

⁵⁴ Taussig, *Abortion*, p. 361. For an instance of this, see C. B. Goodhart, "On Incidence of Illegal Abortion: With a Reply to Dr. W.H. James," *Population Studies* 27 (July 1973): pp. 207-33.

⁵⁵ Brookes, *Abortion in England*, pp. 6 & 8.

⁵⁶ In England this was 5 per 1,000 women of childbearing age, compared with 6.2 per 1,000 from ordinary births.

⁵⁷ Taussig, *Abortion*, p. 388.

⁵⁸ Hans Harmsen, "Notes on Abortion and Birth Control in Germany," *Population Studies* 3 (June 1949): p. 402.

⁵⁹ See for instance, Henry Harris, "Abortion in Soviet Russia," *Eugenics Review* 25 (January 1933) p. 19; D.V. Glass, "Abortion Legislation in Six Countries," *Modern Law Review* 2 (Spring 1938): p. 97; & Chris Watson, "Birth Control and Abortion in France since 1939," *Population Studies* 5 (July 1951): p. 261.

⁶⁰ See Helen Hardacre, *Marketing the Menacing Fetus* (Berkeley: University of California Press, 1997).

⁶¹ See Mari Jo Buhle, *Feminism and Its Discontents: A Century of Struggle with Psychoanalysis* (Cambridge: Harvard University Press, 1998), pp. 206-39; and Jane Gerhard, "Revisiting the 'Myth of the Vaginal Orgasm': The Female Orgasm in American Sexual Thought and Second Wave Feminism," *Feminist Studies* 26 (Summer 2000): pp. 449-76.

⁶² See W.H. Masters and Virginia Johnson, *Human Sexual Response* (Boston: Little Brown, 1966).

⁶³ In 1930, C.P. Blacker had acknowledged medical researchers' reluctance to develop birth control because of its controversial associations, but that reluctance was one "which it is in our interests to overcome. C.P. Blacker, "The Need for Research in Birth Control," in *The Practice of Contraception*, p. 163. See also, Marks, *Sexual Chemistry*, p. 63.

⁶⁴ See Gregory Pincus, *The Control of Fertility* (New York, 1965).

⁶⁵ See Angela Carter, *The Sadeian Women* (London: Virago, 1979).

CHAPTER TWO

REPRODUCTION WITHOUT WOMEN: FRANKENSTEIN AND THE PROHIBITION AGAINST HUMAN MODIFICATION

ISABEL KARPIN AND DAVID ELLISON

Putting events in Genesis to one side, the most famous non-conventional act of creation recorded in Western literature occurs in Mary Shelley's *Frankenstein*.¹ Painstakingly assembled in Victor's "workshop of filthy creation", the life that emerges from this gothic setting is not confined to the plot of the novel, but oddly for a creature doomed to sterility and apparent death, produces innumerable copies across a variety of genre and media. Significant among the novels, films, cartoons, games and toys that perpetuate the creature's existence, is its presence as a rhetorical device employed in the language of ethical restraint. When legislators or advocates of varying stripe call for science to just stop, now, Frankenstein (in monster or progenitor form) makes his inevitable appearance.²

That this novel first published in 1818 would continue to play an active, if not activist, role in policing the line between the acceptable and that deemed monstrous, speaks to the durable and flexible nature of Shelley's creation. We are all familiar with the "Franken" prefix attached to an array of menacingly novel foods, drugs, and even pets.³ In their newly conjoined form such terms raise the prospect of science being out of control and cavalier in regard to unknowable risks. Consider, for instance, a letter quoted in the Australian parliament in the midst of the 2002 debates around the *Prohibition of Human Cloning Bill* and the *Research Involving Human Embryos Bill*: "It's an odd thing that genetically modified Frankenstein food horrifies us and yet we seem willing to flirt with Frankenstein in the debate over embryonic stem cell research... To begin research on the embryo, however, is the first step that leads to

flirting with Frankenstein, and for this reason I urge you to oppose the bill.”⁴

Despite the claim here that such flirtation is deemed unthinkable, in Part One of this chapter we have decided to follow those steps and flirt with Dr Frankenstein in the frank acknowledgment that this is dangerous material. Returning to the text we take up the novel’s interest in the spectre of motherless reproduction and its resonances with the contemporary spectralisation of the embryo – effectively disappearing the mother – in scientific and legislative discourse.⁵ The mysterious invisibility of the gestatory process in *Frankenstein* anticipates the marginalisation of women’s gestatory role in legislation regulating the production and use of technologically produced embryos.⁶ We also explore the text’s apparent ambivalence towards the creature at key moments, moments, we suggest, where care, typically associated with the maternal, is enacted through Dr Frankenstein in the form of increments of sympathy and sacrificial selflessness. In due course, though, Frankenstein reasserts his patriarchal moral reasoning and resumes his violent pursuit of the creature.

In part two of this chapter we examine the representation of new reproductive possibilities – real and anticipated – in a selection of Australian legal texts dealing with cloning and embryos. These legal texts attempt to limit reproductive possibility while at the same time doing the definitional work of mapping out the boundaries of what is actually being policed. Much of this regulatory work revolves around existing technologies of reproduction, but also aims to circumscribe imagined and near-possible forms as well. Paradoxically, we argue, this results in the animation of the very entities the law aims to restrict or prohibit. For example, while the *Prohibition of Human Cloning for Reproduction Act* (2002) criminalises the development of a chimerical embryo⁷, its legal description and subsequent proscription gives the chimerical embryo substance and narrative possibility where none had previously existed. We register this paradox in our choice of the term ‘spectre’ to collectively group these forms that maintain a kind of lively, haunting presence in the social and legal imagination. Like Dr Frankenstein, Law becomes the progenitor of these prohibited life forms. Small concessions made to these spectral forms give them tiny elements of life. These figures operate in a sort of hinterland between possible life and non-existence where, importantly, the gestatory female is kept at bay.

We conclude the section with some popular cultural media accounts of new breakthroughs in science that suggest every cell in the body is potentially reproductive. We examine the UK Legislature’s response to the new possibility of creating gametes from stem cells and the potential this

offers for new family forms derived from asexual and same-sex reproduction. *Frankenstein* would normally be invoked at just this point to assert the limit being transgressed.

Finally, we argue that the focus in the Australian legislation⁸ on the putative monster conceals the practical impact of the legislative limits placed on women’s reproductive health and freedom. In so doing it further conceals an anxiety about women’s reproductive power that, if allowed expression, may embrace or at least feel ambivalent towards the alleged horrors of, new species or entities. Women have the capacity to bring these entities to life through gestation and may wish to reproduce via these new means in order to experience parenthood where otherwise they would be unable. As we shall see the decision-making power of women is sidestepped altogether in the Australian legislation which centres regulatory measures around the embryo as a stand-alone entity *prior* to implantation. Instead of writing the legislation to directly curb or enable women’s reproductive freedom – both politically difficult acts requiring great justification – women are simply left out of the legal equation altogether. Returning women from the legislative margin and to a decisive role might require countenancing both the possibility of female decision-making as determinative and acceptance of radically novel forms of life.

I. Motherless Monsters

Shelley’s *Frankenstein* has undergone a profound reassessment over the course of the last thirty years at the hands of successive feminist critics. In 1974 Ellen Moers published an essay on “Female Gothic” which read the book as a birth myth where procreation itself is both the subject and the source of horror.⁹ Moers made this argument with reference to Shelley’s extraordinary journals and letters that record the “horror story of maternity”: Mary was sixteen, pregnant and unwed when she eloped with Percy Bysshe Shelley whose legal wife Harriet was also pregnant. Mary gave birth to a girl who died after a brief illness and eight weeks later she was pregnant again. By mid-December 1817, Harriet had drowned herself in the Serpentine allowing Mary and Shelley to wed within weeks. Haunting these events were Mary’s own posthumous origins, her mother Mary Wollstonecraft died of puerperal fever 11 days after delivering Mary. For Moers, these and related biographical details, provide evidence and cause for reading Shelley’s work in terms that represent birth and the newborn as a monstrous – and monster-generating – experience.

Moers’s powerful reading brought the generative body to the forefront of the text, but as Mary Jacobus argues, bound the novel too tightly to

Shelley's experience, leaving insufficient space to acknowledge the text's autonomy: "To insist that *Frankenstein* reflects Mary Shelley's experience of the trauma of parturition and postpartum depression may tell us about women's lives, but it reduces the text to a monstrous symptom."¹⁰

In an essay surveying the recent history of feminist responses to *Frankenstein*, Ellen Cronan Rose offers the provocative insight that criticism of Shelley's text has followed the contours of evolving feminist analyses of late twentieth century women's relationship to procreation.¹¹ Thus, for Rose, sensitivity to *Frankenstein's* apparent ambivalence about maternity emanates from a particular moment when motherhood might be construed as an impediment to women's agency; namely the feminism of the 60s and 70s. In the American context of decisions like *Roe v. Wade*¹² and related access to technologies that further separated sex from reproduction, critics moved away from biographical readings in favour of poststructuralist accounts. Rose argues that when, "for a constellation of reasons ranging from environmental to cultural" fertility was "revalued by (some) women," feminist critics returned to the text with an eye sensitised to its thematics of birth and the efforts of male science to usurp female reproductivity.¹³

Our interest here is not with Rose's readings of individual critics *per se*, nor even with the particular shape she accords the changing nature of feminist response to Shelley's novel, but rather with a broader conclusion we draw that *Frankenstein* serves as a compelling and sensitive index to a range of cultural, sexual and legal preoccupations. In this light, we argue, the novel offers a perpetually relevant, even prescient engagement with the reproductive body and technological intervention. In sum, we discover (or make) the *Frankenstein* we need.

The novel has typically been used by those of its interpreters opposed to particular forms of scientific intervention as a predictive parable warning of the dangers of the unchecked scientific imagination.¹⁴ Although often made without knowledgeable recourse to the text, such arguments can nevertheless find support in Shelley's novel, but in stranger and more ambivalent ways than those who invoke the inhibitory spectre of 'Franken-science' might comfortably expect. Instead, Shelley's subject, that is, the Shelley we privilege at this moment, is the family remade under the sign of new reproductive technology – composed of phantasmal gestators, the threat of hybridity, asexual reproduction and confused heredity.

Victor Frankenstein's motivation to reproduce by unconventional means finds its origins in tragic loss although this is acknowledged only indirectly. Following his mother's death, Victor is drawn to inquire into

the secrets of nature in life and death. These secrets, in their abstract and generalised form are the putative object of his quest, but that original loss and its attendant disturbance to the family remains the specific instance haunting his project, the success of which promises freedom from subsequent grief and devastation. The breaking of the maternal bond is thus both the provocation and arguably, the enabling condition for the creation of the creature. Indeed, the absence of the traditional body of reproduction coupled with Victor's markedly anxious and aversive response to his fiancé, Elizabeth, and her future claims upon his conventional reproductive capacities, are one of the strange tensions of the novel. The narrative proceeds as a series of flights away from potentially reproductive women – first his mother, then his servant, then the monster's mate and finally his own fiancé. While Victor's motivation in relation to the death of his mother is implicit, his perceived benefit and gratification in terms of his imagined relationship with his creation is made clear enough:

No one can conceive the variety of feelings which bore me onwards, like a hurricane, in the first enthusiasm of success. Life and death appeared to me ideal bounds, which I should break through, and pour a torrent of light into our dark world. A new species would bless me as its creator and source: many happy and excellent natures would owe their being to me. No father could claim the gratitude of his child so completely as I should deserve theirs.¹⁵

This powerful and distorting amplification of the father-child relationship articulates the nightmare consequence of parenthood (including generation) re-imagined as a solely patriarchal experience. In the absence of rival claims made by the generative female body, Victor can give voice to an unfettered fantasy of reproduction as the condition that promises abject gratitude. While the creature he envisions may not be regarded as fully human, Victor's only available frame of reference is that of the deserving father. If Victor is stirred to act by maternal loss, he is driven to succeed by the rich promise of absolute paternal entitlement and control. Nevertheless, when the creature finally emerges into conscious life, Victor is blinded by disgust and recoils from the outstretched arms of his progeny. This profound and primal rejection of the creature's claim upon his "father" provokes, for the reader, ambivalent sympathy toward him that destabilises later efforts to define the creature according to Victor's judgement of his demonic character. Indeed the novel, which unfolds as a series of competing accounts, enters into a struggle over whose justificatory narrative (and thus moral primacy) will prevail. The

moral clarity of Victor's repudiation of his creation, and his determination to prohibit its existence and any possible future reproduction, is therefore, disturbed by his initial turn away from the arms of his child. This is followed by an horrendous act of violence when having begun work creating a mate for his rejected progeny he suddenly realises the reproductive potential she could possess. Here in his workshop is the very horror of reproduction out of (his) control. His response is to literally tear it apart.

We want to draw attention here particularly to the idea of maternal disappearance as the precondition of the creative act because it offers a direct line of connection to the legislative work that takes place in the context of regulating embryos that have been created by a process other than the fertilisation of a human egg by a human sperm.¹⁶ There, as we shall see, just as in Frankenstein's workshop, there can be no mothers or even potentially gestatory bodies. Furthermore, there is a pressing anxiety about the monstrous potential of the embryonic entities themselves. Under the relevant Australian legislation for example, hybrids, chimeras, and clones must be destroyed before they reach 14 days.¹⁷

Frankenstein, while clearly useful as a text warning of the dangers of hubristic science, also complicates our need to discipline and inhibit the prolix and fecund nature of the scientific imagination. Indeed the text invites us to meditate on different responses to unconventional and confronting forms of reproduction. Legislative texts too complicate our relation to the scientific imaginary in the context of reproduction. They are both generative and prohibitive. They aim to mark the limit of what can and cannot be, and to close off the very conversations that the text of *Frankenstein* invites. Yet, these legislative texts also create the imaginative possibility of the entities they define and limit by giving articulation to the wild profusion of forms they might assume - the limitless possibilities of life itself.

II. Outside the Body of the Law

In Australia in 2002 the legal imaginary gave birth to several new human entities through the prohibition and criminalisation of their (re)production. This occurred with the passing of two Commonwealth Acts: the *Prohibition of Human Cloning Act 2002* (PHC, amended in 2006/7 to become the *Prohibition of Human Cloning for Reproduction Act*) and the *Research Involving Human Embryos Act 2002* (RIHE also amended in 2006/7). Entities that were specifically outlawed in the first generation of the legislation were human embryo clones, hybridised

human embryos, chimerical embryos and human embryos that had had their genes manipulated in such a way that the changes were inheritable.¹⁸

By prohibiting the creation of these embryos the law gave them a premonitional existence that was sufficiently tangible to warrant criminal penalties including maximum terms of imprisonment of 15 years should any of these entities be given material form.¹⁹ Not only was it illegal to create these entities it was illegal to knowingly or recklessly implant a prohibited embryo "into the body of a woman."²⁰

Women who allow embryos to be implanted into their bodies are not specifically criminalised within the legislation (including as amended). Given that an embryo's potential for personhood is dependent upon a woman agreeing to gestate it (until we have proven success with artificial wombs which seems to be some way off²¹) it is notable that women themselves are not the subject of specific legislative restraint in Australia. All of the legislative work is done before the moment that these embryos might actually gain a potential for personhood by being implanted in a woman's uterus. In other words, a decision has been made that the appropriate regulatory moment is that which surrounds the creation and development of the embryo *not* its gestation. The reason for this focus, we suggest, is the need to secure control of reproduction and remove it from the purview of the gestating woman. Once inside the woman's body the entity cannot be policed. Coerced abortion would be highly unlikely, as would coerced gestation. The embryo is therefore elevated to a status where it, by itself, is something to be protected and endlessly legislated about; motherless but nevertheless potent. In a previous paper Karpin has argued that the regulation of reproductive technology and embryonic research has settled on this elaborate construction of the "phantasmal embryo" precisely in order to displace women as the relevant decision-makers. The phantasmal embryo is an entity so overloaded with meaning and value that it operates with "the force of a vivid premonition of the child-to-be"²². In doing so it prefigures its own birth and disappears the need for a mother at all. Karpin argues "Unhinged from the all-encompassing female body, 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."²³ This entity is thus constructed by the legislative focus on the period when the embryo is outside the woman's body, that is, the *in vitro* embryo. In the language of both the original and amended Act, a person commits an offense punishable by 15 years in prison if they place a human embryo clone, hybrid or chimera in the body of a woman. Yet, as noted above, it is unclear what penalty would apply to a woman were she

to agree to gestate a prohibited entity and whether she could be stopped from continuing to gestate it.²⁴ Instead, the legislation renders the woman's desires, intentions and actions all but irrelevant. Non-maternal acts of embryonic generation, however, are carefully regulated to avoid the creation of a monstrous possibility. By removing the maternal claim on the embryo, the scene of generation is quarantined from the realm of the complicating factors of attachment. In lieu of gestating bodies, the work of the lab – dispassionate, calm, sterile, experimental, lends itself (pace Dr Frankenstein) to the cool demands of regulatory control. Such maternal disappearance in legislative form nevertheless finds echoes with *Frankenstein's* determined warding off of potential mothers and their competing claims for creative control. As noted earlier the novel moves forward in a succession of flights away from potentially reproductive women. So too the Australian legislation proceeds as a series of prohibitions or licensing controls that shift the focus away from potential mothers and towards the embryo as a stand-alone entity.

This echoes earlier attempts to wrest reproductive control away from the gestating body through the construction of what has come to be known by feminists as “the public fetus”. The rendering of the fetus as both visible and vulnerable through ultrasound technologies has been the subject of significant feminist scholarship. Rosalind Pollack Petcheskey, for instance, argued that the proliferation of fetal ultrasound images in public discourse in the mid 1980s compromised the opacity of the woman rendering her womb and its contents spectacularly visible.²⁵ The effect was to construct the mother as merely an outer layer and to open up the fetus to public intervention and protection. Barbara Katz Rothman too famously described the fetus as seen in the ultrasound image as a: ‘man’ in space, floating free, attached only by the umbilical cord to the spaceship.” She goes on to ask: “But where is the mother in the metaphor? She has become empty space.”²⁶

Turning then to the legislation more directly we argue, that the Law, like Shelley's text of *Frankenstein*, gives life to these embryonic entities and in so doing creates, as Shelley does, the spectre of motherless reproduction. The disappearance of the woman (or the gestating body) in the legislation ensures that that potential life is a phantasm that preexists its own birth.

In June 2007 legislation that had been passed in December 2006 amending the 2002 Acts came into force; The *Prohibition of Human Cloning for Reproduction and the Regulation of Human Embryo Research Amendment Act 2006*. From this moment on the law changed from creating imaginary embryonic entities through their prohibition to the real

possibility of both human embryonic clones and human embryonic hybrids by allowing their creation within strictly defined legal limits. None of the changes to the legislation allow those embryos originally prohibited under the 2002 legislation to be developed beyond 14 days outside the womb or to be implanted in “the body of a woman.” In other words, reproduction of these new entities is still strictly forbidden. This is reflected in the name change to the 2002 Act which as a consequence of the 2007 amendment is now called the *Prohibition of Human Cloning for Reproduction Act 2002 (PHCR)*. However, it is now permissible, under license, to create human embryo clones (using somatic cell nuclear transfer (SCNT) technology) for use in research. The primary research purpose is the derivation of stem cells.²⁷

Furthermore section 23B(3) of the *PHCR Act* together with section 20(1)(f) of the amended *RIHE Act* allow the creation of a hybrid “embryo” defined in the Act as the fertilisation of a human egg by an animal sperm or vice versa or the introduction of a human nucleus into an animal egg or vice versa (section 8) for the purposes only of testing sperm quality up to but not including the first mitotic cell division.

In June 2007 when the legislation came into effect there had not yet been a “proven” report of a mature human clone embryo.²⁸ Therefore the *idea* of a human embryo clone for research purposes was all that existed. In this instance too then, despite its imaginary or phantasmal status, by writing its definition into law, the human embryo clone took on a concrete form – a pre-existent reality that animated politicians and legislatures in the run up to the passing of the amendments to the Acts. However, the stopping point of reproduction was intended to inhibit any possible claims by politicians and lawmakers that Dr Frankenstein had returned. Senator Murray, in debates around the amendments stated, for instance: “I do not fear that Frankenstein will be regenerated...I do not fear mad scientists will pervert the intention of the legislation, not because I do not expect Australia to have its share of mad scientists but because I think the legislation gives us appropriate safeguards against them.”²⁹ Senator Webber, who was a proponent of an earlier more far-reaching amendment bill³⁰ also referred to *Frankenstein* saying: “Attempts to distinguish between the use of animal eggs for research and the creation of Frankenstein-like people with wings or gills are not because we are trying to be sneaky; they are because opponents of the bill have tried to use the latter to make the former seem frightening and radical.”³¹

Wise to the concerns of the community about the creation of these creatures, the Lockhart Committee³² which had been set up to review the earlier legislation and recommended most of the changes that were

subsequently incorporated, had argued that the status of a human embryo clone was linked more to “their potential for research development of treatments for serious medical conditions, than to their potential as a human life”.³³ While this is clearly the intent of the legislative amendments, there is nothing intrinsic to the cloned human embryo that sets it on its trajectory to research use rather than reproductive use. What is intrinsic to reproductive use however is a woman prepared to gestate and carry such an embryo to term. Given that there has as yet been no evidence to suggest that an SCNT embryo can in fact even be implanted, let alone carried to term, it is this vital bit of female reproductive work that seems to be determinative of the value and status of the embryonic entity. Women, not Dr Frankenstein, are needed to make these entities come to life.

Yet again woman’s capacity for reproductive choice is not acknowledged in the amended legislation. Her role as potential willing recipient of a prohibited embryo is nowhere directly addressed. Instead, the prohibition against placing a prohibited embryo in the body of a woman is retained.³⁴ A further section has now been added that prohibits the placing of a human embryo clone in the body of a human³⁵ suggesting women’s role as the gestators is also radically contingent and in imminent likelihood of being shared.

However, the aim of the legislation is never to let things get that far. In addition to this prohibition against placing the embryo in the body, there is a blanket prohibition against the development of a human embryo “outside the body of a woman” for more than 14 days.³⁶ This is the point in time at which it is thought that the so-called “primitive streak” appears. The “primitive streak” represents the transition from undifferentiated cell mass to an entity in the process of differentiating organs. Furthermore, after this time there is no possibility for twinning suggesting the bestowal of individuality is imminent. Here again we see the displacement of women’s gestatory role in the development of persons on to the self-actualising embryonic individual. This masks the limits on reproductive autonomy that are actually being written into the legislation. Instead of drawing our attention to the way in which women are not allowed to gestate certain prohibited embryonic forms it appears instead as if women are not the subject of the legislation. For instance, to include a clause criminalising a woman who decides to have an SCNT human embryo clone implanted in her uterus would be a clear statement that women’s reproductive autonomy was in fact being curbed. However, without that clause it appears as though all that is being managed and regulated is the scientist – the mad scientist no less – and his or her relation to the embryonic individual. This is further reinforced by the recent amendments

changing the definition of a human embryo so that it comes into being only after the first mitotic cell division.³⁷ This is the moment when the two half (haploid) sets of chromosomes from the egg and the sperm have combined to create an entity with a full set – the process of syngamy. It is at this point, it is suggested by the Lockhart Committee, “a new and unique genetic entity is formed”.³⁸ This is a key moment where, as we argued at the start, a concession is made that assigns a “tiny element of life” to the spectral form of the future child by attributing its haunting presence to the barely made embryonic form. The effect of this attribute is to by-pass the necessity for female embodiment via gestation and childbirth.

We do not want to advocate coercive control of women’s reproductive futures. We want instead to draw attention to the implicit coercions in the form of prohibitions in the existing legislation. While hybrid embryos may not be a likely candidate for women’s reproductive advocacy, cloned embryos allowing a woman to reproduce without the assistance of a man, would, one has to think, have some appeal.

Further appeal may lie in the possibility of same-sex reproduction for lesbian and gay couples that is currently being investigated using stem cells. In January 2008 unpublished research claiming to have created sperm cells from the bone marrow of a woman was reported in the media in Britain. The *Daily Mail* in an article that manages to sound sombre and hysterical at the same time – “Death of the father: British scientists discover how to turn women’s bone marrow into sperm” – reported that researchers at Newcastle upon Tyne University were ready to “turn female bone marrow into sperm, cutting men out of the process of creating life”.³⁹ The *Telegraph* reports the breakthrough in rather more circumspect terms drawing on the interview with Professor Nayernia – Professor of Stem Cell biology at Newcastle University – who has been involved with the development of the technique. Having turned female embryonic stem cells into primitive sperm cells, the researchers have now applied for permission to conduct experiments to use bone marrow stem cells to derive female sperm. Nayernia states, “In principle, it will be scientifically possible”.⁴⁰ The article goes on to suggest that this “raises the possibility of lesbian couples one day having children who share both their genes as sperm created from the bone marrow of one woman could be used to fertilize an egg from her partner”.⁴¹ The reverse is also theoretically possible, namely that men will be able to have eggs developed from their bone marrow. Significantly, and in line with our argument about the essential role of women, as a woman would still be necessary for the

gestation of the resultant embryo the newspapers have identified the threat as the potential to eliminate fatherhood and not mothers.

While the possibility of creating these gametes is some way off, the British legislature has already placed limits on the use of these artificial gametes in the recent round of amendments to the *Human Fertilisation and Embryology Act 1990*.⁴²

The amendments to the Australian legislation were not as far reaching as those to the *HFEA 1990* and it is unclear whether under the varying State regimes it would be illegal to derive stem cells from such a clone, to turn them into gametes and to use those gametes in fertility treatment.⁴³

Further developments in stem cell technology prefigure the possibility that every cell in the human body has the potential to be reproductive. The recent announcement that scientists have cloned a human embryo from skin cells led Professor Bob Williamson to ask: "if every cell in the body has the potential to become an embryo, do people who are opposed to embryonic stem cell research believe that every skin cell deserves the respect that is accorded to an embryo made in the usual way?"⁴⁴

Conclusion

Faced with these new reproductive possibilities and the legal impulse to both ward them off and deny women's access to them, we conclude by way of *Frankenstein's* irresolution. That is we return to the *Frankenstein* that is so clearly not the one invoked crudely and reflexively, but one that in fact gives an articulate voice to the creature who decries his rejection. This gives us pause and evokes an ambivalent response to the apparently self-evident claim that the monster has no right of existence. Here, for instance the monster appeals to Victor's humanity:

"If any being felt emotions of benevolence towards me, I should return them an hundred and an hundred fold; for that one creature's sake, I would make peace with the whole kind! What I ask of you is reasonable and moderate; I demand a creature of another sex, as hideous as myself; the gratification is small, but it is all that I can receive and it shall content...Oh my creator, make me happy; let me feel gratitude towards you for one benefit! Let me see that I excite sympathy of some existing thing; do not deny my request!"⁴⁵

As Victor's humanity is called into question the possibility of the creature's humanity is brought forward:

"I will go to the vast wilds of South America. My food is not that of man; I do not destroy the lamb and the kid, to glut my appetite; acorns and berries afford me sufficient nourishment. My companion will be of the same nature as myself, and will be content with the same fare. We shall make our bed of dried leaves; the sun will shine on us as on man, and will ripen our food. The picture I present to you is peaceful and human, and you must feel you could deny it only in the wantonness of power and cruelty."⁴⁶

The monster marshals various arguments in order to secure his creator's consent; the (human) right of companionship, the promise of abject gratitude previously imagined by Victor Frankenstein as the inevitable reward of motherless creation, and the surety that the creatures will live in exile. It is unclear which, if any, of these appeals ultimately persuades Frankenstein. By his own account, Victor describes the "strange effect" of the creature's words upon him. Such strangeness is not wholly party to reason, logic or even moral suasion, but rather works to overrule Frankenstein's feelings of disgust, horror and hatred as well as canceling out the visual evidence of the "filthy mass" before him. In place of these habitual responses Victor notes an intermittent desire to console and to be compassionate. While these responses are not solely the province of the parent, they are certainly not a feature of Frankenstein's relationship with the creature to this point. Something new, some creeping ambivalence towards the creature allows the forcefulness of the child's needs to overwhelm what to this point has been his better judgement. Not only then does Frankenstein agree to construct a mate for the creature but in so doing suspends the driving force of the narrative towards retributive violence and death. Victor, for the first time in the text, acts against his own will, directing his labours according to the needs of an other. A gap opens in the story, and however brief and fragile, a life begins to take shape; not the mass of organs finding female form in Victor's lab, but in the space opened for the creature's embrace of possibility and acceptance into a realm of relationships – however circumscribed. From his perspective, life now includes the prospect of a mate, change, complexity, and unknown paths. This section of the novel elaborates on the claims of others upon us – as creators, as parents, as overseers, as empathic readers.

While he works on the companion creature, Victor's stated objections to this task are revived along with even greater fears of the consequences that could follow – that the female creature might turn away from the benighted monster towards the greater beauties of man; and that her generative potential urged on by her maternal desires would unleash "a race of devils" that "would be propagated upon the earth."

However, these concerns do not deter Victor from his labours. Indeed it is only the sight of the creature observing him through the window – “a ghastly grin wrinkled his lips” – that finally stops him. This curious description of the wrinkled smile (capturing the uncanny senescence of the newborn) occurs earlier in the text as well, in the hours following the creature’s “birth” when he seeks out Victor in his bedroom:

“He held up the curtain to the bed ; and his eyes if they may be called, were fixed on me. His jaws opened, and he muttered some inarticulate sounds, while a grin wrinkled his cheeks. He might have spoken, but I did not hear.”⁴⁷

Both moments – the triumphant grin on witnessing Victor’s work and the earlier joyfully infantile grin in response to the parent’s face – resolve in absolute repudiation of the monster. In the first Victor recoils in horror, in the second he utterly destroys the creature’s mate. On witnessing this, the monster howls in despair and revenge – the period of complex and ambivalent negotiation over the terms of life ceases and the master plot of the novel is resumed. These paired rejections of the creature turn on the figure of the absent mother. The maternal – as subjectivity, as idea – registers so tentatively in this text with its absent, dead or dying mothers. What persist are weakened and inverted representations of behaviours that occupy the space normally reserved for the maternal. Victor’s failure to own his experiment simultaneously gives shape to the acts not chosen. In this light, *Frankenstein* is shadowed not just by the creature but by a maternal ethic of care that is persistently rejected – with the notable exception of the hiatus described above. That unwonted period of mindful service on the creature’s behalf comes to an abrupt end not simply because of the arguments against making a mate, but because the wrinkled smile recalls that earlier primal misrecognition of Victor-as-mother. That this occurs while he is avidly generating a generative body compounds his fury, even as it multiplies images of labouring mother-bodies. What follows is the most ferocious rejection of the prospect of female reproductivity and the maternity there implied. If Victor’s motivation to create the creature was to police or at least bypass the uncontrollably monstrous nature of conventional female reproduction and its inevitable association with death, he is nevertheless repeatedly drawn into the ambit of the maternal. This early nineteenth century novel, then, is concerned with the consequences of maternal exclusion from the free play of the scientific imagination. It brings to light the world of possibilities that emerge when, however briefly, that exclusion is undone.

The conclusion of the book, however, offers no clear resolution to *Frankenstein*’s eliminationist desires. It is by no means clear whether the creature dies in the icy arctic wastes or not, a sign perhaps of Shelley’s own ambivalence about its place in the world. While the reader might safely presume it has perished, the narration leaves such an end undeclared. In this place where tragic end gives moral meaning to action there is only further suspense, a withholding of condemnation on the characters and the larger positions they inhabit, promethean science, brutally circumscribed life.⁴⁸

In the parliamentary debates around the amendments that were passed in December 2006 to the *Australian Prohibition of Human Cloning Act*, one Member of Parliament, Anthony Burke, speaking in opposition to the Bill, reveals the way in which the legislation too is an unfinished narrative colonising territories of possibility that it can only dimly perceive. Surprisingly he voiced his concerns in terms that could be argued did, in fact, bring the woman back from the legislative margin. He suggested that it might be wrong to deny a woman the right to gestate a human embryo clone made from her donated ovum should she wish to do that. He said:

We have the argument here that there is an absolute ban on reproductive cloning and that, once these embryos are created, it is illegal for them to be implanted in the womb and brought to term. If a woman has donated her ova and we have what people regard as either a human life or a potential human life, I do not know what argument will be used to tell the woman who is the mother—or potential mother, depending on where you sit in the debate—that, ‘Even if you want to have that embryo implanted, we’re not going to let you.’ Logically, I am not sure at what point she ceases to be the mother. I am not sure at what point she loses those rights. It is unlikely that that request is going to be made, but I am not sure, and I am yet to hear, what the logical argument is that says she has no right to make that request. Under this bill she does have no right, and I am not quite sure how that next line gets drawn when this step is taken.⁴⁹

Frankenstein complicates legislative efforts to enforce a distinction between licit and illicit embryos. In the novel’s uncertain ending we find a space for the recognition of ambivalence more generally: a suspended judgement that allows for the return of the gestating woman from the margin. Here in this space is the very possibility that has been so fervently denied, the possibility that she (the maternal figure) might actually choose radically novel family arrangements that will find their origins in (among others) human clones, female sperm and male eggs.

Notes

¹ Mary Shelley, *Frankenstein*, (1818) Norton Critical Edition, ed J P Hunter, (New York: Norton, 1996).

² In the recent Australian legislative debates for instance, *Frankenstein* is referred to by three Senators and two members of the House of Representatives: Commonwealth, *Parliamentary Debates*, Senate, Monday 6 November 2006, Webber at 2 and Stephens at 11; Tuesday 7 November 2006, Murray at 19; Commonwealth, *Parliamentary Debates*, Wednesday 6 December 2006, Nelson at 29 and Katter at 36. In the debates leading up to the passing of the amendments to the United Kingdom *Human Fertilisation and Embryology Act 1990* (UK) reference was made to the ongoing public debate and to the attacks made on Cardinal O'Brien for his reference to Frankenstein. In support of O'Brien, Mr Edward Leigh (Conservative Party) stated "How can this man talk about Frankensteins? We are not talking about monsters." However, a monster does not have to be big and ugly; it could be a monstrous creation. If an embryo could talk, perhaps they would echo what Mary Shelley wrote in "Frankenstein": "I, the miserable and the abandoned, am an abortion, to be spurned at, and kicked, and trampled on." 19 May 2008 House of Commons Committee Vol. 476 Col. 27 <http://services.parliament.uk/bills/2007-08/humanfertilisationandembryology.html>

³ See for example Jim Hightower "Frankenfood: Corporate bioengineers tinker merrily and dangerously with the DNA of food" *Utne Reader*, June 2004: <<http://www.utne.com/2004-06-01/frankenfood.aspx>> (31 January 2009). See also Maureen Dowd "Attack of the Calico Clones" *New York Times*, February 17, 2002 where she comments on "Obsessive pet owners bringing their little darlings back to life, for an endless parade of Frankencats and Dracudogs." <<http://query.nytimes.com/gst/fullpage.html?res=950DE7DD103FF934A25751C0A9649C8B63>> (31 January 2009) and 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 January 2006).

⁴ Commonwealth, *Parliamentary Debates*, House of Representatives, 24 September 2002, Murphy at p. 7139.

⁵ See below note 26.

⁶ Here we are referring to embryos that are created *in vitro* and with the aid of technology in the clinic.

⁷ *Prohibition of Human Cloning for Reproduction Act 2002* (Cth)(hereafter PHCR) s17.

⁸ For a discussion of *Frankenstein* in the context of the earlier UK *Human Fertilisation and Embryology Act 1990* prior to its 2008 amendments see Michael Thomson *Reproducing Narrative: Gender, Reproduction and Law*, (Aldershot: Ashgate, 1998) chapters 6 and 7.

⁹ Ellen Moers, *Literary Women*, (New York: Anchor Press, 1977).

¹⁰ Mary Jacobus "Is there a woman in this text" in Mary Jacobus *Reading Woman: Essays in Feminist Criticism* pp. 83-109 at p108, (1986 New York).

¹¹ Ellen Cronan Rose, 'Custody Battles: Reproducing Knowledge about Frankenstein', *New Literary History* 26 (1995), 809-832.

¹² *Roe v. Wade* 410 U.S. 113 (1973).

¹³ Rose supra n 11, at pp. 825-826.

¹⁴ For a discussion of other literary texts and their role in informing public, scientific and legislative debate see Jay Clayton "Victorian Chimeras, or What Literature Can Contribute to Genetics Policy Today" *New Literary History*, 38, 2007: 569-591.

¹⁵ *Frankenstein*, supra n. 1 at p. 32.

¹⁶ PHCR s 22.

¹⁷ *Research Involving Human Embryos Act 2002* (Cth)(hereafter RIHE) s 20

¹⁸ See generally Part Two of the *Prohibition of Human Cloning Act 2002* (Cth) prior to amendment in 2006/7.

¹⁹ Part Two of the *Prohibition of Human Cloning Act 2002* (Cth) prior to amendment in 2006/7.

²⁰ Section 22 of the *Prohibition of Human Cloning Act 2002* (Cth) read: "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 maximum penalty for doing so was imprisonment for 10 years. This provision has been maintained in the amended version of the Act see s20 of the PHCR.

²¹ Christine Rosen, 'Why Not Artificial Wombs?' *The New Atlantis* Fall (2003).

²² Isabel Karpin, 'The Uncanny Embryos: Legal Limits to the Human and Reproduction Without Women' *Sydney Law Review* 28 (2006), p. 602.

²³ Isabel Karpin, 'The Uncanny Embryos', p. 607.

²⁴ S9 and 20 of the PHCR.

²⁵ Rosalind Pollack Petchesky "Fetal Images: The Power of Visual Culture in the Politics of Reproduction" 13 *Feminist Studies* p. 263 (1987).

²⁶ Barbara Katz Rothman *The Tentative Pregnancy: Prenatal Diagnosis and the Future of Motherhood* (London: Pandora, 1988) at p. 114. There is a rich feminist scholarship on the visualisation of the fetus and its consequences for the disappearance of women. Donna Haraway for instance states; the fetus "given flesh by the high technology of visualisation – is a sacred-secular incarnation, the material realisation of the promise of life itself." Donna Haraway, *Modest Witness@Second_Millennium.FemaleMan_Meets_OncoMouse™: Feminism and Technoscience* (1997) at 179 Writing from a legal perspective, Marie Fox notes that a significant shift in the perception of embryos and foetuses 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.' Marie Fox, 'Pre-Persons, Commodities or Cyborgs: The Legal Construction and Representation of the Embryo' (2000) 8 *Health Care Analysis* at 171 and 172. More recently the development of 4d ultrasounds has again raised the stakes of the public fetus. See Kristin Savell 'Life and Death Before Birth: 4D Ultrasound and the Shifting Frontiers of the Abortion Debate' (2007) 15 *Journal of*

Law and Medicine 103-116 and Janelle S. Taylor *The Public Life of the Fetal Sonogram: Technology, Consumption, and the Politics of Reproduction* (New Jersey: Rutgers University Press, 2008).

²⁷ Section 22 of the *PHRC* makes it an offence to create “a human embryo by a process other than the fertilisation of a human egg by a human sperm” where it is not authorised by licence. Importantly however s14 prohibits the development of a human embryo outside the body of a woman for more than 14 days and sections 9 and 20 prohibit the placement of a human embryo clone or human embryo created through a process other than fertilisation of a human egg by a human sperm, in the body of a woman. The cumulative effect of these sections is to allow the creation of a human embryo clone under license but to prohibit its development to the point where the primitive streak appears (14 days) and organ differentiation begins and to prohibit its implantation and gestation.

²⁸ Early stage human embryos were reported to have been cloned as early as 2001 by the Advanced Cell Technology group. See Jose Cibelli et al “The First Human Cloned Embryo” *Scientific American*, Nov 24 2001. In January 2008 scientists in the US claimed to be the first to clone human embryos from skin cells: Constance Holden, ‘Human Embryos Cloned from Skin Cells’ *ScienceNOW* 17 January 2008.

²⁹ Commonwealth, *Parliamentary Debates*, Senate, Tuesday 7 November 2006, Webber at 19.

³⁰ *Somatic Cell Nuclear Transfer (SCNT) and Related Research Amendment Bill 2006* (Cth).

³¹ Commonwealth, *Parliamentary Debates*, Senate, Monday 6 November 2006, Webber at 2.

³² Lockhart Committee, *Legislation Review: Prohibition of Human Cloning Act 2002 and Research Involving Human Embryos Act 2002* (Legislation Review Committee Reports 2005).

³³ Lockhart Committee, *Legislation Review*, p. 170.

³⁴ Section 20(3), *PHRC* 2002.

³⁵ Section 9, *PHRC* 2002.

³⁶ See section 14 of the *PHRC* 2002

³⁷ Section 8(1) of the *PHRC* 2002 and 7(1) of the *RIHE* 2002.

³⁸ Lockhart Review supra n 32 at xv

³⁹ Fiona Macrae, ‘Death of the father: British scientists discover how to turn women’s bone marrow into sperm’, *Daily Mail* 31 January 2008.

⁴⁰ Roger Highfield, ‘Sperm Cells Created from Female Embryo’, *The Telegraph* 31 January 2008. See also Peter Aldhous, ‘Are Male Eggs and Female Sperm on the Horizon?’ *New Scientist* 2 February 2008.

⁴¹ Roger Highfield, ‘Sperm Cells Created from Female Embryo’, *The Telegraph* 31 January 2008.

⁴² See 3(5) of the *Human Fertilisation and Embryology Act 2008* an Act amending the *Human Fertilisation and Embryology Act 1990* and inserting s 3ZA which defines ‘permitted embryo’, ‘permitted sperm’ and ‘permitted eggs’ as (2) A permitted egg is one— (a) which has been produced by or extracted from the

ovaries of a woman, and (b) whose nuclear or mitochondrial DNA has not been altered. (3) Permitted sperm are sperm— (a) which have been produced by or extracted from the testes of a man, and (b) whose nuclear or mitochondrial DNA has not been altered. (4) An embryo is a permitted embryo if— (a) it has been created by the fertilisation of a permitted egg by permitted sperm, (b) no nuclear or mitochondrial DNA of any cell of the embryo has been altered, and (c) no cell has been added to it other than by division of the embryo’s own cells. (5) Regulations may provide that— (a) an egg can be a permitted egg, or (b) an embryo can be a permitted embryo, even though the egg or embryo has had applied to it in prescribed circumstances a prescribed process designed to prevent the transmission of serious mitochondrial disease.(6) In this section— (a) “woman” and “man” include respectively a girl and a boy (from birth), and (b) “prescribed” means prescribed by regulations.” Paragraph 29 of the Explanatory Notes to the 2008 Act states “Permitted eggs are defined as eggs produced by or extracted from the ovaries of a woman and permitted sperm as sperm produced by or extracted from the testes of a man.”

⁴³ In Victoria for instance section 3 of the *Infertility Treatment Act 1995* (Vic) defines an oocyte as an ovum from a woman and sperm as a sperm from a man so it appears to limit the use of oocytes that are generated from male stem cells and sperm from female stem cells). The National Health and Medical Research Council, *Ethical Guidelines on the Use of Assisted Reproductive Technology in Clinical Practice and Research, 2004 as revised in 2007 to take into account the changes in legislation* (Australian Government 2007) available at http://www.nhmrc.gov.au/publications/synopses/_files/e78.pdf, last accessed 6 February 2008, at p. 96 however, simply refer to gametes and define gametes as “a human sperm or egg” cell and includes gonadal tissue. In South Australia (s3 *Reproductive Technology Clinical Practice Act 1988* (SA)), Western Australia (section 3 of the *Human Reproductive Technology Act 1991*) and New South Wales (section 4 of the *Human Cloning for Reproduction and Other Prohibited Practices Act 2003*) the definition similarly refers to a human sperm or a human egg.

⁴⁴ Qtd. By Danielle Cronin, “Cell research creates new ethical concerns,” *Canberra Times*, 22nd Nov 2007.

⁴⁵ *Frankenstein* supra n. 1 at pp. 98-99.

⁴⁶ *Ibid.*

⁴⁷ *Ibid.*, p. 59.

⁴⁸ Other scholars who examine Shelley’s work in its historical context have noted too her refusal to simply condemn *Frankenstein*’s scientific fervour. Melinda Cooper, for instance, argues that “In no sense does Shelley propose a simple moral condemnation of the scientific manipulation of life – but neither does she simply endorse...progressivist optimism... Instead Shelley is concerned with exploring the ethical and relational dimension of the scientist’s encounter with the monster and, in this sense, her understanding of the political implications of monstrous generation ventures beyond the realms of what we might call public politics, into the private or domestic life of the scientist.” Melinda Cooper “Monstrous Progeny:

The Teratological Tradition in Science and Literature” in *Frankenstein’s Science* (eds) Christina Knellwolf and Jane Goodall (Aldershot: Ashgate, 2008) at p. 89. See also Alan Bewell “An Issue of Monstrous Desire: Frankenstein and Obstetrics” *Yale Journal of Criticism* (1998) 2:1.

⁴⁹ Commonwealth, *Parliamentary Debates*, House of Representatives, 6 December 2006 (Anthony Burke) at 16.

CHAPTER THREE

GREAT EXPECTATIONS: EPISODES IN A POLITICAL HISTORY OF PREGNANCY IN AUSTRALIA SINCE 1945

CATHERINE KEVIN

A political history of pregnancy in the period since World War Two is a history of the discourses of nationalism, feminism and foetology as they have coalesced at the discursive site of the pregnant body. It is attentive to the effects of the accumulation and spread of knowledges; the slow acceptance of practices; the development of legitimate ways of speaking and of habits of thought. It is also attentive to events that have marked more radical shifts which have, in time, become naturalised and naturalising forces in our understandings of the pregnant body.

In this chapter I offer four episodes of pro-natalist anxieties in Australia, each of which is a revealing snapshot from a history of pregnancy in the post-World War Two period. The particular advantage of this approach to historicising pregnancy is that it enables the identification of key themes in particular events that occurred during discrete, shorter periods that can be compared. Comparing the episodes has a number of distinct functions. In the examples I explore here, they identify discursive continuities and the moments at which these are intensified under particular historical conditions; at the same time, by detailing the sense of crisis that precedes a break with old approaches and produces new ones, these episodes demonstrate the means by which practices that are now routinised, and ways of thinking that are now habitual, first came to prevail. In a history of pregnancy, a close analysis of these discursive continuities and discontinuities can unsettle our contemporary understandings of the body and remind us that although we are material beings, the meaningful body – the body *as lived* – is always subject to transformations wrought by history.

Feminism and the Body:
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