

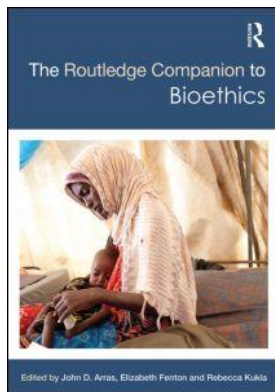
This article was downloaded by: 10.2.97.136

On: 30 Sep 2023

Access details: *subscription number*

Publisher: *Routledge*

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: 5 Howick Place, London SW1P 1WG, UK



The Routledge Companion to Bioethics

John D. Arras, Elizabeth Fenton, Rebecca Kukla

Regulating Reproduction

Publication details

<https://test.routledgehandbooks.com/doi/10.4324/9780203804971.ch28>

Isabel Karpin

Published online on: 12 Dec 2014

How to cite :- Isabel Karpin. 12 Dec 2014, *Regulating Reproduction from: The Routledge Companion to Bioethics* Routledge

Accessed on: 30 Sep 2023

<https://test.routledgehandbooks.com/doi/10.4324/9780203804971.ch28>

PLEASE SCROLL DOWN FOR DOCUMENT

Full terms and conditions of use: <https://test.routledgehandbooks.com/legal-notices/terms>

This Document PDF may be used for research, teaching and private study purposes. Any substantial or systematic reproductions, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The publisher shall not be liable for an loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

REGULATING REPRODUCTION

A Bioethical Approach

Isabel Karpin

Introduction

Over the last 10 years, across the globe, there has been a steady increase in the use of assisted reproductive technologies (ARTs). The European Society of Human Reproduction and Embryology (ESHRE) reports the highest uptake in Belgium, Denmark, Finland, Iceland, Norway, Slovenia, and Sweden where more than 3.0 percent of all babies born in 2010 were conceived by ARTs (ESHRE 2010). In Australia the figure from 2008 data is as high as 3.3 percent of Australian babies, having risen by 10 percent per year over the previous five years (Wang et al. 2010: viii). In the U.K. the Human Fertilisation and Embryology Authority (HFEA) reports that, in 2010, 2 percent of babies were born using *in vitro* fertilization (IVF) procedures (HFEA 2013: 39). The figure is lower in the U.S. (approximately 1 percent) (ESHRE 2010), however the number is still significant given the high cost of this developing technology and the comparative lack of public health funding for these procedures in the U.S. It is not surprising, then, that many countries have introduced laws dealing with ARTs and IVF that attempt to impose limits on their use.

The regulation of reproductive technology, and human reproduction more broadly, raises significant bioethical concerns. This chapter focuses primarily on the ramifications of regulating reproduction on women's freedom of choice and autonomy, but also briefly considers the impact on alternate familial relationships. It is uncontroversial that laws about reproduction have a greater effect on women because, more often than not, a woman's body is central to the reproductive process. Indeed, this has been recognized in Canada in the *Assisted Human Reproduction Act* (2004) (AHRA) which has, as one of its overarching principles: "2(c) while all persons are affected by these technologies, women more than men are directly and significantly affected by their application and the health and well-being of women must be protected in the application of these technologies." Further, advances in reproductive technology challenge the way in which human reproduction is conventionally conceived. New family forms such as those constituted by same-sex parents, those formed through egg or sperm donation, or those created through careful genetic testing and selection shift assumptions about what kinds

of families are both possible and desirable. With this in mind, the aim of this chapter is to map out a bioethics of reproductive regulation from a feminist and postmodern philosophical perspective.

The Laws

Together with laws governing access to abortion and regulating the behavior of pregnant women, new laws that seek to regulate ART are key to any analysis of the bioethical issues raised by the regulation of reproduction. To this end, this chapter will draw on legal examples of reproductive regulation from the U.K., Canada, Australia, and the U.S. The U.K. has comprehensive national legislation governing all aspects of reproductive technology and embryo research (*Human Fertilisation and Embryology Act 1990* (HFE)) and a national authority—the HFEA—charged with licensing and monitoring all activities covered by the legislation. Canada, too, has national ART legislation—the AHRA—however, a number of its central provisions were found unconstitutional in 2010 and its effectiveness has been significantly reduced. In Australia there is a mixture of highly regulated, unregulated, and self-regulated jurisdictions among the several states and territories (*Human Reproductive Technology Act WA* (1991); *Assisted Reproductive Treatment Act VIC* (2008); *Assisted Reproductive Technology Act NSW* (2007); *Assisted Reproductive Treatment Act SA* (1988)) as well as national laws (the *Prohibition of Human Cloning for Reproduction Act* (2002) and the *Research Involving Human Embryos Act* (2002)) and national ethical guidelines with which clinics must comply in order to achieve accreditation (*National Health and Medical Research Council Ethical Guidelines on the use of Assisted Reproductive Technology in Clinical Practice and Research* (2007) (NHMRC ART Guidelines)). The U.S. is one notable country that has left the area of ARTs largely unregulated.

In the jurisdictions covered here, laws dealing with reproduction are typically of two types: Those that prohibit certain practices outright, and those that permit certain practices under specific conditions. In the U.K., Australia, and Canada, for example, sex selection of embryos is allowed under limited circumstances; namely, where there is a sex-linked disorder that is being screened (Sched 2 S1ZA, HFE (1990) U.K.; s11, NHMRC ART Guidelines (2007) Aus.; s5(1)(e) AHRA (2004) Can.). However, all three of these jurisdictions prohibit outright the creation of cloned, hybrid, or chimeric (containing cells from human and non-human sources) embryos for human reproduction. These are common legislative concerns in many countries across the globe. Paradoxically, however, laws that seek to prospectively prohibit the reproduction of a class of entirely speculative beings grant them a concrete reality through the act of prohibition itself. In light of this, and related developments, it is necessary to ask: What role should law play in the area of reproduction?

The Role of Law

Technologies that enable cloning, same-sex reproduction, or multiple biological parentage (three or more genetic parents) can produce entities that would radically destabilize conventional accounts of reproduction. Canadian law professor Roxanne Mykitiuk and I have argued that, in the early days of ARTs, regulatory responses to these reproductive technologies attempted to counter their destabilizing effects by imposing limits that

reinforced traditional notions of “natural” reproduction. For instance, the potential impact of new reproductive technologies was moderated in some jurisdictions by legal requirements that assisted reproduction only take place between a man and a woman within a heterosexual relationship and “that the product of that technologically enhanced reproduction has a blood/genetic line that only traces back to two progenitors” (Karpin and Mykitiuk 2006: 196).

More recently, however, law has played a role in creating the conditions for a new radically transformed understanding of the “natural.” For example, some jurisdictions have introduced legal recognition of same-sex parents (Millbank 2006a, 2006b, 2008; McCandless and Sheldon 2010). In those jurisdictions this not only attributes legal legitimacy to this parenting form but goes some way to establishing same-sex parenting as a new “natural.” Similarly, recent moves in the U.K. to allow the creation of embryos with more than two progenitors under s3ZA(5) of the HFE Act (1990) will begin to challenge the orthodoxy of dyadic genetic parenting (Sample 2013). In March 2013, the U.K. HFEA recommended the government consider allowing mitochondria replacement for women with mitochondria disease. This would have the effect of creating embryos using reproductive material from three people and thus merging three partial sets of DNA (HFEA 2013).

Thus the category of what is natural is not fixed and law can play a role in its revision. What is allowed and disallowed under law becomes a key marker for what is natural and unnatural and this has implications for what is perceived as ethical. We might ask: Is this an appropriate role for the law?

Feminist postmodern legal thinkers argue that law contributes to a provisional and changing understanding of bodies (Murphy and Ó Cuinn 2013; Fox et al. 2010; Fineman 2000). They contend that law, in conjunction with other discourses, actively *creates* the meaning attributed to these bodies rather than merely performing a regulatory role. Thus in the case of reproduction, entities such as eggs, sperm, fetuses, and embryos are given meaning through the convergence of cultural, biotechnological, legal, and other discourses. This account contrasts with more conventional views that regard law as a mechanism only, protecting individuals from potential harm by placing appropriate limits on that which is already discovered, created, or imagined.

Mary Ford argues that, typically, “law defines and approaches its subjects in a way that presupposes the liberal, modernist model of selfhood” (Ford 2009: 32)—that is, a bounded autonomous individual. In this more traditional view, law is charged with upholding individual liberty and equality by protecting independence and autonomy. For feminist legal thinkers, these individualistic ideals are problematic because they deemphasize, and thus devalue, the importance of the relationships and context that give these bodies their shape and meaning. This is borne out in the context of the regulation of the reproductive body. Traditionally, law is concerned with defending the individual against unauthorized incursion and controlling the boundaries of the self. However, pregnancy, in its very essence, confounds and crosses boundaries, complicating the concept of individual identity. Thus, a great deal of legal and regulatory work aims to define the boundaries of the pregnant female body to give effect to the liberal individual subject of law. Much of that work involves drawing a line around where the individuality of the woman stops and that of the fetus or, more recently, the embryo, begins.

Instead of rejecting these ideals outright, Jennifer Nedelsky has offered a critical reconceptualization of autonomy and selfhood. Nedelsky’s “relational autonomy”:

acknowledges both the ways in which we are profoundly shaped by, indeed significantly constituted by the relationships of which we are a part (whether personal, cultural, national or global) and at the same time captures the way in which we genuinely are autonomous beings who are not *determined* by these relationships.

(Nedelsky 2011: 167)

The remainder of this chapter examines the *legal* creation of reproductive bodies at key moments in the recent history of biotechnology to consider how variants of this relational approach might offer viable alternatives to the individualist model.

Displacing the Female Body

While laws vary across different nations, in Australia, the U.K., Canada, and most parts of the U.S., a fetus does not acquire legal personhood status until it is “born alive.” The key constitutive moment then, when legal personhood is said to accrue to a fetus, is when it exists independently from the gestating woman. It is at this point that a distinct rights bearing individual can be identified (Savell 2006). Nevertheless, in many jurisdictions the fetus is viewed as a potential person afforded a special status in law. Sonia Harris-Short has noted that in the English context, for example, “both the *HFE Act 1990* and the *Abortion Act 1967* are premised on the principle that the embryo/foetus, as a potential person, has a special status . . . worthy of protection” (Harris-Short 2009: 65). This seeming contradiction illustrates the ongoing struggle within law to find a way to account for fetal value. The debate often polarizes between those who wish to attribute individuality to the fetus at varying stages of development and those who wish to deny it any value until it is born. Neither of these positions, however, adequately deals with, nor attempts to document, the way in which women themselves value their pregnancies.

In the late 1980s and early 1990s, for example, the characterization of the fetus as on the cusp of individuation played out in courtrooms and legislatures across the U.S. There were a series of so-called “protective incarcerations” of pregnant, drug-addicted women. Some received forced medical treatments, including court-ordered cesarean sections. Women who gave birth to babies testing positive for drugs were also prosecuted for harm allegedly caused *in utero*. These interventions were initiated in the wake of a moral panic about “crack babies” that revealed, as Dorothy Roberts documents, systemic racism against poor African American women (Roberts 1991: 1420–1, n6–8; see also Paltrow 1992) and very little scientific grounding (Okie 2009). In one particularly notable case a prosecutor charged a woman with supplying an illegal substance to her child via her own blood after the child was born but in the seconds before the umbilical cord was cut (*Jennifer Clarice Johnson v State of Florida* (1991) 578 So. 2d 419 (5th Dis., Ct of Appeals)).

Feminist lawyers have spoken against these cases, insisting that they inappropriately attribute personhood to the unborn fetus and they deny that same status to the woman whose addiction disorder is used against her. Despite these arguments, prosecutions continue in states like Alabama (Calhoun 2012) and there have been numerous unsuccessful attempts to establish personhood rights for the fetus in states such as Mississippi, North Dakota, Montana, and Oklahoma (Calhoun 2012). In response, Lynn Paltrow, executive director of the National Advocates for Pregnant Women, has said “there is no way to treat fertilized eggs, embryos and fetuses as separate constitutional

persons without subtracting pregnant women from the community of constitutional persons” (Calhoun 2012: 4). This analysis sums up the dilemma of a system that is based on individualism. The only options within the individualist model are either to attribute individual status to both the woman and her fetus, thus creating a potentially antagonistic relationship, or to deny any value to the fetus. But, what happens when the pregnant woman wants to assert both her own right to selfhood, and that of her fetus? The story of Australian woman, Brodie Donegan, who lost her 32-week pregnancy when she was hit by a negligently driven car, offers an interesting demonstration of this problem. The woman driving the car was found guilty of causing grievous bodily harm to Donegan, which included the loss of her pregnancy, however there was no legal claim that could be made on behalf of the fetus itself because it never took a breath and thus never attained legal personhood status. Donegan states:

The current law allows the foetus/baby to be listed in the mother’s injuries. But the offence is against the mother. The baby’s existence is not recognised separately to the mother until he/she takes a breath.

My problem with this law is that . . . she was not my injury. She was my baby. I felt her move; I’d [. . .] been to check ups, ultrasounds, and had pictures of her. I had bought clothes for her, set up a room for her, and carried her for 8 months.
(Donegan 2013)

Donegan, who is pro-choice, has subsequently attempted to propose a new law—*Zoe’s Law 2*—that would enable a separate charge of grievous bodily harm to be introduced on behalf of the fetus, but only under limited circumstances. Most importantly, *Zoe’s Law 2* would specifically exclude any claim for harm caused by a mother or “medical professionals during the course of a procedure, treatment or assisting a pregnant woman” (Donegan 2013).

This law is currently before the New South Wales state parliament but it has raised significant concern among pro-choice activists who are apprehensive that allowing this change in status for fetuses, even in these limited circumstances, would be just the beginning of a slide towards attributing individual legal personhood to them more broadly. The concern is that this would then be used to trump the autonomous rights of the gestating woman. Law academic Hannah Robert suffered a similar pregnancy loss when her car was hit by a 4WD when she was eight months pregnant. Robert opposes the law because, she argues, the fetus “is a life completely contained within a legal person (the mother), [and] any interests or rights it could have can only be advanced through the consent of the mother” (Robert 2013). She suggests instead “a specific offence addressing conduct that ends the life of a foetus without the mother’s consent.”

The idea of the fetus as a separate entity is, however, evident in laws that seek to establish a concept of fetal viability to limit reproductive choice for women. Fetal viability describes a developmental stage when it might be possible for a fetus to survive outside the womb. In the context of American abortion law, for example, in the watershed case *Roe v. Wade* ((1973) 410 U.S. 113) the fetus was deemed to have attained a limited form of legal subjectivity or personhood at the point of viability, which was said to occur in the third trimester. In that case states could have regulated to limit abortion in the third trimester of pregnancy except where necessary to preserve the life of the mother. However, in the later case of *Casey v Planned Parenthood* ((1992) 112 S.Ct. 2791) the rigid trimester system

was abandoned and instead the court ruled that state laws must not place an undue burden on a woman seeking an abortion up to the point of viability. Justice Sandra Day O'Connor noted in that case that viability might arise earlier than the third trimester if, for example, technology is used to enhance fetal respiratory capacity. Thus, the effect of "viability" has been to artificially construct a moment when the fetus attains individuality in law. In these moments, law rather than the woman gives birth to the individual.

This emphasis placed on identifying the point at which an individual is formed distorts our understanding of what is really at stake in the attribution of legal personhood. If we come back to the pregnant woman, we can see that her bodily boundaries are intermingled with the developing fetus and the potential new person. Postmodern feminists embrace an account of the body as never fully individuated, never fully separated from the other (Shildrick 1997; Haraway 1991). How then might a feminist postmodern *legal* bioethics reframe the pregnant woman? First, it would seek to craft laws that were able to accommodate and celebrate fluid boundaries. For example, the relational view of autonomy outlined above requires the development of laws that respond to female agency, and which are formed through a non-traditional understanding of selfhood. Rather than relying on a bounded, individual self, such laws would permit a more complex and embodied account of the self constituted within a matrix of relationships to other persons, as well as things, societal institutions, practices, and beliefs (Nedelsky 2011; Downie and Llewellyn 2011).

Drawing on the work of feminist philosopher Luce Irigaray (1985), in the early 1990s I proposed a relational strategy that reconfigured the pregnant woman in law as not-one-but-not-two (Karpin 1992). The conceptualization of the pregnant woman as not-one-but-not-two aimed to retain the primacy of the woman's selfhood while not subscribing to individualist models that demand either that the woman and her fetus are equal and, therefore, potential protagonists, or that the fetus has no value to the woman until it is born. Both Brodie Donegan's law reform and Hannah Robert's alternative proposal attempt to articulate this form of relational identity. Significantly, neither wants to describe the fetus as entirely distinct and separate from the mother. Under Donegan's form of the law, the mother is exempted from claims for harm she may have caused to the fetus. Presumably this exemption rests on an understanding that the mother's embodied, life-giving relationship to the fetus is unique and must be protected. However, because this is not made explicit, Donegan's law reform appears to attribute separate legal personhood to the fetus. As Robert notes, "[o]nce the foetus is defined as a legal person, the law has a direct relationship with it, and the mother's consent becomes irrelevant" (Robert 2013). Robert's proposal, however, offers a law where the identity and selfhood of the fetus is contingent upon its relationship to the woman and thus is to be preferred if applying a relational model.

Given developments in ARTs, it is worth asking: Can this relational conceptualization of reproduction be extended to cover embryos formed outside the body of a woman?

The Pre-Gestated Embryo

In IVF practice an embryo is created outside the body of a woman by fertilizing a human egg with a human sperm in a petrie dish. The fertilized ovum is usually grown to blastocyst stage and then either transferred to the woman's uterus in the hopes of achieving a pregnancy, or stored for future reproductive use. Cryopreservation, or the freezing of embryos, became a significant part of IVF with the shift from natural cycle IVF (involving collecting

and fertilizing the single egg that a woman releases during her monthly cycle) to stimulated IVF (involving suppression of the natural cycle and the introduction of a follicle-stimulating hormone to increase the number of eggs produced from one cycle). In some cases not all frozen embryos are used and these remain in storage pending a disposition decision.

Laws controlling the development and use of these embryos created outside the female body typically concern how they may be “made,” who may make them, for what purpose, how long they may be stored, the manner of their disposal and destruction, and the genetic conditions for which they may be tested (see, for example, HFE 1990).

One key way in which law has had a direct impact is through the process of definition. For example, defining a “cluster of cells” as an “embryo” because it meets a set of artificially imposed conditions, constitutes a transformative moment. As a newly defined embryo, these bundled cells attract a clutch of values, expectations, and narrative trajectories.

In the Australian context the legal definition of an embryo has been through a number of iterations. The latest definition has arguably opened a space for scientific experimentation on fertilized cells that did not previously exist. An embryo is now defined in the *Australian Prohibition of Human Cloning for Reproduction Act (2002)* (PHCRA) as:

a discrete entity that has arisen from either: (a) the first mitotic division when fertilization of a human oocyte by a human sperm is complete; or (b) 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, the stage at which the primitive streak appears; and has not yet reached 8 weeks of development since the first mitotic division.

(PHCRA s8)

Thus, fertilized cells before the first mitotic cell division are not defined as embryos and therefore are not subject to the same research limitations (Lockhart Committee 2005: xv, 174). This distinction was justified on the grounds that the first mitotic cell division inaugurated a unique genetic entity (Lockhart Committee 2005: xv). By privileging genetic identity, however, an account of selfhood as synonymous with DNA is given the force of law while the necessity for female gestation to create the individual is obscured. In other words, the embryo takes on an individual identity that cannot be sustained.

Feminists who wish to destabilize the existing legal characterization of these embryos as entities in and of themselves, disconnected from the female body that is otherwise necessary for their development, have found ways of critically re-describing the process (Franklin 2001; Fox 2000; Ford 2009; Thomson 1997; Morgan and Michaels 1999). For example, I have coined the phrase “pre-gestated embryos” in order to reintroduce the erased female body, and the necessity of gestation for individual personhood to be established. By simply altering the language we can expose the law’s constitutive role and highlight the possibility of an alternative account that insists that embryos exist only within a matrix of relatedness.

A relational account of autonomy would regard embryos as constituted through their relationship with the woman who created them and who might gestate them in the future. This is reflected in a recent study exploring women’s feelings about their frozen embryos in which a number of women described their own, often highly embodied, relationship to their frozen embryos (Millbank et al. 2012). For some of these women

the pre-gestated embryo did not possess a separate identity, but was an extension of the relational and familial network of which the woman who created it was a part.

What Next? Cell-Based Reproductive Ubiquity

In 2007 a group of scientists reported that they had successfully cloned a mouse embryo using adult skin cells (Li et al. 2007). The development occurred using a cell reprogramming method that induces pluripotency in adult stem cells (iPS cells). In other words, it returns the adult cells to an immature state, similar to that of an embryonic stem cell, enabling them to differentiate into all cell types—muscle, bone, blood, nervous system, and many more. There are some indications that the pluripotency of these cells may well be as potent as the human embryonic stem cell (hES cell) (Kang et al. 2009). It is not surprising then that Professor Bob Williamson was prompted by this research 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?” (Cronin 2007).

Apart from the obvious potential future uses of iPS cells to create whole human beings, there is another use that is much closer to reality and has already been foreshadowed by its legal prohibition in the U.K.: The creation of artificial gametes. Advances in stem cell technology in the U.K. have shown the capacity to produce what appears to be mature human sperm from hES cells (Nayernia et al. 2006a, 2006b). Because the cell reprogramming method of iPS looks increasingly likely to mimic most if not all the capacities of an hES cell, it seems likely that this technology could also be used to create gametes (West et al. 2013).

Thus we have a situation where it might be possible to use a sperm generated from a skin cell of a man to fertilize an egg (either natural or artificially generated). While this may seem a distant fantasy, the U.K. legislature has been sufficiently concerned to explicitly prohibit the use of artificial gametes in assisted reproduction. Clause 3ZA of the HFE Act defines “permitted embryo,” “permitted sperm,” and “permitted eggs.” Paragraph 29 of the *Explanatory Notes* to the 2008 HFE Amendment 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.”

If it becomes safe to use artificial gametes, some of the most significant applications will be for women rendered infertile from cancer treatment who could create new eggs from her skin cells; the capacity of two men (and possibly two women) to have a child that is genetically related to both parties; and, as Emily Jackson points out, the capacity to create “a child [with] only one genetic parent whose natural gametes could be used to fertilize their artificially derived gametes” (Jackson 2008).

While views may differ about the value and research uses of the human embryo, the development of induced pluripotent stem cells has focused legal inquiry on a new moral/ethical and legal question: If pluripotency theoretically elevates the skin cell to a point of reproductive capacity where it may generate any cell type in the body, then what limits should be placed on the future uses of such cells? More importantly, who will be authorized to make decisions governing use of these cells? Is it the tissue donor’s choice, or the law that determines whether or not for instance an individual can use his or her own skin cell to develop an entire human embryo? And where is the reproductive body of the woman in all of this? These questions will be central to the ongoing debate in this area of law and bioethics and in the last part of this chapter I begin to map out some possible responses.

Conclusion

In modern biomedicine, human reproduction has taken on a multitude of forms across a multitude of bodies. As we have seen, the emergence of new technologies of fetal viability, embryo creation, and cryopreservation have led to various attempts to regulate the fetal and embryonic form as if it were a distinct individual. In addition, law has played a key role in determining what is, and what is not, an acceptable form of reproduction. The prohibition against the use of cloned embryos for reproduction is more often understood as a curtailment of scientific ambition rather than of women's reproductive freedom but, in fact, it is also a law that determines the kind of embryos/fetuses that women can gestate. Typically, however, respect for the autonomy of the individual woman has meant that legal regulation of the embryo is curtailed at the point at which the embryo is transferred to the woman's womb. However, regulatory capacity revives, as we have seen, at the point where some kind of fetal viability is proclaimed even while *in utero*. It seems inevitable that as technology develops, the period of maternal or female agency over the embryo/fetus will become narrower and notions of embryonic and fetal identity broadened.

The gradual removal of female embodiment from the center of reproductive regulatory regimes, and the concomitant foregrounding of the fetal and embryonic form, has made regulations that limit reproductive freedoms seem more palatable. This is because they are crafted so they do not look like laws about women's bodies. Recent clinical innovations that highlight the reproductive potential of every cell in the body pose a unique challenge for law. Who, if anyone, should determine how these technologies are developed? The legislative response in the U.K. to the possibility of the creation of artificial gametes suggests women will be further diminished as decisional agents rather than, as might have been the alternate approach, given enhanced reproductive choice and opportunity.

In this context, more work is required to consider alternate ways of constituting the reproductive body in law. Nedelsky's concept of the relational self is a useful architecture around which to construct rights, duties, and responsibilities. By using the idea of relational autonomy we can develop laws that foreground female agency at the same time as they acknowledge that we exist as part of a matrix of relations and familial possibilities (Karpin 2012: 143). If such a model were legally endorsed then technologies such as human cloning, embryos formed through genetic manipulation technologies, embryos formed from iPS cells, and other innovative interventions would not be prohibited if shown to be otherwise safe. Instead, they would form part of a range of potential reproductive options for women and their families. In earlier work, cultural theorist David Ellison and I suggested that in the future women might "choose radically novel family arrangements that will find their origins in (among others) human clones, female sperm and male eggs" (Karpin and Ellison 2009: 33). A legal bioethics of reproduction that utilizes a relational feminist and postmodern approach to regulating would insist that this is a central and appropriate role for female decisional agency.

Related Topics

Chapter 21, "Autonomy," Catriona Mackenzie

Chapter 27, "Human Embryos for Reproduction and Research," Françoise Baylis

Chapter 30, "Reproductive Travel and Tourism," G.K.D. Crozier

References

- Calhoun, A. (2012) "The Criminalization of Bad Mothers," *New York Times* April 25.
- Cronin, D. (2007) "Cell Research Creates New Ethical Concerns," *Canberra Times*, November 22.
- Donegan, B. (2013) "Busting the Myths around Zoe's Law," SBS Comments. Available at: <http://www.sbs.com.au/news/article/2013/09/22/comment-busting-myths-around-zoes-law> (accessed September 23, 2013).
- Downie, J. and Llewellyn, J. (eds.) (2011) *Being Relational: Reflections on Relational Theory and Health Law*, Vancouver: UBC Press.
- European Society of Human Reproduction and Embryology (ESHRE) (2010) *ART Fact Sheet*. Available at <http://www.eshre.eu/Guidelines-and-Legal/ART-fact-sheet.aspx> (accessed September 27, 2013).
- Fineman, M.A. (2000) "Cracking the Foundational Myths: Independence, Autonomy and Self-Sufficiency," *Journal of Gender, Social Policy and the Law* 8: 13–31.
- Ford, M. (2009) "Nothing and Not-Nothing: Law's Ambivalent Response to Transformation and Transgression at the Beginning of Life," in S.W. Smith and R. Deazley (eds.) *The Legal Medical and Cultural Regulation of the Body*, Farnham, Surrey: Ashgate Publishing Group, pp. 21–44.
- Fox, M. (2000) "Pre-persons, Commodities or Cyborgs: The Legal Construction and Representation of the Embryo," *Health Care Analysis* 8 (2): 171–88.
- Fox, M. et al. (2010) "Embryonic Hopes: Controversy, Alliance, and Reproductive Entities in Law and the Social Sciences," *Social and Legal Studies* 19 (4): 497–517.
- Franklin, S. (2001) "Biologization Revisited: Kinship Theory in the Context of the New Biologies," in S.F. Franklin and S. McKinnon (eds.) *Relative Values: Reconfiguring Kinship Studies*, Durham and London: Duke University Press.
- Haraway, D. (1991) *Simians, Cyborgs and Women: The Reinvention of Nature*, New York: Routledge.
- Harris-Short, S. (2009) "Regulating Reproduction: Frozen Embryos, Consent, Welfare and the Equality Myth," in S.W. Smith and R. Deazley (eds.) *The Legal Medical and Cultural Regulation of the Body*, Farnham, Surrey: Ashgate Publishing Group, pp. 47–75.
- Human Fertilisation and Embryology Authority (HFEA) (2011) *Fertility Treatment in 2011 Trends and Figures*, London.
- Human Fertilisation and Embryology Authority (HFEA) (2013) *Mitochondria Replacement Consultation: Advice to Government*, March, London.
- Irigaray, L. (1985) *This Sex Which Is Not One*, Ithaca New York: Cornell University Press.
- Jackson, E. (2008) "Degendering Reproduction?" *Medical Law Review* 16: 346–68.
- Kang, L., Wang, J., Zhang, K. and Gao, S. (2009) "iPS Cells Can Support Full-Term Development of Tetraploid Blastocyst-Complemented Embryos," *Cell Stem Cell* 5: 135–8.
- Karpin, I. (1992) "Legislating the Female Body: Reproductive Technology and the Reconstructed Woman," *Columbia Journal of Gender and Law* 3 (1): 325–49.
- Karpin, I. (2012) "The Legal and Relational Identity of the 'Not-Yet' Generation," *Law Innovation and Technology* 4 (2): 122–43.
- Karpin, I. and Ellison, D. (2010) "Reproduction Without Women: *Frankenstein* and the Prohibition Against Human Modification," in C. Kevin (ed.) *Feminism and the Body, Interdisciplinary Perspectives*, Cambridge: Cambridge Scholars Publishing, pp. 29–48.
- Karpin, I. and Mykitiuk, R. (2006) "Regulating Inheritable Genetic Modification or Policing the Fertile Scientific Imagination a Feminist Response," in J. Basko, G. O'Sullivan and R. Ankeny (eds.), *The Ethics of Inheritable Genetic Modification: A Dividing Line*, New York: Cambridge University Press, pp. 193–222.
- Li, J., Greco, V., Guasch, G., Fuchs, E. and Mombaerts, P. (2007) "Mice Cloned from Skin Cell," *Proceedings of the National Academy of Sciences of the United States of America* 104 (8): 2738–43.
- Lockhart Committee (2005) *Legislation Review: Prohibition of Human Cloning Act 2002 and Research Involving Human Embryos Act 2002*, Legislation Review Committee Reports: Commonwealth of Australia.
- McCandless, J. and Sheldon, S. (2010) "The Human Fertilisation and Embryology Act (2008) and the Tenacity of the Sexual Family," *Modern Law Review*, 73 (2): 175–207.
- Millbank, J. (2006a) "The Recognition of Lesbian and Gay Families in Australian Law: Part 1 Couples," *Federal Law Review* 34 (1): 1–44.
- Millbank, J. (2006b) "The Recognition of Lesbian and Gay Families in Australian Law: Part 2 Children," *Federal Law Review* 34 (2): 205–260.
- Millbank, J. (2008) "Unlikely Fissures and Uneasy Resonances: Lesbian Co-Mothers, Surrogate Parenthood And Fathers' Rights," *Feminist Legal Studies* 16 (2) 141–67.

- Millbank, J., Stuhmcke, A., Karpin, I. and Chandler, E. (2012) *Enhancing Reproductive Opportunity: A Study of Decision-Making Concerning Stored Embryos*, Sydney: UTS.
- Morgan, L. and Michaels, M. (eds.) (1999) *Fetal Subjects Feminist Positions*, Philadelphia: University of Pennsylvania Press.
- Murphy, T. and Ó Cuinn, G. (2013) "Taking Technology Seriously: STS as Human Rights Method," in M.L. Flear, A.-M. Farrell, T.K. Hervey and T. Murphy (eds.) *European Law and New Health Technologies*, Oxford: Oxford University Press.
- Nayernia, K., Lee, J.H., Drusenheimer, N., Nolte, J., Wulf, G., Dressel, R. et al. (2006a) "Derivation of Male Germ Cells from Bone Marrow Stem Cells," *Laboratory Investigation* 86: 654–63.
- Nayernia, K., Nolte, J., Michaelmann, H.W., Lee, J.H., Rathsack, K., Drusenheimer, N. et al. (2006b) "In vitro-differentiated Embryonic Stem Cells Give Rise to Male Gametes That Can Generate Offspring Mice," *Developmental Cell* 11: 125–32.
- Nedelsky, J. (2011) *Law's Relations: A Relational Theory of Self, Autonomy and Law*, Oxford: Oxford University Press.
- Okie, S. (2009) "The Epidemic That Wasn't," *New York Times* January 27.
- Paltrow, L.M. (1992) "Criminal Prosecution of Pregnant Women: National Update and Overview," *Reproductive Freedom Project of the Australian Civil Liberties Union*, New York: Civil Liberties Union.
- Roberts, D.E. (1991) "Punishing Drug Addicts Who Have Babies: Women of Color, Equality and the Right to Privacy," *Harvard Law Review* 104: 1419–82.
- Robert, H. (2013) "Why Losing My Daughter Means I Don't Support Zoe's Law," *The Conversation*. Available at: <https://theconversation.com/why-losing-my-daughter-means-i-dont-support-zoes-law-19985> (accessed December 6, 2013).
- Sample, I. (2013) "Britain Ponders 'Three-Person Embryos' to Combat Genetic Disease," *The Guardian* 20 March.
- Savell, K. (2006) "Is the 'Born Alive' Rule Outdated and Indefensible?" *Sydney Law Review* 28: 625–64.
- Shildrick, M. (1997) *Leaky Bodies and Boundaries: Feminism, Postmodernism and (Bio)Ethics*, New York: Routledge.
- Thomson, M. (1997) "Legislating for the Monstrous: Access to Reproductive Services and the Monstrous Feminism," *Social and Legal Studies* 6 (3): 401–24.
- Wang, Y., Chambers, G. and Sullivan, E. (2010) "Assisted Reproductive Technology in Australia and New Zealand 2008," *Assisted Reproduction Technology Series* No. 14, Cat. No. PER 49, Canberra: AIHW.
- West, F.D., Ozcan, S., Shirazi, R., Soleimanpour-Lichaei, H.R., Dinc, G., Hodges, D.H. et al. (2013) "In Vitro-Derived Gametes from Stem Cells," *Seminars in Reproductive Medicine* 31 (1): 33–8.