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The Political Economy of Environmental Inequality: The Social Distribution of Risk as an Environmental Injustice

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In recent years, environmental justice groups have arisen to deal with those issues related to the inequitable distribution of the "externalities" of industrial production. Many of the matters dealt with by these groups, as well as the analyses of the environmental justice movement itself, have tended to have a decidedly *local* focus – dealing with specific community-contamination events, the harmful health effects of local pollution on members of the community, and the local politics involved therein. This is understandable given that environmental justice issues are very much place-based and context dependent (Parizeau, 2006). At the same time, however, what is often neglected in analyses, as David Pellow (2000) points out, is the question of the structural environmental inequality that gives rise to the unjust distribution of environmental risks in the first place. Addressing this important foundational issue requires a broader focus on the intersection of environmental quality and social inequality, which in turn demands a more process-oriented perspective sensitive to larger sociohistorical processes that inform and influence the accumulation of externalities in a particular place. Without this analytical reorientation toward a more critical understanding of structural inequality, the literature that supports the environmental justice movement will continue to have a limited theoretical perspective that leads to description rather than explanation (Parizeau, 2006). In this chapter, I respond to this call for a reorientation by considering how the broader forces involved in the Canadian political economy expose those in particular regions to harm. This analysis of the social distribution or risk will be illustrated by drawing upon the experience of coal-mining disasters and toxic contamination from steelmaking in Nova Scotia.

The Political Economy of Canada

Much of the work on the Canadian political economy can be traced in some way or another to the pioneering work of the economic historian

Harold Innis (1954) on staples theory. Innis argues that Canadian economic development was largely shaped by the explicit adoption of a trade policy that emphasized the flow of natural resource staples such as fur, fish, wheat, coal, metals, and timber from rural communities (i.e., hinterlands) to urban centres (i.e., metropoles) where they would be processed and/or used in the manufacturing of commodities. In essence, the resultant staples economy was based on the trade of staples from the colonized for manufactured goods from the colonizer. Thus, the initial role of Canada as a white settler colony was to supply cheap food and primary resources to Britain, and as such, the major focus of investments was on staples extraction and not industrial manufacturing (Williams, 1994).

For some of the earlier scholars, including W.A. Mackintosh, a staples-based economy was optimistically construed as merely a transitional stage that would soon give way in the future to a more broadly based industrial society (Schedvin, 1990). Others, including Innis himself, were less optimistic, believing that natural resource communities would increasingly become economically dependent on the metropoles located in areas quite distant from the hinterland in which the staples originated. This was believed to cause problems for the hinterland communities because of the periodic instabilities that arose from an unregulated market for staples. Furthermore, this precariousness would not allow the economy to mature or establish itself in any stable or permanent manner. Natural resource-dependent towns would therefore go from one crisis to the next with the closing of mills and mines, the loss of jobs, and the outmigration of residents.

Historically, the reliance on staples has influenced the direction and nature of Canadian economic development in various ways. Most notably, this has included an overemphasis on the building of infrastructure to support staples-based industries. And as Bunker (2005, p. 39) notes, infrastructure development involving roads, rails, and ports generally involve large amounts of very inflexibly invested capital. Consequently, natural resource economies tend to develop a "spatial fix" (Harvey, 1982) in which high levels of capital inflexibility are sunk in technologies of extraction and export. For example, the construction of the railroad across Canada was a priority for the country's first politicians because it was thought that the railway would unify the country by facilitating the transport of natural resources across vast distances to metropole markets. Innis notes, however, that the establishment of transportation infrastructures was very costly and led to the incurring of heavy debts to foreign lenders, which further intensified the economic dependence of Canada on foreign interests, particularly those in the United States and Britain. Furthermore, such a strategy has meant that resource extraction was overemphasized at the expense of industrial expansion in manufacturing (Williams, 1994). For these reasons, it has been argued that Canada had failed to develop a substantial trade in finished manufactured goods while retaining an export structure based on primary resources – a pattern actually found in many underdeveloped nations of the world. Moreover, because primary resource industries tend to be capital-intensive rather than labour-intensive (as in manufacturing), Canada has historically sacrificed its potential for job creation (Williams, 1994). Many of these developments were supported by the National Policy of the country's first prime minister, who sought to promote trade between the provinces rather than trade between Canada and other countries. This protectionist strategy was largely pursued through the imposition of heavy tariffs on goods that were to be imported into Canada, thus serving as a disincentive for other countries, the United States among them, to trade with Canada.

The legacy of the staples economy is still found in the nature of the uneven development found in Canada. In more recent years, this is seen in terms of the effects of adopting an industrial strategy known as import substitution industrialization. With this strategy, the reliance on exports is severed by promoting the trade of manufactured commodities and primary resources within the country itself – that is, between different regions of the country. Because of the lack of domestically owned industry in Canada, those commodities that are made here are manufactured on the basis of technologies, equipment, and funds supplied by sources outside the country. In the case of Canada, much of the direct foreign investment was made by American capital (Clement, 1983). Moreover, to avoid the heavy tariffs on American goods, American capitalists would establish branch plants in Canada so that American technology would be used to produce goods on Canadian soils. However, the profits were not reinvested in the local Canadian economy but funnelled back into the United States, thus reinforcing the dependent relationship the Canadian hinterland had with the US metropole in the form of a branch-plant economy (Williams, 1994).

Regional Disparity and Regional Dependence

Much of the above discussion of the Canadian political economy focuses on the dependency relationship between Canada and first Britain, then later the United States. The legacy of the staples economy, the National Policy, and import substitution have also led to unique forms of dependency relationships *within* Canada – that is, between different regions or provinces. The nature of these relationships is tied to the role of natural resources in Canada. Although most resources are provincially owned, their control for the large part has been given to private firms. Consequently, resource development may be hindered or prevented by the corporate policies of private firms, instead of being under the sole direction of the government. It is precisely at this critical juncture that we begin to see how the social,

occupational, and environmental risks associated with primary resource extraction and processing arise, and how such origins influence the subsequent environmental justice politics that surround these problems.

In considering disparities between different areas within the country, it is useful to consider the region as the unit of analysis. In this light, central Canada (primarily Toronto and Montreal) is a metropole region, while the western and Atlantic provinces are the hinterland regions that supply the central region. Before Confederation in 1867, the Maritime region was economically prosperous, as those provinces were engaged in a vibrant trade in fish, timber, and ships with England, the United States, and the West Indies (Matthews, 1983). At the same time, central Canada was at a disadvantage because it was cut off from the sea during the winter months when the St. Lawrence River was frozen. With the advent of railway construction, however, the commercial elite of Montreal and Toronto consolidated their positions in banking policy, railway policy, and tariff polices, all of which ensured increased wealth for those in economic and political power in central Canada.[1] This competitive advantage for central Canada was supported by state policy following Confederation that made the establishment of local banking difficult in the Maritimes (Clement, 1983, p. 64). Banks in central Canada were able to ensure a shortage of loan capital and higher interest rates, thereby undercutting the ability of potential Maritime manufacturers to compete. Thus, the possibility of establishing a thriving manufacturing base in the Maritime region was thwarted and the region reverted to staples production. Furthermore, the lack of an established manufacturing and industrial base led to high unemployment rates in the Maritime region. Such broad political-economic machinations related to the emergence of regional disparities and ultimately established the circumstances for the creation of hazardous environmental health conditions in Nova Scotia, particularly in the realms of coal mining and steel production.

Coal-Mining Disasters in Nova Scotia

During the course of mining coal in Nova Scotia, there have unfortunately been many disasters, with tragic losses of life. I will focus on just two incidents here to illustrate how broader political-economic forces play a significant role in making certain communities and occupational groups within particular regions vulnerable to hazards. On 23 October 1958, a catastrophic "bump" – the sudden shifting of underground strata that leads to the collapse of tunnels – occurred in a mine owned by the Dominion Steel and Coal Corporation (DOSCO) in Springhill, Nova Scotia. Of the 174 miners who were trapped, 75 died and 99 were rescued. Of those who survived, miraculously, 12 of them crawled out of the mine six days after the bump, while another 7 did so three days after that (Greene, 2003).[2]

Although the cause of the disaster was popularly attributed to be the bump itself, McKay (1987, p. 165) notes that such a simplistic explanation is misleading, as the "real" causes of the disaster are implicated in the history of the region's coal industry and the way decisions are made in the workplace. Thus, a broader examination is required.

With the decline in the amount of coal required by the Canadian National Railway in the 1950s (as its trains switched to diesel), the coal industry faced tough economic times and so turned toward both provincial and federal governments for subventions and conventions (McKay, 1987, p. 166). It was also during this period that the community lost its power to effectively bargain with DOSCO and the government because of threats of company relocation. Miners for a long time warned of the unstable conditions of the Springhill mine, but their warnings went unheeded by management, despite the frequent recurrences of smaller scale bumps. Through various public meetings with DOSCO, the members of the mining community expressed their concerns of the company's plan to keep digging the town's only operating mine further and deeper despite the increased risk of a cave-in such digging entailed. They also insisted that the company reopen abandoned mines in the area that were known to still have significant levels of coal and that were safer. The company rejected this suggestion because it was much more costly for it to reopen those mines than to continue digging at Springhill. The dominance of coal mining in the region led to a general de-emphasis on educational attainment, as this was not required for the occupation. Members of the region's labour force were therefore less able to switch jobs – if any did exist in their resource-based communities in the first place (Tupper, 1978). The miners, therefore, were forced to accept the risks they knew to exist in the Springhill mine in order to gain some livelihood in the harsh economic realities they faced.

The negative economic circumstances faced by those in the Atlantic region in the 1950s has continued into even more recent times, with similar tragic results. On 9 May, 1992, a methane explosion in the Westray mine in Plymouth, Nova Scotia, killed twenty-six miners. As with the Springhill disaster, warnings of the imminent dangers of the coal-mining practices were ignored by management. This reflected a long history of a lack of concern for abiding by industry regulations. In fact, the health and safety laws in Nova Scotia lagged behind that of other provinces – a consequence of the pressures stemming from regional dependence (as we shall see). Furthermore, during the 1990s, the fines for violations of the provincial act governing coal mining in Nova Scotia were often nominal (e.g., $250), with sanctions rarely imposed in any case (Tucker, 1995). The regulatory system for occupational safety in the region was also lax. For example, from 1985 to 1990, although fourteen mining companies were

charged for violation of the provinces' occupational health and safety act, none of them was prosecuted. The lack of attention to the health and safety of workers is often understood to occur because of a natural resource company's drive to maximize profit, but what accounts for the lack of government attention to health and safety? For example, Tucker (1995) asks, why did the government not require occupational health and safety assessments to be performed before granting approval for or financial assistance to mines? For Tucker (1995), the answer lies in the emphasis on regional development at all costs in Nova Scotia. Such a conclusion is supported in no uncertain terms by an inquiry review of an explosion at a Cape Breton coal mine in 1979 that led to the death of twelve miners: "The social and industrial expectations and acceptance of unnecessary risks over many years against the possible loss of employment had fostered attitudes and environmental conditions that made this explosion and previous fires almost inevitable . . . the production of coal was given a priority over almost all other considerations" (Canada, 1979, cited in Tucker, 1995). Again, unsafe and unlawful practices were imposed on workers who did not raise objections out of fear of losing their jobs or retaliation by management.

McMullan (1997) notes that the certain environmental harms – those discussed in this chapter – may be considered as a specific type of organizational misconduct that Kramer and Mischalowksi (1990, p. 3) refer to as a state-corporate crime. Such crimes result from the cooperation between governments and private companies. Regional development policies in Canada have tended to encourage state-corporation relationships in ways different from that of United States. Whereas the United States emphasizes a strong adherence to a noninterventionist approach to the economy, Canada does not. For example, in 1967, the federal government established the Crown corporation Cape Breton Development Corporation (CBDC) to solve the province's coal "problem" stemming from (1) the region's dependence on DOSCO for employment and (2) the coal industry's chronic economic instability (Tupper, 1978). The Crown corporation was actually formed in response to DOSCOs' announcement that it would close its unprofitable coal mines in the region. With the introduction of the Crown corporation, the coal industry would be run as a state enterprise, with the commendable intentions of ending the thoughtless exploitation of the regional economy by private enterprise – DOSCO was the region's largest employer (McKay, 1987, p. 165). It was hoped that feelings of exploitation would be replaced with the sentiment of working for one's self and one's community (Tupper, 1978). It was also thought that state ownership would enable the gradual phase-out of unprofitable mines and reduce unemployment slowly, while allowing time for the regional economy to diversify (Tupper, 1978). However, state ownership of coal mining (and later steel

production) had the effect of intensifying the environmental hazards members of the community faced. For example, because the coal mined in the region was of an impure type, containing various contaminants (such as sulphur), the resultant steel was of relatively poor quality. Consequently, DOSCO had begun to use coal imported from Pennsylvania – this was both cheaper and of better quality. When taken over by the Crown corporation, the steel company again started to use the inferior coal mined in Cape Breton. The problem was that the use of poor-quality coal resulted in greater environmental contamination. Several studies conducted by the federal government in the 1970s revealed that the increased air pollution from the impure coal was having a statistically significant detrimental impact on public health in the region – although these reports were suppressed from the public (Barlow and May, 2000).

Toxic Contamination from Steelmaking: The Case of the Sydney Tar Ponds

The harbour city of Sydney, Nova Scotia (population: 26,872), is located on the northeast corner of Cape Breton Island. The abundant coal here was used to produce coke that could in turn be used in steelmaking, and in 1899, the Dominion Iron and Steel Company (DISCO) was established on Sydney Harbour by an American interest, a Bostonian named Henry Whitney. Notably, DISCO received numerous government concessions as inducements to establish itself in Sydney, including a land grant of two hundred hectares (some of which was appropriated without compensation from the indigenous Mi'kmaq peoples) (Barlow and May, 2000, p. 8), a thirty-year tax holiday, and a special rate for water and coal (Campbell, 2002; Crawley, 1990). Over the proceeding years, there were various mergers between the steel plant and the coal operations, with accompanying name changes and various owners from Montreal and Toronto holding the controlling interest (Abbass, 2006). Many of these new owners were also involved in Canadian Pacific Railway companies and, in fact, much of the steel produced in Sydney was used in the manufacture of rails. In 1957, the steel operation, which eventually was renamed the Dominion Steel and Coal Company (DOSCO, the same company that owned the Springhill mine), was sold to the British multinational Hawker Siddeley. In 1967, the British interests wanted to close down the operations because of the poor-quality steel that was produced (and difficult to sell) and the world slump in the international steel market. This led to a widespread protest in Sydney, with residents marching in the streets on 13 October 1967 to demand that the plant continue operations (Abbass, 2006).

In response to the public outcry, in December 1967 the Province of Nova Scotia formed a Crown corporation to take over DOSCO, under the new name of Sydney Steel Corporation (SYSCO).[3] For the next thirty-three

years, various modifications were made in the steel-production process to make the steel facility economically competitive, but for the most part these attempts failed. As Barlow and May (2000) note, very little attention or money was spent on improving the company's occupational and environmental health record during this time of state ownership. Under state control, the levels of pollution and contaminants increased substantially, while efforts to curb these were not even considered. For example, the 150 tons of toxic blast furnace dust that coated areas of Sydney each month could have easily been curtailed with the installation of a $6 million cintering plant – a small sum for a large company such as SYSCO – but this was never seriously considered either by the company itself or at the government's insistence, despite the significant public health benefits it would have for the community (Abbass, 2006, p. 17; Barlow and May, 2000, p. 17).

Over the many years of operation, slag waste from the blast furnace, as well as other toxic by-products from the steelmaking and coke operations, collected in the estuary leading to the harbour. Much of the estuary became completely landfilled over time, with mountains of accumulating slag forming a barrier that ran through the estuary. Pools of toxic material collected in the estuary and came to be known as the "tar ponds"; daily current flows brought the toxic materials from the tar ponds into the harbour itself. Despite numerous government-sponsored health studies (kept hidden from the public in SYSCO offices) revealing higher than expected cancer rates in the area, as well as other significant threats to public health, the steel plant was allowed to continue to pollute until 1980. It was at this point that the Department of Fisheries discovered that lobsters in the harbour contained such high levels of toxic contaminants, particularly PCBs, that they were not fit for human consumption (Barlow and May, 2000, p. 75). Consequently, fishing was prohibited in some parts of the harbour, and public concern over the health impacts associated with the tar ponds increased.

Government attention now began to focus on cleaning up the tar ponds. Various toxic assessment and remediation initiatives were performed by technical consultants. It was soon understood that the site was one of the most contaminated and toxic areas in the country. Government officials decided that the incineration of toxic material would be pursued and so, in 1991, the provincial Crown corporation of Sydney Tar Ponds Clean-Up Inc. was formed to own and operate the incinerator. However, certain technological design flaws became evident as operations began. After several costly ($55 million) and repeated attempts to the fix these flaws, and the finding of much higher-than-anticipated levels of PCBs in the toxic waste, the incineration plan was abandoned (incineration cannot degrade PCBs). The Nova Scotia government then decided that the maximum amount it was

prepared to spend on the cleanup was $20 million – not because that was the estimate of the costs of cleanup but because that was how much money the provincial government thought it could afford to spend (Barlow and May, 2000, p. 88). Without inviting tenders, the government approached the Nova Scotia engineering firm of Jacques Whitford to see what could be done for that amount of money. The firm suggested a process of encapsulation whereby the mountains of slag would be used to fill in the tar ponds, then capped with soil and grass to produce a park. When this announcement was made, the Sydney community reacted with outrage, especially since it had not been consulted. Ultimately, a federal ruling overturned this decision to cap the contaminated area. The provincial government then moved to adopt a more open consultation process and announced the formation of a new community-government committee with a budget of $1.67 million. It would involve three levels of government and the Sydney community working together to form a new cleanup plan known as the Joint Action Group (JAG) process (Campbell, 2002). JAG membership consisted of government representatives and a roundtable open to the public. Fifty-five community members joined JAG and numerous working subcommittees were quickly formed to deal with various issues such as those involving health studies, site security, remediation options, planning, governance, human resources, finances, and ethics. But the manner in which the JAG process unfolded did not allow for the opportunity to deal with larger issues related to environmental inequality and environmental justice.

Implications of Conceptualizing the Social Distribution of Risk as an Environmental Injustice

It has been argued that in order to achieve more penetrating and critical insights into local environmental justice issues, the breadth of focus must be broadened to include issues of structural and environmental *inequality*. In this light, I have attempted to demonstrate how such political-economic dynamics operating at the national and regional level have repercussions for the state of the environment and issues of environmental justice vis-à-vis the distribution of risks. In this sense, localized particular injustices can be viewed as the consequences of specific constellations of power relations (Parizeau, 2006). Thus, for example, we have seen how decisions made by those in central Canada (such as Toronto and Montreal) and foreign owners (United States and Britain) have influenced the nature of the staples economy, and ultimately the nature of future Canadian development. This has led to situations of regional dependence and regional disparity that reflect the social distribution of risks, as, for example, with the risks of coal mining and steelmaking accumulating in certain regions, such as Cape Breton Island and Nova Scotia. Furthermore, a focus on regional disparity reveals how the injustices experienced by those in this region

were limited not only to the unjust exposure to environmental risks but also to the social and economic exclusion that distances those in Atlantic Canada from the more prosperous populations in other regions (Social and Economic Inclusion Initiative, 2003, cited by Haalboom, Elliott, Eyles, and Muggah, 2006, p. 240). As such, environmental inequality reflects social and economic inequality. The practical question still remains: What does an emphasis on the broader structural aspects of environmental inequality mean for the analysis and practice of environmental justice?

Perhaps most significantly, a focus on the broader context of environmental inequality will enable both the analyst and the activist to understand *community vulnerability* as an environmental justice issue and to design appropriate strategies thereof. Community vulnerability does not mean only the susceptibility of particular social groups to technological and environmental disasters such as chemical contamination that have traditionally been the types of struggles with which environmental justice groups have been involved. It also includes the social and economic vulnerabilities tied to a community's dependence on natural resource extraction and primary industries – after all, natural resource issues are obviously environmental issues as well. As such, as Hessing (2002, p. 36) notes, the ecological consequences of economic restructuring requires special consideration within the Canadian context because many communities remain directly dependent on resource availability. In addition, MacLeod, McFarlane, and Davis (1997) note that natural resource towns may quickly become distressed communities characterized by high unemployment, a loss of vital services (schools, hospitals, housing, finance), the deterioration of transportation and communications infrastructure, the loss of population, and notably, a declining influence in central political institutions. Such conditions are triggered when a single-industry town loses its principal source of income, such as when a mine or steel mill closes. Two things are achieved by emphasizing community vulnerability as a product of environmental inequality. First, it better enables connections to be made between environmental health issues and social justice issues. Second, it will help counter the common tendency of risk management officials to individualize the risks – that is, to blame the victim. For example, in response to initial health reports on the higher cancer rates among Sydney residents, government officials claimed that such rates were not because of environmental contamination from the coke ovens and steelmaking but because of individual lifestyle factors, such as excessive smoking, drinking, and poor diet (Barlow and May, 2000, p. 145). Another individualizing tendency was seen in the strategy of public officials to dismiss anecdotal evidence of cancer deaths in the community as a general conspiracy to stop steel production (Rainham, 2002). Furthermore, it was evident that local politicians were more concerned that the environmental

health issues raised by citizens would deteriorate the value of land and housing prices, and, for that reason, citizens were frequently labelled as individual extremists who lacked any sort of credibility (Rainham, 2002). By emphasizing the community exposure to environmental harms, such individualizing claims may at least start to be countered through critical social epidemiology and popular epidemiological methods based on local knowledge and the critique of conventional reductionist techniques of the public health establishment (see, for example, Lambert, Guyn, and Lane, 2006, with reference to the Sydney Tar Ponds; and, more generally, Brown, 1992, 1997; Brown and Mikkelsen, 1990; Gibbs, 1995; Ali, 2002).

Often in environmental justice struggles the larger structural matters related to environmental inequality remain obscure and therefore the relevant state and economic actors remain free from criticism. Why then do such matters remain obscure? How does this political neutralization process occur? A study that included interviews with those involved in the Joint Action Group (JAG) process related to the Sydney Tar Ponds (Burke, 2007) found that much time and attention was focused on such things as personal conflicts between members and learning about technical issues related to remediation. Such attention diverts resources away from the larger structural questions.[4] For example, although studies had found that a certain community directly downwind from SYSCO, the Whitney Pier neighbourhood, was most affected by high levels of contaminants, during the JAG process the fact that Whitney Pier was largely a black and immigrant community was not directly raised (May, 2002). Nor was the other environmental racism issue of the forced historical resettlement of the Mi'kmaq to accommodate the steel and coke operations. Rather, the attention to risk management and risk communication that formed the basis of much of the JAG deliberations tended to narrow the focus and divert questions away from the unjust political-economic decisions that led to the placement of certain people in harm's way and the forced displacement of others. This confirms the findings of Hessing who found that "while many environmental groups seek access to the decision-making process, in practice they have little substantive influence on bilateral relations between state and private interests, which control amounts and conditions of resource exploitation" (2002, p. 39). In sum, the cases reviewed here reveal how potential critiques of the development policies that gave rise to the uneven social distribution of risk were circumvented by focusing exclusively on localized ad hoc technical matters. In this way, the underlying basis for environmental inequality remained intact and important structural causes for the inequality remained obscure and therefore not discussed.

Finally, some questions remain about how conceptualizations of environmental inequality in terms of dependency theory fare in the light of

contemporary processes of globalized neo-liberalism. Under neo-liberal strategies, new means of accumulation and social regulation arise as authority from the public sphere (where it is subject to collective claims or debate) is partially transferred to the private domain – to the corporation, the community, or individuals. According to Young and Matthews (2007), neo-liberal reforms in resource-based economies have the objective of liberating major corporate actors from non-market obligations, particularly with respect to the environment, labour, and communities. This was indeed what happened in Nova Scotia, as the issues related to addressing problems of environmental remediation were no longer the responsibility of the private steel and coal corporation, nor was it in the hands of the state. The state devolved responsibility onto the community through the JAG process – hence the common complaint by JAG participants about the lack of government involvement in the process. As Haalboom et al. (2006) observe, the government was able to sidestep blame for the problems that arose in the Sydney tar ponds environmental remediation process because the JAG was considered an accountable agency, hence it was that agency that would receive the brunt of the public animosity rather than the government per se.

Conclusion

Many of the injustices addressed (or not) by local environmental justice groups have their origins in long-standing and entrenched structures of social and environmental inequalities. These inequalities do not arise in a vacuum but from broader political-economic forces that exert their influences at the local level and result in many types of environmental health threats. To deal more directly with the *source* of these threats, rather than only their effects, it is critical that environmental justice groups be aware of the historical context in which their specific issues originate and persist. In particular, by understanding the political-economic dynamics behind specific environmental justice issues, more effective and longer lasting strategies may be developed not only to prevent future environmental threats for those involved in a particular local campaign but to help out those in other localities within a region experiencing similar environmental injustices. In other words, it is important to take seriously the idea that environmental justice issues are particular instances of a broader pattern of environmental inequality, so that the frame is expanded in such a way as to encompass the environmental injustices of all those in a similar situation, rather than individualizing the problem to a locality. By addressing issues of environmental inequality in this way, we may slowly move toward the promise of environmental justice for all.

Notes

1 Nevertheless, central Canada itself still did not directly engage in industrialization – a void filled by the establishment of American branch plants to tap the major market there and because this region was closer to American operations in upper New York state (Matthews, 1983).
2 This story, which occurred in the early days of television, received a great deal of coverage, particularly on American television.
3 Recall similar actions had taken place a few months earlier in relation to coal mining with the federal government's establishment of the Cape Breton Development Corporation.
4 Members did themselves identify a lack of government involvement in the JAG process as a principle deficiency in the process (Burke, 2007), and it can only be surmised that had there been such involvement, at least the opportunity could have arisen to raise the larger structural issues in a critical fashion.

References

Abbass, F. 2006. *DISCO, DOSCO, SYSCO, 1672-2005.* Sydney, NS: Sunday Novel Publishing.

Ali, S.H. 2002. Dealing with Toxicity in the Risk Society: The Case of the Hamilton Ontario Plastics Recycling Fire. *Canadian Review of Sociology and Anthropology, 39*(1), 29-48.

Barlow, M., and E. May. 2000. *Frederick Street: Life and Death on Canada's Love Canal.* Toronto: HarperCollins.

Brown, P. 1997. Popular Epidemiology Revisited. *Current Sociology, 45*(3), 137-56.

–. 1992. Toxic waste contamination and popular epidemiology: Lay and professional ways of knowing. *Journal of Health and Social Behavior, 33*, 267-81.

Brown, P., and E.J. Mikkelsen. 1990. *No Safe Place: Toxic Waste, Leukemia, and Community Action.* Berkeley, CA: University of California Press.

Bunker, S.G. 2005. How Ecologically Uneven Development Put The Spin On The Treadmill of Production. *Organization and Environment, 18*(1), 38-54.

Burke, A. 2007. A Model for Recommendations in Community Engagement and Remediation Issues (MA thesis, York University, Toronto).

Campbell, R.A. 2002. A Narrative Analysis of Success and Failure in Environmental Remediation: The Case of Incineration at the Sydney Tar Ponds. *Organization and Environment, 15*(3), 259-77.

Canada. 1979. *Report of Commission of Inquiry, Explosion in No. 26 Colliery Glace Bay, Nova Scotia on February 24, 1979.* Ottawa.

Clement, W. 1983. *Class, Power and Property: Essays on Canadian Society.* Agincourt, ON: Methuen.

Crawley, R. 1990. Class Conflict and the Establishment of the Sydney Steel Industry 1899-1904. In K. Donovan (Ed.) *The Island: New Perspectives on Cape Breton History, 1713-1990* (pp. 145-64). Sydney: University College of Cape Breton Press.

Gibbs, L.M. 1995. *Dying from Dioxin: A Citizens' Guide to Rebuilding Our Health and Reclaiming Democracy.* Boston: South End Press.

Greene, M.F. 2003. *Last Man Out: The Story of the Springhill Mine Disaster.* Orlando: Harcourt.

Haalboom, B., S.J. Elliott, J. Eyles, and H. Muggah. 2006. The Risk Society at Work in the Sydney "Tar Ponds." *Canadian Geographer, 50*(2), 227-41.

Harvey, D. 1982. *The Limits of Capital.* Oxford: Blackwell.

Hessing, M. 2002. Economic Globalization and Canadian Environmental Restructuring. In S.C. Boyd, D.E. Chunn, and R. Menzies (Eds.), *Toxic Criminology: Environment, Law and the State in Canada* (pp. 25-43). Halifax: Fernwood.

Innis, H.A. 1954 [1940]. *The Cod Fisheries: The History of an International Economy.* New Haven, CT: Yale University Press. (Rev. ed.) Toronto: University of Toronto Press.

Kramer, R.C., and R. Mischalowksi. 1990. State-Corporate Crime. Paper presented at the annual meeting of the American Society of Criminology, Baltimore.

Lambert, T.W., L. Guyn, and S.E. Lane. 2006. Development of Local Knowledge of Environmental Contamination in Sydney, Nova Scotia: Environmental Health Practice from an Environmental Justice Perspective. *Science of the Total Environment, 368,* 471-84.

MacLeod, G., B. McFarlane, and C.H. Davis. 1997. The Knowledge Economy and the Social Economy: University Support for Community Enterprise Development as a Strategy for Economic Regeneration in Distressed Regions in Canada and Mexico. *International Journal of Social Economics, 24*(11), 1302-24.

Matthews, R. 1983. *The Creation of Regional Dependency.* Toronto: University of Toronto Press.

May, E. 2002. Frederick Street Revisited. In S.C. Boyd, D.E. Chunn, and R. Menzies (Eds.), *Toxic Criminology: Environment, Law and the State in Canada* (pp. 87-96). Halifax: Fernwood.

McKay, I. 1987. Springhill 1958. In G. Burrill and I. McKay (Eds.), *People, Resources, and Power: Critical Perspectives on Underdevelopment and Primary Industries in the Atlantic Region* (pp. 162-85). Fredericton: Acadiensis Press.

McMullan, J.L. 1997. State/Corporate Crime and Social Justice: Reflections on Politics, Power and Truth. Paper presented at the Conference on Social Justice, Social Inequality and Crime, Fredericton. http://www.stthomasu.ca/~ahrc/conferences/mcmullan.html.

Nicholls, W.J., and J.R. Beaumont. 2004. The Urbanisation of Justice Movements? *Space and Polity, 8*(2), 107-17.

Parizeau, K. 2006. Theorizing Environmental Justice: Environment as a Social Determinant of Health. In J.C. Cohen and L. Forman (Eds.), *Munk Centre for International Centre Briefings, Comparative Program on Health and Society Lupina Foundation Working Papers Series* (pp. 101-28). Toronto: University of Toronto.

Pellow, D.N. 2000. Environmental Inequality Formation: Toward a Theory of Environmental Justice. *American Behavioral Scientist, 43*(4), 581-601.

Rainham, D. 2002. Risk Communication and Public Response to Industrial Chemical Contamination in Sydney, Nova Scotia: A Case Study. *Journal of Environmental Health, 65*(5), 26-32.

Schedvin, C.B. 1990. Staples and regions of Pax Britannica. *Economic History Review, 43*(4), 533-59.

Social and Economic Inclusion Initiative. 2003. *Closing the Distance.* Toronto: Social Planning Network of Ontario. http://www.ccsd.ca/events/inclusion/papers/spno-initiative.pdf.

Tucker, E. 1995. The Westray Mine Disaster and Its Aftermath: The Politics of Causation. *Canadian Journal of Law and Society, 10*(1), 91-123.

Tupper, A. 1978. Public Enterprise as Social Welfare: The Case of the Cape Breton Development Corporation. *Canadian Public Policy, 4*(4), 530-46.

Young, N., and R. Matthews. 2007. Resource Economies and Neoliberal Experimentation: The Reform of Industry and Community in Rural British Columbia. *AREA: Journal of the Royal Geographical Society, 19*(2), 176-85.

Williams, G. 1994. *Not for Export: The International Competitiveness of Canadian Manufacturing.* (2nd ed.). Oxford: Oxford University Press.