

Target Article

Why a Criminal Ban? Analyzing the Arguments Against Somatic Cell Nuclear Transfer in the Canadian Parliamentary Debate

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Somatic cell nuclear transfer (SCNT) remains a controversial technique, one that has elicited a variety of regulatory responses throughout the world. On March 29, 2005, Canada’s *Assisted Human Reproduction Act* came into force. This law prohibits a number of research activities, including SCNT. Given the pluralistic nature of Canadian society, the creation of this law stands as an interesting case study of the policy-making process and how and why a liberal democracy ends up making the relatively rare decision to use a statutory prohibition, backed by severe penalties, to stop a particular scientific activity. In this article, we provide a comprehensive and systematic legal analysis of the legislative process and parliamentary debates associated with the passage of this law.

Somatic cell nuclear transfer (SCNT), a research activity that brings together the social and moral challenges associated with both human cloning and embryonic stem cell research, has proven to be a highly divisive technology. Indeed, the inability of countries to agree on the moral acceptability of SCNT was the primary reason that the General Assembly of the United Nations was unable to reach a consensus regarding an international treaty on human cloning in November 2004 (United Nations Ad Hoc Committee; CBS News 2004; Caulfield and von Tigerstrom 2005).

In reality, SCNT remains a relatively marginal scientific activity (Table 1). There are a handful of research teams who have a significant profile as a result of their work on SCNT (*Medical News Today* 2005). Some of this work, such as that of the Korean researcher Woo-Suk Hwang, has generated considerable ethical and scientific controversy (BBC News 2005; Magnus and Cho 2005). In addition, its potential scientific and therapeutic value continues to be debated. It has been noted, in fact, that there is a degree of inappropriate “hype” surrounding all aspects of this research area (Theise 2003). Nevertheless, because of its divisive nature and because some countries have chosen to take legislative action, SCNT provides an ideal opportunity to explore the challenges associated with making science policy in a morally contested area.

There is a great deal of variation between jurisdictions in the handling of SCNT (Pattinson and Caulfield 2004; Javitt et al. 2005; UNESCO 2004). Some countries, such as Italy, have taken active steps to explicitly ban all research on human embryos, including SCNT. Other jurisdictions, such as Ireland and Austria, have long-standing legal frameworks that forbid research on human embryos and therefore implicitly ban SCNT. At the other end of the spectrum are the jurisdictions that explicitly allow SCNT, including the United Kingdom, California, Japan, and Sweden. In the middle of the varying approaches are countries that ban SCNT but allow some research involving human embryos, including France and Canada. Australia, which currently prohibits SCNT, has recently reviewed its legislation (Australian Government 2005). The government committee has recommended that SCNT be a licensed activity.

It is important to note, however, that most countries in the world have no explicit regulatory framework and many of the relevant legislative provisions, such as those in Austria and Ireland, were developed well before SCNT was a reality (Pattinson and Caulfield 2004). As such, these laws are not the result of a public debate regarding stem cell research and SCNT. So, despite the international attention that SCNT has received, including the consideration of the United Nations General Assembly, there are a limited number of

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Table 1. Definition of Key Terms

Somatic Cell Nuclear Transfer (SCNT)

SCNT is a technique in which the nucleus of a somatic cell (from almost anywhere in the body) is transferred into an oocyte (egg) that has had the nucleus removed. The egg is then “stimulated” to divide and become an embryo that is a near genetic copy of the source of the somatic cell nucleus (Javitt 2005; Health Canada 2001b).

Therapeutic Cloning

The phrase *therapeutic cloning* is a popular term for SCNT when used for non-reproductive and/or research purposes. Usually, this term refers to the use of SCNT to create an embryo from which stem cells are obtained. These cells could then be used for research purposes (sometimes called *research cloning*) or, in theory, to create tissue for transplantation. Some have speculated that the technique of SCNT could be used to create tissues that have the same genetic make-up as the individual in need of treatment. This similarity would reduce the likelihood of immune rejection and would open the door to the possibility, for example, of creating pancreatic islet for transplantation into an individual with diabetes. Therapeutic cloning remains theoretical because there have been no successful SCNT experiments involving human tissue. Although not all agree that the phrase *therapeutic cloning* is appropriate to describe SCNT, this term that is frequently used in political debates, policy documents, and the popular media.

Reproductive Cloning

The phrase *reproductive cloning* generally refers to the use of SCNT for the purposes of reproduction. In this context, the embryo created by SCNT is placed in a uterus to create an offspring is a near genetic copy of the individual being cloned. This technique is the same that has been used to clone various animals, including “Dolly” the sheep.

jurisdictions in the world that have enacted national laws that specifically address SCNT (Pattinson and Caulfield 2004; Javitt et al. 2005; UNESCO 2004). Canada is one of these jurisdictions.

65 The Canadian situation is particularly interesting because, as a pluralistic society, Canada does not have a dominant religious tradition, as in Italy or Ireland, or historical precedent, as in Germany and Austria, that can clearly explain the ban. As such, Canada stands as an interesting case
70 study of the policy-making process and how and why a liberal democracy makes the relatively rare decision of using a statutory prohibition, backed by severe penalties, to stop a particular scientific activity.

75 In this article, we identify and analyze the official justification for Canada’s statutory prohibitions against SCNT. We trace the justifications through the political process, starting with the initial documentations from the government bureaucracy through to the final parliamentary debates.

LEGISLATIVE BACKGROUND

80 A lengthy legislative process preceded the prohibition of SCNT in Canada (Table 2). In 1993, the Royal Commission on New Reproductive Technologies issued a report entitled *Proceed with Care* (Canada 1993). This report called for the regulation and oversight of reproductive technologies
85 throughout Canada. The focus, like the United Kingdom’s Warnock Report before it (Department of Health and Social Security 1984), was on emerging reproductive technologies, such as prenatal diagnosis, and the regulatory emphasis was on, understandably, the safety of women and children.
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90 As a result of this report, a series of federal bills were put forward, starting with Bill C-47 in 1996 (Caulfield 2001; Campbell 2002; Bernier and Gregoire 2005). This law died as a result of the calling of federal election in 1997. Af-

ter a legislative hiatus, the issue resurfaced in May 2001 when the government released the *Proposals for Legislation Governing Assisted Human Reproduction: Draft Legislation* (Health Canada 2001b). The unusual step of releasing draft legislation was meant to stimulate national debate and serve as a framework for discussion and analysis by the House of Commons Standing Committee on Health (referred to in following text as the Committee). The Committee heard submissions from interested parties, ranging from academics to professional associations. Its report, *Building Families* (referred to in following text as the Report) (Canada, Standing Committee on Health 2001a), was submitted in December 2001 and recommended that legislation be introduced on a priority basis. On May 9, 2002, the government introduced Bill C-56, *An Act Respecting Assisted Human Reproduction* (Canada 2002a) in the House of Commons (Caulfield 2002). After the summer break of the Canadian Parliament, this bill was re-introduced as Bill C-13 (Canada 2002) but died when an election was called. Finally Bill C-6, a virtual replica of Bill C-13, was introduced and passed first, second, and third reading in the House of Commons on the same day, February 11, 2004. It also rapidly passed in the Senate and received Royal Assent on March 29, 2004. Bill C-6 became the Assisted Human Reproduction Act (AHRA) (Canada 2004).
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The main debates in Parliament, therefore, occurred after the introduction of Bill C-56. While the proposed legislation dealt with all aspects of assisted reproduction, from commercial surrogacy to regulation of in vitro fertilization (IVF) clinics and storage of human reproductive material, human reproductive cloning and embryonic stem cell research dominated the political debates. Indeed, the press frequently referred to the legislative proposal as the “cloning and stem cell bill” (Greenaway 2002).
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The *Assisted Human Reproduction Act* creates two broad categories of activities: those which are banned by a

Table 2. Timeline of Legislative Process and Key Events

1993	November—Publication of <i>Proceed with Care: Final Report of the Royal Commission on New Reproductive Technologies</i> (Canada).
1996	June 14—Bill C-47, <i>An Act Respecting Human Reproduction Technologies and Commercial Transactions Relating to Human Reproduction</i> , is introduced in the Canadian House of Commons and passes first reading.
1997	April 27—The 35th Canadian Parliament comes to a close, causing the death of Bill C-47. June 2—Canadian federal election.
2001	May—Health Canada publishes <i>Proposals for Legislation Governing Assisted Human Reproduction</i> . December—The Parliamentary Standing Committee on Health releases its report, <i>Assisted Human Reproduction: Building Families</i> .
2002	May 9—Bill C-56, <i>An Act Respecting Human Reproduction</i> , is introduced in the Canadian House of Commons and passes first reading. May 28—Bill C-56 passes second reading and is referred to the Standing Committee on Health. September 16—Bill C-56 dies on an <i>Order Paper</i> when the first session of the 37th Canadian Parliament comes to a close. October 9—Bill C-56 is reintroduced as Bill C-13, deemed to have passed first and second reading, and referred to the Standing Committee on Health.
2003	October 28—Bill C-13 passes third reading in the House of Commons. November 12—Bill C-13 dies on an <i>Order Paper</i> , having failed to get through the Senate before the close of the second session of the 37th Parliament.
2004	February 11—Bill C-6, a replica of Bill C-13, is deemed to be adopted at all stages and passed by the House of Commons. March 11—Bill C-6 passes third reading in the Senate March 29—Bill C-6 receives Royal Assent and becomes the <i>Assisted Human Reproduction Act</i> .

130 statutory prohibition and those which are controlled and
 135 may only be carried out in accordance with the legisla-
 tion and the regulations (Canada 2004, ss. 5–13). SCNT and
 reproductive cloning fall into the former category, as do
 creating embryos for research purposes, embryo research
 beyond 14 days, sex selection, germ-line alteration, creat-
 ing chimeras or hybrids, and commercial surrogacy and
 the selling and buying of sperm and ova (ibid, ss. 5–9).
 The maximum punishment for engaging in prohibited ac-
 tivities is a fine of \$500,000 and 10 years imprisonment
 (ibid., s. 60).

140 **APPROACH—TRACING RATIONALES**

Our approach was designed to trace the evolution of ratio-
 nales for the ban on SCNT from the bureaucracy, Health
 Canada, which sponsored the legislation, through consid-
 145 eration by the the Committee to the parliamentary de-
 bates and the legislation itself. We focused primarily on
 debates by elected officials, particularly the parliamentary
 debates.

We reviewed the justifications found in publicly avail-
 150 able documents and news releases announcing the review
 of the draft legislation from Health Canada (2001b; 2001c;
 2001d). While other internal policy documents may have
 been available, our selection represented the public ratio-
 nale of policy development in Health Canada. Likewise, our
 155 analysis of submissions by interested parties to the Commit-
 tee and the Report reflect publicly stated positions.

We reviewed transcripts of oral submissions to the Com-
 mittee starting with the introduction by the Minister of
 Health on May 3, 2001 of the legislation to be reviewed to
 the release of the Report in December 2002 (Canada 2001;
 complete index of the proceedings). We then reviewed all
 160 references to SCNT in the Report and documented the Com-
 mittee’s justification for the ban.

The parliamentary analysis, the largest component of
 our study, involved the creation of a full text database of
 all references to stem cells in the Parliamentary Hansards.
 165 This database allowed us to undertake a comprehensive and
 systematic legal analysis of the entire debate. We used the
 term *stem cells* as it is broad enough to capture all aspects
 of the discussions relevant to SCNT and positions the dis-
 170 cussion of SCNT within its broader political context (i.e., all
 the parliamentary debates about “therapeutic cloning,” “re-
 productive cloning” and SCNT took place in the context of
 stem cell research). We also specifically explored the issues
 of health and safety and social consensus by searching the
 175 text database for combinations of the terms *health and safety*
 and *social consensus*, *poll*, and *Canadians*, respectively. Our
 analysis focused on the main debates around the legisla-
 tion from October 2002 to June 2004.

RATIONALES FOR THE BAN

In the following discussion we trace the most common
 180 arguments against SCNT and map how they play out in the
 context of the Canadian law and the associated Parliamen-
 tary debate.

The Bureaucracy

185 Health Canada’s rationales for the ban are relatively straightforward: commodification concerns, social consensus, and the protection of the health and safety of Canadians.

190 For example, a Health Canada overview document released with the proposed legislation, notes: “[t]he health and safety of the woman and the welfare of the child must be protected” (2001b, 1). The overview also implies a consensus and explicitly refers to the concerns associated with the commodification of life.

195 Canadians also want to be sure that researchers don’t push the frontiers of science past acceptable ethical limits. And they want reassurance that Canada will not allow human life to be traded, bartered or in any other way commodified. (Health Canada 2001b, 1–2)

200 The only specific reference to SCNT (via therapeutic cloning) emphasized health and safety: “‘Therapeutic cloning’ in animals has raised many health and safety concerns. Thus, it is too risky to proceed with ‘therapeutic cloning’ in humans” (ibid. 2001b, 5).

205 In a 2001 Health Canada document called *Assisted Human Reproduction: Frequently Asked Questions*, we again see an emphasis on social consensus and health and safety. Specifically, the document states: “there is broad consensus that the activities that would be banned under the proposed legislation are not acceptable in Canada” and that “[o]ne of the main purposes of the regulations would be to protect the health and safety of Canadians—particularly of women and of the children who are born through assisted human reproductive procedures” (2001c). These themes are also picked up in press releases from that time (Health Canada 2001d).

215 It should be noted that there are no explicit references to the moral status of the embryo as a justification for a regulatory response. Indeed, even the stated commodification concerns are relatively non-specific (although one can presume they include concerns that relate to the moral status of the embryo). To be fair, these issues may have been discussed during Health Canada meetings and, as such, may have informed the writing of the documentation.

Submissions to the Standing Committee

225 Only 14 out of 71 submissions directly addressed SCNT, although a total of 37 witnesses indicated their position in questioning by committee members. For example, the Minister of Health Allan Rock, indicated that he supported a prohibition of reproductive cloning and creating embryos for research purposes for a number of reasons: perceived public consensus, Canada’s international leadership in passing legislation, inconsistency of these practices with human dignity (although he does not say why), conflict with existing research guidelines and broad issues of health and safety (Canada 2001; Meeting 13 of the Standing Committee on Health, Assisted Human Reproduction, May 3). Ian Shugart, Assistant Deputy Minister, Health Canada, supported the ban noting the “special status” of human embryos (ibid.;

Meeting 15 of the Standing Committee on Health, Assisted Human Reproduction, May 10). Bureaucrats from Health Canada testified that there is no current need for SCNT and no international consensus on its use; however, they also noted health and safety concerns, but related these issues to the need for more research on point. Francine Manseau, Senior Policy Analyst, Health Policy and Communications Branch, Health Canada, noted:

I gather that even in the animal domain right now the experiments that are being done are showing that there are some health and safety concerns. Scientists were saying to us that maybe at this point it’s better to continue the research on the animals before getting into it and then creating those embryos and using those tissues to transplant into human beings—that there was no need at this point. (ibid.; Meeting 22 of the Standing Committee on Health, Assisted Human Reproduction, September 18)

255 The President of the Canadian Institutes of Health Research, Alan Bernstein, echoed this viewpoint (Canada 2001; Meeting 37 of the Standing Committee on Health, Assisted Human Reproduction, October 31). He stated that there was a risk that SCNT would not work because of accumulated errors. He added that the therapeutic benefits of SCNT remain theoretical at present and Canada’s position represents the middle ground on the moral status of the embryo. It was not explained, however, why a criminal ban was the appropriate legal instrument to address the issues associated with SCNT.

265 Surprisingly, there were few champions for SCNT in the scientific community. Only 12 witnesses supported a regulatory environment for SCNT. Researchers and scientific experts focused their submissions on the need for embryonic stem cell research *per se* and seemed concerned that such research could be severely limited or even banned. Researchers seemed willing to concede the issue of SCNT if that ensured that the moratorium on embryonic stem cell research would be lifted and the legal and regulatory uncertainty in that field of research could be settled.¹

275 Opponents made five main arguments. First, the embryo has moral status as “human life” and should therefore not be instrumentalized or commercialized; second, moral harm outweighs any benefits from the research; third, research alternatives using adult stem cells should prevail because these are more stable, do not pose the same rejection problems, and are less morally contentious; fourth, the respect

1. For example, submissions by Janet Rossant of the Samuel Lunenfeld Research Institute, Mount Sinai Hospital, University of Toronto, emphasized that embryonic stem cell research was not dependent on cloning technology (Canada 2001, Meeting 37 of the Standing Committee on Health, Assisted Human Reproduction, October 31) and Michal Rudnicki, Canada Research Chair in Molecular Genetics, Ottawa Health Research Institute, rapidly conceded the point on questioning that regulations were more flexible and responsive to a rapidly evolving scientific field than criminal prohibitions enshrined in legislation (Ibid., Meeting 25 of the Standing Committee on Health, Assisted Human Reproduction, September 27).

for human dignity should trump any research benefit associated with SCNT (these arguments implicitly presumed a moral status); and fifth, the slippery slope argument that SCNT will lead to reproductive cloning.

In addition, six academic commentators articulated concerns related to women but reached different conclusions on the best legislative mechanism. For example, Abby Lippman, from McGill University and The Canadian Women's Health Network, stated:

Human embryos should not be cloned for the specific intention of using them as a resource for medical experimentation or for producing a baby. Human life and its various parts and processes are not mere research tools, nor are they manufactured products or commodities. Moreover, this practice would only encourage further marketing of women's eggs and provide unethical incentives for women to undergo health-threatening hormone treatment and surgery. (Canada 2001, Meeting 45 of the Standing Committee on Health, Assisted Human Reproduction, November 27)

Christian groups, including scientific experts with strong pro-life affiliations, Catholic organizations, and the Canadian Conference of Catholic Bishops, were opposed to embryo research *per se*. However, in demonstration of Canada's pluralistic society, Jewish and Muslim witnesses placed a premium on alleviating human suffering. The Jewish community, in particular, supported SCNT.

Finally, committee members, rather than the witnesses, were usually the ones who made claims of social consensus. Committee members asserted that there is a social consensus against human cloning, but rarely, if ever, indicated whether they were referring to reproductive cloning or SCNT.

315 The Report of the Standing Committee on Health

In this report, the only explicit justification for the statutory prohibition of all forms of SCNT comes as part of a strong and unequivocal statement about reproductive cloning:

The Committee feels strongly that the potential adverse effects, whether physical, psychological or social, for the resulting children are sufficient reason to prohibit reproductive cloning. In addition, "therapeutic cloning" should be banned as it is unsafe and commodifies the embryo." [emphasis added] (Canada, Standing Committee on Health 2001a, 10)

The Report does not cite any evidence for why safety is a special issue in the context of SCNT, nor does it discuss the origins of this concern. It confirms that commodification is an issue in the context of SCNT, not because of concern for women's health or reproductive rights but because of the moral status of the embryo. The Report states, for example, that "the Committee . . . concurs that there must be a measure of respect and protection for the embryo that is based on its potential for personhood" (ibid., 5) and that the Committee respects "the deep desire communicated to the Committee by many Canadians that human embryos and other 'reproductive materials' be accorded the respect and dignity which

is their due" (ibid., 1). In justifying the use of statutory prohibitions, the Report relies on social consensus and safety, without providing evidence for either, stating "an outright statutory ban signals more clearly that certain activities are either unsafe or socially unacceptable" (ibid., 9).

Parliament

Our analysis of the parliamentary debates was designed to give us an overall sense of the tone of the debates on stem cell research, highlight the main features, and direct us to salient and representative quotes on the issues. With that caveat in mind, the magnitude of the study—which included the coding of all parliamentary references to stem cell research from 1994–2004 and the characterization of 3848 quotes—allows us to draw some general observations about the main features of the debates.

Moral Status of the Embryos

The main arguments against SCNT or embryonic stem cell research in general were premised on the moral status of the embryo. Indeed, a large portion of the quotes explicitly granted full moral status to the embryo, referring to it as "life" or a "human being" whose destruction could not be tolerated. Indeed, the full lexicon and rhetoric of the anti-abortion lobby was used to personalize and humanize the embryo, stating, "this is a bill dealing entirely with what I would consider the life of a baby" (House of Commons Debates Friday October 2, 2003, John O'Reilly 10:15). The Canadian Alliance, then the official Opposition and a relatively conservative political party, called for the over-arching consideration in the *Assisted Human Reproduction Act* to be "respect for human life," which would "require respect and protection for the human embryo not simply because of its potential but because of the fact that it is human life" (Canada, Standing Committee on Health 2001, 78). The opposition called for a moratorium on all human embryonic stem cell research not because it "commodifies the embryo" but because of the destruction of the embryo "which is contrary to the ethical commitment to respect human individuality, dignity, integrity, and life" (Canada, Standing Committee on Health 2001, 79). The views of the Canadian Alliance Party are particularly interesting because, in its new incarnation as the Conservative Party of Canada, it holds power in a minority government. Indeed, the current Prime Minister of Canada, Stephen Harper, was formerly the leader of the Canadian Alliance Party.

Likewise, most references to *dignity* were associated with the moral status of the embryo—that the embryo has an "inviolable dignity," making embryonic stem cell research or SCNT unacceptable. These arguments had a number of premises: that humans are or human life is imbued with innate dignity; that embryos are human life and therefore the destruction of human life violated dignity and, therefore, is ethically impermissible. To cite one example, an MP suggested: "embryonic stem cell research inevitably would result in the death of the embryo. Life would not go on. For many Canadians this would violate the commitment to

respect human dignity, to respect integrity, and to respect human life" (Canada 2003, 3390; Mr. David Anderson, MP, February 11).

395 Most references to commodification or related concepts concerned other aspects of the legislation, such as IVF, surrogacy, and reproductive material used for research but not embryonic stem cell research specifically. However, approximately 10% concerned the commodification of the embryo or "human life," which included the embryo and the use of excess IVF embryos for embryonic stem cell research. Surprisingly, almost no reference was made to commodification as it related to the health and safety of women (e.g., that women will be exploited or inappropriately coerced into providing eggs for SCNT). There was one quote on point, but it loses its rhetorical force when it is recognized that the MP is a pro-life activist, indeed the recipient of the 2003 Joseph P. Borowski Award, presented annually by the Campaign Life Coalition:

410 There is still some controversy surrounding the efficacy of drug-
 415 ging women to the max to harvest embryos and create surplus embryos for research. This is a major concern to people in terms of surrogacy for profit and also in terms of embryonic stem cell research which requires the destruction of embryos. (Canada 2003, 5349; Mr. Paul Szabo, MP, April 10)

Arguments against embryonic stem cell research and, implicitly, SCNT were also couched as arguments in favor of focusing research on adult stem cells. For example:

420 Research in adult stem cell and umbilical cords has indicated many things. There are a number of ways we can deal with this kind of research in a manner that does not manipulate human life and does not deal with the creation of life or the destruction of such. I would encourage members to do everything we can to go down that path rather than the path of creating embryonic cells to be used as research, or the cloning of human beings. (ibid., 3407; Mr. Myron Thompson, MP, February 11)

Another argument was the concern about a slippery slope to reproductive cloning:

430 If we allow this research now we would see lobbyists . . . asking us to open the door a bit wider to allow the creation of embryos for research purposes or to allow so-called therapeutic cloning. Once we open the door to therapeutic cloning, reproductive cloning is of course a very short step behind. (ibid., 4331; Mr. Jason Kenney, MP, March 18)

435 There is a group of people, the Raelians, running around . . . their vision is to perpetuate human life by creating a clone . . . If we took one of his cells, extracted the nucleus and put it into an ovum, one could stimulate it electrically and allow it to grow. The so-called therapeutic clone would be to take the immature model of Mr. Speaker and extract an organ . . . killing the clone in the process. That is so-called . . . therapeutic cloning. (ibid., 4120; Mr. James Lunney, MP, February 27)

It is interesting to note, however, that these arguments were most often put forward by individuals who also advocated

a ban based on the moral status of the embryo. The slippery slope argument was used as a secondary line of support. 445

Social Consensus

The issue of social consensus also emerged frequently. But claims of social consensus were rarely based on polling information or other evidence. In other words, claims of social consensus were simply asserted or implied. And, in general, they were used as arguments against embryonic stem cell research. 450

That committee of course recommended that the bill's provisions be split between those on which there was a general consensus, such as the prohibition of cloning and animal-human hybrids, and more contentious and difficult issues, such as the treatment of embryonic stem cell research, upon which there still is no social consensus. (Canada 2003, 2778; Mr. Jason Kenney, MP, January 28) 455

There were very few references to SCNT or "therapeutic cloning" and most MPs, rightly or not, treated SCNT, therapeutic cloning and reproductive cloning as one technology—stating simply that the Canadian public supported a ban on "human cloning." In one instance, the assertion was made that Canadians are opposed to "therapeutic cloning" because of the slippery slope to reproductive cloning, although the speaker was careful to use "many" as opposed to "most." 460

. . . a great many scientists and researchers are demanding already that the bill should be broadened to allow for therapeutic cloning, but clearly the vast majority of Canadians oppose this practice. . . I do not believe that Canadians' moral sense about this issue is simply due to ignorance. It is based on well-founded and legitimate fears that therapeutic cloning may well lead a company or a research lab to abuse this technology in an unethical way and proceed with reproductive cloning. (ibid., 11612; Mr. Jason Kenney, MP, May 22) 470 475

Polls showing that Canadians support embryonic stem cell research were discredited. For example, one poll found that 70% of Canadians were in favor of using embryonic stem cell research. This result was portrayed as inaccurate because it framed the question in the context of "using embryonic stem cells to find cures to the illnesses and diseases of Canadians" (ibid., 5343; Mr. Paul Szabo, MP, April 10). According to the speaker, the question should have explained that "the embryo would have to be destroyed and there were ethical alternatives" (ibid.). 480 485

In contrast, polls were not portrayed as biased when they did not support embryonic stem cell research. For example, one MP referred to a poll that: 490

. . . asked 1,500 Canadians a question. Basically they were asked if they thought it would be preferable to use other sources of stem cells which did not involve loss of life or harm. The results are pretty clear. Only 21% thought it was acceptable to use embryonic stem cells, 33% said that it was not acceptable, while 37% said that it would be preferable to use other sources. What does that mean? It means that 70% of the people polled 495

favoured ethical alternatives to embryonic stem cell. (Canada 2003, 8782; Mr. Tom Wappel, MP, October 27)

500 Other MPs used letters from constituents and communication with Canadians to shore up their own position on the moral status of the embryo stating:

505 [M]any Canadians, myself included, believe it is simply wrong to create life for the purpose of destroying it because some part of that newly created life will go to help what might even be someone’s significant health care problem. (ibid., 8194; Mr. Stockwell Day, MP, October 6)

510 Recognizing the reality of public support, however, one MP stated that he could not support embryonic stem cell research because he believes “human life starts at conception and includes an embryo” although “if polls were taken today, most Canadian would support embryonic cell research” (ibid., 5344; Mr. Clifford Lincoln, MP, April 10).

What was Missing from the Parliamentary Debates

515 There are a number of notable arguments missing from the debate. First, a search of the keywords *health and safety* or *safety* yields no quotes in the context of SCNT. Health and safety issues were raised in the context of IVF treatments, multiple births, and women’s reproductive health. Similarly, feminist arguments were relegated to the issue of the gender composition of the AHRA. This concern was a major issue for the New Democratic Party (NDP), a left of centre party, whose condition for support was gender parity on the AHRA. Also missing were resource allocation issues, such as the broader implications that the cost of stem cell therapies and SCNT might have on our publicly funded healthcare system (Parry 2003; Baylis 2005).

ANALYSIS OF THE RATIONALES

Moral Status of the Embryo

530 In many respects, it is no surprise that the moral status of the embryo was a dominant theme in the legislative debate. SCNT requires both the creation of an embryo and, if the embryo is used to extract stem cells, the destruction of that embryo. For those who hold strong views regarding the moral status of the embryo, these activities are clearly unacceptable because the embryo is viewed not as a cluster of cells, but as entity with moral status worth protecting (Javitt et al. 2005). Indeed, as revealed by the United Nations debate surrounding human cloning, this is the ethical position that informed most of national policies that advocated a ban on SCNT (United Nations Ad Hoc Committee). Many, but not all, of the countries favoring a comprehensive ban on all forms of cloning, including SCNT, have a religious tradition that undoubtedly informed the policy position (Pattinson and Caulfield 2004).

545 Unlike many of these nations, however, the Canadian legislation did not start as a policy founded on the protection of the embryo. On the contrary, most of the early documents, such as those from Health Canada, seem to carefully avoid any reference to the moral status of the embryo as a

justification for regulatory response. Indeed, during the October 2001 hearings, the Chair of the Standing Committee noted this situation as follows:

I’m finding this piece of legislation overall to be very short-sighted in the sense that, I think in order to avoid all the potential arguments around abortion and what happens at the other end, they want to limit the discussion to what happens prior to the implantation of an embryo into a woman. I understand it, but I find it kind of irresponsible. (Canada, Standing Committee on Health 2001b)

If only the parliamentary debates—the submissions to the Committee and the resulting Report—were reviewed, however, one would be compelled to conclude that this was the primary purpose of the legislation.

Social Consensus

Another key rationale for the ban of SCNT is the oft-stated claim that there is a social consensus that a ban is required—this is a rationale that exists at every stage of the political process. It is, in fact, the only consistent theme in the entire debate. For example, Health Canada documentation states that there is a “broad consensus” (Health Canada 2001c). The Report from Standing Committee on Health suggested that the banned activities are clearly “socially unacceptable,” (Canada, Standing Committee on Health 2001a, 9) and numerous MPs implied general social angst.

570 Despite such claims, all of the Canadian survey research available at the relevant time demonstrates that there was, in fact, no social consensus. On the contrary, most of the studies, many of which were publicized in the national media (CTV News 2003), show a degree of support for SCNT. For example, a 2002 poll found that six in 10 Canadians approve of the creation of cloned human embryos for collecting stem cells (IpsosReid 2002). The poll found even greater support among the young (72%), individuals from upper income households (71%), and those with university or post-secondary education (65%). Another study taken shortly after the highly publicized claim by the Raelians that the first human clone was born found that 84% were against human cloning but 53% supported cloning human embryos to create stem cells (CTV News 2003). Likewise, a 2001 Ipsos-Reid poll found that of those surveyed, 21% oppose any law that restricts research into human cloning; 39% support a ban on human cloning while allowing research on cloned embryos; and only 33% support a complete ban on all human cloning (Ipsos-Reid 2001). This latter study provides some evidence to support the notion that Canadians do distinguish between reproductive cloning and SCNT—despite claims by Parliamentarians to the contrary.

600 Public opinion surveys and focus groups are, of course, inherently limited methodologies. A great deal depends on how the questions are asked and the context within which they are placed (Nisbet 2004). In the context of the Canadian political debate, however, social consensus was used

as a justification for a ban. In such circumstances, one could argue, the onus lies with those parties using consensus as a justification to establish the validity of the rationale—particularly when the proposed regulatory tool is a criminal ban (Dahl 2004, 267). Such evidence was either absent or highly equivocal, thus making the one consistent rationale for a ban decidedly suspect. Recently, the Supreme Court of Canada has stated that criminal law should only be applied when individuals “have violated values which Canadian society as a whole has formally endorsed” and cannot “be convicted and imprisoned for transgressing the rules and beliefs of particular individuals or groups” (*R. v. Labaye* 2005, para. 35). It is especially difficult to gauge social consensus in a pluralistic society that can “function only with a generous measure of tolerance for minority mores and practices” (*ibid.*).

Commodification and the Health and Safety of Women

The most malleable area of concern is that of commodification. Although the term *commodification* emerges throughout the process, its meaning is never clear and it is used to support diverse agendas. We see it raised by those who are concerned about the instrumentalization of the embryo and the commercialization of reproductive material, a constituency that is the same, at least in the parliamentary debate, as the one which anchors its arguments on the moral status of the embryo. Here, the concern is that SCNT will cause human embryos to be treated as a commodity (Odunso 2003). The concern about commodification is closely linked to the moral status of the embryo.

However, in the context of the Canadian policy debate, the caution against commodification also encompasses the concern that SCNT will generate a demand for eggs and thus an environment that will create a market, which may lead to the inappropriate exploitation of women (e.g., subtle coercion to produce more eggs than are necessary for the therapeutic treatment of infertility). There is, therefore, a concern that this potential market will lead to situations that will compromise the health and safety of women—particularly when one considers the asymmetry in power inherent in the clinical setting, where these eggs will need to be obtained, and the unknown risks associated with the drugs necessary for the procurement of eggs (Niskier 2005). This is an issue that, because of the controversies surrounding the Korean SCNT research, has recently received tremendous international attention (Magnus and Cho 2005; Weiss 2005).

The commodification concern is, for the purpose of this discussion, an important policy issue. It is one of the primary “non-moral-status-of-the-embryo” justifications for the legislative ban and is part of a long and thoughtful academic literature that has explored the issues associated with the commodification of human tissue (e.g., Radin 1996; Cohen 1999). In addition, health and safety issues were an underlying theme from the start of the policy discussions surrounding the Canadian law and remain a key justification for those who defend the ban. For example, Jeff Niskier, the

former Chair of Canada’s Advisory Committee on Reproductive and Genetic Technology—a Health Canada entity that advised on the development of the legislation—recently argued that the ban was not a response to the moral status of the embryo but was meant to protect women and guard against commodification. Indeed, he went so far as to say he does not believe that the moral status of the embryo “was a major factor in the prohibition of somatic cell nuclear transfer (SCNT) in Canadian stem-cell research” (Niskier 2005). Commentators such as Niskier see these commodification concerns as distinct from issues associated with the moral status of the embryo.

Our research shows, however, that from the Standing Committee forward there was little mention of non-moral status commodification concerns. In other words, from an analysis of available public documentation, health and safety issues (including exploitation concerns) are almost completely absent as a justification for the law. Even in the early documentation that mentions health and safety, such as those from Health Canada, there are no explanations about what the specific commodification and health issues are and why they are of such a magnitude to warrant the unusual step of a criminal ban. The stated health and safety concerns relate, not to women and egg donation, but to health and safety concerns from animal tissue transplant experiments following SCNT with no scientific references provided. For example, this concern is the health and safety issue addressed by Alan Bernstein to the Standing Committee, but the argument fails to explain how and why these concerns are unique (compared with other forms of biomedical research) such that a criminal ban is necessary.

CRITICAL ANALYSIS

Clearly, parliamentary debates are creatures of political strategy, opportunity, and compromise. Those MPs who feel strongly about the moral status of the embryo focused on that aspect of the debate. For those who may have felt differently, there was little, politically, to be gained by openly disputing the moral status rationales or, even, to introducing alternative positions. As such, the issue of whether concern for the moral status of the embryo is an appropriate justification for a criminal ban was never debated.

Indeed, the Canadian stem cell debate shows how the polarization of the discussion can result in a loss of more subtle arguments. In the context of a political debate one is expected to take sides, particularly in the parliamentary process. A message that appears equivocal will be lost in the noise of the political battle. So, for example, it becomes difficult to express concern about the commodification of reproductive material while not implicating the moral status of the embryo. Rationales become lumped together—which, we believe, creates bad precedents for science policy. These are morally complex issues.

In addition, despite over a decade of debate, the true justification for the policy has remained unclear, a point noted by several authors (Devolder 2005; Young and Wasunna

1998; Caulfield et al. 2004; Pattinson 2002). Section 2 of the legislation provides a list of principles meant to inform the administration of AHRA, including the promotion of health, safety, and dignity. But these principles are so broad and open to interpretation that they provide little true guidance (Pattinson 2002). Recently, Bernier and Gregoire stated:

We believe that the Canadian government and the standing committee on health, in expressing a strong opposition to therapeutic cloning, are being too rigid without providing sufficient reasons to support their position. . . . We believe the Canadian government's position on therapeutic cloning should not be driven by doubts and dogmatic fears. (2005, 529)

Also, Campbell notes:

Until a more comprehensive legislative justification is articulated, Parliament's activities in this area will be perpetually scrutinized and challenged, thereby revoking attention from the more important social and scientific issues sure to arise in the area of reproductive technologies. (2002, 85)

If the law were legally challenged, Canadian courts would be required to divine the purpose from the documents and political debates studied in this paper.² If the law is based on the moral status of the embryo, as much of our analysis would seem to indicate, we are left wondering whether, in a pluralistic society, it is appropriate to base a criminal ban on a "single view of embryonic life" (Childress 2001; Brownsword 2003)—particularly when it is clear that other faiths hold different perspectives and there is no evidence that a majority of the Canadian public want the ban. This is not to say that moral status concerns are not legitimate or worthy of consideration (e.g., Deckers 2005). However, not all social concerns should give rise to a criminal ban. As noted by Charo: "Moral angst is one thing; federal criminalization of research or medical practice is another" (Charo 2004, 311).

2. For example, in the event of a constitutional challenge (on the ground that the legislation falls outside the legislative competence of the enacting body), the court's analysis will involve determining the "pith and substance" of impugned legislation. Part of the "pith and substance" analysis involves determining the "purpose and effects of the bill." Many statutes declare their own purpose, and the *Assisted Human Reproduction Act* is no exception (see s. 2 a-g). But, as J. Rand correctly notes in *Reference re Validity of s. 5(a) of Dairy Industry Act (Canada)*, [1949] S.C.R. 1 at 48 [*Margarine Reference*], the declared purpose is not necessarily determinative. It is rather "a fact to be taken into account, the weight to be given to it depending on all the circumstances." If the true purpose of a statute is different than the declared purpose, the legislation is said to be "colourable," meaning that the enacting body has essentially dressed the wolf in sheep's clothing: they have presented a law that (possibly) exceeds their jurisdiction in such a way as to appear to fall within their legislative competence. Courts can look at "extrinsic aids" such as parliamentary debates and committee reports in the process of determining the true purpose of a statute. As Ruth Sullivan notes, extrinsic aids can be used as "indirect evidence of meaning or purpose" (Sullivan 1997, 202).

If the law is based on concerns about commodification and health and safety, then we need to have a better understanding of what those risks are and more explanation as to why a criminal ban is the appropriate regulatory instrument. It has recently been suggested that criminal sanctions should only be applied when Parliament can demonstrate significant harm, which is objectively ascertainable (*R. v. Labaye* 2005). In general, a government should strive to use the least restrictive means necessary to achieve a policy goal. Is a criminal ban, the biggest hammer available in a liberal democracy, really required? Are the risks so grave and unique that they cannot be addressed through other regulatory means, such as a ban on the buying and selling of reproductive material, research ethics oversight and a comprehensive consent policy?

Finally, policy makers need to understand that these policy debates will have relevance beyond the debates associated with SCNT. This policy dialogue may stand as a precedent for future science policy and for future controversies that implicate the moral status of the embryo, a point noted by Robyn Shapiro: "Even beyond the lives that may be affected by legislative resolution of the embryonic stem cell research debate, law makers should be keenly aware that their action will more generally help to shape the law governing research and the freedom of scientific inquiry in this country" (2003, 398).

REFERENCES

- Australian Government. 2005. *Legislation review. Prohibition of human cloning act 2002 and the research involving human embryos act 2002*. Reports, Canberra, December 2005. 780
- Baylis, F. 2005. Embryological viability. *American Journal of Bioethics* 5(6): 17–18.
- BBC News. 2005. S. Korea stem cell success "faked." *BBC News*, 15 December. Available at <http://news.bbc.co.uk/2/hi/asia-pacific/4532128.stm> (accessed November 22, 2006). 785
- Bernier, L., and D. Gregoire. 2005. Reproductive and therapeutic cloning, germline therapy, and purchase of gametes and embryos: Comments on Canadian legislation governing reproductive technologies. *Journal of Medical Ethics* 31: 527–532. 790
- Brownsword, R. 2003. Bioethics today, bioethics tomorrow: Stem cell research and the "Dignitarian Alliance." *Notre Dame Journal of Law, Ethics and Public Policy* 17: 15–51.
- Campbell, A. 2002. A place for criminal law in the regulation of reproductive technologies. *Health Law Journal* 10: 77–101. 795
- Canada. 1996. Bill C-47. *An Act respecting human reproduction technologies and commercial transactions relating to human reproduction*. 2d sess., 35th Parliament.
- Canada. 2001. *House of Commons, Standing Committee on Health (HEAL)*. Available at <http://www.parl.gc.ca/committee/CommitteeList.aspx?Lang=1&PARLSES=371&JNT=0&SELID=e21.&COM=218> (accessed December 22, 2005). 800
- Canada. 2002a. Bill C-56. *An Act respecting assisted human reproduction*. 1st sess., 37th Parliament.

- 805 Canada. 2002b. Bill C-13. *An Act respecting assisted human reproduction*. 2nd sess., 37th Parliament.
 Canada. 2003. *House of Commons debates*.
 Canada. 2004. Bill C-6. *Assisted Human Reproduction Act [AHRA]*. 3rd sess, 37th Parliament. Assented to March 29, 2004. SC 2004, c. 2.
- 810 Canada, Royal Commission on New Reproductive Technologies. 1993. *Proceed with care: Final report of the Royal Commission on new reproductive technologies*. 2 vols. Ottawa: Canadian Government Publishing.
- 815 Canada, Standing Committee on Health. 2001a. *Assisted human reproduction: Building families*. Ottawa: Public Works and Government Services Canada—Publishing. Chair: Bonnie Brown MP.
 Canada, Standing Committee on Health. 2001b. *Evidence*. 37th Leg., Meeting 37. October 31. Available at <http://www.parl.gc.ca/committee/CommitteePublication.aspx?SourceId=55607>. (accessed November 22, 2006).
- 820 Caulfield, T. 2001. Clones, controversy and criminal law: A comment on the proposal for legislation governing assisted human reproduction. *Alberta Law Review* 39: 335–346.
- 825 Caulfield, T. 2002. Politics, prohibitions and the lost public perspective: A comment on Bill C-56: the Assisted Human Reproduction Act. *Alberta Law Review* 40: 451–463.
- Caulfield, T., and B. von Tigerstrom. 2005. Globalization and biotechnology policy: The challenges created by gene patents and cloning technologies. In *Globalization and Health: Challenges for Health Law and Bioethics*, edited by B. Bennett and G. F. Tomossy. Springer: International Library of Ethics, Law and the New Medicine. 129–149.
- 830 Caulfield, T., L. Knowles, and E. M. Meslin. 2004. Law and policy in the era of reproductive genetics. *Journal of Medical Ethics* 30: 414–417.
- CBS News. 2004. UN gives up cloning ban. *CBS News*, 19 November. Available at <http://www.cbsnews.com/stories/2005/02/18/tech/main675124.shtml>. (accessed November 22, 2006).
- 840 Charo, R. A. 2004. Passing on the right: Conservative bioethics is closer than it appears. *Journal of Law, Medicine and Ethics* 32(2): 307–314.
- Childress, J. 2001. An ethical defense of federal funding for human embryonic stem cell research. *Yale Journal of Health Policy, Law and Ethics* 2: 157–165.
- 845 Cohen, C. 1999. Selling bits and pieces of humans to make babies: The gift of the magi revisited. *Journal of Medicine and Philosophy* 24: 288–306.
- CTV News. 2003. Most Canadians oppose human cloning; poll. *CTV News*, 20 January 2003. Available at http://www.ctv.ca/servlet/ArticleNews/story/CTVNews/20030120/cloning_poll_030119/SciTech?s_name=&no_ads (accessed November 22, 2006).
- 850 Dahl, E. 2004. The presumption in favour of liberty. *Reproductive BioMedicine* 8: 266–267.
- Deckers, J. 2005. Why current UK legislation on embryo research is immoral. How the argument from lack of qualities and the argument from potentiality have been applied and why they should be rejected. *Bioethics* 19: 251–271.
- 855 Devolder, K. 2005. Creating and sacrificing embryos for stem cells. *Journal of Medical Ethics* 31: 366–370.
- Greenaway, Norma. 2002. Liberals reviving cloning, stem cell bill. *Edmonton Journal*, September 15, A2. 860
- Health Canada. 2001a. Available at http://www.hc-sc.gc.ca/ahc-asc/alt_formats/cmcd-dcmc/pdf/media/releases-communications/2001/legislation.pdf (accessed November 22, 2006).
- Health Canada. 2001b. *Proposal for legislation governing assisted human reproduction: Draft legislation*. Available at http://www.hc-sc.gc.ca/ahc-asc/alt_formats/cmcd-dcmc/pdf/media/releases-communications/2001/repro_over.pdf (accessed November 22, 2006). 865
- Health Canada. 2001c. *Assisted human reproduction: Frequently asked questions*. Available at http://www.hc-sc.gc.ca/ahc-asc/media/nr-cp/2001/2001_44bk2_e.html (accessed November 22, 2006). 870
- Health Canada. 2001d. News Release. Rock launches review of draft legislation on assisted human reproduction to ban human cloning and regulate related research. 3 May. Available at http://www.hc-sc.gc.ca/ahc-asc/media/nr-cp/2001/2001_44_e.html (accessed November 22, 2006). 875
- Ipsos-Reid. 2001. Stem cell research debate last summer paved the way for greater acceptance of human cloning research today. December 3. 880
- Ipsos-Reid. 2002. News release. Six in ten Canadians approved creation of cloned embryos for collecting stem cells. October 22.
- Javitt, G.H., K. Suthers, and K. Hudson. 2005. *Cloning: A policy analysis*. Washington: Genetics and Public Policy Center.
- Magnus, D., and M.K. Cho. 2005. A commentary on oocyte donation for stem cell research in South Korea. *American Journal of Bioethics* 5(6): WXX. 885
- 890 *Medical News Today*. 2005. Royal Society comment on granting of therapeutic cloning licence to Professor Ian Wilmut. February 14. Available at <http://www.medicalnewstoday.com/medicalnews.php?newsid=20004>. (accessed November 22, 2006).
- Nisbet, M. 2004. The polls—trends: Public opinion about stem cell research and human cloning. *Public Opinion Quarterly* 68: 131–139.
- 895 Nisker, Jeff. 2005. “Neither Dolly Nor Polly.” *Globe and Mail*, June 10, A16.
- Odunsu, F. S. 2003. Stem cell research in Germany: Ethics of healing vs. human dignity. *Medicine, Health care and Philosophy* 6: 5–16.
- 890 Parry, S. 2003. The politics of cloning: Mapping the rhetorical convergence of embryos and stem cells in parliamentary debates. *New Genetics and Society* 22(2): 145–68.
- Pattinson, S. 2002. Reproductive cloning: Can cloning harm the clone? *Medical Law Review* 10: 295–307.
- 895 Pattinson, S., and T. Caulfield. 2004. Variations and voids: The regulation of human cloning around the world. *BioMed Central Medical Ethics* 5: 9–16.
- R. v. Labaye. 2005. SCC 80.
- Radin, M. J. 1996. *Contested commodities*. Cambridge, MA: Harvard University Press. 910

- Shapiro, R. 2003. Legislative research bans on human cloning. *Cambridge Quarterly of Healthcare Ethics* 12: 393–400.
- Sullivan, R. 1997. *Statutory Interpretation*. Concord, Ontario: Irwin Law.
- 915** Theise, N. 2003. Stem cell research: Elephants in the room. *Mayo Clinic Proceedings* 78: 1004–1009.
- United Nations Ad Hoc Committee on an International Convention Against the Reproductive Cloning of Human Beings. Available at <http://www.un.org/law/cloning/> (accessed November 22, 2006).
- UNESCO. 2004. *National Legislation Concerning Human Reproductive and Therapeutic Cloning*. Paris: Division of the Ethics of Science and Technology.
- Weiss, Rick. 2005. Ethics scandal could bolster stem-cell foes. *Seattle Times*, November 20. Available at http://seattletimes.nwsource.com/html/nationworld/2002634970_stemcell20.html **925** (accessed November 22, 2006).
- Young, A. H., and A. Wasunna. 1998. Wrestling with the limits of law: Regulating new reproductive technologies. *Health Law Journal* 6: 239–277.

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