 2161 (Fam)' (2006) 7(3) Journal of International Women's Studies 71

Stephen Wilkinson, 'The Exploitation Argument against Commercial Surrogacy' (2003) 17(2) Bioethics 169

Supreeya Wongtra-Ngan, Teraporn Vutyavanich and Julie Brown, 'Follicular Flushing during Oocyte Retrieval in Assisted Reproductive Techniques' 8 September 2010, Cohrane Database of Systematic Reviews 1

Alex Wu and others, 'Out-of-Pocket Fertility Patient Expense: Data from a Multicenter Prospective Infertility Cohort' (2014) 191(2) The Journal of Urology 427

Katherine Wynne-Edwards, 'Hormonal Changes in Mammalian Fathers' (2001) 40(2) Hormones and Behavior 139

Alyssa Yoshida, 'The Modern Legal Status of Frozen Embryos' (2017) 68 Hastings Law Journal 711

Marisa Zizzi, 'The Preembryo Prenup: A Proposed Pennsylvania Statute Adopting a Contractual Approach to Resolving Disputes Concerning the Disposition of Frozen Embryos' (2012) 21 Widener Law Journal 391

Books

Kenneth Alpern (ed), *The Ethics of Reproductive Technology* (Oxford University Press 1992)

Hannah Arendt, *Crises of the Republic: Lying in Politics; Civil Disobedience; On Violence; Thoughts on Politics and Revolution* (Harcourt Brace & Company 1972)

Aristotle, *Politics* (Benjamin Jowett tr, HWC Davis ed, Cosimo 2008)

Patrick Atiyah, *Promises, Morals, and Law* (Oxford University Press 1981)

Lisa Austin and Dennis Klimchuk (eds), *Private Law and the Rule of Law* (Oxford University Press 2014)

Douglas Baird, Robert Baird and Randal Gertner, *Game Theory and Law* (Harvard University Press 1994)

Elaine Baruch, Amadeo D'Adamo, Jr and Joni Seager (eds), *Embryos, Ethics and Women's Rights* (Harrington Park Press 1988)

Jennifer Baumgardne and Amy Richards, *Manifesta: Young Women, Feminism, and the Future* (Farrar, Straus and Giroux 2000)

Tom Beauchamp and James Childress, *Principles of Biomedical Ethics* (5th edn, Oxford University Press 2001)

Simone de Beauvoir, *The Second Sex* (Constance Borde and Sheila Malovany-Chevalier trs, first published 1949, Vintage Books 2010)

Mohamed Bedaiwy and Botros Rizk (eds), *Fertility Preservation: Advances and Controversies* (Jaypee Brothers Medical Publishers 2014)

David Bentar, *Better Never to Have Been* (Oxford University Press 2006)

Christine Brain, *Advanced Psychology: Applications, Issues and Perspectives* (Nelson Thornes 2002)

Jo Bridgeman, Heather Keating and Craig Lind (eds), *Regulating Family Responsibilities* (Ashgate 2011)

Stanley Brodsky, *Coping with Cross-Examination and Other Pathways to Effective Testimony* (American Psychological Association 2004)

Keith Booker, *Dystopian Literature: A Theory and Research Guide* (Greenwood Press 1994)

Fanny Burney, *Selected Letters and Journals* (Joyce Hemlow ed, OUP 1986)

Tom Campbell, Keith Ewing and Adam Tomkins (eds), *Sceptical Essays on Human Rights* (Oxford University Press 2001) 245

Joanne Conaghan, *Law and Gender* (Clarendon Law Series 2013)

John Cartwright, *Misrepresentation, Mistake and Non-Disclosure* (3rd edn, Sweet & Maxwell 2012)

Marcus Cicero, *Orationes Selectæ* (first published nd, John R Priestley 1837)

Alison Clarke and Paul Kohler, *Property Law: Commentary and Materials* (Cambridge University Press 2005)

Elizabeth Cooke, *The Modern Law of Estoppel* (Oxford University Press 2000)

Sherrill Cohen and Nadine Taub (eds), *Reproductive Laws for the 1990s* (Humana Press 1989)

Richard Collier and Sally Sheldon, *Fragmenting Fatherhood: A Socio-Legal Study* (Hart 2008)

Gene Corea, *The Mother Machine: Reproductive Technologies from Artificial Insemination to Artificial Wombs* (Harper and Row 1985)

Gena Corea, 'What the King Can Not See' in *Embryos, Ethics and Women's Rights* (Elaine Baruch, Amadeo D'Adamo, Jr and Joni Seager eds, Harrington Park Press 1988)

Robbie Davis-Floyd, *Birth as an American Rite of Passage* (2nd edn, University of California Press 2003)

Richard Dawkins, *The Selfish Gene* (2nd edn, Oxford University Press 1989)

Donna Dickenson, *Property in the Body: Feminist Perspectives* (Cambridge University Press 2007

Donna Dickenson, *Property, Women and Politics: Subjects or Objects?* (Rutgers University Press 1997)

Donna Dickenson, *Risk and Luck in Medical Ethics* (Cambridge: Polity Press 2003)

Martin Dixon, *Modern Land Law* (6th edn, Routledge-Cavendish 2009)

Roger Dworkin, *Limits: The Role of the Law in Bioethical Decision Making* (Indiana University Press 1996)

Ronald Dworkin, *Life's Dominion: An Argument about Abortion, Euthanasia and Individual Freedom* (Vintage Books 1993)

Anthony Dyson and John Harris (eds), *Ethics & Biotechnology* (Routledge 1994)

Friedrich Engels, *The Origin of the Family, Private Property and the State* (first published 1884, Alick West tr, International 1972)

Donald Evans (ed), *Conceiving the Embryo: Ethics, Law and Practice in Human Embryology* (Martinus Nijhoff Publishers 1996)

Roger Farmer (ed) *Macreconomics in the Small and the Large: Essays on Microfoundations, Macroeconomic Applications and Economic History in Honor of Axel Leijonhufvud* (Edward Elgar Publishing 2009)

Andrew Feenberg, *Questioning Technology* (Routledge 1999)

Joel Feinberg, *The Moral Limits of the Criminal Law Volume 1: Harm to Others* (Oxford University Press 1984)

Aaron Fellmeth, *Paradigms of International Human Rights Law* (Oxford University Press 2016)

Martha Fineman, *The Autonomy Myth: A Theory of Dependency* (The New Press 2004)

Martha Fineman, *The Neutered Mother, the Sexual Family and Other Twentieth Century Tragedies* (Routledge 1995)

Shulamith Firestone, *The Dialectic of Sex: The Case for Feminist Revolution* (William Morrow and Company 1970)

Sarah Franklin, *Biological Relatives: IVF, Stem cells and the Future of Kinship* (Duke University Press 2013)

Sarah Franklin, *Embodied Progress: A Cultural Account of Assisted Conception* (Routledge 1997)

Sarah Franklin and Celia Roberts, *Born and Made: An Ethnography of Preimplantation Genetic Diagnosis* (Princeton University Press 2006)

Michael Freeman, Sarah Hawkes and Belinda Bennett (eds), *Law and Global Health: Current Legal Issues Volume 16* (Oxford University Press 2014)

ER Gold, *Body Parts: Property Rights and the Ownership of Human Biological Materials* (Georgetown University Press 1996)

David Gardner and others (eds), *Human Gametes and Preimplantation Embryos: Assessment and* Diagnosis (Springer 2013)

Evelyn Glenn, Grace Chang and Linda Forcey (eds) *Mothering: Ideology, Experience and Agency* (Routledge 1994)

Imogen Goold and others (eds), *Persons, Parts and Property: How Should We Regulate Human Tissue in the 21st Century* (Hart 2014)

Clarisa Gracia and Teresa Woodruff (eds), *Oncofertility Medical Practice: Clinical Issues and Implementation* (Springer 2012)

Karen Grant and others (eds), New Millenium' in *Caring For/Caring About: Women, Home Care and Unpaid Caregiving* (Garamond Press 2004)

Jerald Greenberg and Jason Colquitt (eds), *Handbook of Organizational Justice* (Lawrence Erlbaum Associates 2005)

Karen Greif and Jon Merz, *Current Controversies in the Biological Sciences: Case Studies of Policy Challenges from New Technologies* (MIT Press 2007)

Anthony Guest (ed) *Oxford Essays in Jurisprudence* (Clarendon Press 1961)

Prince Gyekye and others, 'Cancer Incidence Risks to Patients due to Hysterosalpingography' (2012) 37(2) Journal of Medical Physics

Yves Haeck and Eva Brems (eds), Human Rights and Civil Liberties in the 21st Century (Springer 2013)

David Harris and others, *Law of the European Convention on Human Rights* (3rd edn, Oxford University Press 2014)

James Harris, *Property and Justice* (Oxford University Press 1996)

John Harris and Soren Holm (eds), *The Future of Human Reproduction: Ethics, Choice and Regulation* (Clarendon Press 1998

John Harris, *Wonderwoman and Superman: The Ethics of Human Biotechnology* (Oxford University Press 1992)

HLA Hart, Peter Hacker and Joseph Raz (eds), *Law, Morality and Society: Essays in Honour of H.L.A. Hart* (Oxford University Press 1977)

Valerie Hartouni, *Cultural Conceptions: On Reproductive Technologies and the Remaking of Life* (University of Minnesota Press 1997)

Thomas Hearn Jr (ed) *Studies in Utilitarianism* (Appleton-Century-Crofts 1971)

Martin Heidegger, *The Question Concerning Technology and Other Essays* (William Lovitt tr, Harper & Row 1977)

Thomas Hobbes, *Leviathan: Volume 1* (first published 1651, Pacific Publishing Studio 2011)

Cândida Sé Holovko and Frances Thomson-Salo (eds), *Changing Sexualities and Parental Functions in the Twenty-First Century* (Karnac Books 2017)

Nils Hoppe, *Bioequity—Property and the Human Body* (Ashgate 2009)

Nils Hoppe and José Miola, *Medical Law and Medical Ethics* (Cambridge University Press 2014)

Kirsty Horsey (ed), *Revisiting the Regulation of Human Fertilisation and Embryology* (Routledge 2015)

Richard Hull, *Ethical Issues in New Reproductive Technologies* (Prometheus Books 2005)

David Hume, *A Treatise on Human Nature* (first published 1740, Dover 2003)

Emily Jackson, *Regulating Reproduction* (Hart 2001)

Richard Jones and Kristin Lopez, *Human Reproductive Biology* (Academic Press 2014)

Christopher De Jonge and Christopher Barratt (eds) *Assisted Reproductive Technology: Accomplishments and New Horizons* (Cambridge University Press 2002

Ciara Kierans, Kristen Bell and Carol Kingdon (eds), *Social and Cultural Perspectives on Health, Technology and Medicine: Old Concepts, New Problems* (Routledge 2016)

Charles Kindregan and Maureen McBrien, *Assisted Reproductive Technology: A Lawyer's Guide to Emerging Law and Science* (American Bar Association 2006)

Renate Klein, *The Exploitation of a Desire: Women's Experiences with In Vitro Fertilization* (Deakin University Press 1989)

Renate Klein (ed) *Infertility. Women Speak out About Their Experiences of Reproductive Medicine* (Pandora Press 1989)

Gab Kovacs (ed), *How to Improve Your ART Success Rates: An Evidence-Based Review of Adjuncts to IVF* (Cambridge University Press 2011)

Rosalind Ladd (ed), *Children's Rights Re-Visioned: Philosophical Readings* (Cengage Learning 1995)

Carla Lam, *New Reproductive Technologies and Disembodiment: Feminist and Material Resolutions* (Routledge 2015)

Paul Lauritzen, *Pursuing Parenthood: Ethical Issues in Assisted Reproduction* (John Wiley & Sons 1993)

J Ralph Lindgreen and others, *The Law of Sex Discrimination* (4th edn, Wadsworth 2011)

John Locke, *Essays on the Law of Nature and Associated Writings* (first published 1676, Wolfgang von Leyden ed, Oxford University Press 2002)

John Locke, *The Second Treatise of Civil Government: A Letter Concerning Toleration* (first published 1689) http://www.earlymoderntexts.com/assets/pdfs/locke1689a.pdf

Loren Lomasky, *Persons, Rights, and the Moral Community* (Oxford University Press 1987)

Caroline Lorbach, *Experiences of Donor Conception: Parents, Offspring and Donors through the Years* (Jessica Kingsley Publishers 2003)

Tibor Machan (ed), *Liberty and Justice* (Hoover Institution press 2006)

John Markoff, *The Abolition of Feudalism: Peasants, Lords, and Legislators in the French Revolution* (The Pennsylvania State University Press 1996)

JK Mason and Graeme Laurie, *Mason and McCall Smith's Law and Medical Ethics* (9th edn, Oxford University Press 2006)

Sharon Mastracci, Mary Guy and Meredith Newman, *Emotional Labor and Crisis Response: Working on the Razor's Edge* (Routledge 2015)

Karl Marx, *Capital: A Critique of Political Economy Volume II Book One: The Process of Circulation of Capital* (Friedrich Engels ed, Doug Hockin and others trs, Progress Publishers first published 1885)

Karl Marx and Frederick Engels, *Manifesto of the Communist Party* (first published 1848, Filiquarian Publishing 2007

Ben McFarlane, Nicholas Hopkins and Sarah Nield, *Land Law* (3rd edn, Oxford University Press 2015)

Robert Megarry and Paul Baker, *Snell's Principles of Equity* (27th edn, Sweet & Maxwell 1973)

Helena Michie and Naomi Cahn, *Confinements* (Rutgers University Press 1997)

John Mill, *On Liberty and Other Essays* (John Gray ed, first published 1859, Oxford University Press 1998)

Francesca Mofino and Flavia Zucco (eds) *Women in Biotechnology: Creating Interfaces* (Springer 2008)

Fiona Montgomery, *Women's Rights: Struggles and Feminism in Britain c. 1770-1970* (Manchester University Press 2006)

Mayo Moran, *Rethinking the Reasonable Person: An Egalitarian Reconstruction of the Objective Standard* (Oxford University Press)

Janine Morgall, *Technology Assessment: A Feminist Perspective* (Temple University Press 1993)

Lynn Morgan and Meredith Michaels (eds), *Fetal Subjects, Feminist Positions* (University of Pennsylvania Press 1999)

Eileen Morrison and Beth Furlong (eds), *Health Care Ethics: Critical Issues for the 21st Century* (Jones & Bartlett Learning 2014)

Michael Mulkay, *The Embryo Research Debate: Science and Politics of Reproduction* (Cambridge University Press 1997)

Stephen Munzer, *A Theory of Property* (Cambridge University Press 1990)

Jason Neyers, Richard Bronaugh and Stephen Pitel (eds), *Exploring Contract Law* (Hart Publishing 2009)

Erin Nelson, *Law, Policy and Reproductive Autonomy* (Hart 2013)

Alan Norrie, *Crime, Reason and History* (2nd edn, Cambridge University Press 2001)

Robert Nozick, *Anarchy, State, and Utopia* (Basic Books, 1974)

Michael Numan and Thomas Insel, *The Neurobiology of Parental Behaviour* (Springer-Velag 2003)

Remigius Nwabueze, *Biotechnology and the Challenge of Property: Property Rights in Dead Bodies, Body Parts, and Genetic Information* (Ashgate 2007)

Mary O'Brien, *The Politics of Reproduction* (Routledge 1981)

Julia O'Faolain and Lauro Martins, *Not in God's Image: Women in History from the Greeks to the Victorians* (Harper and Row, 1973)

Susan Okin, *Justice, Gender, and the Family* (Basic Books 1989)

Susan Okin, *Women in Western Political Thought* (Princeton University Press 1979)

Carole Pateman, *The Sexual Contract* (Stanford University Press 1988)

James Penner, *The Idea of Property in Law* (Clarendon Press 1997)

James Penner and Henry Smith (eds) *Philosophical Foundations of Property Law* (Oxford University Press 2013)

Amanda Perkins, 'United States Still No Closer to Database Legislation' (2000) 22(8) European Intellectual Property Review 366

Philip Peters, *How Safe is Safe Enough* (Oxford University Press 2004)

Philip Pettit, *Equity and the Law of Trusts* (12th edn, Oxford University Press 2012)

John Pocock (ed), *Three British Revolutions: 1641, 1688, 1776* (Princeton University Press 2014)

Janet Price and Margit Shildrick (eds), *Feminist Theory and the Body: A Reader* (Taylor & Francis 1999)

Muireann Quigley, Sarah Chan and John Harris (eds), *Stem Cells: New Frontiers in Science & Ethics* (World Scientific 2012)

Margaret Radin, *Contested Commodities* (Harvard University Press 1996)

Margaret Radin, *Reinterpreting Property* (University of Chicago Press 1993)

John Rawls, *A Theory of Justice* (Harvard University Press 1971)

Janice Raymond, *Women as Wombs: Reproductive Technologies and the Battles over Women's Freedom* (HarperCollins 1993)

Lori Reed and Paula Saukko (eds) *Governing the Female Body: Gender, Health and Networks of Power* (State University of New York Press 2010)

Melinda Roberts and David Wasserman (eds), *Harming Future Persons* (Springer 2009)

John Robertson, *Children of Choice: Freedom and the New Reproductive Technologies* (Princeton University Press 1996)

Robyn Rowland, *Living Laboratories* (Indiana University Press 1992)

Robyn Rowland, 'Technology and Motherhood: Reproductive Choice Reconsidered' (1987) 12(3) Signs 512

Deborah Rupp (eds), *Emotional Labor in the 21st Century: Diverse Perspectives on Emotional Regulation at Work* (Routledge 2013)

Allan Ryan (ed) *Justice (Oxford Readings in Politics and Government)* (Oxford University Press 2000)

Warren Samuels, Marianne Johnson and William Perry, *Erasing the Invisible Hand* (Cambridge University Press 2011

Krshnadasa Sarkar, *Chaitanya's Life and Teachings* (first published 1922, Forgotten Books 2013)

Gary Slapper and David Kelly, *The English Legal System* (Routledge 2016, 17th edn)

Patricia Smith (ed) *The Nature and Process of Law* (Oxford University Press 1993)

Daniel Sperling, *Posthumous Interests: Legal and Ethical Perspectives* (Cambridge University Press 2008)

William Statsky, *Family Law: The Essentials* (2nd edn, Thomson 2004)

Bonnie Steinbock (ed) *Oxford Handbook of Bioethics* (Oxford University Press 2007)

Patricia Stephenson and Marsden Wagner (eds), *Tough Choices: In Vitro Fertilization and the Reproductive Technologies* (Temple University Press 1993)

Richard Stone and James Devenney, *The Modern Law of Contract* (11th edn, Routledge 2015)

Hanoch Sheinman (ed), *Promises and Agreements: Philosophical Essays* (Oxford University Press 2011)

Peter Singer, *Practical Ethics* (2nd edn, Cambridge University Press 1990)

Adam Smith, *The Wealth of Nations, Book 2* (First published 1776) <http://www.bartleby.com/10/203.html>

Stephen Smith, *Contract Theory* (Oxford University Press 2004)

Stephen Smith and Ronan Deazley (eds), *The Legal, Medical and Cultural Regulation of the Body: Transformation and Transgression* (Ashgate 2009)

Davor Solter and others, *Embryo Research in Pluralistic Europe* (Springer-Verlag 2003)

Bonnie Steinbock*, Life Before Birth: The Moral and Legal Status of Embryos and Fetuses* (Oxford University Press 2011)

Hartley Steiner, *Sensational Journeys: 48 Personal Stories of Sensory Processing Disorder* (Future Horizons 2011)

Jill Stoddard and others, 'Impact of a Brief Intervention on Patient Anxiety prior to Day Surgery' (2005) 12(2) Journal of Clinical Psychology in Medical Settings 99

Frederick Swennen (ed), *Contractualisation of Family Law- Global Perspectives* (Springer 2015)

Joel Teitelbaum and Sara Wilensky, *Essentials of Health Policy and Law* (3rd edn, Jones & Bartlett Learning 2017)

Mark Thompson, *Modern Land Law* (5th edn, Oxford University Press 2012)

Karen Throsby, *When IVF Fails Feminism and the Negotiation of Normality* (Palgrave 2004)

France Twine, *Outsourcing the Womb: Race, Class, and Gestational Surrogacy in a Global Market* (2nd ed, Routledge 2015)

Laura Underkuffler, *The Idea of Property: Its Meaning and Power* (Oxford University Press 2003)

Peter-Uwe Hohendahl and Jaimey Fisher (eds), *Critical Theory: Current State and Future Prospects* (Berghahn Books 2001)

Graham Virgo, *The Principles of Equity and* Trusts (Oxford University Press 2012)

Jeremy Waldron (ed), *Theories of Rights* (OUP 1984)

Julie Wallbank, Shazia Coudhry and Jonathan Herring (eds), *Rights, Gender and Family Law* (Routledge 2010)

Gary Watt, *Todd & Watt's Cases & Materials on Equity and Trusts* (6th edn, Oxford University Press 2007)

Jon Weil, *Psychosocial Genetic Counselling* (Oxford University Press 2000)

Sean Wilken and Karim Ghaly, *The Law of Waiver, Variation and Estoppel* (3rd edn, Oxford University Press 2012)

Samuel Williston, *The Law of Contracts* (Baker, Voorhis & Company 1920)

Sarah Wilson, *Todd & Wilson's Textbook on Trusts & Equity* (12th edn, Oxford University Press 2015)

Langdon Winner, *Autonomous Technology: Technics-out-of-Control as a Theme in Political Thought* (MIT Press 1977)

Robert Winston, *The IVF Revolution* (Vermillion 1999)

Luc Wintgens, *Legisprudence: Practical Reason in Legislation* (Routledge 2012)

Donald Wittman (ed), *Economic Analysis of the Law* (Wiley 2008)

Reports

American College of Obstetricians and Gynecologists, 'Oocyte Cryopreservation. Committee Opinion Number 584' (2014) 123(1) Obstetrics & Gynecology 221

Caroline Flint MP, Department of Health, *Review of the Human Fertilisation and Embryology Act: A Public Consultation* (2005

Committee on Bioethics of the Council of Europe, Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine: Convention on Human Rights and Biomedicine [1997] ETS No. 164

Constitutional Chamber of the Supreme Court of Justice, File Number 95-001734-007-CO (2000) 02306

Council of Europe, *Meeting Report: Ad Hoc Committee of Experts on Progress in the Biomedical Sciences CAHBI: 9th Meeting, Strasbourg* (CAHBI 1989)

Department for Children, Schools and Families, *Support for Families* (Green Paper, Cm 7787, 2010) 113

Department of Health, Review of the Human Fertilisation and Embryology Act (Cm. 6989, 2006) http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_073098?IdcService=GET_FILE&dID=135664&Rendition=Web

Department of Health, Review of the Human Fertilisation and Embryology Act: A Public Consultation (2005) http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4117872.pdf

Department of Health and Social Security, *Human Fertilisation and Embryology: A Framework for Legislation* (White Paper, Cm 259, 1987)

Department of Health and Social Security, *Legislation on Human Infertility Services and Embryo Research*. *A Consultation Paper* (Green Paper, Cm 46, 1986)

ESHRE Task Force on Ethics and Law, 'The Moral Status of the Pre-Implantation Embryo' (2001) 16(5) Human Reproduction 1048

Ethics Committee of the American Fertility Society, 'Ethical Considerations of the New Reproductive Technologies' (1987) 46(1) Fertility and Sterility 30

Gesetz zum Schutz von Embryonen (Embryonenschutzgestz)—ESchG 1991 (BGB I S.2746)

HL Deb 6 February 1990, vol 515

HL Deb 20 March 1990 vol 517

Joint Committee on Human Rights, Fifteenth Report, Human Fertilisation and Embryology Bill (2007/2008)

Kirsty Horsey and others, *Report of the Surrogacy UK Working Group on Surrogacy Law Reform* (Surrogacy UK, 2015)

House of Commons Select Committee on Science and Technology, *Fifth Report of Session 2004–5, Human Reproductive Technologies and the Law, vol 1* (HC 2005)

House of Lords Select Committee on Stem Cell Research, *Stem Cell Research* (HL 2002)

Human Fertilisation and Embryology Authority, *Code of Practice* (8th edn, HFEA 2012)

Human Fertilisation & Embryology Authority, 'Fertility Treatment in 2013' 14 < http://hfeaarchive.uksouth.cloudapp.azure.com/www.hfea.gov.uk/docs/HFEA_Fertility_Trends_and_Figures_2013.pdf >

NHS, 'Report Finds IVF Provision Varies on the NHS' (2011) <http://www.nhs.uk/news/2011/06June/Pages/report-finds-ivf-provision-varies-on-the-nhs.aspx>

NHS Choices, 'Risks of IVF' <http://www.nhs.uk/Conditions/IVF/Pages/Risks.aspx>

NICE, 'NICE Calls for an End to Postcode Lottery of IVF Treatment' <https://www.nice.org.uk/news/article/nice-calls-for-an-end-to-postcode-lottery-of-ivf-treatment>

NICE, *Fertility Problems: Assessment and Treatment* CG156 (NICE 2013) <https://www.nice.org.uk/guidance/cg156/resources/fertility-problems-assessment-and-treatment-35109634660549>

Nuffield Council on Bioethics, *Human Bodies: Donation for Medicine and Research* (Nuffield Council on Bioethics 2014)

Office for National Statistics, 'Births in England and Wales, 2013: Statistical Bulletin'. <http://www.ons.gov.uk/ons/dcp171778_371129.pdf>

Practice Committee for American Society for Reproductive Medicine and the Practice Committee for Society for Reproductive Technology, 'Criteria for Number of Embryos to Transfer: A Committee Opinion' (2013) 99(1) Fertility and Sterility 44

Report of the Committee of Inquiry into Human Fertilisation and Embryology (Warnock Report) Cmnd 9314 (London, HMSO, 1984)

'Resolución de la Corte Interamericana de Derechos Humanos supervisión de 26 de Febrero 2016, Cumplimiento de Sentencia' (Inter-American Court of Human Rights)

Royal College of Physicians, *Guidelines on the Practice of Ethics Committees in Medical Research with Human Participants* (4th edn, RCP 2007)

Select Committee on Science and Technology, *Eight Special Report* (HC 491, 2005)

Select Committee on Stem Cell Research, *Stem Cell Research* (HL 2002)

The Ethics Committee of the American Fertility Society, *Ethical Considerations of the New Reproductive Technologies* (1990) 53(6) Journal of the American Fertility Society

The Practice Committees of the American Society for Reproductive Medicine and the Society for Assisted Reproductive Technology, 'Mature Oocyte Cryopreservation: A Guideline' (2013) 99(1) Fertility and Sterility 37

The President's Council on Bioethics, *Human Cloning and Human Dignity: An Ethical Inquiry* (US Government Printing Office 2002)

Thesis

Elizabeth Dedrick, 'The Politics of Being an Egg "Donor" and Shifting Notions of Reproductive Freedom (2004) University of South Florida Scholar Commons, Graduate Theses and Dissertations 1

Websites

American Society for Reproductive Medicine, 'Legally Speaking' <https://www.asrm.org/Legally_Speaking/More_Frozen_Embryo_Disputes/https://www.asrm.org/Legally_Speaking/More_Frozen_Embryo_Disputes/>

Bath Fertility Centre, 'Glossary of Terms' <http://www.bathfertility.com/glossary-of-terms>

'Bean Journey' <http://beanjourney.blogspot.nl/2012_08_01_archive.html>

Hazel Biggs, 'Last Chances, Lost Opportunities and Legal Contortions' (2006) 349 BioNews <http://www.bionews.org.uk/page_37858.asp>

Reuven Brandt, 'Genetic Ties, Social Ties and Parental Responsibility' (2015) 819 Bionews < http://www.bionews.org.uk/page.asp?obj_id=565696&PPID=565631&sid=393>

Cambridge University Hospitals, 'Cambridge IVF Patient Information- Patient Agreement to Investigation or Treatment' <http://www.cuh.org.uk/sites/default/files/publications/CF455_oocyte_retrieval.pdf>

Complete Fertility Centre, 'Price List' <http://www.completefertility.co.uk/price_list/complete-fertility-price-list.pdf>

Egg Donor America, 'Egg Donor Compensation' <https://www.eggdonoramerica.com/become-egg-donor/egg-donor-compensation>

'Factsheet Hysterosalpingogram' (*Reproductivefacts.org*) < http://www.reproductivefacts.org/FACTSHEET_Hysterosalpingogram/>

Harris Williams & Co, 'Fertility Market Overview' (2015) <http://www.harriswilliams.com/sites/default/files/content/fertility_industry_overview_-_2015.05.19_v10.pdf>

Louisa Ghevaert, 'Recent Surrogacy Disputes in Focus' (2013) 722 Bionews < http://www.bionews.org.uk/page_343312.asp>

Homerton University Hospital, 'Assisted Conception' http://www.homerton.nhs.uk/media/49839/assisted_conception_-_patient_information_dec_2009.pdf

New London Pharmacy, 'Fertility Services' <http://www.newlondonpharmacy.com/categories/58-fertility_services> accessed 18 June 2015

Reproductivefacts.org, 'Factsheet Hysterosalpingogram' <http://www.reproductivefacts.org/FACTSHEET_Hysterosalpingogram/>

Brian Schroeder, 'Damn the Contract, I Want to Use the Embryos' (*Schiller, DuCanto & Fleck LLP*, 15 May 2015) < http://www.familylawtopics.com/2015/05/damn-contract-want-use-embryos/#more-1511>

Sally Sheldon, 'Stored Embryos, Gender Equality and the Meaning of Parenthood' (2006) 388 BioNews < http://www.bionews.org.uk/page_37912.asp>

Stanford University, 'What Does Sperm Donation Involve?' <http://web.stanford.edu/class/siw198q/websites/reprotech/New%20Ways%20of%20Making%20Babies/spermint.htm>

'The Big Business of Egg Donation' (*YouTube*) < https://www.youtube.com/watch?v=8zV8SVLMP1w>

'The Future of People Powered Health 2017 Conference', London, 9 May 2017 <http://www.nesta.org.uk/event/future-people-powered-health-2017>

'The Horrors of Pre-Anaesthetic Surgery' (*The Chirurgeon's Apprentice*)). http://thechirurgeonsapprentice.com/2014/07/16/the-horrors-of-pre-anaesthetic-surgery/#f1

Pamela Tsigdinos, 'Finally Heard: a Silent Sorority Finds Its Voice' http://blog.silentsorority.com/about-me/

University Hospitals Coventry and Warwickshire, 'IVF' <http://www.uhcw.nhs.uk/ivf/treatments/ivf>

University Hospitals Coventry and Warwickshire, 'Ovulation Induction' < http://www.uhcw.nhs.uk/ivf/treatments/oi>

University Hospitals Coventry and Warwickshire, 'Surgical Sperm Retrieval (SSR)' http://www.uhcw.nhs.uk/ivf/treatments/ssr

'When the Cycle didn't Work, I wasn't sure I could ever put myself through it again.' Fertility Matters, 'Kate's Story – Unexplained infertility' < http://fertilitymatters.org.uk/real-life-stories/kates-story/>

Newspaper articles

Karen Barrow, 'Facing Life Without Children When It Isn't by Choice' *The New York Times* (New York, 10 June 2008) < http://www.nytimes.com/2008/06/10/health/10pati.html?_r=0>

Paul Bentley and Sara Smyth, 'Exploited by Cash-For-Eggs IVF Clinics: Mail Investigation Finds Desperate Women are Told to Donate Eggs for Free Treatment' *Mail Online* (London, 1 May 2017) < http://www.dailymail.co.uk/news/article-4463792/Exploited-cash-eggs-IVF-clinics.html#ixzz4fuOw8V00>

Diane Blood, 'Why They Should Be Given the Right to Appeal' *The Guardian* (London, 2 October 2003) <https://www.theguardian.com/uk/2003/oct/02/health.healthandwellbeing1>

May Bulman, 'Women Can Now Use App Dubbed "Order a Daddy" to Pick a Sperm Donor' *The Independent* (London, 25 September 2016) <http://www.independent.co.uk/news/uk/home-news/sperm-donor-app-order-a-daddy-women-fertility-london-a7328691.html>

Joel Christie and Myriah Towner, ''I Have Biological Children Ready to Come to Life': Infertile Cancer Survivor Battling to Save Frozen Embryos from Being Destroyed by Ex-Husband Says She Will 'Do Anything' to get the Eggs Back' *Daily Mail* (London, 6 August 2015) http://www.dailymail.co.uk/news/article-3187323/I-biological-children-ready-come-life-Infertile-cancer-survivor-battling-save-frozen-embryos-destroyed-ex-husband-says-eggs-back.html

Tracy Connor, 'Egg-Squisite Models on Auction Block' *New York Post* (New York, 23 October 1999) <http://nypost.com/1999/10/23/egg-squisite-models-on-auction-block/>

Kathryn Deiters quoted in Sarah Blustain, 'Embryo Adoption' *The New York Times* (New York, 11 December 2005) <http://www.nytimes.com/2005/12/11/magazine/embryo-adoption.html?mcubz=0>

Martina Devlin, 'Embryo Battle Is a Case for the Wisdom of Solomon' *Independent* (Dublin, 6 July 2006) <http://www.independent.ie/opinion/analysis/embryo-battle-is-a-case-for-the-wisdom-of-solomon-26373116.html>

‘Embryo Donation Criticized’ *The New York Times* (New York, 29 January 1982) <http://www.nytimes.com/1982/01/29/us/embryo-donation-criticized.html>

Rebecca English, ‘Couple at War over Frozen IVF Embryos’ *Daily Mail* (London) < http://www.dailymail.co.uk/news/article-132714/Couple-war-frozen-IVF-embryos.html>

Ann Gerhart and John Schwartz, ‘The Donor Egg Scheme Hatched on the Web’ *The Washington Post* (Washington, 26 October 1999) <www.washingtonpost.com/wp-srv/WPcap/1999-10/26/016r-102699-idx.html>

Rachel Halliwell, ‘It Happened to Me: My Ex Destroyed My Embryos’ *Daily Mail* (London, 3 August 2009) <http://www.dailymail.co.uk/femail/article-1203484/It-happened-My-ex-destroyed-embryos.html>

Alex Kuczynski, ‘Her Body, My Baby’ *The New York Times* (New York, 30 November 2008) < http://www.nytimes.com/2008/11/30/magazine/30Surrogate-t.html?_r=0>

Jeremy Laurance, ‘More Than 70 Per Cent of NHS Trusts Break Rules to Deny IVF &; and Save Money’ *The Independent* (London, 6 June 2011) <http://www.independent.co.uk/life-style/health-and-families/health-news/more-than-70-per-cent-of-nhs-trusts-break-rules-to-deny-ivf-ndash-and-save-money-2293848.html>

Kate Palmer, ‘Would you accept £3,750 to trial one drug?’ *The Telegraph* (London, 15 October 2014) <http://www.telegraph.co.uk/finance/personalfinance/11089564/Would-you-accept-3750-to-trial-one-drug.html>

Mark Tran, ‘Apple and Facebook Offer to Freeze Eggs for Female Employees’ *The Guardian* (London, 15 October 2014) < https://www.theguardian.com/technology/2014/oct/15/apple-facebook-offer-freeze-eggs-female-employees>