Buffalo Environmental Law Journal

Volume 6 | Number 2

Article 2

4-1-1999

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Andrew J. Green Hicks Morley Hamilton Stewart Storie

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Andrew J. Green, Public Participation, Federalism and Environmental Law, 6 Buff. Envtl. L.J. 169 (1999). Available at: https://digitalcommons.law.buffalo.edu/belj/vol6/iss2/2

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Public Participation, Federalism and Environmental Law

Andrew J. Green*

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^{*} J.S.D. University of Chicago. Environmental lawyer practicing with the lawfirm of Hicks Morley Hamilton Stewart Storie, Toronto, Canada.

Abstract

To the surprise of many Canadians, environmental regulation in Canada has been much less stringent than that in the U.S. since at least the 1970s. The principal reason given for this difference in stringency has been the process by which environmental law has been formulated. Canadian environmental law has typically been made in a very closed and informal fashion, providing industry with considerable power to influence policy but denying the public significant access to policy-makers. In the U.S. the system has been much more open and formal and provides greater opportunities for public participation. This rationale has lead to an increase in public participation rights in the environmental area in Canada.

This paper examines the potential effect of increasing public participation rights. Such rights should result in greater information to and pressure on policy-makers. However, as such rights tend to lower costs of access for both the public and for regulated parties, it is not immediately clear how they will affect the relative stringency of environmental law. A factor which has greater impact on the ability of the public or public interest groups to act is the (increasingly) de-centralized nature of environmental regulation in Canada relative to the U.S. This tends to decrease the relative power of public interest groups to apply pressure on legislators by increasing their costs of action, reducing the ability of regulators to deal with extra-territorial effects and increasing the relative power of industry.

In addition, while there has been an increase in public participation in Canada, it is not an unquestionable benefit in all cases. The public and regulators may have different views of environmental priorities. These differences may be due to either public attention to qualitative aspects of risk which are not apparent to regulators or to "rationality" problems of the public in perceiving relative risks. As a result, to the extent that increased public participation in Canada in the formulation of environmental law leads to regulation based on "irrationalities" by the public, such

increase may actually lead to less optimal environmental regulation. A new institutional structure may be required to mitigate such concerns.

I. Introduction

There has been a great deal of concern lately about the stringency of Canada's environmental regulations. This has been heightened by a recent report which stated that Ontario had the third highest total releases and transfers of pollutants in North America, behind only Texas and Tennessee. In fact, although Canadians have in general been quite smug about their environmental record compared to the U.S., Canadian regulation has been less stringent than American since the 1970s and, despite some convergence in stringency over the past ten years, remains so in many areas.

Why has there been this disparity in stringency of environmental law between Canada and the U.S.? Institutional differences, in particular differences in the ability of the public to participate in policy decisions, have been seen as playing a key role in this disparity.³ The Canadian system, especially prior to the mid-

¹ See generally COUNCIL OF ENVIRONMENTAL COOPERATION, TAKING STOCK: NORTH AMERICAN POLLUTANT RELEASES AND TRANSFERS, 1994 (1997)(the comparison is based on 1994 data from the Toxics Release Inventory in the U.S. and the National Pollutant Release Inventory in Canada).

See George Hoberg, Comparing Canadian Performance in Environmental Policy, in CANADIAN ENVIRONMENTAL POLICY: ECOSYSTEMS POLITICS AND PROCESS 246, 260-62 (Robert Boardman ed., 1992) [hereinafter Hoberg, Comparing]. See generally Andrew J. Green, Public Participation and Environmental Policy Outcomes (1997)(unpublished manuscript, on file with author) [hereinafter Green, Public Participation].

The importance of institutions to the ability of government to act is an unresolved question, see R. Kent Weaver & Bert A. Rockman, Assessing the Effects of Institutions, in DO INSTITUTIONS MATTER? GOVERNMENT CAPABILITIES IN THE UNITED STATES AND ABROAD 1, 1-41 (Weaver & Rockman eds. 1993)(comparing parliamentary and presidential government institutions). See also George Hoberg, Sleeping With an Elephant: The American Influence on Canadian Environmental Regulation, 11 J. Pub. Pol'y 107 (1991) [hereinafter Hoberg,

1980s, has been relatively closed and informal, providing industry with considerable power to influence policy while leaving the public without any serious manner in which to access policy-makers. The U.S. system, on the other hand, is more open and formal and provides the public and public interest groups with greater opportunity to ensure their preferences are reflected in environmental policy through greater ability to access judicial review and to participate in policy decisions. As a result, the traditional argument is that Canadian environmental law was less stringent, possibly under-regulating environmental risk, due to the significant relative power of industry.⁴

Have such institutional differences led to differences in environmental law and policy in Canada and the U.S. and, if so, how? There has been no satisfactory explanation for why such institutional differences would have such a significant impact. This paper examines the role of two inter-related factors: public participation rights and the degree of decentralization of environmental decision-making. The key will be to determine how these institutional characteristics shape the incentives facing decision-makers, affected parties and the general public and the effect this is likely to have on environmental law and policy. This has important implications for "reforms" underway in Canada such as the increased grafting of American-style public participation rights onto the current Canadian

Sleeping] (other causes of the difference in environmental policy have been suggested as a lag in Canada due to policy emulation). Convergence in information received by regulators and an increase in demand in Canada for environmental controls. While these factors likely play some role in policy differences, they do not explain the convergence in policy over the past decade. Canadian regulators have relied on information from, and the example of, U.S. regulators to aid in the setting of environmental standards and guidelines, certainly throughout the 1970's and 1980's. Levels of public concern about the environment in Canada and the U.S. followed very similar patterns from the early 1970's and 1980's. See generally Green, Public Participation, supra note 2.

See, e.g., George Hoberg, Environmental Policy: Alternative Styles, in GOVERNING CANADA: INSTITUTIONS AND PUBLIC POLICY 307, 328-29 (Michael M. Atkinson ed., 1993) [hereinafter Hoberg, Alternative Styles]; Andrew J. Roman & Kelly Hoey, The Regulatory Framework, in ENVIRONMENTAL LAW AND BUSINESS IN CANADA 53, 64-65 (Geoffrey Thompson et al. eds., 1993).

system and the recent signing of the Canada-Wide Accord on Environmental Harmonization by the federal government and all of the provinces and territories other than Quebec.

Part II of the paper briefly sets out a model of policy-making based on the incentives of policy-makers and interested parties to take action. Differences in the ability of the public to participate in policy decisions in Canada and the U.S. and how this impacts interest group behaviour are set out in Part III while the role of centralization of decision-making is discussed in Part IV. Part V examines how these institutional differences are likely to affect environmental law. Finally, Part VI examines the potential implications for environmental law of the increase in public participation along with the possible effect of the recent move in Canada towards further decentralization of environmental decision-making through the Canada-Wide Accord on Environmental Harmonization.

II. Incentives and Policy-Making

No objective means have been devised, or are likely possible, for making environmental policy decisions. Moreover, demand by the public for environmental protection is not self-actualizing or independently extant⁵. As a result, the location of decision-making can be determinative of the trade-offs between potentially competing considerations such as the risk of harm to human health or the environment and the costs of regulation such as the loss of jobs. Institutional factors go a long way towards determining who the decision-maker is and the nature of the resulting policy by determining the incentives on and ability of the various agents to

See Richard Pildes & Cass Sunstein, Reinventing the Regulatory State, 62 U. CHI. L. REV. 1, 96-99 (1995). See generally ANDREW J. GREEN, CENTER FOR STUDY OF STATE AND MARKET, INSTITUTIONAL STRUCTURES AND POLICY: THE "AMERICANIZATION" OF ENVIRONMENTAL REGULATION IN CANADA (1997) [hereinafter Green, Center for Study]

enact or to respond to the actions of other agents.⁶ Institutions determine the relative power of various groups in the decision making process by setting their expected benefits of action. Where the benefits of action for a particular group (in the sense of obtaining a gain or avoiding a loss) are greater than the costs of action (including costs of organization and information and institutional costs), that group is likely to act.7 Institutions raise and lower the expected benefits of action. For example, the costs of participating in regulatory decisions is affected by whether individuals can participate as of right. The costs of an individual or group acting where there is a right to participate are obviously lower than where the group is not permitted to participate or must seek some type of approval for participation. For a given distribution of direct costs and benefits from regulation (such as compliance costs for industry or health risks for affected parties). Different institutional structures can lead to different patterns of action.

This provides for an opportunity for rent-seeking by various agents. Rent-seeking is an attempt by a party to use its powers to affect government regulation to obtain excess benefit or profits

All agents (including legislators, bureaucrats, industry, public interest groups and the general public) are assumed to be boundedly rational and limitedly self-altruistic. See Jerry L. Mashaw, Improving the Environment of Agency Rulemaking: An Essay on Management, Games and Accountability, 57 LAW & CONTEMP. PROBS. 185, 188 (1994). This means that the general assumptions of economics about the rational, self-interested actor are not seen as wholly true as there are limits on the ability of individuals to act in a "rational manner" and there can be an element of altruism or interest beyond narrow self-interest which motivates them. The result is that there is no definitive answer to how policy decisions are made but there can be some general comments about tendencies and directions. The limits on rationality are discussed more fully below.

See George J. Stigler, The Theory of Economic Regulation, 2 BELL. J. ECON. & MGMT. Sci. 3, 10-13(1997)(discussing cost-benefit analysis in decision making). See generally Sam Peltzman, Toward a More General Theory of Regulation, 19 J. L. & ECON. 211 (1976)(arguing against Stigler's cost-benefit method of decision making); NEIL K. KOMESAR, IMPERFECT ALTERNATIVES: CHOOSING INSTITUTIONS IN LAW, ECONOMICS AND PUBLIC POLICY (1994)(a more recent exposition of the cost benefit debate).

(called "rents") over what is "optimal" at the expense of other parties. The classic example is a small group using its ability to organize cheaply or its control over information to push for regulations which preclude other parties from entering a market or otherwise affect its costs or profits in a manner which shifts outcomes away from "optimal" policy and provides it with rents. A group can be thought of as rent-seeking if it attempts to obtain a benefit through pushing for non-optimal policy in the form of either specific regulations or non-promulgation of regulations such as, for example, industry pushing for lax standards which allow it to make profits by shifting some of the costs (in this case of environmental harm) onto others.

Decisions result from the related factors of incentives for affected parties to act and for political decision-makers to respond to such action. An institutional structure can provide a policy maker with the incentive to respond to a particular group's input which in turn provides that group with a higher expected benefit from action than a system which disconnects the policy decision from the group's input. Policy makers are seen as having both incentives and constraints. Legislators' incentives in both Canada and the U.S. are assumed to arise mainly from the potential to gain votes, either directly from a particular action or indirectly through obtaining

While there are obviously concerns about the underlying framework such as the commensurability of costs and benefits and the possibility of obtaining sufficient, meaningful information, "optimal" pollution policy can be at least notionally thought of as that which equates the marginal cost of pollution control and the marginal benefit. See generally GREEN, CENTER FOR STUDY, supra note 5. This recognizes the trade-offs involved in environmental policy and may be able to incorporate non-standard costs and benefits such as those related to distribution. Rent-seeking is an attempt to move policy away from "optimal" regulation in order to gain a benefit (such as profits or, in the case of environmental groups, greater environmental protection) at the expense of others (for example, in the form of increased environmental risk, jobs or profits).

political resources or support which help in the effort for re-election. Bureaucrats engaged in the decision-making process act in a manner which is consistent with the goals and desires of the politicians, particularly at the senior levels. In Canada, this means that senior bureaucrats act so as not to harm the interests of the Minister in order to preserve their jobs and this filters through the department. In the U.S., these incentives arise from the need to avoid executive or congressional oversight and for the Director of the Environmental Protection Agency to avoid losing his or her position.

Even if public officials are acting on a purely "public interest" basis, they are under constraints from costs such as those of acquiring information or of needing cooperation from the regulated parties to ensure compliance where there are insufficient resources to undertake enforcement. This provides power to the party which can provide such information or whose cooperation is required. However, this is somewhat circular as these effects are a function of the resources provided to regulate a particular risk which is again a function of the power of parties to influence decisions. An important additional constraint arises from judicial decisions which can dictate or at least influence policy decisions. There may also be ideological constraints which limit certain actors from making certain decisions.

See Nathaniel O. Keohane et al., The Positive Political Economy of Instrument Choice in Environmental Policy, in ENVIRONMENTAL AND PUBLIC ECONOMICS: ESSAYS IN HONOR OF WALLACE E. OATES 89, 91-93 (Arvind Panagariya et al. eds., 1999). The authors attempt to describe the market for "effective political support" more fully.

See generally T.F. Schrecker, Environmental Law and the Greening of Government: a Cynical Guide, in ENVIRONMENTAL LAW AND BUSINESS IN CANADA (Geoffrey Thompson et al. eds., 1993) [hereinafter Schrecker, Greening of Government]..

See Keohane et al., supra note 9, at 97.

III. Public Participation and Incentives

A. Institutional Differences: 1970 to the Mid-1980s

The Canadian and American institutional frameworks for public participation were sharply divergent between 1970 and the mid-1980s, both in terms of rights of access of interested parties to policy-makers and the structure of government. These factors help establish the balance of power between competing groups.

1. Access to Policy Makers

The costs of participation in standard-setting by various interested parties were much lower in the U.S. than in Canada during this period due to the more formal, open nature of the American system. Most obviously, the U.S. system provided more rights to participate in the standard-setting process, in particular under the detailed notice and comment procedures of the Administrative Procedures Act.¹² There were also substantial public participation rights under both substantive legislation and judicially-created rules. This was aided by the *Freedom of Information Act*, which provided a lever for public interest groups to extract information from the government necessary for participation. However, the influence of these groups on the outcome was and is variable due to retention by agencies of control over the final decision.¹³

By contrast, public participation opportunities in Canada have in the past been very limited. Rule-making has been characterized by closed and informal negotiations between industry and regulators.¹⁴

¹² 5 U.S.C.A. § 553 (1999).

See Susan Rose-Ackerman, Controlling Environmental Policy 13-16, 126-27 (1995).

See Lennart J. Lundquist, Do Political Structures Matter in Environmental Politics? The Case of Air Pollution Control in Canada, Sweden and the United States, 17 CAN. PUB. ADMIN 119, 138 (1974); Peter N. Nemetz et al., Social Regulation in Canada: An Overview and Comparison with the American

Consultation with wider groups has been at the discretion of the regulator and, although it did occur, its use was inconsistent and unenforceable. Moreover there was no access to information legislation in Canada until the early 1980s. The U.S. *Freedom of Information Act* was enacted in 1966 while the first such Canadian legislation was enacted in New Brunswick in 1978 and took effect in 1980. ¹⁶

Public interest groups and regulated parties also have greater access to the enforcement process in the U.S. through citizen suit provisions and formal rights to participate. While there are some negotiations between the government and the regulated party when attempting to reach a settlement in the case of a prosecution in the U.S., the Canadian system of implementation and enforcement has been based to a much larger extent on bilateral negotiations between industry and the government. Negotiations occur over the costs and feasibility of achieving standards or of meeting compliance schedules and public interest groups have traditionally been excluded from this process. For example, establishment and enforcement of control orders in Ontario have been based mainly on such bipartite negotiations.

The result of this difference in rights of access to participation at all levels of the policy process was a much higher cost of accessing policy makers in Canada. The lack of guaranteed access for environmental groups in Canada meant that they faced the increased burden of attempting to induce the decision-maker to exercise its discretion to permit participation or of finding some other avenue of influence. Given that regulated parties in both countries had access to policy makers, environmental groups in Canada would take

Model, 14 POL'Y STUD. J. 580, 594-98 (1986).

See T. F. SCHRECKER, LAW REFORM COMMISSION OF CANADA, POLITICAL ECONOMY OF ENVIRONMENTAL HAZARDS 19-20 (1984).

See Nils Zimmerman et al., Community Right To Know: Improving Public Information About Toxic Chemicals, 5 J. ENVTL. L. & PRAC. 95, 96-97 (1995).

relatively less action to counter any influence of industry with respect to an issue which has the same distribution of costs and benefits in each country.

2. Points of Access

Costs of participation were also lower in the U.S. because the government structure is based on separation of powers, which provides more points of access to the policy process than the parliamentary system. There was and is considerable executive oversight of agency action in the U.S. in the form of either executive replacement of agency officials where the agency is independent¹⁷ or of oversight by the Office of Management and Budget (OMB). The OMB cannot stop regulations but it has been able to use its oversight powers to force changes. 18 Congress also retains power over agency action through oversight hearings, control over budgets and the ultimate power of legislation. Interested parties then have the opportunity to influence decisions by accessing any or all of the President, Congress, the EPA or the judiciary. This ability to choose different points of access is particularly important where the executive and the Congress are under the control of different political parties.

Many American agencies are said to be weak because their key personnel are political appointees and are subject to removal by the President. See Weaver & Rockman, supra note 3, at 32. However, the "independent" agencies may also be susceptible to political opinion and especially pressure from well-organized private groups because they are not protected by presidential oversight. See Cass R. Sunstein, Paradoxes of the Regulatory State, 57 U. CHI. L. REV. 407, 439-40 (1990).

During the Reagan era, regulations were required to pass cost-benefit analysis and the OMB used this requirement to slow down the promulgation of new agency regulations. By threatening to delay regulations sufficiently to make the agency miss statutory deadlines, the OMB was able to attain changes in some regulations. See Exec. Order No. 12,291, 46 Fed. Reg. 13,193 (1981).

As the legislative and executive functions are combined in Canada, there are fewer routes for interest groups to take to obtain action on policies than in the U.S. 19 While some executive oversight is wielded by the Treasury Board, the main source of power in Canada at both the federal and the provincial levels was and is the They are the source of legislation and, in general, regulations while line departments implement and enforce these powers. Accountability is meant to come from legislative oversight since ministers have the responsibility of both managing a portfolio as well as representing their constituents. Opposition in the House of Commons and review by the Senate, along with pressure from voters at election time to which such opposition is intended to give rise, is to act as a check on Cabinet's powers to set agendas and make tradeoffs in the public interest. However, while interest groups do have access to the government through opposition questioning, the opposition often lacks the time and, where the affected group is not politically powerful, the incentive to become involved in the often complex issues of risk regulation. This lack of access is exacerbated by strict party discipline in Canada so that, unlike the U.S., there is generally not effective access on issues which are not part of the government's agenda.20

These structures give rise to varying incentives on policy makers. In the U.S. one of the principal reasons given for strict standards and requirements being set out in legislation is a distrust by Congress of the executive. The strict wording is designed to set (court enforced) boundaries within which the EPA and the executive are to act.²¹ This can be explained in terms of self-interest as

See KATHRYN HARRISON & GEORGE HOBERG, RISK, SCIENCE AND POLITICS: REGULATING TOXIC SUBSTANCES IN CANADA AND THE UNITED STATES 8-9 (1994) [hereinafter HARRISON & HOBERG, RISK]; SCHRECKER, *supra* note 15, at 17.

See Kathryn Harrison & George Hoberg, Setting the Environmental Agenda in Canada and the United States: The Cases of Dioxin and Radon, 24 CAN. J. POL. Sci. 3, 26 (1991).

See Stephen Breyer, Breaking the Vicious Circle: Toward Effective Risk Regulation 39-40 (1993); Mashaw, supra note 6, at 206.

Congress is acting so as to obtain credit from the electorate for taking action rather than allowing the executive to be perceived to be the driving force in regulating risks which are important to the public.²² In Canada, the lack of separation of powers means that there is no incentive for such detailed legislation and considerable discretion is built into the system to let the government follow its own course.²³

Institutional differences lead to lower costs of participation in the U.S. in this case as the separation of powers provides more points of access to policymakers, thereby increasing the probability of obtaining a sympathetic hearing at some level. In Canada the only real avenue is the Cabinet and to a lesser extent bureaucrats due to weak political accountability and strict party discipline.

A related factor which decreases the cost of public interest group action in the U.S. relative to Canada is the nature of regulatory science. American agencies tend to use highly sophisticated regulatory models and create very detailed rationales for their actions. These principles and models tend to become the focus of considerable debate in regulatory proceedings as they are open to public inspection and criticism as well as judicial, legislative and executive oversight. This has become particularly pronounced in the last decade as more regulatory decisions become based on quantitative analysis. Conversely in Canada regulatory science has been much more closed and regulators are less likely to rely on uniform models for determining risk, instead relying on more qualitative models and

See BREYER, supra note 21, at 40-42.

See Hoberg, Alternative Styles, supra note 4, at 336.

Regulatory science is taken to mean scientific analysis performed specifically for the purpose of regulation. For a detailed discussion of the differing styles of regulatory science used in Canada and the U.S. in the context of the regulation of toxic chemicals, see HARRISON & HOBERG, RISK, *supra* note 19, at 171-74.

See Sheila Jasanoff, Acceptable Evidence in a Pluralistic Society, in ACCEPTABLE EVIDENCE, 1, 29-30 (Deborah G. Mayo & Rachelle D. Hollander eds., 1991). Jasanoff relates this to a lack of trust in experts and government in the U.S.

safety margins.²⁶ The assumptions and models used are much less the focus of debate and, in particular, of judicial review with the result that there is one less avenue through which interest groups can attack a decision or gain information in Canada.

B. Public Participation in Canada: Post-1986

Has there been a change in public participation in Canada since the mid-1980s? The greater number of points of access in the U.S. which result from the differences between the parliamentary system in Canada and the separation of powers in the U.S. remain the same. Canadian governments are unwilling to give up the power to make trade-offs between economic and other interests which makes it unlikely that the power to make environmental policy decisions will be taken from government ministries and given to regulatory agencies as in the U.S.²⁷

However, a change did occur in the rights of participation of citizens in the policy process over the past decade. The former system of public participation relying on the discretion of regulators is gradually changing in Canada with the advent of policies requiring limited notice and comment procedures and the inclusion of consultation requirements in new statutes. Environmental bills of rights recently introduced in several Canadian jurisdictions include greater access for the public to the policy process and the federal government has made movement towards increasing access of the public.²⁸ These changes attempt to include a wider range of interest

See id. Jasanoff argues that the British regulators use less formal models than the U.S. regulators because they are relatively insulated from oversight and are given greater deference. The same would hold true in Canada, which follows more the British style of accountability.

See generally Schrecker, Greening of the Government, supra note 10.

The federal government has developed policies for greater consultation of the public and publishes Regulatory Impact Analysis Statements for proposed regulations.

groups in decision-making.²⁹ In addition, there has been an increase in the information cheaply available to citizens through Access to Information Acts which were put in place in Canada in the early 1980s as well as government assembled sources of environmental information such as the environmental registry under the *Environmental Bill of Rights* in Ontario.

These changes tend to lower the marginal cost of action by interest groups by opening a secured line of participation in decision-making. Interestingly, the timing of these changes corresponds to the beginnings of convergence of policy outcomes between Canada and the U.S.³⁰ At first glance, this gives credence to the now standard view of the deficiencies of Canadian regulatory institutions. Bilateral negotiations between industry and government provided little opportunity for public input. When combined with greater resources and organizational capacities for industry and a "weak state" in the sense of being unable to withstand industry pressure, this institutional

See generally Green, Public Participation, supra note 2.

For a discussion of the growth of multipartite bargaining in Canada., see Hoberg, Alternative Styles, supra note 4, at 307, 328-29. See also Grace Skogstad, Intergovernmental Relations and the Politics of Environmental Protection in Canada, in Federalism and the Environment: Environmental Protection in Australia, Canada, and the United States 103, 118-20 (Kenneth Holland et al. eds., 1996); Kathryn Harrison, Federalism, Environmental Protection and Blame Avoidance, in New Trends in Canadian Federalism 414, 425 (Francois Rocher & Miriam Smith eds., 1995). While content of control orders in Ontario under the OEPA has in the past been based mainly on such bipartite negotiations, under the Ontario EBR there are greater participation and review rights for the public for such policy instruments.

structure is felt to lead to a bias towards less stringent environmental standards.³¹ The remedy is then seen as increased public involvement in decision-making to provide an off-setting power which should increase the stringency of environmental policy.

IV. Centralization and Environmental Law

There is a problem with this explanation of the causes of differences in environmental law between Canada and the U.S. Both the greater rights of participation and points of access also tend to lower the costs of access for regulated parties. On their own it is not clear how these institutional differences would affect the relative stringency of environmental law. Even if the process is opened up in line with the U.S. model, why would industry interests not still outweigh public concerns? Industry would still have greater resources and organizational capabilities and would still have economic power arising from control over location of production. Even with public consultation, there is still considerable discretion in the hands of regulators both in Canada and the U.S. to determine regulatory outcomes. Why has openness in the U.S. then apparently led to more stringent regulations? The answer lies in the greater degree of centralization of decision-making power in the U.S. and the effect it has on the costs and benefits facing interested parties in each country.

A. Centralization of Regulatory Power in Canada and the U.S.

Even though the U.S. Constitution does not clearly allocate to the states or the federal government jurisdiction over certain areas of risk, the federal government has been able to establish a wide range

See Nemetez et al., supra note 14, at 595; Hoberg, Alternative Styles, supra note 4, at 328-29.

of regulatory programs, particularly over the environment.³² This centralizes policy-making in federal agencies and allows the development of national standards. Some environmental statutes grant the states a role in deciding how those standards are to be met. For example, under the *Clean Air Act*, National Ambient Air Quality Standards are to be achieved through state-devised programs (State Implementation Plans) which allow the states to make trade-offs in attainment of federal standards. Similarly, under the *Clean Water Act*, states can take over issuance and enforcement of permits.³³ However, in both cases the Environmental Protection Agency retains the right to approve the state action.³⁴

Canada also lacks clear constitutional delineation of jurisdiction over the environment. As in the United States, the federal government has the power to regulate inter-jurisdictional trade and commerce but Canadian courts have been unwilling to read this power broadly and it is unlikely that it would support strong national environmental regulation.³⁵ There was judicial recognition in the past of a limited federal jurisdiction over environmental regulation, particularly under its power over coastal fisheries and its general power of peace, order and good government ("POGG").³⁶ Provincial regulation is limited to matters which fall within the provincial boundaries and which come under an enumerated provincial head of

See ROSE-ACKERMAN, supra note 13, at 13-15. This regulatory power is largely based on the federal government's power over interstate trade and commerce.

See Wesley A. Magat & W. Kip Viscusi, Effectiveness of the EPA's Regulatory Enforcement: The Case of Industrial Effluent Standards 55 J. L. & ECON. 331, 337 (1990).

³⁴ See PETER S. MENELL & RICHARD B. STEWART, ENVIRONMENTAL LAW & POLICY 250 (1994).

See generally Rodney Northey, Federalism and Comprehensive Environmental Reform: Seeing Beyond the Murky Medium, 29 OSGOODE HALL L. J. 127 (1989)(comparing American and Canadian federalism as it pertains to environmental regulation).

³⁶ See id. at 152.

power such as private and civil rights.³⁷ This was expanded in the 1980s to include wider provincial jurisdiction over non-renewable resources as well as forestry and hydroelectric facilities.³⁸ The provinces have taken the lead in most areas of environmental regulation as a result of these powers and the federal abdication of power in the 1970s and 1980s.

Jurisdiction was largely untested in the 1970s and 1980s when the federal government was more willing to allow the provinces to act in the area of the environment.³⁹ The federal government set national guidelines and entered into agreements with the provinces to have the provinces enforce them. These interprovincial agreements were the main tool to avoid overlapping jurisdiction in the 1970s and 1980s, although they may have been used by the provinces to limit federal involvement as far as possible.⁴⁰ The federal government eventually largely abandoned even the guideline making role and limited themselves to information gathering with little direct enforcement.⁴¹

The Canadian federal government has attempted to take at least a symbolically stronger role in environmental regulation over the past decade. In the late 1980s it introduced the *Canadian Environmental Protection Act* ("CEPA")⁴² which was intended to

Constitution Act, 1867 (U.K.), 30 & 31 Vict., c.11, s.92(13)(formerly British North America Act, 1867). These provincial powers may even extend provincial environmental control to certain aspects of federal undertakings such as railways. See Ontario v. Canadian Pacific Limited [1995] S.C.R. 1028.

See Grace Skogstad & Paul Kopas, Environmental Policy in a Federal System: Ottawa and the Provinces, in CANADIAN ECOSYSTEMS, POLITICS AND PROCESS, supra note 2, at 43, 45.

See Hoberg, Alternative Styles, supra note 4, at 314; Skogstad, supra note 29, at 107-109; Harrison, supra note 29, at 415-17.

See Harrison, supra note 29, at 422-23.

Harrison argues that the federal government backed out of environmental regulation because there was little public concern over the environment. Legislators saw no advantage in terms of electoral response and there were costs of regulation from imposing restraints on industry. The provinces, on the other hand, stayed in the area even in times of low public concern in order retain control over development of natural resources. See id. at 417.

⁴² Canadian Environmental Protection Act, R.S.C., c.16 (1985)(Can.).

give the federal government the power to regulate toxic chemicals "from cradle to grave". More recently, it has put in place greater enforcement powers (including increasing maximum fines under the *Fisheries Act* and gaining the power to issue permits) and implemented new pulp and paper regulations under the *Fisheries Act*.⁴³

The Supreme Court of Canada aided this move in 1988 by providing a more solid basis for federal power in its decision in R. v. Crown Zellerbach.⁴⁴ It found that the federal government could legislate in areas of "national concern" under POGG provided it only deals with matters which are single, distinct and indivisible and did not infringe excessively on provincial powers. Using this test, the Court upheld federal government legislation regulating ocean dumping even though it also applied to provincial waters.⁴⁵ The Supreme Court also forced the federal government to take a larger role in environmental assessment by the courts and environmental groups which eventually led to the enactment of the Canadian Environmental Assessment Act.⁴⁶

This apparent increase in powers may be an attempt by the federal government to appear to strengthen its role in order to take credit for environmental protection in the face of increased public

The regulations lower the effluent limits for BOD, TSS and acute toxicity and eliminate the distinction between old and new mills. There are also new limits on emissions of dioxins and furans established under CEPA and under provincial regulation. See Craig Gaston, Pulp and Paper Industry Compliance Costs, in Environmental Perspectives 1993: Studies and Statistics 19, 20 (Craig Gaston ed. 1993).

See R. v. Crown Zellerbach [1988] S.C.R. 401.

See id. A strong dissent by La Forest J. (with Beetz J. and Lamer J. concurring) found that ocean pollution was not distinct (i.e., there is no clear boundary between fresh and salt water). He also found that upholding this federal regulation would have the potential of allowing almost unlimited federal encroachment on provincial powers as all polluting activity could be seen as having an effect on ocean waters and thus would become subject to federal regulation.

Act of June 23, 1992, c. 37, 1992 S.C. 937 (Can.). However, the considerable discretion built into the *Canadian Environmental Assessment Act* allows the federal government to limit its role in this area.

interest in environmental protection.⁴⁷ However, there does not appear to have been an actual increase in the degree of centralization of decision-making in Canada over the past decade and in fact there are indications of change in the direction of decentralization. This ambivalence towards a strong federal presence is particularly evident in the recent Canada-Wide Accord on Environmental Harmonization developed through the Canadian Council of Ministers of the Environment which indicates that there is pressure for further decentralization of environmental powers.⁴⁸

The constitutional grounds for the use of the federal powers in CEPA have been uncertain in the past and the federal government has been unwilling to exploit its original scope.⁴⁹ However, the constitutionality of the power of the federal government to regulate toxic substances was recently upheld by the Supreme Court of Canada in R. v. Hydro-Quebec⁵⁰. This may strengthen the federal government's resolve to regulate in this area. On March 12, 1998, it tabled Bill C-32 which repeals and replaces CEPA. Many of the elements are the same as CEPA although there are increased enforcement powers and potentially stronger powers to regulate toxic substances. However, there are provisions for sharing power with the provinces and the federal government has stated that the Bill is consistent with the Canada-Wide Accord on Environmental As a result, the extent to which the federal Harmonization. government will attempt to increase its role in environmental regulation remains to be seen.

See Skogstad, supra note 29, at 112-13; Harrison, supra note 29, at 417.

The Accord along with its sub-agreements on standards, investigations and environmental assessments is designed to set a framework for how provincial and federal roles in the area of the environment are to be meshed. It has been the focus of criticism by environmental groups who believe the federal government is essentially backing out of a strong role in environmental protection by assigning such powers as the implementation of standards to the provinces.

⁴⁹ See Northey, supra note 35, at 127-28.

⁵⁰ See R. v. Hydro-Quebec [1997] S.C.R. 213.

B. Decentralization and Interest Group Power

These differences in the division of powers between the federal and provincial or state governments in Canada and the U.S. can have an effect on the nature of regulatory outcomes, largely through influencing the responsiveness of the regulatory system to various interests. The overlap of jurisdictions in Canada with respect to the environment provides interest groups with an extra point of access to the system at the policy-making stage. 51 When one of the levels of government does not respond to their concerns, they can attempt to realize the same result at another level, although this has been limited in Canada because the primary powers have been exercised by the provincial government with the federal government not taking a particular active role in many areas.⁵² This can also be used to delay legislation through attacks on the jurisdiction of the level of government issuing the regulation. This reduces the cost of access to some extent in Canada relative to the U.S. where much of the environmental policymaking is undertaken at the federal level.

Centralization can also affect incentives facing parties concerned with environmental law through influencing the relative costs and power of interest groups. This can occur through impacts on organizational costs for interest groups, the relative power of various parties and the extent of inter-jurisdictional externalities.

1. Organizational Costs

A group wishing to influence environmental law and policy must organize to apply pressure at each level of government at which decisions are made. In Canada, the degree of decentralization means

⁵¹ See Weaver & Rockman, supra note 3, at 31-32.

The extra access points would be particularly evident where there is "competitive federalism" (both the federal and provincial jurisdictions competing for control) and high public interest. This has not really been the case in the area of environmental control except perhaps in 1970 and the late 1980s. See Skogstad & Kopas, supra note 38, at 53-54.

that there are potentially eleven governments which have to be accessed by environmental groups on most issues. The greater the degree of decentralization across jurisdictions, the higher the cost of action.⁵³ While this affects both environmental groups and industry, "effective representation may be less a function of comparative resources than of attainment of a critical mass of skills, resources and experience".54 Industry is able to mount effective representation at any level because it typically has resources and the organizational frameworks (such as industry associations) already in place for other purposes.⁵⁵ It also has the incentive to invest in reducing or forestalling regulation because the costs are generally concentrated on a smaller number of parties. However, public interest groups facing the higher transaction costs of needing to organize at each level may be unable to amass sufficient interest and resources to attain the "critical mass", particularly where the benefits of action are small and/or wide-spread. They face a budget constraint in their attempts at organization. A national public interest group, on the other hand, may be able to take advantage of economies of scale in organizing to obtain sufficient support for the issue across the country to interest regulators, especially where they are already organized for other reasons or causes. In addition to the higher organizational costs from decentralization, there are both higher information costs (as each environmental group attempts to cover essentially the same ground) and potentially higher costs of obtaining resources (due to economies of scale in fund raising and the fact that national environmental groups may be able to raise money for matters across jurisdictions). The one caveat is that where decisions are made at the federal level.

This is different from greater powers of access at a single jurisdictional level which lowers costs of access by providing groups at a given level with a number of avenues of influence.

See Richard B. Stewart, Pyramids of Sacrifice? Problems of Federalism in Mandating State Implementation of National Environmental Policy, 86 YALEL. J. 1196, 1214 (1977).

See id. at 1213-14; Steven G. Gey, The Political Economy of the Dormant Commerce Clause, 17 Rev. L. & Soc. Change 1, 50 (1989).

a public interest group addressing a truly local issue in which no other group in other jurisdictions is likely to be interested may be disadvantaged since it may be difficult to attain sufficient size to interest national legislators.

Environmental groups may thus be more likely to be effective on a national level since there are lower marginal costs to such action. Industry, on the other hand, will be able to act at either level. The decentralized nature of environmental decision-making in Canada creates a hurdle to environmental groups by raising costs of organizing and information relative to industry, unlike the U.S. where national environmental groups can focus their efforts on federal policymakers. This may explain why there is a proliferation of national environmental groups in the U.S. with significant resources and why the majority of effective interest group action in the U.S. occurs on a national level.⁵⁶ Conversel, environmental groups in Canada were generally small provincial organizations throughout the 1970s and 1980s.⁵⁷ The main groups were centred in Ontario and British Columbia, partially due to the lower costs of organization in these large provinces. The relatively small size and limited resources of these groups may limit their ability to obtain the interest of regulators. For example, in the acid rain debate the Canadian Coalition on Acid Rain faced the task of forming a coalition of a large number of small interest groups in order to attain sufficient size to affect policy and obtain funding from the provincial and federal governments.58

See R. SHEP MELNICK, REGULATIONS AND THE COURTS: THE CASE OF THE CLEAN AIR ACT 562-63 (1983); Stewart, supra note 54, at 1214-15.

See Stewart Elgie, Environmental Groups and the Courts: 1970-1992, in Environmental Law and Business in Canada, supra note 4, at 173, 185-90.

See Jurgen Schmandt et al., Negotiations in Acid Rain, in ACID RAIN AND UNFRIENDLY NEIGHBOURS: THE POLICY DISPUTE BETWEEN CANADA AND THE UNITED STATES 64, 79 (Jurgen Schmandt et al. eds., 1988).

2. Relative Power

A controversial theory of industry power in decision-making holds that decentralization leads to a "race to the bottom" in terms of environmental law. The basic theory behind the "race for the bottom" is that where environmental decision-making is decentralized and industry is mobile, states or provinces will be forced to reduce environmental regulation below what they regard as socially optimal in order to compete for industry.⁵⁹ The pressure on governments to sustain or promote economic growth enables business to secure lower environmental standards through threat of leaving or not locating in the jurisdiction. The result according to this theory is that all states or provinces end up with lower levels of environmental regulation than they desire or could achieve if they had agreed not to compete on the basis of environmental standards. 60 Competition can take place over standard-setting, implementation or enforcement. The federal government is viewed as better able to make policy trade-offs since it is less susceptible to pressures by a particular industry where that industry is less important to overall economic growth than to the growth of the smaller jurisdiction. This leads to the conclusion that the federal government should set

This is a form of "prisoners' dilemma" in which each party would be better off if they could credibly agree to a solution. In absence of such agreement, the solution which is arrived at is the worst for all parties. For clear expositions of the nature of this theory, see ROSE-ACKERMAN, supra note 13, at 39-41. See Richard L. Revesz, Rehabilitating Interstate Competition: Rethinking the "Race to the Bottom" Rationale for Federal Environmental Regulation, 67 N.Y.U. L. REV. 1210, 1213-21 (1992).

See ROSE-ACKERMAN, supra note 13, at 38-42. Author notes that this mobility may be over-emphasized as there is empirical literature which indicates that interstate environmental policy differences are not a major determinant of industry location. However, it need not be the case that firms actually move for this theory to hold. The important factor is that the decision-maker believes that industry will either not locate there or will move as a result of more stringent environmental regulations.

standards so that a higher level of social welfare can be reached than would be possible where jurisdictions compete away environmental standards.

This theory has considerable salience in the Canadian environmental regulatory debate where critics have argued that provinces' heavy reliance on single industries and the large number of one company towns implies that industry will have considerable influence over provincial regulators.⁶¹ For example, in the early 1970s the intention of the federal government was to create nationwide minimum effluent standards for the pulp and paper industry but because at the time there was no public pressure on the government to engage in enforcement,62 the federal government was willing and able to delegate enforcement to most of the provinces. Given the importance of the pulp and paper industry to the economies of many provinces, 63 this delegation is seen as having led to weak and inconsistent enforcement of the limits and a wide variance in outcomes between and within provinces. There was a lack of enforcement of the Fisheries Act provisions at both the federal and the provincial level throughout the 1970s and 1980s, both in terms of number of convictions and size of fines.⁶⁴ Provinces were seen as responding to the pressures from the pulp and paper industry not to enforce standards or to grant extensions. 65

See Skogstad & Kopas, supra note 38, at 47; Hoberg, Alternative Styles, supra note 4. Grace Skogstad argues that the same influence is felt by the federal government, see Skogstad, supra note 29, at 108-09.

See Skogstad & Kopas, supra note 38, at 46-47.

For a description of the importance of the pulp and paper to the economies of the various provinces and Canada as a whole, see WILLIAM F. SINCLAIR, CONTROLLING POLLUTION FROM CANADIAN PULP AND PAPER MANUFACTURERS: A FEDERAL PERSPECTIVE 10 (1990).

See, e.g., Skogstad & Kopas, supra note 38, at 48; Nemetz et al., supra note 14, at 567-68.

See, e.g., DOUG MAC DONALD, THE POLITICS OF POLLUTION 233 (1991) (a discussion of the exemptions granted in Ontario to the Kimberly-Clark of Canada Ltd. plant in Terrace Bay).

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The controversial nature of this "race to the bottom" theory. however, comes not from the competition between jurisdictions over environmental regulation per se or from industry indicating that it may be forced to leave or go out of business if certain environmental costs are imposed, but from the argument that there is a race to the "bottom". The competition for industry could be seen as part of a normal, valuable trade-off in which jurisdictions compete for business and through such competition make decisions as to the price in terms of economic growth that they are willing to pay for a given level of environmental quality. Such competition may, in certain circumstances, lead to an efficient allocation of resources which maximizes social welfare rather than a suboptimally lax level of environmental protection.66 This possibly finds support in recent literature which argues that regulation can actually cause harm in the form of adverse health effects and reduced social welfare through causing unemployment which in turn leads to poverty and poorer health.⁶⁷ Regulations to increase safety may do more harm than good in certain circumstances and industry information on the effects of the regulations, particularly whether it will leave or shut down or not locate in a jurisdiction, is important. Moreover if the federal government does step in and mandate environmental protection levels, states or provinces may simply compete in other areas such as occupational health and safety regulation.⁶⁸ In such cases, it would only be through vesting total power in the federal government that such competition would cease.⁶⁹

See Wallace E. Oates & Robert M. Schwab, Economic Competition Among Jurisdictions, 35 J. Pub. Econ. 333, 336-38 (1988).

See Ralph L. Kenney, Mortality Risks Induced by Economic Expenditures, 10 RISK ANALYSIS 147, 156 (1990); Cass R. Sunstein, Congress, Constitutional Moments and the Cost-Benefit State, 48 STAN. L. REV. 247, 265-66 (1996).

See Revesz, supra note 59, at 1244-47.

One counter argument is that such models have very strict competitive assumptions including that in equilibrium there are no excess profits for industry. However, where there are excess profits for an industry, inter-jurisdictional competition means that industry will shift jurisdictions in order to preserve the excess profits. It would be more efficient and a better use of resources for

Whether or not competition is desirable in the sense of setting optimal policy, the degree of decentralization of decision-making does have an influence on the resulting environmental law. Regulations on an industry will likely be less stringent in a decentralized system where that industry is more important to the economy of a subnational unit (such as a province or state) than to the federal government. This is not necessarily because of rent-seeking but simply because the costs of regulation are higher for the smaller jurisdiction which militates in favour of less stringent controls. For example, to the extent that the forestry and mining industries are a driving force of the economy of B.C., the B.C. government is more likely than the federal government to take into account threats by those industries of leaving or of investing in other jurisdictions. The federal government is concerned with economic growth and the environment of Canada as a whole when deciding environmental policy and, even though the forestry and mining industries are likely to be important in this consideration, they are only two of a number of competing industries desiring recognition. 70 The importance of industry to the decision-makers may increase even more as policy making authority is shifted down to the municipal level. A onecompany town may be unwilling to impose any regulation on the company in order to ensure that it stays. Of course, there will be areas for which the particular industry is less important for the smaller jurisdiction (the town or province) than for the broader jurisdiction. In those cases the smaller jurisdiction would be expected

jurisdictions to have the power to extract those excess profits to use in aid of environmental protection (that is, either through a direct tax or through a more stringent set of environmental policies). See ROSE-ACKERMAN, supra note 13, at 40-42. Federal standards in such a case would allow such resources to be used for that purpose by ending competition over environmental standards. However, this does solve the problem that the industry will then simply demand concessions in other areas of provincial jurisdiction.

However, this may not hold where the particular region, province or state is given preferential status or consideration within the national government.

to set the more stringent standards. This trade-off between the power of a particular group and the efficiency of the standard will be explored more fully below.

A related issue is that as the decision is decentralized to smaller jurisdictions, the power of industry increases because, in many cases, industry will have an increasing resource advantage over the decision-maker. 71 The principal effect of this advantage is that the government will be relatively less able to obtain information on its own about the effects of imposing regulations or to undertake enforcement. It will be forced to rely to a greater extent on industry information about the nature of risks and the level of industry compliance and industry has the opportunity to downplay both the risk and the degree of non-compliance, particularly where the issue is very complex and the cost of obtaining information is high. The Canadian government attempted to overcome this effect of decentralization by taking on an informational role in the 1970s and 1980s. However, it still relied to a considerable extent on industry information and had difficulty in obtaining information on compliance.

As a positive matter, the increase in the importance and resource advantage of industry as decision-making is decentralized would be expected, all other things being equal, to lead to environmental standards becoming less stringent. This is most pronounced when an industry is more important economically to the smaller jurisdiction but the tendency is also present in other cases due to the rent-seeking opportunities provided by the informational advantage of industry.

3. Inter-jurisdictional Externalities

Decentralization can allow decisions to be made by those directly impacted by the effects of environmental regulation rather

A municipality will have fewer resources to undertake environmental regulation than will a province which in turn is likely to have less than the federal government.

than by relying on national uniform standards. However, where environmental effects are inter-jurisdictional, decentralization can lead to under-regulation because costs are shifted to those outside the jurisdiction. These costs include not only direct health and environmental effects but also impact on use or existence values for those in other jurisdictions. The individuals who are effected by these externalities but do not live in the jurisdiction have no recourse to policy-makers, as they have few or no rights within the jurisdiction and have no voting power. Regulators simply weigh the costs and benefits to those within the jurisdiction and can often safely ignore other interests. In addition, for inter-jurisdictional problems decentralization raises the costs of action of interest groups as they are forced to attempt to deal in a number of different jurisdictions with essentially the same problem.

The classic example is acid rain controls in Canada and the U.S. Canada faces almost the full impact of its sulphur dioxide emissions while the U.S. has been recognized as the source of 50 percent of the acid rain in Canada. Canada moved first on the issue, partially because it bore the full brunt of its economic activity (as well as seeking to influence U.S. policy). Even within the U.S., externalities affected the debate as it pitted the midwestern states which exported acid rain against eastern states which were impacted by the acid rain, with the eastern states acting on the problem even before the federal government.

For example, there is a concern for old growth forests in British Columbia and Northern Ontario by people who do not live in those provinces, let alone have visited the areas in question. There is a question of how much weight should be given to these concerns or how they should be expressed (such as through votes, participation or through allowing purchases of parcels of disputed land) but they do exist and neglecting them ignores a cost of economic activity.

See Kim J. Deridder, The Nature and Effects of Acid Rain, in ACID RAIN AND UNFRIENDLY NEIGHBOURS: THE POLICY DISPUTE BETWEEN CANADA AND THE UNITED STATES, supra note 58, at 31, 45.

See Barbara Britton et al., The U.S. Policy Response to Acid Rain, in ACID RAIN AND UNFRIENDLY NEIGHBOURS: THE POLICY DISPUTE BETWEEN CANADA AND THE UNITED STATES, supra note 58, at 107, 129-131; BRUCE A. ACKERMAN &

4. Decentralization and Stringency

The degree of decentralization of a regulatory system can affect the incentives and relative powers of various group. Essentially, for an activity which has a certain distribution of benefits (such as economic growth and jobs) and costs (health and general environmental effects), more decentralized decision-making should lead to less stringent environmental law because environmental groups are less able to act, industry is more important in certain cases to the jurisdiction and has a greater relative resource advantage over government and the wider costs are less likely to be taken into account. The greater the importance of the industry to the smaller jurisdiction relative to the broader jurisdiction and the greater the inter-jurisdictional externalities, this effect is more pronounced.

There is an off-setting benefit to decentralization. Where the effects are local, decentralized decision making will be better able to take into account the relative costs and benefits between jurisdictions as opposed to broader uniform standards. Uniform standards are based on the assumption that there is no added benefit from increasing quality where it is already better than the standard and that improvement in quality where it is worse than the standard is always worth the cost. 75 Both countries attempt to overcome these problems by balancing some form of national standards with provincial or state implementation. The U.S. government attempts to overcome this problem through use of strong national standards along with EPAmonitored state enforcement. The Canadian system is based on unenforceable standards for which compliance is negotiated on a case-by-case basis by the provinces, which allows for greater consideration of cost differences.⁷⁶ However, while this may work in some cases, national standards may be rendered meaningless where

WILLIAM T. HASSLER, CLEAN AIR DIRTY COAL 44-54 (1981).

See D. N. DEWEES ET AL., ONTARIO ECONOMIC COUNCIL, ECONOMIC ANALYSIS OF ENVIRONMENTAL POLICIES 134-35 (1975).

See ROSE-ACKERMAN, supra note 13, at 38-42; Nemetz et al., supra note 14, at 595.

a province refuses to enforce the regulations or follow the guidelines. The Canadian government does not have, or has been unwilling to use, the power to effectively monitor provincial enforcement of standards.⁷⁷

The positive claim is then that the greater decentralization of Canadian decision-making should lead to less stringent regulation than in the U.S., particularly where there are inter-jurisdictional externalities and the regulated party is important to the smaller jurisdiction. The difficulty is the normative issue of determining the appropriate degree of decentralization of decision-making. This depends on the nature of the issue. The argument in favour of smaller jurisdictions being able to make trade-offs between economic growth and environmental risk only works for an efficient market, that is, one in which all interests are included in the decision. The danger is that in certain cases the structure of government permits rent-seeking or excludes relevant interests.

The key is the nature of the issue and the relative strength of the parties. Table 1 sets out the factors which favour locating decision-making power at either the provincial or the federal level. An issue for which the organization/resource and information costs are high for public interest groups (because the industry concerned is more important to the provincial economy than to the federal economy, the costs of the regulator obtaining the necessary information are high, the effects are extra-territorial and the cost of uniform standards is low) is better handled at the federal level as the interests of all relevant parties are more likely to be taken into account. While there are likely to be very few issues for which such factors are so clearly divided, this table does illustrate the trade-offs which have to be made.

See, e.g., MAC DONALD, supra note 65 (discussing non-enforcement by the provinces of standards under the Fisheries Act).

FACTORS AFFECTING CHOICE OF DECISION-MAKING JURISDICTION FOR PARTICULAR ENVIRONMENTAL ISSUES

	Factors Favouring Federal Power	Factors Favouring Provincial Power
Public Interest Group Organization/Resource Costs	High	Low (or issue truly local)
Information Costs	High	Low
Jurisdiction for which particular industry more important economically	Provincial	Federal
Decision-Maker Information Costs	High	Low
Effects	Extra- territorial	Local
Cost of Uniform standards	Low	High

For example, where the effects are more local than the policymakers' jurisdiction, such as in the case of certain waste dumps under provincial control, environmental groups' and industry's interests may be adequately considered. The costs of information would likely be lower than some more complicated issues relating to chemicals (although they can still be quite high as the proponent of the waste site may undertake a large number of studies to illustrate the lack of risk and the public interest group has to rebut these results). The largest costs are imposed on a small group of people which should increase the incentive for these parties to act. The effects are likely local and there could be high cost from uniform standards (as a result

of governing every waste dump as if the costs and benefits of control The waste disposal industry may have more were identical). provincial power given the nature of the issue, but this is not clear. As a result, control over such an issue should likely rest with the province. On the other hand, for an issue such as the emissions of dioxins and furans from the pulp and paper industry, federal regulation may be more appropriate as the costs on the public would be widespread and hard to determine (making the organization and information costs for such groups high), the pulp and paper industry's very importance to the economies of a number of provinces (likely more so than to the country as a whole), the effects can be extraterritorial and the information costs to the regulators may be high. The only factor which may point in the other direction is the cost of uniform standards which may be high where they do not take into account variations in location where appropriate. These examples, while not worked in detail, illustrate that the optimal level for decision-making (and whether or not the tendency towards less stringency as decisions are decentralized is optimal), depends on the effects of these factors in the particular instance.⁷⁸

V. Incentives and Environmental Law

The greater number of points of access and the increased rights of public participation in the U.S., when combined with the effects of centralization on interest group costs and power, lead to lower transaction costs and higher marginal benefit for environmental groups. Where the benefits to action for a group are low and diffuse as they often are for parties affected by environmental risks, the lower

One problem with some discussions of the "race to the bottom" is that they consider federal standards to be imposing a "supra-market price" and state standards to be permitting a competitive trade-off. See Revesz, supra note 59, at 1244-47. However this assumes that the state is the best location for the competition. Even if decisions are made at a federal level there will be competition (between nations) for business. Similarly, states can be imposing too high a price where they are deciding issues which are much more local in effect.

costs of action in the U.S. make it more likely than in Canada that such groups will act. Moreover, American legislators are less insulated from the demands of public interest groups and both Congress and the president are in competition to ensure that they are seen to best reflect the demands of the public, unlike the Parliamentary system which essentially gives all of the power to the Cabinet.

The result is that while in both countries the regulated parties have significant access rights and the resources to use them, the structure of institutions makes environmental groups more powerful in the U.S. This should lead to more stringent environmental regulations in the U.S. for two reasons. First, environmental groups will be able to put greater pressure on legislators (and bureaucrats) through indicating they can affect public support for legislators. If legislators believe public interest groups represent voters, they will respond to this pressure. This is obviously only as effective as the number of votes that the legislators believe is represented by the interest group. It can be given greater credibility or added weight through public education programs by the public interest groups.

Second, environmental groups can provide regulators with information about the benefits of environmental control. As was noted above, there is no objective measure of risk which would allow regulators to determine the "true" risk of an environmental hazard. Risk as determined by experts and risk as perceived by the public can differ. Where regulators only have information concerning experts' assessments of risk, they will be making risk decisions based on incomplete information. Because the American institutional structure provides incentives for the public and public interest groups

See BREYER, supra note 21, at 42-45.

Risk as determined by experts and as perceived by the public can differ either because experts may not take into account the qualitative nature of the risk as perceived by the public or because the public has "rationality" problems due to such factors as the use of heuristics. The effect of these two types of differences will be discussed below. For an overview of the nature of these differences, see BREYER, supra note 21, at 9-10; Pildes & Sunstein, supra note 5, at 52-55.

to act and for legislators and bureaucrats to take such actions into account, these risk perceptions are received and taken into account to a larger extent than in Canada.

The effect of this access on the resulting allowable risk levels depends on the direction of differences between the perceived risk and the risk as determined by experts. In some cases, the perceived risk could be less than the risk as determined by experts. However, it seems less likely that interest groups would intervene to increase levels of allowable risk as concentrated interests (the regulated parties) would already be pushing for relaxed limits in both countries. The relative isolation of Canadian regulators should lead to greater willingness to allow environmental risks because policymakers have less information on those factors which are important to those adversely affected by regulation.

Information provided by public interest groups can theoretically also provide evidence that industry's compliance costs are less than it has claimed or that there are better methods of reducing certain forms of pollution. This helps offset the information provided by regulated parties. However, this role is limited due to the lack of resources for environmental groups to gather such information, especially in Canada prior to the mid 1980s when environmental groups were typically small and poorly funded.

The timing of the institutional change in Canada corresponds to the differences in stringency of environmental law between Canada and the U.S. Canada's environmental law was, in general, much less stringent than that in the U.S. in the 1970s and early 1980s in terms of standards and controls over polluters (as evidenced by emission levels). Stringency of environmental regulation converged in the latter half of the 1980s with Canada "catching up" to the U.S. in

For an exception discussing the development of policies on saccharin in Canada and the U.S., see HARRISON & HOBERG, supra note 19, at 85-98.

See Hoberg, Comparing, supra note 2, at 251. See generally M. FRANSON ET AL., ENVIRONMENTAL COUNCIL OF ALBERTA, ENVIRONMENTAL STANDARDS: A COMPARISON OF CANADIAN STANDARDS, STANDARD-SETTING PROCESSES AND ENFORCEMENT (1982).

many areas.⁸³ While other factors likely played some role (as discussed above), increased public participation played an important part in this convergence.⁸⁴

This general pattern is reflected in specific policy areas. For example, the Canadian federal government set effluent standards for the pulp and paper industry under the Fisheries Act in 1971. These were much less stringent than the U.S. federal standards over the same period and applied only to mills built, modified or expanded after 1971, whereas the U.S. regulations applied to all mills. 85 These regulations were the result of a compromise between provincial. federal and industry representatives with no public input, since there was no right of access for public interest groups at the time.86 Moreover, the standards were set largely using industry supplied information, particularly on the economic effect of such regulation.⁸⁷ The U.S. regulations, on the other hand, were set in the context of much greater public involvement.⁸⁸ In 1992, the federal government set new Canadian regulations which included significantly tighter limits on effluents from pulp and paper mills, contained greater enforcement powers for federal regulators and applied to all mills (with a phase-in period). Unlike the earlier Canadian regulations. these new regulations were the result of extensive consultations by the federal government with both industry and the public stemming from the increased openness of the federal government in the mid-1980s 89

See Hoberg, Comparing, supra note 2 at 251. See generally Green, Public Participation, supra note 2.

See generally Green, Public Participation, supra note 2.

See generally GREEN, CENTER FOR STUDY, supra note 5.

See David VanderZwaag & Brenda McLuhan, Pulp and Paper Pollution: Shifting Legal Approaches and the Search for Sustainable Industries, in ENVIRONMENTAL LAW AND BUSINESS IN CANADA, supra note 4, at 479, 507-09.

See Skogstad & Kopas, supra note 38, at 47.

See generally Green, Public Participation, supra note 2.

See VanderZwaag & McLuhan, supra note 86, at 507-09; Nancy Olewiler, The Impact of Environmental Regulation on Investment Decisions, in GETTING THE GREEN LIGHT: ENVIRONMENTAL REGULATION AND INVESTMENT IN CANADA 53, 92

As a result, while the pulp and paper regulations in Canada were set at the federal level, the lack of public participation compared to the U.S. led to less stringent regulations based on what was likely the same information as to the costs of regulation, since industry in both countries had full access to regulators. In addition, enforcement of these standards was largely delegated to the provinces and this had a large effect on the compliance rate of industry (which was lower in Canada than the U.S.) because of the power of industry relative to public interest groups. For example, the controls in B.C. and Quebec, where the industry is very important, were the weakest for those pollutants which are most costly to control in those provinces (total suspended solids in B.C. and bio-chemical oxygen demand in Quebec). 91

The regulations of dioxins in pulp and paper effluent in the late 1980s is also informative. Many of the provinces, including B.C., Ontario, Alberta and Quebec, set their own limits for dioxins which were much stricter than the federal standard. The U.S. is setting standards which are likely to be stricter than the Canadian federal standard. Both the federal and provincial governments were subject to public pressure for regulation spurred on by a large public relations campaign by Green Peace. The provinces, however, responded with tighter standards which illustrates that leaving standard-setting and enforcement to the provinces will not always result in less stringent standards. There did not appear to be a "race to the bottom" but the key was that there was an organization (Green Peace) which was able to provide information to the public and bring

⁽Jamie Benidickson ed., 1994).

See Skogstad & Kopas, supra note 38, at 43; Peter N. Nemetz, Federal Environmental Regulation in Canada, 26 NAT. RESOURCES J. 551, 582-83 (1986).

See generally Green, Public Participation, supra note 2.

⁹² See id.

See HARRISON & HOBERG, RISK, supra note 19, at 51.

⁹⁴ See id. at 14.

their concerns to the government. However, it took an organization which had international connections and large resources to raise sufficient public concern to affect the policy.

The effect of public participation can also be seen in the example of sulphur dioxide emissions. Prior to the mid 1980s, Canadian national "objectives" for sulphur dioxide emissions were lower than those in the U.S. However, these objectives were unenforceable and the main power rested with the provinces. As a result, the emissions levels in Canada in the 1970s and early 1980s were much higher than in the U.S., indicating that the U.S. exerted more control over industry. However, Canadian emissions were reduced to a much greater extent than U.S. emissions in the late 1980s, resulting in Canadian emissions "catching up" to U.S. emissions.

A principal factor was significant pressure by environmental groups. In the 1970s and early 1980s, there was little public access to the decision-making process in controlling sources of air emissions. However, in the early 1980s the Canadian Coalition on Acid Rain joined together a number of small local interest groups to put pressure on government to control acid rain. Federal and provincial funds helped them build sufficient support to exert effective pressure. This public pressure was significant in convincing the federal government to take action against sulphur dioxide emissions in 1985. In the U.S., there was significant public pressure for control of sulphur dioxide emissions over the whole period, although a complex relationship of regional politics led to some unfortunate compromises in the 1970s and to a delay in action

See generally Green, Public Participation, supra note 2.

See Tom Albin & Steve Paulson, Environmental and Economic Interests in Canada and the United States, in ACID RAIN AND UNFRIENDLY NEIGHBOURS: THE POLICY DISPUTE BETWEEN CANADA AND THE UNITED STATES, supra note 58, at 107, 129-31.

⁹⁷ See generally Hoberg, Sleeping, supra note 3.

in the U.S. until the 1980s.⁹⁸ This example shows that external funding or aid (in this case in the form of federal and provincial funding to the Canadian Coalition on Acid Rain) is necessary to ensure interest groups in a decentralized system attain sufficient power to exert pressure and provide information.

The example of sulphur dioxide omissions also indicates that public participation is a necessary but not sufficient condition for stringent regulation. Although both countries had extensive public interest group pressure, it was unable by itself to bring strong action in the U.S. due to industry efforts. Institutional factors only lead to a tendency in a certain direction for a particular system. Industry still has considerable power to rent-seek under the U.S. system due to its resource advantage over environmental groups (which also permits greater use of judicial review and access provisions), its informational advantage over the government and interest groups and the decentralization of some environmental decisions. The rent-seeking opportunities inherent in the nature of the regulatory systems in both countries are very important in determining policy outcomes.

VI. Implications for Environmental Law and Policy

One important factor in understanding why environmental regulation in Canada as a whole has been, and continues to be in many areas, less stringent than in the U.S. is the institutional structure in Canada for making environmental law. Canada's closed, decentralized system has led to industry having a greater ability than public interest groups to influence environmental policy. The recent move towards public participation is beneficial in helping balance the information and pressure received by policy-makers, although this continues to be off-set by the decentralized nature of environmental regulatory power in Canada.

See Barbara et al., supra note 74, at 159-182; ACKERMAN & HASSLER supra note 74, at 44-54.

A. Irrationalities and Interest Groups

Given this analysis of the effect of the increase in public participation in Canada, is such participation an unquestionable benefit? Public participation is only a benefit if it makes environmental law and policy "better." While increased participation by the public can help offset the power of industry, it is important to examine the nature of public demands for risk reduction to determine how it impacts risk regulation decisions.

The principal concern about public participation arises because of the nature of the public's perception of risks. As was noted above, there can be significant differences in the priority or ranking that the public gives to risk as opposed to that which scientists or regulators place on the same risk. For example, a Canadian study recently provided evidence that the public ranks risks from chemical pollution, ozone depletion, nuclear wastes, pesticides and PCBs higher than toxicologists while it ranks smoking and motor vehicle accidents as less risky than experts. ¹⁰⁰

This difference can occur in two ways. First, individuals may have "rationality" problems due to such factors as age, addiction and the use of heuristics. ¹⁰¹ These place limits on individuals' ability to process information and rationally understand the risk or

Public participation could have a negative effect on environmental law and policy yet still be desired because it enhances democracy. However, this paper is only considering the effect of institutional change on outcomes, that is, the stringency of environmental law.

See Paul Slovic et al., Intuitive Toxicology II: Expert and Lay Judgments of Chemical Risks in Canada, 15 RISK ANALYSIS 661, 674 (1996).

Heuristics are techniques used to process information but which can lead to a misunderstanding of the underlying probabilities. For example, the "availability" heuristic causes people to overestimate the probability of an occurrence when a similar event comes readily to their minds (e.g., to overestimate the probability that their house will be broken into if a house of someone they know has been broken into recently). There are other heuristics which can have an effect on individuals' perception of risk such as anchoring and representativeness.

opportunities from certain activities.¹⁰² Second, the public may have a qualitative sense of the risk which experts do not take into account. Experts examine the "body count"¹⁰³ (that is, mortality, morbidity and the like) which do not take into account aspects of the risk which are important to the public such as its dreadedness or voluntariness or whether it affects a particular sub-group (such as children).¹⁰⁴ These qualitative aspects to risk are not irrationalities but may be different understandings of the nature of risk which face individuals.

The qualitative nature of risk represents real concerns about risk and the benefit which the public derives from its reduction and as such is an important consideration for policy-makers to take into account. To the extent public participation brings such qualitative information before regulators, it will lead to better balancing of costs and benefits. However, these differences in perceived and "expert" risk give rise to a problem where the fear engendered in the public is irrational. Irrationalities exist where the public would have the same ranking of a risk as the experts if they knew the "correct" probability or magnitude of the risk but, for some reason, they have miscalculated the risk. In those cases, the relative influence of public interest groups may push environmental policies in a direction which is not optimal.

Irrationalities such as the use of the availability heuristic may have led to over-regulation of certain risks in the U.S. as a result of the "pollutant of the month" syndrome. ¹⁰⁵ U.S. legislators and regulators are unable to (or have no incentive to) withstand public pressures based on irrationalities. The incentives in the system are for legislators and bureaucrats to respond to public perceptions (at least symbolically) and there are a variety of levers to force reluctant

See BREYER, supra note 21, at 33-39; Pildes & Sunstein, supra note 5, at 56; Sunstein, supra note 67, at 265-66.

See Clayton P. Gillette & James E. Krier, Risk, Courts, and Agencies 138 U. PA. L. REV. 1027, 1072-74 (1990).

See Breyer, supra note 21, at 33-39; Pides & Sunstein, supra note 5, at 57.

See Breyer, supra note 21, at 35; Pildes & Sunstein supra note 5, at 57.

policymakers to take action. As was noted above, it is unlikely that there would be often a push by the public towards under-regulation since concentrated interests are able to take effective action on their own to this end. As a result of the lack of power of policymakers to withstand public pressure based on irrationalities, the system can be pushed towards over-regulation by a public overly concerned about the level of risk. ¹⁰⁶

Interestingly the U.S. seems to be one stage "ahead" of Canada in terms of regulatory institutions, at least the way the debate is currently moving in terms of public participation. previously had a regime of state power over regulation with considerable discretion being granted to administrators. 107 This was partially the result of a confidence in the ability of such administrators to act in the public interest. In the late 1960s, however, the public lost this confidence and there was a demand for centralization of power and greater controls over the actions of regulators. 108 The result was the current U.S. system of limited discretion, spiraling legalism, federal decision-making and openness with its attendant risk of over-emphasis of minimal risks. This system led to more stringent regulation than in Canada over the comparable period which largely retained administrative discretion and provincial power. However, U.S. environmental regulatory regime was criticized for being inflexible and not cost-effective and for hindering rational prioritysetting. The U.S. is now trying to reduce the adverse incentives built into the regulatory system, possibly through extending greater discretion to regulators.

The Canadian debate appears to be at the same stage now as the U.S. was at the end of the 1960s with decreasing trust in regulators leading to a desire to limit discretion and develop

One example of this effect in Canada may be the recent move, based in part on public pressure, to increase Canadian automobile emission controls possibly above those in the U.S., even though it may not be optimal. See generally Green, Public Participation, supra note 2.

See Elgie, supra note 57, at 197; Sunstein, supra note 67, at 254.

See Sunstein, supra note 67, at 255.

environmental rights. Under the Canadian system regulators in the past had the power to withstand irrational public demands because of strict party discipline, little effective parliamentary opposition on many complex issues and insufficient access to the policy process by public interest groups to enable them to impress such perception on policy makers. Unfortunately, at the same time Canadian legislators and bureaucrats were not receiving information on qualitative differences in risk and this led to a tendency towards under-regulation of certain risks.¹⁰⁹

Given the different bases for public perceptions of risk, the push for greater public participation in Canada is valuable to the extent that it provides regulators with qualitative risk information. The difficulty is in sorting out irrationalities from qualitative concerns. Public participation should be encouraged but a system must be developed which provides incentives for policymakers to respond to qualitative information and at the same gives them the discretion to resist irrational public perceptions. Importation of public participation structures from the U.S. could bring with it the tendency of the American system towards over-regulation on the basis of irrational public demand. Current public participation rights have been grafted on to the Canadian system without any discussion of the safeguards and institutional features the U.S. is starting to recognize are necessary to ensure that the incentives arising from interest group action are not harmful to the policy making process.

B. Decentralization of Canadian Environmental Law and Policy

The effect of the Canada-Wide Accord on Environmental Harmonization is unclear in many areas. For example, the subagreement on standards appears not to clarify the roles of the federal and provincial governments given that the "responsible" government

See generally HARRISON & HOBERG, RISK, supra note 19 (a general discussion of Alar and how risk perception affects public policy).

is to implement the standards with the federal government responsible for, among other things, regulation based on a "product/substance" approach and the provinces for implementing measures "requiring action from industrial, municipal and other sectors". It is uncertain how these overlapping areas will be harmonized. There have been attempts to use cooperation between the federal and provincial governments where comprehensive legislation is not possible, either through mutual legislation, federal-provincial committees or by delegation of administrative powers (such as in the area of environmental assessments). How the Accord advances this process other than by leaning towards even greater provincial implementation of regulation is unclear.

Moreover, while it appears to aid in setting the appropriate level of decision-making by letting the province decide on issues which have intra-territorial effects, this could have the effect of reducing environmental protection as scope of effect is only one of the relevant factors to be considered. As was noted above, it is important to consider the impacts of de-centralization on a case-bycase basis, including its effect on the relative power of interest groups, to determine the appropriate jurisdiction for particular decisions. Although the federal government's willingness to regulate may be strengthened by the Supreme Court of Canada decision in *Hydro-Quebec*¹¹¹, the apparent further decentralization of environmental decision-making under the Accord (for example, by potentially delegating implementation of standards to the provinces)

For example, jurisdiction is shared successfully in the areas of regulation of pesticides and transportation of hazardous chemicals and precedents for administrative delegation occur in area of farm marketing boards. See Northey, supra note 35, at 150-152. There has also been some federal-provincial cooperation in the attempt to clean up "orphan" hazardous waste sites under the National Contaminated Sites Remediation Program.

See R. v. Hydro-Quebec [1997] S.C.R. 213.

should impact the relative power of groups to effect policy either through provision of information or pressure on governments to act. All other things being equal, it should lead to a decrease in stringency of environmental regulations by decreasing the ability of environmental groups to influence policy.

