

The Uncanny Embryos: Legal Limits to the Human and Reproduction Without Women

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Abstract

Law through both regulation and prohibition carries us forward in the imaginary leap that is necessary to take us from the embryonic being to the *post-human* being. Such beings include the hybrid, the chimera, the genetically enhanced, the inheritably genetically manipulated, the embryo with three genetic progenitors and the embryo produced by the fusion of same sex gametes. In this paper I explore how the law, by prohibiting the creation of certain kinds of embryos, is nevertheless giving legislative life to entities that are yet to be made. I consider how the law currently defines these entities and how it would define them if they were developed from the embryo to a fully birthed (human) being. In the process I discuss the way in which the technologically produced embryo is constructed as a phantasmal premonition of the child to be. However, existing outside the gestating body of the woman, it is uncanny in the Freudian sense of the *unheimlich*, or unhomely. It evokes sympathy and horror in the same moment. Unhinged from the all-encompassing female body and equipped with its own genetic identity, it attains an individuality that pre-figures its birth. In this way even in the absence of the mother, the embryo is assigned a holding place in the (human) family. But the hybrid/manipulated embryo amplifies its uncanniness evoking the horror of an alien presence, apparently the same but yet not so.

I argue that in new legislative responses to reproductive genetic technologies and embryo research, an alternate phantasmal premonition should be foregrounded — that of the *not yet pregnant pregnant woman*. By emphasising the pregnant woman who is not yet pregnant, I want to evoke the underlying assumption that where there are embryos, there are also women who will become pregnant with them and are therefore already premonitionally pregnant. In this way the provisionality of these embryos is highlighted because the embryo is only ever connected with its potential for personhood by female embodiment. In the end, then it is the decisions women make, in light of the information before them, that should determine who and what they reproduce.

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1. Introduction

Genetic manipulation¹ technologies when combined with assisted reproduction have revealed the possibility of all kinds of embryos: embryos designed with inheritable mutations (sometimes called enhancements, sometimes therapies), embryos with a chimerical combination of cells, hybrid embryos, embryo clones, and more.² The possibility of these multiple embryonic forms raises the related spectre of multiple human forms: chimerical humans, hybrid humans, enhanced humans, and cloned humans. What does it mean to be a human person, in a world where these transformations are possible? Moreover, what does it mean to be a part of the *human* family? The legal response to such transformative possibilities has so far been to ensure their prohibition at the earliest stage — the embryonic stage. In Australia, the *Prohibition of Human Cloning Act 2002* (Cth) (hereafter the *PHC Act*) prohibits these multiple embryonic forms ensuring, at least for now, that such *persons* cannot (must not) be born.³

As this paper goes to press, two bills have been tabled in Parliament in response to the recommendations of the Lockhart Committee that reviewed the *PHC Act* and the *Research Involving Human Embryos Act 2002* (Cth) (hereafter the *RIHE Act*). The Lockhart Review presented its final report in December 2005. In response, both Senator Natasha Stott Despoja with Senator Ruth Webber, and Senator Kay Patterson have drawn up Bills to amend the *PHC Act* and the *RIHE Act*.⁴ Both bills were tabled in parliament in September and October respectively

1 It is important to distinguish manipulation technologies from genetic diagnostic and selection technologies such as visual observation under a microscope and preimplantation genetic diagnosis (hereafter PGD). These screening technologies for assisted reproductive technology (hereafter ART) and in vitro fertilization (hereafter IVF) are not the subject of current Commonwealth regulation in Australia. Technologies such as PGD, are currently used to identify and select embryos with certain traits rather than to alter or manipulate the genetic makeup of those embryos. Sarah Franklin and Celia Robert's book *Born and Made: An Ethnography of Preimplantation Genetic Diagnosis* (2006) offers a comprehensive analysis both of the rise of PGD in the United Kingdom and its description as a technology for making so-called 'designer babies'. Recent research has suggested that a method of single cell embryo biopsy similar to that which is used in PGD may offer a source of stem cells that will not involve destruction of the embryo. See Young Chung, Irina Limanskaya, Sandy Becker, Joel Marh, Shi-Jiang Lu, Julie Johnson, Lorraine Meisner & Robert Lanza 'Embryonic and Extraembryonic Stem Cell Lines Derived from Single Mouse Blastomeres' (2006) 439 *Nature* 216. The current Commonwealth legislation does not regulate single cell biopsy of an embryo for the purposes of assisted reproduction. However, it may regulate the creation of a stem cell line from that biopsy, for research purposes. Furthermore, the single cell removed could theoretically, be grown into a human embryo clone and coextensively a human.

2 For definitions of each of these forms see s8 *PHC Act*.

3 See generally Part Two of the *PHC Act*.

4 Lockhart Committee, *Legislation Review: Prohibition of Human Cloning Act 2002 and Research Involving Human Embryos Act 2002*, Legislation Review Committee Reports (2005)(hereafter Lockhart Review); *Somatic Cell Nuclear Transfer (SCNT) and Related Research Amendment Bill 2006* (Cth) (hereafter the Despoja/Webber Bill) and the *Prohibition of Human Cloning for Reproduction and the Regulation of Human Embryo Research Amendment Bill 2006* (Cth) (hereafter the Patterson Bill).

and have been the subject of a Senate Inquiry into Legislative Responses to the Lockhart Review. The Senate Inquiry presented its report on the two bills at the end of October 2006.⁵ Senator Patterson's Bill was passed by the Senate, with amendments, on 6 November 2006 and is now due to go before the House of Representatives where there is a strong likelihood it will be passed with amendments. The Stott Despoja/Webber bill was intended only as an exposure draft. The purpose of the bill was to promote public debate and to support the recommendations of the Lockhart Review.

The Lockhart Review recommendations and the two bills aimed at implementing those recommendations do enable the creation of some embryos that are currently prohibited for research purposes, but none of these documents would allow their creation for reproductive purposes. There is no suggestion of any amendment to the existing prohibition of hybrid or modified embryos for reproductive purposes. While originally there was significant concern about the potential slide from hybrid, cloned, and chimeric embryos to human forms of these if they were allowed to be created for any purpose, these more recent responses have maintained a distinction between such embryos created for research purposes and such embryos that might be intended for reproduction. The Lockhart Review, for instance, has made several recommendations that would in effect allow the creation of some hybrid embryos and embryos produced through a process other than by fertilisation of a human egg by a human sperm for research purposes only, see for example recommendations 23–27. Following the Lockhart Review, Senators Stott Despoja and Webber included the possible creation of such embryos for research only purposes under licence in their Exposure Draft Bill. Senator Patterson, on the other hand, has been careful in her bill to foreclose some aspects of these recommendations. In the Patterson bill, the creation of hybrid embryos is restricted to fertilisation of an animal egg by human sperm in the proposed new subsection s20(1)(f) of the *RIHE* Act. This subclause also imposes two conditions: (i) the creation and use of hybrid embryos under license is limited to the purpose of testing sperm; and (ii) the process of creation or use of such embryos occurs in an accredited ART centre. Interestingly proposed new subsection 20(1)(g) of the *RIHE* Act under the Patterson Bill allowing the 'creation of hybrid embryos by introducing the nucleus of a human cell into an animal egg and use of such embryos' was deleted by an amendment from Senator Bartlett before the bill was passed through the Senate. One of the key reasons that these kinds of embryonic forms have been prohibited to date is because they give rise to questions about how we define the human. There is no definition of 'human' in the current legislation although the definition of a human embryo requires, in a rather circular fashion, that it have a human genome or an altered human genome (see s8 of the *PHC* Act and s7 of the *RIHE* Act). In both amending bills the human embryo is redefined according to the Lockhart Review recommendation and there too it must have a 'human' nuclear genome or an altered 'human' nuclear genome but, again there is no definition of 'human.'

⁵ The Senate Standing Committee on Community Affairs, *Legislative Responses to recommendations of the Lockhart Review*, Senate Committee Report (2006).

In this paper I first explore how the law, by prohibiting the creation of certain kinds of embryos, is nevertheless giving articulation to these entities even though they do not yet exist. Such entities include the hybrid, the chimera, the genetically enhanced, the inheritably genetically manipulated, the embryo with three genetic progenitors and the embryo produced by the fusion of same sex gametes. I then examine how the law currently defines these entities and how it would define them if they were developed from the embryo to a fully birthed (human) being. Here I want to suggest that it is not the discourse of science alone, or even primarily, that gives rise to these new possibilities. Instead, it is through the enactment of prohibitory legislation that (legislative) life is given to entities that are yet to be made. In so doing, the law gives reality to the fantasy of the very beings that it seeks to deny. Law through both regulation and prohibition carries us forward in the imaginary leap that is necessary to take us from the embryonic being to the *post-human* being.

In this vein, laws regulating reproductive technology and research science produce, what I call, the phantasmal embryo. This embryo occupies the legal imaginary with the force of a vivid premonition of the child-to-be. It is an embryo disconnected from the female body as if already born and yet, unnervingly, it fails to accomplish personhood. It is the object of many possible technological interventions and yet those interventions are vigorously resisted by law and society. This is particularly so when they involve destruction, manipulation or designer enhancements. Existing outside the gestating body of the woman, it is uncanny in the Freudian sense of the *unheimlich*, or unhomely.⁶ This extra-uterine technologically produced embryo is no longer at home in the female body. Disconnected from the bodies from which it originated or any body that might welcome it in, this embryo both pre-empts its possible gestation via female embodiment and questions the need of it. For Freud, the uncanny develops from the transformation of something that once seemed homely into something decidedly not so.⁷ Freud's idea of the uncanny is useful in attempting to map the unsettling impact that these embryos have upon the legal imagination: at once utterly familiar, the routine stuff of life, and yet frighteningly other. The technologically produced embryo⁸ existing outside the female body is at its most uncanny when it doubles for the child: apparently the same and yet it is not even a person. This uncanniness lies in the familiarity it offers while simultaneously evoking the horror of the alien presence. Anthony Vidler provides a description of the uncanny that can be usefully applied here:

Its favourite motif was precisely the contrast between a secure and homely interior and the fearful invasion of an alien presence; on a psychological level its

6 Sigmund Freud, 'The Uncanny' in *The Standard Edition of the Complete Psychological Works of Sigmund Freud* (1953).

7 Anthony Vidler, *The Architectural Uncanny: Essays in the Modern Unhomely* (1994) at 6.

8 By 'technologically produced embryo' I am referring to any embryo that is made outside the womb with the intervention of technology, whether or not they have been manipulated genetically or mixed with cells from non-humans.

play was one of doubling, where the other is strangely enough, experienced as a replica of the self, all the more fearsome because apparently the same.⁹

Hybrid/manipulated embryos amplify the uncanny nature of the technologically produced embryo. The legislative response of prohibition and containment in relation to these hybrid and manipulated embryos is arguably motivated by the desire to ward off the repressed alien presence that is 'not quite at home in its own home.' In this case, the home is the absent female body, disappeared, as we shall see later in this paper, both from the language of the legislation and from the IVF clinic. Freud described the uterine home in his paper *The Uncanny* as a lascivious fantasy. He says:

To some people the idea of being buried alive by mistake is the most uncanny thing of all. And yet psycho-analysis has taught us that this terrifying phantasy is only a transformation of another phantasy, which had originally nothing terrifying about it at all, but was qualified by a certain lasciviousness — the phantasy, I mean, of intra-uterine existence.¹⁰

Rather than allowing the extra-uterine uncanny embryo and all its repressed evocations to occupy the central focus, I argue that in new legislative responses to reproductive genetic technologies and embryo research, an alternate phantasmal premonition should be foregrounded — that of the *not yet pregnant pregnant woman*. By emphasising the pregnant woman who is not yet pregnant, I want to evoke the underlying assumption that where there are embryos, there are also women who will become pregnant with them and are therefore already premonitionally pregnant. In doing so, the provisionality of these technologically created embryos is highlighted. Gestation for some of these so-called embryos is not a real trajectory and in such cases, I argue, they cannot continue to occupy the same symbolical range as the embryo that is destined for gestation.¹¹ The embryo is only connected with its potential for personhood by female embodiment. Those who wish to make the argument that all embryos have equivalent value do so only by rendering the female body irrelevant. In order to do this, a complex process of disappearing has to take place. If we return the female body to visibility then the basis of the discussion is fundamentally changed.

In the last part of this paper, therefore, I show how female embodiment has disappeared from the regulatory landscape in the same way as it has been marginalised in the IVF clinic. The disappearance of the female body in the context of scientific and legislative discussions about the embryo operates in a way that is similar to (and in fact probably derived from) the development of the 'public foetus' in the 1980s and 1990s. However, it has two striking differences. First, the embryo does not have the same visual presence as that of the 'public foetus' in that

9 Anthony Vidler, above n7 at 3.

10 Sigmund Freud, above n6 at 8.

11 Interestingly the Lockhart Review spent some time considering the difference between embryos that were destined for implantation and embryos that were not. See my discussion of this in section 2(A) below.

it is not visually amenable to anthropomorphisation through ultrasound or microscope technology. Secondly, the technologically produced embryo literally exists outside the female body. This is to be contrasted with the foetus which is separated from the woman who gestates it only visually with the aid of ultrasound technology. Here we might recall Barbara Katz Rothman's famous description of the foetus: 'the fetus in utero has become a metaphor for 'man' in space, floating free, attached only by the umbilical cord to the spaceship. But where is the mother in the metaphor? She has become empty space.'¹² The foetus then although very much contained within the womb is given an external persona through these visualising technologies. As Donna Haraway puts it, the foetus, 'given flesh by the high technology of visualisation — is a sacred-secular incarnation, the material realisation of the promise of life itself'.¹³ Embryos, on the other hand, existing prior to the possibility of recognisable (in the sense of appearing human) ultrasound renderings are instead given material realisation by the way in which they are given articulation through legal and scientific accounts which are then circulated in the media. Therefore, in the conclusion to this paper I argue that it is the *not yet pregnant pregnant woman* who should be given legislative visibility and centrality, not the embryo. In this way we shift the question away from what kind of embryo can or should be made to the more material question of what kind of embryo women will want to reproduce.

2. *The Uncanny Embryos*

A. *The Acceptable Embryo (Human)*

While this paper is primarily about embryos, there is an unavoidable slippage in my writing between embryos and foetuses.¹⁴ This slippage however, is analytically useful. It signals the impossibility of containing the symbolic weight that ideas like embryo and foetus have to carry. For the purposes of the argument that follows, I want to suggest that the embryo and the foetus occupy similar

12 Barbara Katz Rothman, *The Tentative Pregnancy: Prenatal Diagnosis and the Future of Motherhood* (1986) at 114. See also Rosalind Pollack Petchesky, 'Fetal Images: The Power of Visual Culture in the Politics of Reproduction' (1987) 13 *Feminist Studies* 263 and Valerie Hartouni, 'Containing Women: Reproductive Discourse in the 1980s' in Andrew Ross & Constance Penley (eds), *Technoculture* (1991), both of whom have provided valuable insights into the way in which foetal visualising technologies have been used by the religious right and anti-abortion activists to argue the status of the foetus as something not only separate from the gestating woman but as her adversary.

13 Donna Haraway, *Modest_Witness@Second_Millennium.FemaleMan_Meets_OncoMouse™: Feminism and Technoscience* (1997) at 179.

14 Typically, an embryo is distinguished from the foetus, both in law and science, by time. An embryo becomes a foetus after eight weeks of development. The definition of 'human embryo' as it appears in the *PHC Act* and the *RIHE Act* is, according to the Lockhart Review, a very broad definition, which 'reflects the common understanding of 'embryo' as the developing organism from fertilisation until about eight weeks of development (after which it is a foetus)': Lockhart Review, above n4 at 94. See also Derek Morgan & Robert Lee, *Blackstone's Guide to the Human Fertilisation and Embryology Act 1990: Abortion and Embryo Research — The New Law* (1991) at x–xi; for a similar definition in the UK context.

symbolic ground, both giving force to a phantasmal premonition of a person. This is despite the fact that, as noted earlier, the technologically produced embryo is literally extra-uterine and less easily anthropomorphised while the foetus resembling a baby is only separated from the female body through visualising technologies.

It is useful to start by considering how the technologically produced human embryo is managed in the law. Marie Fox has described the status of this embryo as 'hover[ing] uneasily between personhood and property',¹⁵ despite the consistent failure in the legal context to establish foetal personhood. In the Australian legal context this embryo (and later the foetus) hovers closer to legal personhood than property. It has, I would argue along with Fox, taken hold of the legal and cultural imaginary in such a way that it has attained a subjectivity that gives it legal purchase, if not legal personhood. Fox quotes Deirdre Condit:

Gradually, the symbolic meaning of the fetus is being radically transformed. Where the abstract idea of the fetus once signified an invisible, unknowable potential, it is coming to designate an extant, corporal entity with a knowable autonomous identity as a baby.¹⁶

It is not surprising then that in its review of the *Prohibition of Human Cloning Act* 2002 (the *PHC Act*) and the *Research Involving Human Embryos Act* 2002 (the *RIHE Act*), the Lockhart Committee focused on the definitional question of what is a human embryo as a means of achieving greater research flexibility for scientists. By giving articulation and emphasis to the state that is less than an embryo but more than gametes, the Lockhart Committee opened up the potential research terrain without the need to suggest a different value to the embryo itself. They said:

Adopting an independently developed definition of a human embryo to a slightly later stage in the fertilisation process (first cell division) would allow much of the research described ... to occur without falling outside the [Research Involving Human Embryos] Act.¹⁷

Currently the *PHC Act* prohibits the creation of a human embryo for any purpose other than to enable pregnancy. In addition, it sets out a list of potential embryonic creations that are not allowed. These include clones, hybrids, chimeras and embryos with different genetic manipulations.¹⁸ The *RIHE Act* operates in tandem with the *PHC Act* to set up a regulatory regime to manage those embryos created

15 Marie Fox, 'Pre-Persons, Commodities or Cyborgs: The Legal Construction and Representation of the Embryo' (2000) 8 *Health Care Analysis* 171 at 172.

16 Deirdre Condit, 'Fetal Personhood: Political Identity Under Construction' in Patricia Boling (ed), *Expecting Trouble: Surrogacy, Fetal Abuse & New Reproductive Technologies* at 32, quoted in *id* at 174 (footnotes omitted).

17 Lockhart Review, above n4 at xv. This was only one part of their recommendations. They did also suggested that different embryonic forms such as those formed by Somatic Cell Nuclear Transfer (SCNT) should be given different value. See above n11 and my discussion below.

18 See above n2 and n3.

in the context of assisted reproduction. Under certain circumstances and by licence only, excess assisted reproductive technology (ART) embryos (defined in both Acts) can be used for research. The Patterson Bill will change this to allow the creation of certain types of embryos for research under license by the NHMRC. The *PHC* Act also forbids the development of an embryo outside the body of a woman beyond 14 days.¹⁹ Further prohibitions include the implantation of changed/manipulated/hybridised embryos into a woman or any human embryo into an animal.²⁰ The Patterson Bill retains these limitations.

The Lockhart Committee's definitional manoeuvre is aimed at the period before the legislation would otherwise become operational, namely prior to the existence of what is defined in the existing legislation as a human embryo. A human embryo is defined in both acts as: 'a live embryo that has a human genome or an altered human genome and that has been developing for less than 8 weeks since the appearance of 2 pro-nuclei or the initiation of its development by other means'.²¹

The Lockhart Committee suggests that the current definition of the human embryo be replaced by the following:

A human embryo is a discrete living entity that has a human genome or an altered human genome and that has arisen from either:

- (i) the first mitotic cell division when fertilisation of a human oocyte by a human sperm is complete; or
- (ii) any other process that initiates organized development of a biological entity with a human nuclear genome or altered human nuclear genome that has the potential to develop up to, or beyond, 14 days and has not yet reached eight weeks of development.²²

Under this revised definition, if all other provisions in the Acts remained the same, scientists would be allowed to fertilise an egg for research purposes so long as the process of development was stopped before the first mitotic cell division was complete. The second part of the definition deals with those entities that are created through processes other than egg and sperm fertilisation. These would not be embryos unless they could survive 14 days. I will return to these entities shortly, but first it is important to interrogate the thinking behind part one of the proposed re-definition.

The Committee suggested first cell division as determinative on the basis that the community consensus is a 'new and unique genetic entity is formed' only after the genetic material from the male and female pronuclei combine.²³ One might ask however, why a new and unique genetic identity is key to embryonic status? It seems clear that genetic identity is here standing in for the individual. In this

19 *PHC* Act s16.

20 *PHC* Act s10.

21 *PHC* Act s8; *RIHE* Act s7.

22 Lockhart Review, above n4 at 174. Both the Patterson Bill and Despoja/Webber bill adopt this revised definition.

23 Lockhart Review, above n4 at xv.

moment then a particular scientific account of selfhood as synonymous with DNA is being privileged over all others. This focus on the uniqueness of genetic identity accords with the observation by Dorothy Nelkin and Susan Lindee that DNA is 'today taking on the social and cultural functions of the soul.'²⁴ Similarly, Christine Hauskeller has identified 'the tradition of protecting individuality that has become secularised and this means nowadays based on matter, as it is.'²⁵ She goes on to argue that government practices of regulating genes and genome identity discourses belie an underpinning ideology 'that molecular biology can deliver the material foundation of concepts of what being human is and what it should be.'²⁶ David Le Breton too critically describes this process when he says of the desire of 7 per cent of Americans to be cloned one day, that their understanding is that the 'body is merely a decorative container that holds the soul, which is to say the DNA. One's body is mortal and imperfect and only the DNA is immortal ...'²⁷ While I am not suggesting that the existing definition of a human embryo is better, I would contest the assumption that individuality is born into being in the moment of the first mitotic cell division. Rather, I would suggest it happens much later in the process.

A similar debate took place in the context of the enactment of the *Human Fertilisation and Embryology Act* 1990 (UK). Sarah Franklin tracks that debate and the contest between those who argued a unique individual was formed only at the point of the emergence of the 'primitive streak' (spinal column) and those who argued that it was formed when a unique genetic blueprint emerged at fertilisation.²⁸ In both cases the key is the moment that a unique biogenetic entity can be discerned. Franklin describes this as 'establishing biogenetic individuality as the basis of personhood' and contributing to 'the geneticisation of both kinship and identity.'²⁹ The Lockhart Committee similarly highlights the moment of biological individuation as key but finds its occurrence in the first cell division.

If the Lockhart Committee is correct in its assessment of community values, then, in Australia being human in embryonic form means having a new and unique genetic identity. This moment of becoming embryonic necessarily evokes the further development of the foetus and, if brought to term, the child. Although that trajectory is far from certain, the embryo (now synonymous with a 'new and unique genetic entity') stands for all that it might become. Unhinged from the all-encompassing female body, and equipped with its own genetic identity, it attains an individuality that prefigures its birth. In this way, even in the absence of a mother, the embryo is assigned a holding place in the (human) family.

24 Dorothy Nelkin & Susan Lindee, *The DNA Mystique: The Gene as Cultural Icon* (1995) 41–42.

25 Christine Hauskeller, 'Genes, Genomes and Identity. Projections on Matter' (2004) 23 *New Genetics and Society* at 296.

26 Hauskeller, id at 297.

27 David Le Breton, 'Genetic Fundamentalism or the Cult of the Gene' (2004) 10 *Body and Society* at 16.

28 Sarah Franklin, 'Making Representations: The Parliamentary Debate on the Human Fertilisation and Embryology Act' in Jeanette Edwards, Sarah Franklin, Eric Hirsch & Frances Price (eds), *Technologies of Procreation: Kinship in the Age of Assisted Conception* (2nd ed, 1999) at 133.

29 Id at 134.

Franklin again describes a similar process in the context of the UK legislation. She says that ‘having constructed a completely genetic basis for personhood, which is also the essence of the trajectory (the realisation of the genetic blueprint), the parliamentarians were left with a closed circuit.’³⁰ She goes on to quote from the parliamentary submissions of the Archbishop of York and the MP Audrey Wise who attempted to challenge this construction by reasserting the contingency of the embryo through its relation with the female body.³¹

The Lockhart Committee have suggested what one might describe as a circuit breaker in this process which ties embryonic value to the likely trajectory of the embryo. As I noted above in part two of the definition they distinguish between embryos created by means other than fertilisation of an egg by a sperm (eg by somatic cell nuclear transfer (SCNT)) and embryos created through fertilisation. In the former case, viability to 14 days is key to achieving embryo status but later in the report the Committee also suggests we might look to intent to implant as a basis for embryonic status too. They state ‘if the embryo created by SCNT is not intended to be implanted, it does not represent a potential new individual in the way that the product of fertilisation does.’³²

B. *The Unacceptable Embryo (Human)*

The Lockhart Committee does not speculate from where the intent to implant might emanate. I want to briefly map out this dimension further by drawing on Marilyn Strathern’s typology of kinship laid out in her recent book *Kinship, Law and the Unexpected: Relatives Are Always a Surprise*. Strathern describes one aspect of kinship as derived from ‘a highly developed contrast between relations already in existence and those that must be deliberately created.’³³ Strathern goes on to discuss the decision by the Californian Supreme Court in *Johnson v Calvert*³⁴ to award custody of a child born in the context of a gestational surrogacy arrangement, to the commissioning parents.³⁵ These parents were awarded the child because it only came into being because of their procreative intent. That intention, which might have come to nothing, had it not been for Anna Johnson’s gestational capacity, was sufficient to determine their rights over that child. Crucially, the female body was rendered irrelevant. Strathern goes on to discuss the derivations

30 Id at 150.

31 Ibid.

32 Lockhart Review, above n4 at 171. See also the Lockhart Committee’s reference to the National Health and Medical Research Council (NHMRC) Discussion Paper ‘Human Embryo — A Biological Definition’ (December 2005). The Committee suggested ‘that potential for implantation and future development to a live birth could provide a useful criteria for considering whether such an entity should be included in the definition of a human embryo or not.’ However that potential was noted to be determined by the appearance of the primitive streak: Lockhart Review, above n4 at 173.

33 Marilyn Strathern, *Kinship, Law and the Unexpected: Relatives Are Always A Surprise* (2005) at 8.

34 5 Cal 4th 84 (1993).

35 Strathern also considers the later case of *In Re Marriage of Bazzanca* 61 Cal App 4th 1410 (1998), above, n33 at 52–58.

of this judicial thinking in intellectual property law. However, I want to focus on just one aspect that best serves my purposes here. Strathern touches on it when she says 'in abstracting parents from the birth, the doctrine of intent allows medical technology to appear as enabling of natural inclinations as it does of biological functions.'³⁶ This is, I would argue, the kind of kinship that is both prefigured and instantiated in the context of the creation and use of human embryos. The formation of a *new and unique genetic entity* that so far has been key in the legislative framework stands in for the relation that *must be deliberately created*. Produced in the scientists' laboratory without the need of gestation, it is possible to legislatively imagine these hybrid or manipulated embryos as parented by the scientists who created them and as already, therefore, kin. Although Strathern identifies a 'highly developed' contrast between relations already in existence and those that must be deliberately created, I would suggest that in the context of technologies aimed at embryo production, that process of deliberation is pre-empted. The legislative response has been to assume its trajectory towards membership of the human family despite the lack of a gestating body or even a parental figure. Having already assumed the end point (a person), it is not difficult to make the conceptual leap to embryo as already kin. The related possibility of unauthorised mixing (hybrids, chimeras, radical genetic modifications) energises the legal response to ensure that we place a limit on who we may call (create as) kin.

In Australia that legislative limit is drawn around reproductive and genetic technologies that might give rise to persons who are clones, hybrids, chimeras, or radically modified human beings. However, there are other kinds of boundary policing going on. The human must also be born through genetically heterosexual and genetically monogamous human reproduction. As I discuss below in more detail, s13 and s15 of the *PHC Act* implicitly prohibit what might be classified as homosexual reproduction (via same-sex gametes) and polygamous reproduction (via multiple –more than two— genetic progenitors) respectively. These limits on reproduction are retained in the Patterson Bill, however, the creation of an embryo with more than two genetic progenitors for research is allowed under proposed s20(1)(c) of the *RIHE*. The policing of this boundary then requires some clear justification.

In law, which is often called upon to try to secure the boundaries of the body, we accept the creation of some hybrids (plurals) of technology and nature. Children born of in-vitro fertilisation (IVF) procedures are legal persons, though there is often a great deal of recuperative legal work that takes place to shore up parentage questions.³⁷ Mixing of technology and nature then is not the problem. It is the other *kinds* of mixing and intermingling that are of concern. We know that the conditionality of the existence of laboratory embryos, for example, is the blending of technology and *nature*³⁸ to constitute their being. Indeed, as Haraway would claim, the moment of the natural as some kind of non-hybrid organic identity has long since passed. Instead, she argues that already we have

36 Marilyn Strathern above, n33 at 57.

experienced three crucial boundary breakdowns: that between animal and human, that between animal/human and machine and that between animal/human/machine and the physical and non-physical. She states: ‘By the late twentieth century, our time, a mythic time, we are all chimeras, theorized and fabricated hybrids of machine and organism; in short, we are cyborgs.’³⁹ The IVF embryo exemplifies this hybridity. Sarah Franklin describes, for instance, how ‘in its ability to embody the union of science and nature, the embryo might be described as a cyborg kinship entity’⁴⁰ and it is this same embryo that has been accommodated into the lexicon of the natural when we come to discuss IVF babies and assisted reproductive technologies.

What is human or who we may call *kin* does not turn on the decision to preclude or forbid the hybrid techno-medical construction itself, but rather one kind of mixing over another. As I have stated, monogamous, heterosexual mixing even when done in the absence of bodies — in the clinic or the test tube — is permitted. Polygamous and homosexual mixing for reproductive purposes is not.

3. *Laws (re)productions*

In this section I consider the idea that law, like literary accounts of anticipatory science, is in fact, through its prohibitions, actually engaged in productions or, perhaps more accurately, reproductions. The exact place of the legislative limit marking the difference between that which *is* and that which is *not yet* allowed, will, in time, shift but it is my contention that these original imagined possibilities will be the standard from which review and amendment will take place.⁴¹

37 My earlier discussion of *Johnson v Calvert* is a case in point. See also *Status of Children Act* 1974 (Tas); *Status of Children Act* 1996 (NSW); *Family Relationships Act* 1975 (SA); *Artificial Conception Act* 1985 (WA); *Artificial Conception Act* 1985 (Qld); *Parentage Act* 2004 (ACT). The Victorian Law Reform Commission is conducting an inquiry on this question: Victorian Law Reform Commission, *Assisted Reproductive Technology and Adoption: Position Paper Two, Parentage* (2005). Note that three Australian jurisdictions WA, NT & ACT, now grant parental status to a mother’s female partner: see Jenni Millbank, ‘Regulation of Gay and Lesbian Families in Australian Law — Part Two: Children’ (2006) 34 *Federal Law Review* 205.

38 Here I am using ‘nature’ to refer to that which is not explicitly technologised since, arguably, the ‘natural’ itself is only ever understood within the cultural context and is therefore always already a construct.

39 Donna Haraway, *Simians Cyborgs and Women: The Reinvention of Nature* (1991) at 151–153. The third distinction requires further elaboration. Haraway describes this as follows: ‘The third distinction is a subset of the second: the boundary between physical and non-physical is very imprecise for us Our best machines are made of sunshine; they are all light and clean because they are nothing but signals, electromagnetic waves, a section of a spectrum, and these machines are eminently portable, mobile — a matter of immense human pain in Detroit and Singapore. People are nowhere near so fluid, being both material and opaque. Cyborgs are ether, quintessence’.

40 Franklin above n28 at 131.

41 The review of *PHC Act* and the *RIHE Act* by the Lockhart Committee demonstrates this process, as does the Bill presented to Parliament by Senators Stott Despoja/ Ruth Webber and Kay Patterson above n4.

Like the literary figure of Frankenstein's monster, these imaginary beings created by law's prohibition of their embryonic form will be a reference point — a point from which other moves are made. Shelley's original text of *Frankenstein* offers a useful analogy. This text, which is a fantastically rich and complex attack on science, the family and romanticism, is supposed to be admonitory.⁴² Frankenstein's science is obscene and his death and the apparent destruction of the creature emphasises the dangers of this form of arrogant speculation. However, if we think about Shelley's text from a regulatory perspective, it is arguably a complete failure. Far from closing off future speculation, it opens a whole new realm of generic speculation. The monster story is born and Frankenstein's creature itself proves indestructible, staging endless returns from beyond the grave. This is a rich demonstration of a negation spawning and enabling a future field of imaginary creation.⁴³

The idea that law, through its prohibitions, is actually engaged in fictional productions is a radical view, yet it is clearly happening. Although the legal response is to defer the engagement with alterity, nevertheless, through the articulation of that deferral, law is engaged in imaginary practices which give legal form to those proscribed embryos in order to bring their undecidability to order. The possibility of these prohibited embryonic forms is made real by the recognition of the inevitability of legal failure. The stated aim of law to stop the creation of these forms raises the tantalising possibility that the law will not or cannot stop them.

It is useful to return to Ellison's description of *Frankenstein* here because a similar kind of process operates with respect to Shelley's text:

[t]he reason that the monster is not put to rest is that it is such a fantastically desirable figure. Aside from the fearful pleasure it allows, it is also a capacious receptacle for any and every cultural anxiety of the moment. So the monster is an amalgam of fear and desire; and a totem of urgent relevance.⁴⁴

Like Frankenstein's monster, there is a fascination with these legal phantasms — the prohibited embryos and all that they might become. They are a repository of otherness that can be cast as destructive or liberating.

4. *Laws Unlawful Progeny*

If the prohibited embryo is brought to life through gestation and birth, one might ask, how would law adjudicate its value if called upon to do so? Would its proscription in embryonic form have any impact on its status as a human person before the law? In her writings about conjoined twins and disability, Margrit Shildrick suggests these configurations of otherness can offer up alternative and transgressive ways of being if we engage a Derridean account of hospitality:

42 David Ellison, 'Shelley's Frankenstein: Monster or Maker' (2005) (unpublished).

43 Ibid.

44 Ibid.

In Derrida's more recent work ... his notion of the monstrous *arrivant* takes shape in the figure of the immigrant, the asylum seeker, perhaps even the terrorist. Like those with transgressive bodies, all are paradigmatic of the stranger/outsider whose arrival is feared for the disruption it brings to socio-cultural and legal normativities. Yet to extend a welcome, as Derrida insists we must, devolves not on the augmentation of rights, though that may be a provisional step, nor on assimilation to the values of the sociality, but on an openness to difference ... This is hospitality that owes nothing to the comfort of homogeneity or stability, and that is prepared to expose both individual self and collective standards to the risk of the unknown and unforeseeable. It comes into play precisely where the conventional juridical and moral discourse reaches its limit.⁴⁵

Shildrick goes on to argue that the other demands 'a response and responsibility that does not defer, but engages with, alterity now' and she quotes John Caputo who says:

Maybe what is coming is nothing as simple and unambiguous as an hermaphrodite or an androgyne, but something undecidably miscegenated, something that has not happened yet ... something unimaginable and innumerable.⁴⁶

It is to the 'undecidably miscegenated' that I now turn.

In the case of *Toy Biz Inc v US*,⁴⁷ Judge Judith Barzilay of the United States Court of International Trade, was called on to decide on the status of the genetically modified human phantasm in a case concerning the characters of the Uncanny X-Men comic strip and movies. The X-Men are characters from a Marvel comic strip that has been revitalised in recent years through its screen rendition. They are described as 'children ... born with an extra twist to their chromosomes that allow them to exhibit superhuman abilities: fire a beam of force from their eyes, or sprout wings that allow flight or being able to read men's (sic) minds.'⁴⁸

The case was brought to challenge the classification of the X-Men action figures as dolls because the taxes on dolls were proportionally higher than those on other toys. To be classified as dolls, however, the customs office needed to successfully assert that they depicted humans which it failed to do. Judge Barzilay defined the characters as non-human, not by identifying what a human *is* and determining whether they have those characteristics, but by identifying what a human *is not* (including being more than human) and declaring the possession of those characteristics to be definitive:

Whatever the degree is to which they resemble human beings, the Court finds that these action figures do not represent human beings and are therefore not properly classifiable as "dolls" ... the figures at issue exhibit at least one non-human

45 Margrit Shildrick, 'Transgressing the Law with Foucault and Derrida: Some Reflections on Anomalous Embodiment' (2005) 47 *Critical Quarterly* 30 at 42 (footnotes omitted).

46 John Caputo, *More Radical Hermeneutics: On Not Knowing Who We Are* (2000) at 150, quoted in id at 42 (footnotes omitted).

47 *Toy Biz, Inc v United States* 248 FSupp 2d 1234 (Ct Int'l Trade, 2003).

48 Joe Button, Plot Summary for X-Men (2000): <<http://www.imdb.com/title/tt0120903/plotsummary>> (21 March 2006).

characteristic. The Court does not agree with Customs that the few non-human characteristics the figures possess, such as claws or robotic eyes, “Fall far short of transforming these figures into something other than the human being which they represent” because ... the issue is whether the figure as a whole and in a wider context represents a human being. Second these characters are known in popular culture as “mutants.” That fact further informs their classification. Third the “X-Men” figures are marketed and packaged as “mutants” or “people born with x-tra power”. That they are denoted as such by the manufacturer or the importer lends credence to the assertion that they represent creatures other than (or more than) human beings.⁴⁹

Steven Wu, a Yale Law Student who keeps a web log (a blog) that tracks such unusual cases asks an interesting question: how would the court classify the foetus dolls, also known as ‘micropreemies’ sold online by the organisation ‘Gods Little Ones’?⁵⁰ These dolls, sold as representations of the developing embryo/foetus from six weeks gestation, are clearly intended to be representations of human persons. Their web page comes with a warning in red text stating ‘If you have had an abortion or miscarriage this page may be hard to view. If you choose to proceed you may want a tissue box near by.’⁵¹

The six week gestation doll, a tiny pink newt, is presented inside a wedding ring; a curious and frankly desperate presentation of the least anthropomorphic of the series. Those that follow are provided with miniature hats, pyjamas, nappies, bassinets and so on. These little accessories make a claim of viability beyond the womb for at least some of the dolls that is in no way supported by medical science at this point. The only accessory that is missing is the all enclosing female body.

How would these objects be classified should the issue arise? Could Judge Barzilay’s reliance on the manufacturer’s assertion in the X-Men case that the dolls were marketed as mutants be used here to argue that the dolls are marketed as fully human persons? As it turns out, the import tax on dolls and toys is no longer different, so this question will not arise. But the analogy prompts a question: how, from a feminist perspective that strives for an openness toward the transgressive other, can we offer hospitality to the miscegenated other as Shildrick (following Derrida) argues we must, without capitulating to the demand of the phantasmal embryo/foetus to be recognised as a legal person? I will address this below.

On the basis of the decision about the X-Men figures, Erik Baard, a columnist with the *Village Voice*, speculates that in relation to genetically modified humans ‘the rights of such unusual progeny are being curtailed before the people even exist’.⁵² But this is clearly going too far. In the case of reproductive and genetic

49 *Toy Biz, Inc v US*, above n47 at 1249.

50 Steven Wu Blog: <<http://www.scwu.com/news/viewnews.cgi?search>> (last visited 21 March 2006 but no longer available). ‘Gods Little Ones’ Webpage: <<http://www.homestead.com/godslittleones/index.html>> (21 March 2006).

51 <<http://www.homestead.com/godslittleones/index.html>> (21 March 2006).

52 Erik Baard, ‘Supertots and Frankenkids, ‘On the Rights of Those Not Yet Designed’ *Village Voice* (23–29 April 2003): <<http://www.villagevoice.com/issues/0317/baard.php>> (29 March 2005).

manipulation technologies, the law precludes the possibility of certain developments but does not speculate further on what they would be or what rights they would possess if indeed proscribed embryos were developed and brought to term.

It is this distinction that I think can be used to answer the feminist question I posed above. In the case of the foetus dolls, they are representations of human foetuses, but they are not representations of human persons though they do polemically give articulation to the possibility of those persons being born, while simultaneously mourning the possibility that they will not. In other words, they tap into the phantasmal renderings of the embryo with which I began this paper. The X-Men action figures are representations of human mutants but they could also be held to be representations of human persons. In this sense the call to hospitality would be appropriately applied to these kinds of beings. The legislative productions of chimeric, hybrid and genetically modified embryos are representations of hybrid human embryos but they are not representations of hybrid human persons, though they do give articulation to the possibility of those persons being born. In this last case though, the legislation through its prohibition preempts our negative response to their birth. Indeed the Patterson Bill proposes to amend s8 of the PHC Act to include at the end the statement: ‘a reference to a human embryo does not include a reference to a hybrid embryo ...’. I would argue that our response is not or need not be so foreclosed. Indeed, it might be either horror or *hospitality* depending on the kind of account of the human with which we choose to move forward. Until, however, such an entity is born we do not have to face the question; What happens then when such an embryo is made and developed and born? That is when a woman agrees to gestate it.

5. *Science’s Unlawful Progeny*

There are, in fact, already existing fully birthed genetically modified humans. They are not the product of interspecies transgression — and this may be significant — but they are the product of a unique mixing of human DNA that is currently prohibited in Australia by s15 of the *PHC* Act which says:

A person commits an offence if the person intentionally creates or develops a human embryo containing genetic material provided by more than 2 persons.
Maximum penalty: Imprisonment for ten years.

Fifteen children have been born from procedures involving cytoplasmic transplantation undertaken at the Institute of Reproductive Medicine and Science of St Barnabas in New Jersey in 1997.⁵³ It is hard to imagine that these babies of St Barnabas would in social terms be described as post human, mutants. But like the X-men figures born with X-tra power these babies are born with X-tra genetic

⁵³ Jason Barritt, Carol Brenner, Henry Malter & Jacques Cohen, ‘Mitochondria in Human Offspring Derived from Ooplasmic Transplantation: Brief Communication’ (2001) 16 *Human Reproduction* at 513–6. See also ‘Embryo with Two Mothers Approved’: <<http://news.bbc.co.uk/1/hi/health/4225564.stm>>.

parents. The procedure used to create them involved the insertion of cytoplasm from donor eggs into the eggs of a woman suffering from mitochondrial disease. Although cytoplasm is the material that sits around and nourishes the nucleus of the egg where the primary genetic material is situated, it does nevertheless contain some mitochondrial DNA from the donor. The treated egg retains the trace of the other woman through the transference of her mitochondrial DNA. The child then ends up with genetic material from three rather than two people. In Australia, following the enactment of s15 of the *PHC Act*, this would be illegal.⁵⁴

The technology and even the co-mingling of more than two genetic sources for reproduction are on one level infinitely banal given the fact that we are all mixtures of generations of genetic progenitors.⁵⁵ On the other hand the breaking of the heterosexual reproductive dyad is, for many, tremendously confronting. Consider for instance the way that the matter was reported in the press. BBC News Online asked 'Can One Baby have Two Genetic Mothers? Babies Born in Experiments have Genes From 3 Parents'⁵⁶ while the US based ABC NEWS stated 'Scientists Say Stop Three-Parent Babies'.⁵⁷ While clearly part of the motivation behind the prohibition is to ensure the safety and health of any modified child-like product, nevertheless there are also strong indicators in the legislation that this kind of mixing carries with it social and moral risk. In the Issues Paper of the Lockhart Committee seeking submissions for its review of both the *PHC Act* and the *RIHE Act* the reason given for this legislative ban was that 'it avoids confusion of genetic identity for the person born'.⁵⁸ In the final report however, the Committee recommended that considerations should be given to the creation of embryos from the combination of more than two genetic progenitors but for research purposes only. As I noted earlier the Patterson Bill would give effect to this recommendation. It was felt that the ban inhibited the capacity of researchers to

54 The other issue that this raises is the ad hoc nature of national legislative provisions. These gamete mixes are not illegal everywhere. How then does a national legal system deal with beings that result from techniques allowed in other countries but prohibited here. For a good discussion of the issue of globalization in this context see Therese Murphy, 'Gametes, Law and Modern Preoccupations' (2000) 8 *Health Care Analysis* at 155.

55 Here we might recall the Oxford Ancestors project operating out of Oxford University and the MatriLine™ test, a genetic mapping exercise carried out by Brian Sykes which offers women the opportunity of using 'the proven power of mitochondrial DNA to probe into the deep past linking them 'one of the seven clan mothers from which all Europeans are descended: Ursula, Tara, Helena, Katrine, Velda, Xenia or Jasmine': <<http://www.oxfordancestors.com/team.html>> (1 November 2006). For a lengthy discussion of this project see Isabel Karpin & Karen O'Connell, 'Intimate Strangers: Law, Genetics, Globalisation and the "Human Family"' (2002) 17 *Australian Feminist Law Journal* at 63.

56 David Whitehouse, 'Can One Baby Have Two Genetic Mothers? Babies Born in Experiments Have Genes From 3 Parents' *BBC News Online* (4 May 2001): <<http://www.skfriends.com/can-baby-be-from-2-mothers.htm>> (21 March 2006).

57 Rob Eisner, 'Scientist Say Stop Three-Parent Babies' ABCNEWS.Com (19 May 2001): <<http://www.skfriends.com/can-baby-be-from-2-mothers.htm>> (21 March 2006).

58 Lockhart Committee, *Legislation Review: Prohibition of Human Cloning Act 2002 and Research Involving Human Embryos Act 2002, Issues Paper: Outline of Existing Legislation and Issues for Public Consultation* (August 2005) at 14. Note that this statement is not supported by any evidence presented in the paper itself.

interrogate the causes and potential cures of mitochondrial disease and that this was detrimental to women. However, the Committee also identified strong community objection to the implantation of ‘prohibited embryos’ such as embryos with genetic material from more than two people and to their development in any way beyond 14 days. The Committee therefore recommended no change to this ban. They said:

Similarly, with respect to embryos with more than two genetic parents (including those created using cytoplasmic transfer) ... the Committee’s view is that the creation of such embryos for reproductive purposes should remain prohibited (that is, development and implantation of such embryos should be prohibited) due to the lack of social support for these practices and concerns about safety.⁵⁹

Instead, the Committee in Recommendation 13 stated that the ‘creation of human embryos by fertilisation of human eggs by human sperm to create embryos for the purpose of research should continue to be prohibited except in the situations described in Recommendation 15.’ In that recommendation the Committee made explicit its view that the definition of the human embryo should exclude the fertilised egg up to (but not including) the first cell division. The recommendation therefore states:

Research involving fertilisation of human eggs by human sperm up to, but not including, the first cell division should be permitted for research, training and improvements in clinical practice of ART’.⁶⁰

Recommendation 19 is written in slightly less assertive terms, providing that ‘[c]onsideration should be given to the use of cytoplasmic transfer (including transfer of mitochondrial DNA) under licence, for research on mitochondrial disease and other uses to improve ART treatment.’⁶¹

In the meantime, until these recommendations are taken up by the legislature, the legislation is explicit regarding the limits of what forms of human reproduction are acceptable. The legislation as it currently stands does not allow these kinds of genetic mixing and contains no exception where it is clinically proven to be safe. Rather it prohibits them outright.

This kind of ban on non-monogamous, non-heterosexual genetic mixing is in stark contrast to the opening up of reproduction in the embodied biological realm (as opposed to the molecular/genetic) to multiple participants. Altruistic gestational surrogacy or egg donations, where there are two physiological/biological but not genetic mothers is permissible in a number of jurisdictions in Australia.⁶² This is despite the fact that much has been made of the womb environment as offering a finely tuned balance of hormones and nutrients, easily disrupted and potentially hazardous.⁶³ Given this, it is surprising that more has not been made of the lack of clinical studies undertaken before making the decision to

⁵⁹ Lockhart Review, above n4 at 164.

⁶⁰ Id at 168.

⁶¹ Ibid.

put eggs from one woman into another. For instance, O'Donnell describes the process whereby IVF techniques were given legal sanction by the Warnock Committee in the run up to the introduction of the Human Fertilisation and Embryology Authority (HFEA) in the UK in 1990 despite there having been no animal testing of the techniques:

The techniques which the Warnock Committee was prepared to countenance were a direct result of the research which had previously been carried out upon women, who were used as the experimental subjects for research into superovulatory drug regimes and egg removal techniques, and who were the source of the eggs needed for research into fertilisation. It is worth noting that this research was a cause of considerable concern when Edwards and Steptoe began their work: for example, preliminary primate studies, generally regarded as an essential precursor to work on humans, were never carried out, despite concerns expressed by medical and funding bodies.⁶⁴

Turning then to the question I posed earlier; how do we define what it is to be a human person before the law? It is now clear that in order to answer that we must examine the kind of legislative and cultural work that takes place around the definition and management of embryos, whether we are enhancing, cloning, manipulating, harvesting, implanting or destroying them. This then needs to be mapped alongside the uncanny pre-existence of the future embryo to which the legislation gives rise, that in turn marks some of them for exclusion from the human before they even exist.

62 Altruistic surrogacy is prohibited in Queensland under the *Surrogate Parenthood Act* 1988 (Qld). In Tasmania surrogacy contracts of any sort are illegal but altruistic surrogacy itself is not: *Surrogacy Contracts Act* 1993 (Tas). In South Australia, all surrogacy contracts are illegal and void under Part IIB of the *Family Relationships Act* 1975. In the ACT the *Parentage Act* (2004) facilitates altruistic surrogacy. In Victoria the *Infertility Treatment Act* 1995 is silent on altruistic surrogacy and in New South Wales, Western Australian and the Northern Territory there is no regulation and clinics rely on the NHMRC ethical guidelines, which caution against surrogacy without significant counselling and require consideration of it only as a last resort: NHMRC, *Ethical Guidelines of the Use of Assisted Reproductive Technology in Clinical Practice and Research* (2004). Egg donation on the other hand is legal in all States subject to strict regulatory controls.

63 A small sample of press accounts include: Carl Zimmer, 'Silent Struggle: A New Theory of Pregnancy' *New York Times* (14 March 2006): <<http://www.nytimes.com/2006/03/14/health/14preg.html?ex=1159848000&en=ba80af652e3711c8&ei=5070>> (1 October 2006); Julie Robotham, 'Memo to Mum: Your Children Are What You Eat' *Sydney Morning Herald* (13 March 2006). Danielle Teutsch, 'Overweight Mothers Putting Babies at Risk' *Sydney Morning Herald* (8 February 2006).

64 Kath O'Donnell, 'Legal Conceptions: Regulating Gametes and Gamete Donation' (2000) 8 *Health Care Analysis* at 140.

6. *Natural Transitions and the Disappearance of Women*

The next step to consider is how these entities might make the transition from illegal aliens, mutants or freaks to ordinary human beings. In order to answer this question we need to examine the way in which IVF babies and frozen embryos have already made that transition and have joined the lexicon of the natural. One key aspect seems to be the disappearance of women's bodies. While some regard seems to have been paid to the feminist analysis of the disappearance of the female body enclosing the foetus through the use of ultrasound and other visualising technologies in the context of pregnancy,⁶⁵ feminist accounts of the same process in the context of IVF have had a harder time being understood. Writing from a legal perspective, Marie Fox notes that a significant shift in the perception of embryos and fetuses has 'been prompted by the manner in which the embryo/fetus has been rendered visible through medical technologies, such as ultrasound, amniocentesis and *in utero* therapy.' She goes on to argue that:

While certainly enhancing our medical knowledge of the embryo/foetus these technologies have in the process exorcised other knowledges, particularly those of pregnant women. Moreover by utilising an appeal to common sense notions of the embryo/foetus as a living human being, they have facilitated its construction as a separate entity — literally an embryonic human or miniature baby.⁶⁶

It is harder, however, to view the erasure of women's bodies as problematic when the legislation is focused on the period when the embryo is physically outside the woman's body and in the clinic.

In the case of IVF and ARTs generally Irma Van der Ploeg argues that through the disappearance of women in the language of fertility treatment the foetus comes to exist prior to its actual incarnation.

In examining the parts of the IVF treatment that concern getting the oocytes into the laboratory, that is, the hormonal stimulation of ovulation in the woman and the retrieval of the oocytes from her body, we find another example of reconceptualizing the bodily interventions in the IVF procedure. In contrast with how these stages of treatment are likely to be experienced by the woman involved, these stages appear to be reduced to the status of *preparation*, necessary to start with the 'real' treatment: the laboratory work.⁶⁷

She goes on:

From a partial perspective which considers women as the central patient, and which regards their individuality and physical well-being as issues that matter,

65 See for instance the Australian Medical Association's Report *Fetal Welfare and the Law* (1995) written by John Seymour citing several feminist accounts of the relationship between a woman and her foetus including my own: Isabel Karpin, 'Legislating the Female Body: Reproductive Technology and the Reconstructed Woman' (1992) 3 *Columbia Journal of Gender and the Law* 325.

66 Fox, above n15 at 172.

67 Irma Van der Ploeg "'Only Angels Can Do Without Skin": On Reproductive Technology's Hybrids and the Politics of Body Boundaries' (2004) 10 *Body and Society* at 162 (emphasis in original).

individual women are seen walking in and out of waiting and treatment rooms, climbing on and off gynaecological chairs, letting themselves be monitored, medicated, anesthetized and operated on. From the equal partial perspective of medical technoscience presented in its literature, these practices constitute events in which hardly anything seems to happen to women.⁶⁸

Van der Ploeg argues that in the context of assisted reproduction by deleting the interventions on female bodies that are necessary to *make* the foetus, its artificial construction is erased. She says: 'Once they [the fetuses] have acquired 'natural' status in this way, the process in which they are constructed can then be presented in reverse, as a consequence of a prior existence.'⁶⁹

Van der Ploeg's ontology is also perceptible in the Australian legislative language.⁷⁰ In the *PHC* Act for example, apart from the definition section where 'woman means a female human' the word woman is mentioned only a few times. On those occasions, the embryo is the central figure. It is either created 'outside the body of a woman', 'placed into' or taken out 'of the body of a woman' or 'placed' 'other than in a woman's reproductive tract'. Similar language is used in the Patterson Bill. It appears that the woman herself is subsidiary to the action.⁷¹ The consequence of this disappearance of the woman is, as Van der Ploeg argues, that the embryo acquires a natural status which is then presented 'in reverse, as a consequence of a prior existence'.⁷² As noted above there is a distinction between the embryo in utero and ex-utero that enables this process to occur in the legislative context. And yet of course the embryo cannot come to be anything unless a woman does ultimately offer to gestate it. In or out of the body it is always inevitably connected with its potential for personhood only by female embodiment.

The connection between the pregnant woman and the in-vitro embryo is further attenuated in the context of genetic manipulation technologies. Unlike IVF and traditional ART practices, where the woman is the primary target of interventions to produce a child, the interventions that operate in the context of genetic manipulation technologies take place almost entirely in the clinic, away from women's bodies and completely decontextualised from them. Although the work of women to produce the gametes has taken place prior to this moment, genetic interventions tend to be on the embryo itself. This shifts the emphasis slightly. Van der Ploeg identifies the reverse order construction of the foetus as leading to a shift from foetuses as a result *of* interventions on women's bodies to foetuses as the reason *for* interventions on women's bodies. In the case of genetic manipulation technologies, one might argue that the pre-existing foetus stands to be offended or hurt by genetic interventions on its embryonic form before it comes into being. This is because it has not only achieved a pre-existent status, but it is given status outside its biological contingency. Though not a legal person in the strict sense its personhood is omnipresent. One might go so far as to argue that the foetus appears

68 Id at 177.

69 Id at 176.

70 Id at 177.

71 See ss8, 16, 19, 21 and 22 of the *PHC* Act.

72 Van der Ploeg, above n72 at 176.

to be able to exert a greater claim to non-intervention than the woman. This may be why these kinds of manipulation have provoked legislative bans. In contrast the regulation of interventions on women for the purpose of producing and harvesting gametes has been ad hoc and fairly limited in scope within Australia. Indeed, the federal regulatory regime seems to exacerbate the potential harms to women rather than afford them protection. The Lockhart Committee's review of the federal legislation identified this in a number of places and recommended amendments to the legislation that would in fact serve the interests of women. For instance, the recommended alteration to the definition of the embryo to a slightly later stage, namely the first cell division, would enable research to be undertaken on the quality of sperm without the need for human eggs. Hamster eggs could be used instead.⁷³ The report goes on to describe how:

In particular, the legislation has stopped research on culture and maturation of immature eggs ('in vitro maturation of oocytes' or IVM), frozen oocyte storage, various aspects of in vitro fertilization (IVF), and gamete (egg and sperm) development. The ability to produce mature oocytes in culture provides a way of reducing the use of follicle stimulating hormone and would therefore benefit women undergoing ART. It may also allow the production of mature oocytes from frozen ovarian tissue, such as tissue stored before cancer therapy.⁷⁴

The Federal legislation, as it currently stands, is activated from the moment the gametes are fused together in the laboratory to the point they leave it — in whatever form.

Let's return then for a moment to the artificially produced frozen embryo and the IVF baby and their acceptance into a new natural. Having created the conditions for the IVF foetus to be constructed as natural, as I noted earlier, the next step is their implication in the language of kinship. In the case of frozen embryos, Sarah Franklin describes, for instance, how we now view 'a cryopreserved embryo suspended in a liquid nitrogen tank (as) a biological relative'.⁷⁵ Clearly the kind of discursive work that is being done to naturalise these techno-medically constructed beings, while others are considered beyond the pale, operates at many levels including the scientific, the popular cultural, and the legal. Why then have community responses to the possible development of genetically manipulated embryos not managed to enter the lexicon of a new natural? The Lockhart Committee did note a wide diversity of views and stated:

It is clear that there are wide-ranging views on embryo research and human cloning, with the exception of human reproductive cloning, which appears to be widely condemned.⁷⁶

73 Lockhart Review, above n4 at 167 where it was suggested that it would be able to test their quality by fertilization of hamster eggs.

74 Ibid. Note the Patterson Bill would allow limited research using hamster eggs. See my discussion at page 3 of this article.

75 Sarah Franklin, 'Biologization Revisited: Kinship Theory in the Context of the New Biologies' in Sarah Franklin & Susan McKinnon (eds), *Relative Values: Reconfiguring Kinship Studies* (2001).

76 Lockhart Review, above n4 at 161.

It seems reasonable to suggest, then, that legal rejection of these forms predetermines the cultural response. Having suggested that the cultural response to transgressive mixes is, as yet, unclear, it is worth asking why we have not left the determination of the question to the women that might be called upon to gestate them.

Instead, I would argue, it is precisely through the disappearance of women that law can stake its claim to regulate here. Law's capacity to intervene is curtailed at the point where the embryo is implanted in the woman's womb. Coerced abortion would, one has to think, be extremely controversial. What then would a feminist regulatory response look like?

7. *A Feminist Regulatory Response*

A feminist regulatory response might begin by challenging the primacy of the disembodied embryo. Indeed it would challenge both its physical detachment from the female body and its social detachment from the parental relation.

The next step might be to replace the phantasmic preomitional embryo with an alternate phantasm: that of the *not yet pregnant pregnant woman*.⁷⁷ In this way the pregnant woman becomes the omnipresent personhood that regulates and determines who and what we may call kin. While the spectre of female decision-making replacing legal determinations may alarm some I am not convinced that it is a lesser form of ethical restraint.

What then would the legislative landscape look like if this alternate phantasm was given primacy?

The *PHC* Act is written so that certain key relationships are submerged. These are relationships that might do the work of exposing the political motivations behind the section or, if not the motivations, then the accidental discriminations that have resulted. For example s13 reads:

A person commits an offence if the person intentionally creates a human embryo by a process other than the fertilisation of a human egg by a human sperm, or intentionally develops a human embryo so created.

The gametes are disembodied so that any kind of fertilisation process that is adverted to must be taking place, not only within a laboratory, but also without reference to the particular individuals who might be seeking the unauthorised fertilisation. In most cases too there is a great deal of embodied work that has gone on prior to this legislative moment and a great deal to come afterwards. As with the clinical language of IVF that Van der Ploeg identifies, in the legislation too, the

⁷⁷ In Van der Ploeg's analysis the woman has not just been replaced by the foetus but also by the conceptual apparatus of 'the couple': above n67. Since it is clear that some account needs to be taken of the role that men must also play in the determining who we may call kin, it might have been useful to talk of the not-yet pregnant pregnant couple. However, I have not chosen to take this route because the only certainty at this technological moment is that women will be the ones gestating and developing the embryo. Indeed, part of what I have been trying to challenge is the primacy of the heterosexual dyad as the dominant reproductive model.

work that women and men undertake to produce the gametes is *preparatory work* outside the legislative range. Accepting that it is only the manipulation of gametes that the legislation is concerned to control and not the process of retrieving eggs from women, or the less complicated process of retrieving sperm from men,⁷⁸ — nevertheless, the erasure of the human agents does allow a masking or at least obscuring of what is being regulated. Roxanne Mykitiuk and I have argued elsewhere that in relation to s13 in particular:

It is clear that some kind of interpretive work needs to be done to assess what the words ‘a process other than’ are alluding to. By foregrounding the relationships or embodied identities that must be involved in any process aimed at the creation or development of an embryo, we can see that a requirement for male to female reproduction is being legislated. One of the ways in which the legislation masks this objective is by disembodiment of the human gametes that are being regulated.⁷⁹

What difference would it make if the bodies involved were foregrounded? Under these conditions s13 would have to explicitly state, for instance, how it might be that an embryo so created could be ‘intentionally developed’.⁸⁰ How could it be done beyond the very earliest stages without the assistance of a woman who was willing to gestate the entity? The reason for the omission is obvious. It would highlight the necessity for some kind of reproductive coercion. I am, of course, not advocating the criminalisation of women who agree to gestate prohibited embryos (or the related spectre of coerced abortions), but I am trying to illuminate the way in which these legislative prohibitions intrude into the reproductive capacities and rights of women without our noticing.

Talking specifically about cryopreserved embryos, Marie Fox has argued that the cyborg metaphor opens up productive avenues for rethinking the relationships that are being negated. She suggests that by identifying embryos as cyborgs, we foreground their dependency as a technological life form, and their claim to autonomous self-hood is radically problematised. She says:

78 See Murphy, above n54 for a discussion of the failure to discuss the differences between male and female gametes and their production at 163.

79 Isabel Karpin & Roxanne Mykitiuk, ‘Regulating Inheritable Genetic Modification, or Policing the Fertile Scientific Imagination? A Feminist Legal Response’ in John Rasko, Gabrielle O’Sullivan & Rachel Ankeny (eds), *The Ethics of Inheritable Genetic Modification: A Dividing Line* (2006) (footnote omitted). In the Patterson Bill the role of women as necessary to gestate such an embryo is made more explicit but the question of her reproductive choice is not addressed. In the Bill it is proposed to include s20(3) in the *PHC Act* which states ‘A person commits an offence if the person intentionally places an embryo in the body of a woman knowing that, or reckless as to whether, the embryo is a prohibited embryo’. The penalty is imprisonment for ten years. However, the woman’s acquiescence or willed desire for that ‘placing’ or implantation is left unnoticed. Here we might want to consider the difference it would make to the construction of the legislation if these relationships are not negated but instead foregrounded.

80 It should be noted that ‘developed’ is not defined in the legislation except that in working out the length of the period of development of a human embryo, any period when the development of the embryo is suspended is to be disregarded: s8 *PHC Act*.

Designating embryo bodies as cyborgs opens up productive new ways of thinking in which we can acknowledge that as a technological life-form they certainly matter, but leave open for debate the question of *how much* they matter.⁸¹

The cyborged embryo is a useful tool in allowing us to challenge the otherwise unacknowledged status of the embryo legally, culturally and medically as a radically contingent premonition or phantasm. However, by recognising it also as uncanny, without a home and requiring first a welcome before it can be brought into being we are able to appropriately realign the legislative focus to reflect its dependent status. In this way, the means to determine how or what kinds of regulatory limits to engage in deciding who we may call kin presents itself in the form of the *not yet pregnant pregnant woman*. As I stated earlier, in or out of the body the embryo is always inevitably connected with its potential for personhood only by female embodiment. To reiterate the point with which I began this paper, the embryo, radically disconnected from the body that gives its premonitional possibility a real future, or any body that might welcome it in, it is uncanny in the Freudian sense of the *unheimlich*. Rather than allowing the uncanny embryo to occupy the central focus of new legislative responses I am calling for the (re)instatement of the *not yet pregnant pregnant woman* as the omnipresent figure. The not-yet pregnant pregnant woman is a phantasm too but one that presupposes that embryos only come into being through the desire of women to become pregnant with them. These women already have status as legal persons in our community and as such it is them and not the premonitional fantasy of the uncanny embryo that should occupy the central determinative frame of legislative responses. It is this position that women occupy every day when we are called upon to decide whether, in light of the information presented to us, it is appropriate to continue to make the kin that we are making.

81 Fox, above n15 at 182.

