

The Regulation of Science and the *Charter* of Rights: Would a Ban On Non-Reproductive Human Cloning Unjustifiably Violate Freedom of Expression?

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Non-Reproductive Human Cloning (NRHC) allows researchers to develop and clone cells, including non-reproductive cells, and to research the etiology and transmission of disease. The ability to clone specific stems cells may also allow researchers to clone cells with genetic defects and analyze those cells with more precisions. Despite those potential benefits, Parliament has banned such cloning due to a myriad of social and ethical concerns. In May 2002, the Canadian Government introduced Bill C-13 on assisted human reproductive technologies. Bill C-13 deals with both the scientific and the clinical use of human reproductive materials, and it prohibits a number of other activities, including NRHC. Although the Supreme Court of Canada has never ruled on whether scientific experiments are a form of expression, academic support exists for this notion. The authors go through the legal analysis that would be required to find that scientific experiments are expression, focusing in part on whether NRHC could be considered violent and thus fall outside the protection of section 2(b). The latter question is complicated by the ongoing policy debate over whether an “embryonic cell” is property or human life. The authors then consider whether a ban on NRHC could be justified under section 1 of the Charter. They conclude that both the breadth of the legislative purpose and the proportionality of the measure are problematic. Proportionality is a specific concern because the ban could be viewed as an outright denial of scientific freedom of expression. Although consistent with current jurisprudence on freedom of expression, this paper runs against the flow of government policy in the areas of regulation and prohibition of non-

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reproductive human cloning. As there has been no Charter litigation to date on whether scientific research is a form of expression, the authors introduce a new way of looking at the legality of the regulation of new reproductive technologies.

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Introduction

How should law be used to regulate science? This question is currently the source of a fundamental and complex socio-legal debate. It is fundamental because of the increasingly central role of science and technology in modern society, and because of the speed of progress in these areas. It is complex because the regulation of science presents many diverse challenges.¹ Scientific technology invariably moves forward, making it difficult to create laws with lasting relevance. Scientific research and scientific advances often engage strongly held social values, making consensus on the objectives and forms of regulation difficult to obtain. In addition, to be constitutionally valid, all

1. See generally Lori P. Knowles, "Science Policy and the Law: Reproductive and Therapeutic Cloning" (2000) 4 N.Y.U.J. Legis. & Pub. Pol'y 13; Sharyn L. Roach Anleu, "The Legal Regulation of Medical Science" (2001) 23 Law & Pol'y 417; Timothy Caulfield & Marie Hirtle, "Regulating the Genetic Revolution" (1999) 5 Mol. Med. Today 198; Shaun Pattinson, *Influencing Traits Before Birth* (Aldershot: Ashgate, 2002).

laws must accord with the individual rights and freedoms guaranteed by the *Canadian Charter of Rights and Freedoms*,² and the division of legislative power between the different levels of government raises questions about who can make laws on specific technologies and about what those laws should look like.³ The requirement that all legislation in Canada must comply with the terms of the Constitution is codified in section 52(1) of the *Constitution Act, 1982*, which states: “The Constitution of Canada is the supreme law of Canada, and any law that is inconsistent with the provisions of the Constitution is, to the extent of the inconsistency, of no force or effect.”⁴

In the face of such varied considerations, Canadian policy makers have struggled for years to design legislation to regulate existing and prospective reproductive technologies. The Royal Commission on New Reproductive Technologies made specific regulatory recommendations as early as 1993.⁵ In 1996, the Government of Canada introduced a bill that died when the 1997 federal election was called.⁶ In 2001, the Government released a “proposed” law,⁷ and issued a Parliamentary Standing Committee report.⁸ Finally, in May of 2002, the Government introduced *Bill C-13, An Act respecting assisted human reproduction and related research*.⁹

2. *Canadian Charter of Rights and Freedoms*, Part I of the *Constitution Act, 1982*, being Schedule B to the *Canada Act 1982* (U.K.), 1982, c. 11 [*Charter*].

3. Patrick Healy, “Statutory Prohibitions and the Regulation of New Reproductive Technologies under Federal Law in Canada” (1995) 40 *McGill L.J.* 905.

4. *Constitution Act, 1982*, being Schedule B to the *Canada Act 1982* (U.K.), 1982, c. 11, s. 52(1).

5. Canada, Royal Commission on New Reproductive Technologies, *Proceed With Care* (Ottawa: Canadian Government Publishing, 1993).

6. *Bill C-47, An Act respecting human reproduction technologies and commercial transactions relating to human reproduction*, 2d Sess., 35th Parl., 1996 was dropped from the federal agenda when the 1997 federal election was called.

7. See e.g., Health Canada, *Proposal for Legislation Governing Assisting Human Reproduction: An Overview* (May 2001), online: Health Canada <http://www.hc-sc.gc.ca/english/pdf/reproduction/repro_over.pdf> at 4-7.

8. Canada, House of Commons Standing Committee on Health, *Assisted Human Reproduction: Building Families* (Ottawa: Government of Canada, 2001).

9. 3d. Sess., 37th Parl., 2004 (as passed by the House of Commons 11 February 2004). This legislation was originally introduced as *Bill C-56*, 1st Sess., 37th Parl., 2002 but died

Bill C-13 creates a framework to govern both the scientific and clinical use of human reproductive material. It creates the Assisted Human Reproduction Agency of Canada, and gives that agency a broad mandate: “(a) to protect and promote the health and safety, and the human dignity and human rights, of Canadians, and to foster the application of ethical principles”¹⁰ in relation to reproductive technologies. The agency has the authority to issue licences¹¹ for a variety of “controlled activities.”¹² In addition, the Bill specifically prohibits a number of activities, including reproductive and non-reproductive human cloning, germ line alterations, non-medical sex selection and commercial surrogacy.¹³ The effect of these provisions is to halt scientific research which uses the prohibited techniques.

Bill C-13 confirms that the constitutionality of regulating science is now a question of utmost practical importance in Canada. In this paper, we use the Bill as a focal point to explore the implications of the *Canadian Charter of Rights and Freedoms* for the regulation of science, and to examine in particular the relationship between scientific freedom and the legislative prohibition of scientific research. Specifically, we ask whether *Bill C-13*'s absolute prohibition of non-reproductive human cloning (NRHC)¹⁴ unjustifiably violates freedom of expression as

on the order paper when session ended. It was reintroduced as Bill C-13, 2d. Sess., 37th Parl., 2002; that bill was passed by the House of Commons on October 28, 2003 but was not through the Senate when Parliament prorogued. The bill was introduced again as Bill C-6 and was passed by the Senate on March 11, 2004. See Health Canada, News Release, 2004-10, “Assisted Human Reproduction Legislation receives approval of Senate” (11 March 2004), online: <http://www.hc-sc.gc.ca/english/media/releases/2004/2004_10.htm>. At the time of the writing of this paper, the Bill under consideration was Bill C-13. This paper will refer to the then proposed legislation as “*Bill C-13*” or the “Bill.”

10. *Ibid.* at cl. 22.

11. *Ibid.* at cl. 24.(1)(a).

12. *Ibid.* at cls. 10-13.

13. *Ibid.* at cls. 5-9.

14. Also called “nuclear transplantation,” “therapeutic cloning” or “research cloning.” A significant difficulty in discussing the regulation of science or technology appears to be coming up with terms or labels for the technology which do not expressly or implicitly impose a judgment about the morality, utility or desirability of the technology. For example, NRHC has been identified by various titles, including “therapeutic cloning,” “research cloning,” or “somatic cell nuclear transfer.” Each of these terms has been

protected by the *Charter*,¹⁵ specifically for those scientists who wish to use NRHC in their research.¹⁶ We have chosen to focus on this issue because it is a powerful illustration of the relationship between the *Charter* and the regulation of science. Disagreement exists both within and outside the scientific community about the benefits and harms of NRHC,¹⁷ so it makes a fitting case study for considering how *Charter*

criticized for different reasons. Some commentators feel that the term “therapeutic” is inappropriate and potentially misleading because the therapeutic value of this technique remains largely theoretical. See Laura Shanner, “Stem Cell Terminology: Practical, Theological and Ethical Implications” (2002) 11:1 Health L. Rev. 62. Others suggest that the term “cloning” too closely associates the technique with reproductive cloning. For example, Vogelstein, Alberts and Shine favour the term “nuclear transplantation.” They suggest that the “goal of creating a nearly identical genetic copy of a human being is consistent with the term human reproductive cloning, but the goal of creating stem cells for regenerative medicine is not consistent with the term therapeutic cloning. The objective of the latter is not to create a copy of the potential tissue recipient, but rather to make tissue that is genetically compatible with that of the recipient.” See Bert Vogelstein, Bruce Alberts & Kenneth Shine, “Please Don’t Call It Cloning!” *Science* 295:5558 (February 15, 2002) 1237. We have chosen to use the term “NRHC” in order to accurately describe the process while avoiding judgmental connotations.

15. *Charter*, *supra* note 2, section 2(b) provides that: “Everyone has the following fundamental freedoms: (b) freedom of thought, belief, opinion and expression, including freedom of the press and other media of communication.” The prohibition in question is contained in cl. 5(1)(a) of the Bill, *supra* note 9. Clause 5(1)(a) bans the creation of a human clone, which is defined in cl. 3 of the Bill as “an embryo that, as a result of the manipulation of human reproductive material or an in vitro embryo, contains a diploid set of chromosomes obtained from a single living or deceased human being, foetus or embryo.” This definition means that the cl. 5(1)(a) prohibition applies to the creation of clones for both reproductive purposes and experimental or medical purposes. Using cl. 5(1)(a)’s ban of NRHC as a model, we will generally refer to the legislative prohibition of NRHC as either a “ban on NRHC” or the “ban.”

16. Much of the present discussion is based on an earlier paper on this topic. Barbara Billingsley, “A Constitutional Analysis of the Proposed Ban on Non-Reproductive Human Cloning: An Unjustified Violation of Freedom of Expression?” (2002) 11:1 Health L. Rev. 32. That paper sought primarily to identify the main issues raised by a freedom of expression analysis of a ban on NRHC. The present paper more thoroughly analyzes the issues against the background of the scientific and policy concerns associated with the regulation of stem cell research and cloning technology.

17. Indeed, the regulation of stem cell research and non-reproductive human cloning has attracted a good deal of commentary and media attention. For example, see Michele Garfinkel, “American Medical Association Supports Cloning for Research” *Genome News*

values might affect the regulation of a technology that is clouded by moral ambiguity and scientific uncertainty. Further, while several *Charter* provisions arguably may impact upon a NRHC ban,¹⁸ the free exchange of ideas and the associated search for truth are fundamental to our democracy and have a special place in Canadian constitutional law.¹⁹ In sum, the importance of NRHC in the area of reproductive technologies and the importance of freedom of expression make the pairing of the NRHC ban and freedom of expression a natural and meaningful starting point for considering the relationship between the *Charter* and the regulation of reproductive technology.

Our discussion begins with an overview of stem cell research and cloning technology, including an outline of some of the significant scientific and social policy challenges associated with NRHC and the various legislative responses to these problems. We then examine the legal issues which a court would confront in evaluating a ban on NRHC in light of the *Charter's* protection of individual freedom of expression. We do not seek to definitively answer the narrow question of whether such a ban on NRHC would survive a freedom of expression challenge, or the larger issue of how the *Charter* affects the regulation of science. Rather, our goal is to identify and elaborate on some of the crucial concerns which are raised when the law seeks to control science in the

Network (27 June 2003), online: Genome News Network <http://www.genomenetwork.org/articles/06_03/ama_cloning.shtml>. Francoise Baylis & Jocelyn Downie, "Ban Cloning: Do you copy?" *The Globe and Mail* (2 July 2002) A13; Janet D. Rowley *et. al.*, "Harmful Moratorium on Stem Cell Research" *Science* 297:5589 (20 September 2002) 1957; Tim Harper, "Law of the Seed" *The Toronto Star* (15 January 2000) NRO 1; and UNHCHR's Expert Group on Human Rights and Biotechnology, "Expert Group on Human Rights and Biotechnology convened by the UN High Commissioner for Human Rights: Conclusions on Human Reproductive Cloning" (2002) 6:1 Health and Hum. Rts. 153.

18. See Sina A. Muscati, "Therapeutic Cloning and the Constitution—A Canadian Perspective" (August 2001) 22:1 Health L.Can. 7. For a discussion of the constitutional questions which a NRHC ban might raise in the United States, see Judith F. Daar, "The Prospect of Human Cloning: Improving Nature or Dooming the Species" (2003) 33 Seton Hall L. Rev. 511.

19. The fundamental importance of freedom of expression in a democratic society has been repeatedly recognized by Canadian courts. For a recent example, see *R. v. Guignard*, [2002] 1 S.C.R. 472 at para. 19 [*Guignard*].

Charter era. Our intention is solely to highlight the considerations which arise *as a matter of law* given that, in Canada, any regulation of science must accord with the provisions of the *Charter*.²⁰ We offer no conclusions on whether NRHC or other technologies *ought* to be banned or otherwise controlled by law.

I. A Brief Overview of the Regulation of Stem Cell Research and Cloning Technology

A. *The Science and Associated Social Policy Concerns*

Policy debates on the regulation of reproductive technologies have been greatly complicated by advances in the area of stem cell research. In 1998, a discovery which allowed scientists to isolate embryonic stem cells introduced new concerns about the use and creation of human embryos, and at the same time offered “a new way of exploring fundamental questions of biology, especially those pertaining to embryonic development.”²¹

Stem cells, particularly embryonic ones, have the potential to become any cell in the human body.²² Scientists therefore hope that they will be able to coax item cells into becoming a variety of human tissues-based

20. *Charter*, *supra* note 2.

21. U.S., National Academies Committee, *Biological and Biomedical Applications of Stem Cell Research: Stem Cells and the Future of Regenerative Medicine* (Washington: National Academies Press, 2002) at 8, online: <<http://books.nap.edu/books/0309076307/html/8.html>> cited in Abdallah S. Daar & Lorraine Sheremeta, “The Science of Stem Cells: Some Implications for Law and Policy” (2002) 11:1 Health L. Rev. 5 at 5. See also James A. Thomson *et al.*, “Embryonic Stem Cell Lines Derived from Human Blastocysts” *Science* 282:5391 (6 November 1998) 1145.

22. It is believed that embryonic stem cells may be the only truly “pluri-potent” cells. That is, they have the potential to differentiate into a wide range of tissue. Some adult stem cells, such as those from skin or bone marrow, have been found to have a degree of “plasticity” that may allow them to differentiate into a range of different types of tissues. However, the data on the scientific value of stem cells is far from conclusive. As such, the use of embryonic cells remains central to the debate. See Daar & Sheremeta, *supra* note 21 at 6. However, see The Canadian Press, “Baby-Teeth Rich in Stem Cells, Alternate to Human Embryos” *Edmonton Journal* (23 April 2003) A5.

therapies that could be used to treat a range of diseases, including Alzheimer's, diabetes and heart disease.²³ Some have speculated that the technique of "somatic cell nuclear transfer" (the technology used in the creation of Dolly, the cloned sheep)²⁴ could be used in conjunction with stem cells to create tissues that have largely the same genetic make-up as the individual in need of treatment. This would reduce the likelihood of immune rejection,²⁵ and would open the door to the possibility of, for instance, a pancreatic islet could be created for transplantation into an individual with diabetes. It has been suggested that this non-reproductive application of cloning technology could have important uses as a research tool. For example, Vogelstein, Alberts, and Shine suggest that "creating stem cell lines by using the somatic cell nuclei of individuals with heritable diseases offers an unprecedented opportunity to study genetic disorders as they unfold during cellular development."²⁶

23. See Axel Kahn, "'Therapeutic' Cloning and the Status of the Embryo" in Anne McLaren, ed., *Ethical Eye: Cloning* (Strasbourg: Council of Europe Publishing, 2002) at 106:

Cloning human embryos could have two aims, the first to provide treatment and the second for the purpose of reproduction. In the first case, embryonic cells, which in genetic and immunological terms are identical to those of patients waiting for cell transplants, need to be obtained in order to treat a large variety of diseases; neuro-degenerative disorders such as Parkinson's disease or Alzheimer's disease, cancer, diabetes, liver failure, burns, etc.

See also Daar & Sheremeta, *supra* note 21.

24. Ian Wilmut, *et al.*, "Viable Offspring Derived From Fetal and Adult Mammalian Cells" (1997) 385 *Nature* 810.

25. See *e.g.* Hugh Auchincloss & Joseph V. Bonventre, "Transplanting Cloned Cells into Therapeutic Promise" (2002) 20:7 *Nature Biotechnology* 665 at 666: "These observations bring closer the promise of therapeutic cloning and tissue engineering of the kidney and other organs." See also Konrad Hochedlinger & Rudolf Jaenisch, "Mechanisms of Disease: Nuclear Transplantation, Embryonic Stem Cells, and the Potential for Cell Therapy" (2003) 349:3 *New Eng. J. Med.* 275 at 284: "Therapeutic cloning, in combination with the differentiation potential of embryonic stem cells, offers a valuable means of obtaining autologous cells for the treatment of a variety of diseases."

26. Vogelstein, Alberts & Shine, *supra* note 14 at 1237. See also, Editorial, "Reasons to be Cloned" (2001) 414 *Nature* 567 at 567: "The ability to grow and study ES cells from patients may also further our understanding of why some people get diseases whereas others don't—a notion that hasn't been adequately discussed in the human-cloning debate."

However, the promise of therapeutic and scientific benefits must be balanced against a variety of social and ethical concerns. Though NRHC is not intended to result in the birth of an individual, many are concerned that research in this area will facilitate the development of effective reproductive cloning technology. Given the almost universal condemnation of reproductive cloning,²⁷ this “slippery slope” argument resonates with a variety of commentators.²⁸ And, of course, because NRHC involves the creation of an “embryo,”²⁹ issues surrounding the moral and legal status of the embryo have been a dominant consideration in this context.³⁰ Judith Daar states that “[m]any feel it is simply wrong to create an embryo for the purpose of destroying it, even if such destruction could produce a good in the form of a cure for disease.”³¹

B. International Legislative Responses

One of the reasons why NRHC is such a challenging topic for policy makers is different countries have handled the technology in very different ways. Some countries, such as Germany, Austria and Ireland, have effectively banned research involving human embryos.³² As a

27. See generally survey data available at the Center for Genetics and Society, online: <<http://www.genetics-and-society.org/analysis/opinion/detailed.html>>.

28. See e.g. Leon R. Kass, “How One Clone Leads to Another” *New York Times* (24 January 2003) A1; and Baylis & Downie, *supra* note 17.

29. See Daar & Sheremeta, *supra* note 21 at 7-8 for a discussion of this issue.

30. See generally, William Fitzpatrick, “Surplus Embryos, Nonreproductive Cloning, and the Intend/Foresee Distinction” (2003) 33:3 *Hastings Ctr. Rpt.* 29.

31. Daar, *supra* note 18 at 514. Though a detailed discussion of the matter is beyond the scope of this paper, it is also interesting to consider how research ethics policy might be implicated in this context. For example, article 5 of the Declaration of Helsinki states that: “In medical research on human subjects, considerations related to the well-being of the human subject should take precedence over the interests of science and society.” World Medical Association Declaration of Helsinki, *Ethical Principles for Medical Research Involving Human Subjects* (52nd WMA General Assembly, Edinburgh, Scotland, October, 2000). Obviously, the relevance of such provisions is closely related to how one views the moral status of the embryo.

32. For a review of international positions see generally Jessica Monachello, “The Cloning for Biomedical Research Debate: Do the Promises of Medical Advances

result, NRHC is also banned. Other jurisdictions, such as California, Singapore, Israel and the UK have regulatory frameworks that allow, at least potentially, research on NRHC.³³ Canada's *Bill C-13* could be considered a middle ground, as it would potentially allow research on human embryos but would ban all forms of human cloning. Under *Bill C-13*, researchers could use "spare embryos" left over from fertility treatments, which could be used to create new stem cell lines. However, the provisions of the Bill prohibit the creation of new embryos for research purposes, and prohibit all forms of somatic cell nuclear transfer involving human reproductive material. This is similar to the approach taken in Australia and France.³⁴

There has also been some activity on the international stage. The United Nations, for instance, has been struggling to develop an international convention on reproductive cloning. Though most countries seem willing to accept some form of a ban on the use of cloning technology to produce humans,³⁵ the differing approaches to NRHC have created a policy-making stalemate.³⁶ As noted in the report

Outweigh the Ethical Concerns?" (2003) 10:2 *Tulsa J. Comp. & Int'l L.* 591; Dorothy C. Wertz, Marie-Hélène Régner & Bartha Maria Knoppers, "Stem Cells in a Pluralistic Society: Consequences of Proposed Canadian Legislation" (2003), online: HumGen <<http://www.humgen.umontreal.ca/en/GenEditArch.cfm?an=2003&no=1>>; George J. Annas, Lori B. Andrews & Rosario M. Isasi, "Protecting the Endangered Human: Toward an International Treaty Prohibiting Cloning and Inheritable Alterations" (2002) 28:2-3 *Am. J. L. & Med.* 151; Pattinson, *supra* note 1; Marie-Hélène Régner & Bartha Maria Knoppers, "International Initiatives" (2002) 11:1 *Health L. Rev.* 67.

33. See generally Monachello, *ibid.* at 604, where it is noted that the California law permits "the derivation and use of human embryonic stem cells, human embryonic germ cells, and human adult stem cells from any source, including somatic cell nuclear transplantation," and that the New Jersey bill is similar to the California law. The author notes that other states, "such as New Mexico and Oregon are currently considering similar bills of their own." See also Constance Holden, "California Flashes A Green Light" (2002) 297 *Science* 2185. See also Anna Meldolesi, "EU Stalls on Funding of ES Cell Research" (2003) 21 *Nature* 588; Wertz, Régner & Knoppers, *ibid.*; and Timothy Caulfield, "The Regulation of Embryonic Stem Cell Research: A Few Observations on the International Scene" *Health L. J.* [forthcoming].

34. See generally *ibid.*

35. Andrea L. Bonnicksen, *Crafting a Cloning Policy: From Dolly to Stem Cells* (Washington, D.C.: Georgetown University Press, 2002).

36. See "Cloning conundrums" Editorial (2002) 8 *Nature* 1331.

of the UN's Ad Hoc Committee, some delegations preferred a focus on reproductive cloning, and others "favoured a more comprehensive approach, to include also a ban on cloning for therapeutic, experimental and research purposes."³⁷

II. The *Charter* Analysis

A. *Fundamentals of Charter Analysis*

Challenges to legislation on the basis of an alleged *Charter* violation involve a two-step analysis.³⁸ The first step is to determine whether the law in question violates a substantive *Charter* right.³⁹ If a *Charter* right is not infringed, the legislation is constitutionally valid. If a *Charter* right is infringed the court moves on to the second step of the analysis, which is to determine whether the particular infringement is "reasonably and demonstrably justified in a free and democratic society" pursuant to section 1 of the *Charter*.⁴⁰

Thus, in considering whether a ban on NRHC violates freedom of expression under section 2(b) of the *Charter*, the first question is whether banning NRHC infringes freedom of expression at all. With respect to the first question, the Supreme Court of Canada has held that

37. United Nations, Ad Hoc Committee on an International Convention against the Reproductive Cloning of Human Beings, O.R., 57th Sess., Supp. No. 51, UN Doc. A157/51 at 2. For a review of recent international positions, see Régnier & Knoppers, *supra* note 32.

38. In some cases the analysis may involve other steps if questions are raised as to matters such as the applicability of the *Charter* or the standing of the person raising the constitutional question.

39. By "substantive *Charter* right" we mean those *Charter* provisions which guarantee particular rights or freedoms. These rights include freedom of religion (s. 2(a)), freedom of association (s. 2(d)), the right to vote (s. 3), the right to be secure against unreasonable search and seizure (s. 8), the right to be presumed innocent until proven guilty (s. 11(d)), and the right to equality before the law (s. 15).

40. The second step of the analysis is mandated by section 1 of the *Charter*, which provides in full as follows: "The *Canadian Charter of Rights and Freedoms* guarantees the rights and freedoms set out in it subject only to such reasonable limits prescribed by law as can be demonstrably justified in a free and democratic society."

a law violates section 2(b) of the *Charter* if, in its purpose or effect, the law restricts expressive activity.⁴¹ The activity caught by the law must be expressive, and the law must restrict that expression, either by design or by application. By definition, a law which completely bans NRHC would certainly have the effect, if not the purpose, of suppressing any expression achieved by NRHC.⁴² Thus the critical issue is whether NRHC is an expressive act.

With respect to the second question, the Supreme Court has held that a law which violates a substantive *Charter* right is justified within the meaning of section 1 of the *Charter* if the law has a pressing and substantial objective and if the means it employs to achieve that objective are proportional to the *Charter* violation.⁴³ “The law must be

41. *Irwin Toy v. Quebec (Attorney General)*, [1989] 1 S.C.R. 927 at para. 55 [*Irwin Toy*].

42. If NRHC is expression, a total ban obviously prohibits expression even if the purpose of the ban is not to repress the information or knowledge obtained from NRHC but is to prohibit the physical process of NRHC. Prevailing Canadian jurisprudence states that a law which has the effect of restricting expression violates s. 2(b) of the *Charter* as long as the expression in question relates to the core values of the “pursuit of truth, participation in the community, or individual self-fulfillment and human flourishing” (*Irwin Toy*, *ibid.* at para. 53). As discussed in Part II.B. and II.C. of this paper, *bona fide* scientific or medical research appears to reflect these values.

43. These requirements (section 1 test), which to date have been only minimally modified by the courts, were initially set out by then Chief Justice Dickson of the Supreme Court of Canada in *R. v. Oakes*, [1986] 1 S.C.R. 103 at para. 69-70 [*Oakes*] as follows:

To establish that a limit is reasonable and demonstrably justified in a free and democratic society, two central criteria must be satisfied. First, the objective, which the measures responsible for a limit on a *Charter* right or freedom are designed to serve, must be “of sufficient importance to warrant overriding a constitutionally protected right or freedom.” . . . It is necessary, at a minimum, that an objective relate to concerns which are pressing and substantial in a free and democratic society before it can be characterized as sufficiently important.

Second, once a sufficiently significant objective is recognized, then the party invoking s. 1 must show that the means chosen are reasonable and demonstrably justified. This involves “a form of proportionality test.” . . . There are, in my view, three important components of a proportionality test. First, the measures adopted must be carefully designed to achieve the objective in question. They must not be arbitrary, unfair or based on irrational considerations. In short, they must be rationally connected to the objective. . . . Second, the means, even if rationally connected to the objective in this first sense, should impair “as little as possible” the right or freedom in

proportionate to the goal in the sense of furthering the goal, being carefully tailored to avoid excessive impairment of the right, and productive of benefits that outweigh the detriment to freedom of expression.”⁴⁴ In short, as it relates to a NRHC Ban, the section 1 test requires an assessment of the importance of the ban's goal and an evaluation of the balance between this goal and the ban's effect on freedom of expression.

To date, Canadian courts have not ruled on whether NRHC or scientific research in general constitutes expression and if it does, on whether a ban on NRHC or other scientific research unjustifiably violates freedom of expression.

B. NRHC as Expression

There are compelling reasons for concluding that NRHC qualifies as constitutionally protected expression. First, as a matter of constitutional or political theory, there is strong academic support for the notion that scientific research is a form of expression worthy of constitutional protection in a democratic society. Second, as a matter of law, NRHC appears to satisfy the test established by the Supreme Court of Canada to determine whether a particular activity is expression protected by section 2(b) of the *Charter*.

(i) Theory

The idea that scientific research is expression worthy of constitutional protection in a democratic society is hardly new. In the United States, for example, a wide variety of scholars⁴⁵ have argued that the scientific

question. . . . Third, there must be a proportionality between the effects of the measures which are responsible for limiting the *Charter* right or freedom, and the objective which has been identified as of “sufficient importance” [footnotes omitted].

44. *Guignard*, *supra* note 19 at para. 28.

45. In addition to the examples cited in the text, see Matthew B. Hsu, “Banning Human Cloning: An Acceptable Limit on Scientific Inquiry or An Unconstitutional Restriction of Symbolic Speech?” (1999) 87 *Geo. L.J.* 2399; Roy G. Spece, Jr. & Jennifer Weinzierl, “First Amendment Protection of Experimentation: A Critical Review and Tentative

work of researchers enjoys protection under the First Amendment in the American Bill of Rights.⁴⁶ In 1977, John Robertson argued that the First Amendment gave the same level of protection to scientific research as to more conventional forms of speech protection, leaving scientists with a large, but not absolute, autonomy in their choice of research topics and methods.⁴⁷ Specifically with respect to human cloning research, Melissa Cantrell suggests, “there is domestic case law and international precedent to support scientists’ freedom of scientific inquiry. At least in the United States, a complete ban on research would face an uphill constitutional battle in the courts.”⁴⁸ Likewise, Bonnicksen has suggested that, in the U.S., “it can also be argued that scientific inquiry is constitutionally protected. If it is, then the state must show a compelling interest to ban categories of research.”⁴⁹ Walters also has opined that “[a] federal ban would constitute an unprecedented intrusion of the US government into the freedom of scientific inquiry in the United States.”⁵⁰ A variety of international instruments also

Synthesis / Reconstruction of the Literature” (1998) 8 S. Cal. Interdisc. L.J. 185; and John A. Robertson, “The Scientist’s Right to Research: A Constitutional Analysis” (1978) 51 S. Cal. L. Rev. 1203. For a contrary view, see for example Gary L. Francione, “Experimentation and the Marketplace Theory of the First Amendment” (1987-1988) 136 U. Pa. L. Rev. 417-512.

46. The First Amendment of the US Constitution provides in full:

Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.

47. Robertson, *supra* note 45 at 1204. See also John A. Robertson, “Bioterrorism and the Right to Research” (2003) 4 Nature Reviews Genetics 248.

48. Melissa K. Cantrell, “International Response to Dolly: Will Scientific Freedom Get Sheared?” (1998) 13 J.L. & Health 69 at 102. See also Mark L. Meyer, “To Promote the Progress of Science and Useful Arts: The Protection of and Rights in Scientific Research” (1998) 39 J.L. & Tech 1 at 16 where the author suggests that “[f]reedom to research, hypothesize and speculate creates an environment maximally conducive to scientific progress.” He also notes at 14 that US cases have “accepted without question that research in the natural sciences was governed by the principles of academic freedom” (referring to *Sweezy v. New Hampshire*, 354 US 234 (1957)).

49. Bonnicksen, *supra* note 35 at 146.

50. LeRoy Walters, “Research Cloning, Ethics, and Public Policy,” Letter (2003) 299 Science 1661 at 1661.

acknowledge a right to conduct and benefit from research. For example, the Universal Declaration of Human Rights includes the right to share in scientific advancement, while the 1966 International Covenant for Economic, Social and Cultural Rights, requires that states “respect the freedom indispensable for scientific research.”⁵¹

In Canada, the Supreme Court has not decided whether in general scientific experiments, in general or NRHC in particular, are protected under section 2(b) of the *Charter*. However, some members of the Court have offered comments which support the idea that scientific research does enjoy such protection. For example, in *R. v. Keegstra*,⁵² Justice McLachlin (as she then was) stated that one of the purposes of freedom of expression in our society is to maintain “the benefits to be gained from the pursuit of truth and creativity in science, art, industry and other endeavours.” She also expressed concern about the chilling effect that legislation might have on freedom of expression: “Scientists may well think twice before researching and publishing results of research suggesting difference between ethnic or racial groups. . . . These matters go to the heart of the traditional justifications for protecting freedom of expression.”⁵³ On another occasion, Chief Justice McLachlin identified “some of the values protected by the guarantee of free expression” as including “medical research.”⁵⁴ These comments support the notion that scientific research promotes the core values associated with freedom of expression in a democratic society.

51. Carmel Shalev, “Human Cloning and Human Rights: A Commentary” (2002) 6 *Health & Hum. Rts.* 137 at 139. For Shalev, such a right heightens the need for strong justifications for a ban that impacts scientific freedom. “The moral status of the embryo is a cultural issue on which even religions may differ and is therefore not sufficient justification to ban cloning.” See also George Wright, “Second Thoughts: How Human Cloning Can Promote Human Dignity” (2000) 35 *Val. U.L. Rev.* 1. See *International Covenant on Civil and Political Rights*, 19 December 1966, 999 U.N.T.S. 171, art. 15, Can. T.S. 1976 No. 47, 6 I.L.M. 386 (entered into force 23 March 1976, accession by Canada 19 May 1976) and *Universal Declaration of Human Rights*, GA Res. 217(III), UN GAOR, 3d Sess., Supp. No. 13, UN Doc. A/810 (1948) 71.

52. *R. v. Keegstra*, [1990] 3 S.C.R. 697 at para. 181 [*Keegstra*]. Justice McLachlin wrote the dissenting opinion in *Keegstra*, but agreed with the majority of the Court in finding that the legislation in question violated freedom of expression.

53. *Ibid.* at para. 322.

54. *R. v. Sharpe*, [2001] 1 S.C.R. 45 at para. 60 [*Sharpe*].

(ii) Law

As a matter of law, the Supreme Court has defined “expression” under section 2(b) of the *Charter* very broadly to include any non-violent activity which “conveys or attempts to convey a meaning.”⁵⁵ On the basis of this broad, content-neutral definition, the Court has held that even expression of little moral value, such as hate propaganda⁵⁶ and pornography,⁵⁷ is protected under section 2(b). Thus, NRHC would be protected expression under section 2(b) if it is communicative and non-violent.

The Supreme Court of Canada has identified the core values of freedom of expression as including the quest for truth or knowledge, the “participation in social and political decision-making” and the pursuit of “individual self-fulfillment and human flourishing.”⁵⁸ Genuine scientific experimentation and research certainly embody these values. The principal focus of science is the pursuit of truths in nature, knowledge of the natural world and the universe. As a primary methodology of modern science, physical experimentation is intrinsically and inextricably linked to the goal of learning about our natural world. To the extent that knowledge of the world facilitates human survival and individual and collective achievement in the world, scientific experimentation is also necessarily linked to the pursuit of individual self-fulfillment and human flourishing. The fundamental aim of science, and therefore of scientific experimentation, is to advance human ability to survive and thrive in this world, not to detract from it.

(a) Is NRHC Communicative?

Does the activity of NRHC convey or attempt to convey a meaning? If NRHC (or for that matter, any scientific experiment) is viewed as a mere process or procedure, devoid of any inherent message, then the answer is no. On this view, experimental processes like NRHC are

55. *Irwin Toy*, *supra* note 41 at para. 41. See also Muscati, *supra* note 18 at 15.

56. *Keegstra*, *supra* note 52.

57. *R v. Butler*, [1992] 1 S.C.R. 452.

58. *Irwin Toy*, *supra* note 41 at para. 53. See also Muscati, *supra* note 18 at 15.

conceptually separate from the recording and dissemination of data gathered through those processes. Recording and disseminating data conveys a message, but the experiment itself does not. From this perspective, the technique of NRHC does not convey a meaning; it is merely the physical act of creating a cloned embryo.

On the other hand NRHC (and other scientific experiments) can be characterized as being communicative if the experimental process is viewed as necessarily conveying a message. This perspective emphasizes the fact that physical processes can convey information, and indeed may be undertaken for that express purpose. Thus, the physical technique of NRHC arguably has a communicative element separate from the recording or dissemination of the results of the experiment. The experiment itself, by its very nature, communicates a message to the person conducting it.

Which characterization of NRHC is more appropriate for the purposes of section 2(b) of the *Charter*? In defining expressive activity, the Supreme Court has recognized that a given physical action may be both communicative and non-communicative, depending on the circumstances. The Court has concluded that this matter should be resolved by reference to the intention of the party performing the physical act.⁵⁹ To bring purely physical activity within the freedom of expression guarantee, the person claiming an infringement must show that the activity was carried out to convey a meaning.⁶⁰ In other words, whether a particular activity is communicative depends not on its nature, but on the intention of the person who performs it.

Thus, the question is not whether NRHC itself is communicative, but whether a scientist who carries out NRHC intends the experiment to convey information.⁶¹ A researcher does not undertake NRHC or any

59. *Irwin Toy*, *supra* note 41 at para. 41.

60. *Ibid.*

61. See Richard Moon, *The Constitutional Protection of Freedom of Expression* (Toronto: University of Toronto Press, 2000) at 33:

According to the Supreme Court of Canada, section 2(b) protects any activity that “conveys or attempts to convey a meaning.” . . . An act of expression is distinguished from other voluntary human acts by the intention with which it is performed. If the act is intended by the actor to convey a message to someone then it is an act of expression, and *prima facie* protected under section 2(b).

other experimental physical process merely to achieve a particular physical result devoid of meaning. By definition, a scientist who carries out NRHC in the context of research is doing so for the purpose of obtaining information about the physical world—information on such matters as whether a predicted outcome is possible and on the effect, use and limitations of that outcome. The experiment or procedure is performed as part of the process of scientific inquiry, which involves formulating a hypothesis and then conducting experiments to determine the validity of the hypothesis. Within the scientific community, physical experiments and procedures are the premier method of communication,⁶² and are undertaken for the express purpose of conveying a message to the researcher and to others.⁶³ So, while some activities may be done with no intention to convey meaning, genuine scientific experimentation necessarily conveys meaning.

The fact that scientific experimentation may produce communication between the researcher and himself or herself does not necessarily detract from the argument that this communication is protected under Section 2(b) of the *Charter*. The Supreme Court of Canada has cautioned against attempting to draw distinctions between self-expression and communication between individuals, particularly since section 2(b) also protects freedom of thought.⁶⁴

In support of this idea, other commentators suggest that “early stages of research, where ideas are generated and hypotheses formulated, amount to freedom of thought beyond governmental control.”⁶⁵

62. See Muscati, *supra* note 18 at 16, “[S]imply arguing or publishing a theory is insufficient in science. Theories need to be tested by experimentation, which is the manner by which scientific truth can be certified. Laws restricting this experimentation might therefore, by definition, interfere with the search for truth.”

63. As with the Supreme Court’s example of parking a car, NRHC done for purposes other than scientific research may not be expressive. In such instances, the intent of the person doing it would have to be examined to determine if it is intended to convey a meaning.

64. See *Sharpe*, *supra* note 54 at para. 108. The Supreme Court ruled that personally created and held pornography falls under Section 2(b)’s protection because “[t]o ban the possession of our private musings . . . falls perilously close to criminalizing the mere articulation of thought.”

65. See also Bonnicksen, *supra* note 35 at 147.

Realistically, however, the issue of self-communication is likely not an issue in the case of scientific research because modern scientific experiments (including NRHC) are not typically conducted in solitude but involve the communication of information and ideas amongst a team of people.

Scientific research, then, appears to be an activity with an intrinsically communicative element which encompasses physical experiments undertaken as part of a research project. In this respect, scientific research is similar to speech, dance, or art. Instead of being purely physical activities, these actions are themselves *forms* of expression in which “meaning is inseparable from the form in which it is manifested.”⁶⁶

If a research scientist intends to convey meaning through a particular physical process or experiment, it follows that the scientist's selection of a given experiment also conveys a meaning, much as the language chosen by a speaker,⁶⁷ the type of dance selected by a dancer, or the art form selected by an artist. As Cantrell suggests, “[r]esearch becomes a type of ‘symbolic speech’ much like students wearing black armbands and antiwar activists burning their draft cards.”⁶⁸ A scientist engaging in NRHC, for example, may be sending a message that in his or her view, it is the key to curing particular medical ailments such as diabetes or paralysis. The scientist chooses to spend his or her time on NRHC because of a belief that it is the most promising way to cure particular ailments. Therefore, in the context of scientific research, NRHC

66. Moon, *supra* note 61 at 45. Moon also points out that where meaning is inherent in a particular form of expression, any restriction on that form of expression inevitably prohibits the message being expressed:

restriction of a particular form of expression always affects the opportunity to communicate some messages more than others . . . A restriction on a particular form of expression must be understood as a restriction on meaning, even if the purpose of the restriction is not to prevent the communication of a particular message.

Moon's comments support the idea that a ban on NRHC would violate freedom of expression even if the purpose of the ban is not to prevent a particular message from being conveyed but simply to prevent any expression from taking the form of NRHC.

67. See *Ford v. Quebec*, [1988] 2 S.C.R. 712, the Supreme Court of Canada held that the choice of language is an inherent part of expression, because language affects the content or meaning of expression.

68. Cantrell, *supra* note 48 at 96.

arguably conveys a message both in terms of the information produced from an NRHC experiment and as a means of communication. Such experimentation is inherently communicative and therefore is encompassed by section 2(b)'s protection.

(b) Is NRHC Violent?

The Supreme Court of Canada has repeatedly stated that violent activity is not protected under section 2(b) of the *Charter*, even if the activity is communicative.⁶⁹ Unfortunately, to date Canadian courts have not provided a precise definition of violent activity, nor a clear justification for excluding it from the otherwise broad definition afforded to freedom of expression under the *Charter*. Rather, the Court has simply stated that, for the purposes of section 2(b), violence is “expression communicated directly through physical harm”⁷⁰ and has explained that violent expression is excluded from section 2(b)'s protection because of its extreme repugnance to free expression.⁷¹

69. See e.g. *RWDSU v. Dolphin Delivery*, [1986] 2 S.C.R. 573; *Irwin Toy*, *supra* note 41; *Re ss. 193 and 195.1 of the Criminal Code (Prostitution Reference)*, [1990] 1 S.C.R. 1123; *Keegstra*, *supra* note 52; and *Suresh v. Canada (Minister of Citizenship and Immigration)*, [2002] 1 S.C.R. 3.

70. *Keegstra*, *supra* note 52 at para. 37.

71. *Ibid.* There is some question as to whether the exclusion of violent activity from the *Charter*'s protection would be more appropriately achieved under section 1 of the *Charter* rather than by limiting the definition of freedom of expression under section 2(b). Violent activity is associated with forcible rather than consensual physical action. According to Alex Bisset, ed., *Canadian Oxford (Paperback) Dictionary*, (Don Mills, Ontario: Oxford University Press, 2000), “violent” is defined as “involving or characterized by the use of great physical force, esp. in order to cause injury” while “violence” is defined as “the esp. illegal exercise of physical force to cause injury or damage to a person or property.” Accordingly, while the Supreme Court has not specifically referred to force as an element of violent activity, a reasonable understanding of the Court's position is that any activity that is associated with or contained in an act of forcible physical destruction is not worthy of *Charter* protection, regardless of the meaning otherwise being conveyed. In other words, by “physical harm,” the Supreme Court must mean a destructive physical result which is forced upon someone else's person or property. The Court has not limited its reference to physical harm to either persons or property, so presumably both are included. On this understanding, intentionally destroying one's own property or even one's own body as an act of protest

How does the exclusion of violent activity from section 2(b) of the *Charter* impact on scientific research processes such as NRHC? NRHC necessarily involves the destruction of cells or embryos. If violent activity has an element of forcible or non-consensual harm, the destruction of cells, as a form of property during a scientific experiment is only protected under section 2(b) when it has been consented to by the property owner or the person harmed.

These considerations are particularly relevant to NRHC because of the ongoing policy debate about the status of an embryonic cell. Whether embryonic cells should be characterized as property or as “human life” is central to this discussion. To date, the Supreme Court of Canada has not recognized legal or *Charter* rights attributable to a foetus.⁷² However, the Court has been clear in its unwillingness to extend legal rights, such as the right of civil action to an unborn child.⁷³

If the embryo is the property of a donor and is consensually provided for scientific research, NRHC falls within the protected sphere of expression. If the embryo is a life, however, the violent activity

would be protected expression, while destroying the property of others without their permission would not be protected as expression regardless of the purpose underlying that action. The Court’s description of violence as expression resulting “directly” from physical harm suggests that any message conveyed by such activity is communicated, at least in part, by the forcible or non-consensual nature of the action. Thus, it is the combined elements of force and harm which make violent expression not worthy of protection under s. 2(b). For further discussion of this point, see Moon, *supra* note 61 at 43-49.

72. For a brief discussion of the cases in which the question of foetal *Charter* rights has been implicated but not ruled on by the Supreme Court of Canada, see Peter W. Hogg, *Constitutional Law of Canada*, looseleaf (Scarborough, Ont.: Carswell, 1997) at 34-3, n. 13. Hogg concludes that “A foetus is not a legal person, either at common law or civil law, until the child is born by being separated alive from the mother. A foetus is not entitled to a right to life under s. 7, or any other right under the *Charter*.” Hogg’s conclusion on foetal *Charter* rights may be overstated. To date, the Supreme Court has not explicitly confirmed or denied the existence of such rights and has generally shown extreme reluctance to directly address the question. There is little reason to think that the Court’s reluctance in this regard will be overcome in the context of NRHC, although the issue of foetal rights is arguably pertinent to virtually any *Charter* challenge to a NRHC Ban.

73. See *Winnipeg Child and Family Services (Northwest Area) v. D.F.G.*, [1997] 3 S.C.R. 925 and *Dobson (Litigation Guardian of) v. Dobson*, [1999] 2 S.C.R. 753.

exception may apply to exclude NRHC from the protection of section 2(b). Who, if anyone, could give consent to the destruction of that life which would be needed in order to place NRHC outside of the scope of violent activity?

It seems very unlikely that the Court would classify NRHC as a violent activity excluded from section 2(b) protection. Nevertheless, the issue of whether a ban on NRHC violates freedom of expression raises challenging questions about the parameters of the violent activity exclusion, and perhaps about the legal status of the embryonic cells used in NRHC.

C. Justifying a Ban on Non-Reproductive Human Cloning Under Section 1 of the Charter

The purpose of the section 1 *Oakes* test⁷⁴ is to decide whether the importance of a law's objective justifies the extent to which that law infringes the *Charter*. The first part of the test focuses only on the legislative goal—the harm being addressed—and asks whether that goal is sufficiently pressing and substantial to warrant a *Charter* violation.⁷⁵ The second part looks at the means employed by the legislation to achieve its objective, and then evaluates the reasonableness of those means in light of that objective and the seriousness of the *Charter* breach. Overall, the section 1 test calls upon the government to explain why a given *Charter* breach should be tolerated in a free and democratic society. Without adequate justification, a *Charter* infringing law or provision cannot stand.

In a section 1 analysis of the justification of a ban on NRHC, the key question is why a violation of freedom of expression should be tolerated.⁷⁶ Justifying such a ban under the section 1 test would be

74. See *Oakes*, *supra* note 43.

75. For the purpose of *Charter* analysis, the goal of legislation can be gleaned from a variety of sources explaining the legislative history, including the content of the legislation itself, committee reports, Parliamentary debates and related government documents. See Hogg, *supra* note 72 at 57-1, 57-2.

76. This portion of the paper assumes that the violation of freedom of expression has been established and that no other *Charter* provisions are in issue.

extraordinarily difficult, because the objectives commonly associated with the ban are extremely vague, and it would arguably amount to a complete denial of scientific expression. In addition, scientific expression is closely tied to the core value of self-fulfillment and is thus a socially important type of expression. The Supreme Court of Canada has held that the section 1 test should be a strict one in cases where the expression in question is closely related to the core values of section 2(b).⁷⁷ As discussed earlier, these values include the pursuit of truth, community participation, individual self-fulfillment, and human flourishing,⁷⁸ all of which are reflected in scientific research.⁷⁹ The following section 1 analysis must be read in light of these considerations.

(i) Purpose

In assessing the purpose of a ban on NRHC, it is important first to note that the stated objectives behind proposals to ban NRHC have been remarkably broad and equivocal. The identifiable goals include the promotion and protection of human health, safety and dignity, and the prevention of commodification of the embryo (presumably also for the underlying purpose of protecting and preserving human health, safety and dignity).⁸⁰ More specifically, the Bill sets out a number of values or

77. See *Thomson Newspapers Co. v. A.G. Canada*, [1998] 1 S.C.R. 877 at para. 91:

Another contextual factor to be considered is the nature of the activity which is infringed. The degree of constitutional protection may vary depending on the nature of the expression at issue (*Edmonton Journal v. Alberta (Attorney General)*, [1989] 2 S.C.R. 1326 at 1355-56; *Rocket v. Royal College of Dental Surgeons of Ontario*, [1990] 2 S.C.R. 232, at 246-47; *Keegstra*, *supra* 52 at 760; *RJR Macdonald Inc. v. Canada (Attorney General)*, [1995] 3 S.C.R. 199 [RJR] at paras. 71-73 and 132; *Libman v. Quebec (Attorney General)*, [1997] 3 S.C.R. 569 at para. 60).

This is not because a lower standard is applied, but because the low value of the expression may be more easily outweighed by the government objective.

78. *Irwin Toy*, *supra* note 41.

79. See Part II.B.i of this paper.

80. *Bill C-13* does not state particular objectives for the NRHC Ban. However, in lieu of a legislative preamble, cl. 2 of the Bill, *supra* note 9, sets out a number of values or objectives underlying the legislation as a whole. Each of these objectives appears to relate to the preservation of human safety, health and dignity:

2. The Parliament of Canada recognizes and declares that

objectives of the legislation as a whole. For several interrelated reasons, the generality of most of these objectives is a significant obstacle to a principled application of section 1.

First, the stated objectives are so broad and vague as to be pressing and substantial almost by definition. Are not health, safety and human dignity important and laudable goals for any legislation?⁸¹ Applying the section 1 test to such tautologically pressing and substantial objectives means that virtually any *Charter* violation could be justified without detailed rational analysis. This problem was recently identified by Chief

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- (a) the health and well-being of children born through the application of assisted human reproductive technologies must be given priority in all decisions respecting their use;
 - (b) the benefits of assisted human reproductive technologies and related research for individuals, for families and for society in general can be most effectively secured by taking appropriate measures for the protection and promotion of human health, safety, dignity and rights in the use of these technologies and in related research;
 - (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;
 - (d) the principle of free and informed consent must be promoted and applied as a fundamental condition of the use of human reproductive technologies;
 - (e) persons who seek to undergo assisted reproduction procedures must not be discriminated against, including on the basis of their sexual orientation or marital status;
 - (f) trade in the reproductive capabilities of women and men and the exploitation of children, women and men for commercial ends raise health and ethical concerns that justify their prohibition; and
 - (g) human individuality and diversity, and the integrity of the human genome, must be preserved and protected.

Note that the section 1 test relates to the objectives of the impugned legislative provision and not to the objectives of the legislation as a whole (see *RJR*, *supra* note 77 at para. 144). So, a determination has to be made as to which of the above legislative objectives apply specifically to the NRHC Ban. Some guidance is provided via the 2001 Parliamentary Standing Committee Report, *supra* note 8 at 10, which argues that NRHC should be banned because “it is unsafe and commodifies the embryo.” However, no explanation is provided on how or why the procedure is unsafe or commodifies the embryo. For a critique, see Timothy Caulfield, “*Bill C-13: The Assisted Human Reproduction Act: Examining the Arguments Against a Regulatory Approach*” (2002) 11 Health L. Rev. 20.

81. Roger Gibbins, “How in the World Can You Contest Equal Human Dignity?” (2000) 12 N.J.C.L. 25.

Justice McLachlin in *Sauvé v. Canada (Chief Electoral Officer)*⁸² in the course of a section 1 analysis of legislation with the stated objective of enhancing respect for the law. Vague and symbolic objectives make a section 1 analysis more difficult, because they leave little room for argument; they can take on different meanings in different contexts and are susceptible to distortion and manipulation.⁸³

While the objectives associated with a ban on NRHC are not as symbolic as the objectives at issue in *Sauvé*, Chief Justice McLachlin's criticisms still apply. The broadly stated concerns of health, safety and dignity do not sufficiently explain the nature of these concerns. What particular aspect of human health or safety or dignity requires the regulation or prohibition of NRHC? As discussed below, the relationship of those concerns to NRHC remains hotly contested. To some extent, these objectives are intuitively implicated by research of this nature because NRHC involves human cells.⁸⁴ As a matter of law, however, we must ask ourselves whether this intuitive association is sufficient to ground a principled section 1 analysis.⁸⁵

Second, applying the section 1 test in the face of general, undeniably important objectives raises the risk that a court will substitute its own policy perspective for a principled finding in law. This problem is

82. [2002] 3 S.C.R. 519 at para. 22 [*Sauvé*]. See also *RJR*, *supra* note 77 and *Hogg*, *supra* note 72 at 35-18-135-19.

83. *Sauvé*, *ibid.*

84. For a critique of the role of intuitive ethics in the cloning debate see Timothy Caulfield, Lori Knowles & Eric Meslin, "Law and Policy in the Era of Reproductive Genetics" (2003) *J. Med. Ethics* [forthcoming].

85. Bonnicksen, *supra* note 35 at 147, suggests that in the US such vague justifications would not survive legal analysis: "If the Congress were to enact a law barring a whole category of research (SCNT technologies), it would be enacting a content-based prior restraint. Without compelling reasons for imposing this restraint, Congress would appear to be preventing activities because it disapproves of them." See also James Childress, "Human Cloning and Human Dignity: The Report of the President's Council on Bioethics" (2003) 33 *Hastings Ctr Rpt* 15 at 16, where he critiques the use of "human dignity" in the context of the recent cloning report by the US President's Council on Bioethics: "The report notes that 'human dignity is at stake.' . . . The argument, which hinges on the 'meaning' and 'dignity' of human procreation, will appear intuitively correct to many people, but it is not likely to persuade those who do not share this intuitive response."

effectively illustrated by comparing the majority and dissenting judgments in *Sauvé*,⁸⁶ where the Court considered whether persons imprisoned in correctional institutions for sentences of two years or more could be prohibited from voting in federal elections,⁸⁷ in furtherance of the objectives of enhancing respect for the law and for criminal sanctions. The Court split 5-4 because of a sharp disagreement as to how section 1 of the *Charter* applies when the objectives of the impugned legislation are broad or vague. A bare majority concluded that while the government's broad objectives were clearly pressing and substantial, they were too vague and symbolic to justify a *Charter* infringement. In contrast, the dissenters concluded that the objectives reflected a reasonable social or political philosophy and that the court should defer to the government's policy choice. Such cases are of limited precedential value because the narrow split within the court blurs the finding of law.

Finally, vague objectives raise serious questions as to the connection which must be established between the legislative goal and the legislation itself. Case law has established that the objective does not need to be scientifically or empirically linked to an identified harm for the objective to be accepted as pressing and substantial. Social science evidence or logical reasoning have been held sufficient to demonstrate the relationship between the legislative goal and the identified harm.⁸⁸ Simply stated, "to establish justification, one needs to know what problem the government is targeting, and why it is so pressing and important that it warrants limiting a *Charter* right."⁸⁹

Questions about the existence of a link between NRHC and harm are at the heart of this controversy. Does NRHC necessarily pose a risk to human safety, health and dignity? The purpose of this paper is not to

86. *Sauvé*, *supra* note 82.

87. This was conceded to be a violation of the right to vote guaranteed by section 3 of the *Charter*.

88. Even the majority decision in *Sauvé*, *supra* note 82 at para. 18, held that section 1 does not require justification in a "scientific sense" so long as the justification is "convincing, in the sense that it is sufficient to satisfy the reasonable person looking at all the evidence and relevant considerations, that the state is justified in infringing the right at stake to the degree it has."

89. *Sauvé*, *supra* note 82 at para. 24.

argue the validity of the various concerns that have been articulated in relation to NRHC, but there is controversy about the legitimacy or magnitude of many of these concerns.⁹⁰ For example, though concerns about dignity are often raised in relation to human cloning, it is far from certain how NRHC affects dignity.⁹¹ Wright argues, “We should distinguish analogously among different forms, uses, and contexts of human cloning in assessing the relationship between cloning and human dignity.”⁹² Shaun Pattinson, a UK law professor, noted in the Canadian Bill an ambiguous reliance on the notion of dignity. He came to the following conclusion: “Although section 2 of *Bill C-56* [now *Bill C-13*] presents six guiding principles, it is not clear how any of these justify its prohibition of cloning. . . . Once again we are left with the feeling that other arguments are in play but remain unsure as to what those arguments are.”⁹³ Without a clear explanation of how NRHC infringes human dignity or, for that matter, human health and safety,⁹⁴ it is

90. For a critique of the concerns, see Daar, *supra* note 18; and Caulfield, *supra* note 80. See also Angela Campbell, “A Place for Criminal Law in the Regulation of Reproductive Technologies” (2002) 10 *Health L. J.* 77.

91. See, for example, Stephen Hall, “Eve Redux: The Public Confusion over Cloning” (2003) 33 *Hastings Ctr Rpt* 11 at 14: “the preservation of an abstract notion of human dignity may have as a material cost in the willful preservation of human ignorance and a perverse perpetuation of human suffering.” See also Shalev, *supra* note 51 at 149: “aside from the moral debate on whether the embryo is a human being, arguments about human dignity do not hold up well under rational reflection.” One of us has written about the role of dignity in this context: Timothy Caulfield, “Human Cloning Laws, Human Dignity and the Poverty of the Policy Making Dialogue” (2003) 4 *BMC Medical Ethics* 3010, online: <<http://www.biomedcentral.com/1472-6939/4/3>> .

92. Wright, *supra* note 51 at 21.

93. Shaun Pattinson, “Reproductive Cloning: Can Cloning Harm the Clone?” (2002) 10 *Med. L. Rev.* 295 at 306-7.

94. Angela Campbell has also noted the lack of a compelling rationale:

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

(*supra* note 90 at 85). Caulfield provides a critique of the concerns of safety and health in Timothy Caulfield, “Politics, Prohibitions and the Lost Public Perspective: A Comment on *Bill C-56: The Assisted Human Reproduction Act*” (2002) 40 *Alta. L. Rev.* 451.

difficult to determine whether this concern is pressing and substantial.⁹⁵ The fact that NRHC is a technology which most of the public favours, and which many respected policy-making groups have explicitly supported, raises further questions about how well grounded such concerns really are. Although public opinion data should not drive the law-making process and is not determinative of whether a legislative goal is pressing and substantial for the purposes of section 1, as noted by Angela Campbell, “while there is no question that Parliament has a responsibility to ascertain the public’s views on an issue that it intends to legislate, we must also ask whether this should be its sole or even its

95. Focus group data from the University of Calgary found strong support for the technique. The study found that 23 out of 27 participants supported the use of cloning for research purposes and only two felt it should be banned. A content analysis of the data found that the participants believed there was a 1:3 risk/benefit ratio. Grace Reid, “Representations of Cloning in the Public Sphere,” (Paper presented to the GE³LS Winter Symposium 2003, February 6-8, 2003) [unpublished]. A poll of 1500 Canadians was taken shortly after the Raelians claimed that the first human clone was born. The poll found that 84% of those surveyed were against human cloning but 53% supported the cloning of human embryos for the creation of stem cells (“Most Canadians Oppose Human Cloning” *Canadian Press* (20 January 2003), online: <http://www.ctv.ca/servlet/ArticleNews/story/CTVNews/1043004543856_215>. The same poll found that only 30% believed a ban on all types of human cloning was required. A recent poll found that six in ten Canadians approve of the creation of cloned human embryos for collecting stem cells, “Six in Ten (61%) Canadians approve creation of cloned human embryos for collecting stem cells” *Ipsos-Reid* (22 October 2002), online: Ipsos-Reid <http://www.ipsos-na.com/news/pdf/media/mr021022-1_2.pdf>.

Data from other jurisdictions shown similar results. According to a recent study in the US, “nearly 70 percent of Americans favor allowing therapeutic cloning” (Steve Mitchell, “Most Americans Favor Therapeutic Cloning” *UPI Medical Correspondent* (19 March 2003)). It is clear, however, a certain proportion of Canadian society, about 1 in 5, is strongly against research involving human embryos. As an example of supportive policy statements see the Human Genome Organization Ethics Committee, “Statement on Cloning” (1999) 9 *Eubios J. of Asian & Int’l Bioethics*, online: <<http://www.biol.tsukuba.ac.jp/~macer/HUGO.html>>, article 2.2 (“basic research with somatic cell nuclear transfer and other cloning techniques in both humans and animals should be supported”) and article 2.3 (“that research on the use of cloning technology to produce particular cells and tissues (e.g., skin, nerve or muscle) for therapeutic transplants should be supported”), and the recent position of the American Medical Association, Garfinkel, *supra* note 17.

primary basis for decision-making. In my view, it is not.”⁹⁶ The evidence on the state of public opinion remains striking, particularly in light of suggestions that NRHC must be banned to protect human dignity. There is little evidence that Canadians view NRHC as unacceptable. Thus, the crucial section 1 question is whether the goals of the legislation restricting NRHC are sufficiently specific to form the basis of a meaningful and rational section 1 analysis.

The problems associated with the generality of the stated goals of the ban on NRHC are arguably diminished if one focuses on the prevention of commodification as the central objective of the legislation.⁹⁷ There is a logical connection between NRHC technique and the potential for commodification of human cells. With existing techniques, NRHC requires both a cell nucleus, which contains most of an individual’s genetic material, and an egg. If NRHC becomes a commonly used technique, there will be an increased demand for the human eggs needed for the procedure.⁹⁸ This may create a market for eggs and an environment where women may feel inappropriate pressure to donate, thus compromising the consent process.⁹⁹ The prevention of commodification of human cells appears to be a much more specific

96. Campbell, *supra* note 90 at 82.

97. The commodification concern was specifically mentioned in the report of the Standing Committee on Health, *supra* note 8 at 10, and is implicitly referred to in subparagraph 2(f) of *Bill C-13*, *supra* note 9.

98. The concern about commodification of human reproductive material may be impacted by scientific developments. It was recently reported that researchers have developed a method to create eggs from stem cells, Karin Hübner *et al.*, “Derivation of Oocytes from Mouse Embryonic Stem Cells” *Science* 300:5623 (23 May 2003) 1251; Gretchen Vogel, “Oocytes Spontaneously Generated” *Science* 300:5620 (2 May 2003) 721. If successful, this technology would allow the production of eggs for the purpose of NRHC and would obviate the need to obtain them from women. As noted by the researcher, “[b]eing able to make an unlimited supply of eggs could enable new infertility treatments and remove a big obstacle to using cloning and stem cells to treat diseases” (“First eggs produced by stem cells” *Edmonton Journal* (2 May 2003) A3 at A3).

99. See generally, Fitzpatrick, *supra* note 30 at 34 for a discussion of many of these concerns. He notes, for example, that there are a number of reasons “why one might be specially concerned with cloning,” including the potential for “exploiting the women who provided the many eggs needed to make the procedure clinically useful (especially if a lot of money were offered for the eggs).”

objective for the purposes of a section 1 analysis and may well be a pressing and substantial concern arising from NRHC.¹⁰⁰

(ii) Proportionality

The proportionality aspect of the section 1 test evaluates the means used to achieve the legislative objective, in light of the extent of the *Charter* infringement. Assuming that the goals behind a ban on NRHC are pressing and substantial, the proportionality requirement determines whether the total prohibition of NRHC is a reasonable method of pursuing these goals.

To fulfill the proportionality requirement, it must satisfy three criteria. First, the ban must be rationally connected to the legislative objectives. This criterion ensures that the “legislative garment has been tailored to suit its purpose,”¹⁰¹ and, that it is not “arbitrary, unfair or based on irrational considerations.”¹⁰² The Supreme Court of Canada has held that the rational or causal relationship between the objective of a law and the measures it uses need only be established on the basis of social science evidence as a reasonable or logical connection, not a scientific conclusion.¹⁰³ Second, the ban must impair freedom of expression as little as is required to achieve the legislative objectives. Third, the ban must strike an appropriate balance between its salutary

100. Hogg, *supra* note 72 at 35-18, offers an interesting discussion of the outcome of the section 1 test depending on whether the legislative objectives at issue are stated in general or specific terms. His comments support the idea that the section 1 test is difficult to apply to generally stated objectives:

The higher the level of generality at which a legislative objective is expressed, the more obviously desirable the objective will appear to be. This will move the section 1 inquiry into the proportionality of the means that the law employs to accomplish the objective. . . . However, when step 3 is reached—least drastic means—the high level of generality will become a serious problem for the justification of the law. If the objective has been stated at a high level of generality, it will be easy to think of other ways in which the wide objective could be accomplished with less interference with the *Charter* right.

101. *R. v. Edwards Books and Art*, [1986] 2 S.C.R. 713 at para. 122.

102. *Oakes*, *supra* note 43 at para. 70.

103. *RJR*, *supra* note 77 at paras. 156-158. The dissent in *RJR* also supported this proposition at para. 80.

effects and the harm caused by impairing freedom of expression. This criterion essentially involves a cost/benefit analysis, and asks “whether the *Charter* infringement is too high a price to pay for the benefit of the law.”¹⁰⁴

As with the first part of the section 1 test, the outcome of the proportionality analysis depends heavily on the objectives of the ban. The first and third criteria are difficult to apply rationally if one evaluates the ban on the basis of the generally stated objectives of preserving health, safety and human dignity. Without an explanation of the precise threats to those objectives that the ban seeks to address, it is impossible to assess meaningfully whether it is rationally connected to the objectives or whether its costs outweigh its benefits. On some level, almost any law can be said to be causally connected to the goal of protecting health, safety or human dignity. Similarly, those goals are so intuitively meritorious, almost any law aimed at attaining them could be said to outweigh a given *Charter* interest.

Again, these difficulties may be alleviated somewhat if the main objective of the ban is to prevent the commodification of human cells. One can reasonably ask whether the complete prohibition of NRHC bears a rational connection to that objective and whether attaining it outweighs the restriction on scientific expression.

Substantively, however, a ban on NRHC whose central purpose is to prevent commodification may not satisfy the rational connection and cost/benefit criteria. Is NRHC so causally related to the commodification of cells that absolutely prohibiting it is a rational response to that concern? Commodification of tissues is certainly an issue with respect to human transplant technology, but we do not ban liver transplants because of it. We do, however, ban organ sales because we understand that transplant technology can (but does not necessarily) lead to commodification.¹⁰⁵ For the same reason, the cost/benefit analysis may show that a complete prohibition of scientific expression in the form of NRHC is too extreme a means of achieving the relatively narrow goal of preventing commodification of cells.

104. Hogg, *supra* note 72 at 35-39.

105. See Caulfield, *supra* note 80.

Whatever the objective of the NRHC Ban, the second criterion of the proportionality aspect of the section 1 test may also pose a serious obstacle to any attempt to justify it. Because a ban on NRHC completely cuts off a particular avenue of scientific research, it may be viewed as an outright denial of scientific freedom of expression. It is difficult to argue that any of the goals of such a ban could not be achieved by something less than a complete prohibition. If, however, techniques other than NRHC exist or can be developed as alternative avenues of research leading to the same results, the NRHC ban may be seen as prohibiting only one of many possible avenues of research or scientific expression. From this perspective, it may not completely deny scientific expression and may therefore pass the minimal impairment criterion.¹⁰⁶

Conclusion

Whether a ban on NRHC would unjustifiably violate freedom of expression is a serious legal question that is not easily answered. In analyzing it, several considerations arise. What is the real purpose of a NRHC Ban? How are human health, safety and dignity threatened by NRHC? Does NRHC constitute expression within the meaning of section 2(b) of the *Charter*? What are the parameters of the exclusion of violence from the definition of expression under the *Charter*? How specific must the ban's objectives be to allow for a meaningful application of the section 1 test? Such considerations go to the heart of our legislative policies on reproductive technologies and to our understanding of *Charter* rights.

More generally, the fundamental question of whether scientific expression finds protection in the *Charter* has not yet been directly addressed by Canadian courts. Once they are faced with a challenge of a ban on NRHC, we feel that the courts will likely conclude that freedom of expression under the *Charter* does protect genuine and non-violent scientific experimentation. Restrictions on such experimentation would

106. But see Hochedlinger & Jaenisch, *supra* note 25, for a general discussion of the scientific and potential clinical value of NRHC.

therefore have to be demonstrably justified under section 1 to be allowed by the *Charter*. Unless the government can meet this burden, any restriction of scientific experimentation would have to be found to be unconstitutional.