

Understanding policy transfer and competition in Canadian provincial responses to climate change: A framework

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At the 2015 United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP) in Paris, newly-elected Canadian Prime Minister Justin Trudeau proclaimed: “Canada is back my friends, and we’re here to help” (Fitz-Morris, 2015). Trudeau’s words were met with a chorus of applause both internationally and at home in Canada. But if Canada is back - where has it been? The previous decade under Stephen Harper’s Conservative Government produced limited actions addressing climate change at the federal level. The Harper government’s decision to pull Canada out of the Kyoto Protocol, the international agreement which committed participating countries to greenhouse gas (GHG) reduction goals, led to widespread condemnation on the international stage. Canada was a regular recipient of the “fossil of the day” award, a dubious distinction given by international environmental groups to countries which impede global progress on climate change (Climate Action Network, 2013). Does Canada deserve this international reputation? Did the country really do nothing on climate change during this period? In Canada’s federal system, where the federal and provincial governments share jurisdiction over environmental issues, the answer is not as simple as it may seem.

In the period between 2006 and 2015, provinces attempted to fill the void of climate change leadership left by the federal government by adopting a range of policies and actions. Every province responded in some way, adopting measures to either mitigate or adapt to the effects of a changing climate. British Columbia garnered international attention for its carbon tax, one of the first and most stringent in North America (The Economist, 2014; Porter, 2016). Quebec and Ontario are participating with California in North America’s largest carbon trading market by establishing provincial cap-and-trade programs that can be linked together. Alberta developed its own hybrid system of regulations and carbon pricing before committing to a carbon tax in 2015. Ontario and Nova Scotia took measures to reduce or eliminate coal burning for electricity while virtually all provinces developed strategies to promote renewable energy.

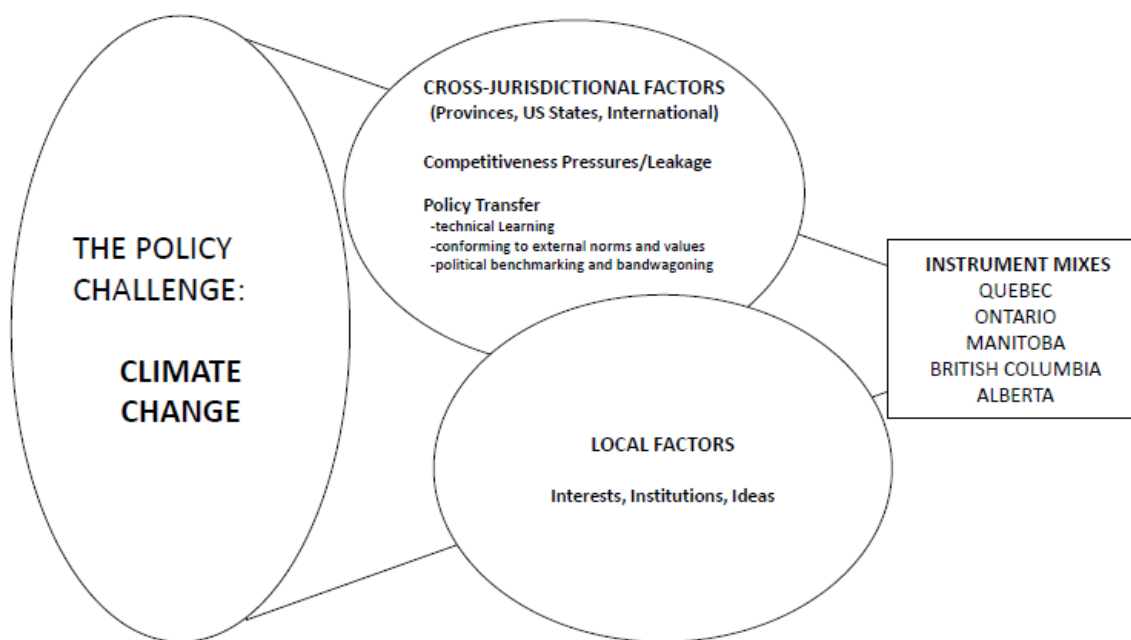
What is notable about provincial responses to climate change is the extent to which interprovincial dynamics had the capacity to influence the policies they chose. Due to the lack of a strong federal mandate during the decade between 2006 and 2015, provinces had more autonomy to act and more capacity to affect each other’s decisions (Harrison, 2006). In the absence of a unifying federal framework, many of these provinces worked together, with U.S. states and at the international level, by engaging in policy transfer: the process by which information about a policy in one jurisdiction is used in another (Dolowitz and Marsh, 2000; 1996). BC, Manitoba, Ontario and Quebec joined the Western Climate Initiative (WCI), which was led by California. Manitoba also joined the Midwest Greenhouse Gas Reduction Accord (MGGRA), which included upper Midwest states. Quebec and the Atlantic Provinces developed a regional climate change strategy through the New England Governors and Eastern Canadian Premiers forum (NEG-ECP). Finally, all provinces and territories discussed climate change in the Council of the Federation (COF), a national forum that does not involve the federal government. But without a single federal policy that was applied across the country, provinces had to be cautious that their actions would not create extra costs or restrictions which would

place them at a competitive disadvantage with their counterparts when attracting and retaining economic activity.

To this point, our understanding of interjurisdictional impacts on provincial responses is limited; attention has largely focused on the lack of a national policy in Canada (MacDonald, 2009; Harrison, 2007; Smith, 1998). The analysis of provincial climate change policies that does exist typically focuses on local factors like provincial economic and energy-use profiles and domestic political circumstances (Winfield & MacDonald, 2012; Harrison, 2012a; Houle & McDonald, 2012). Even studies of sub-federal cooperation look to domestic circumstances to explain why some jurisdictions followed through with policy adoption, while others did not (Houle, Lachapelle, Purdon 2015; Rabe 2015).

This paper develops a framework to explore the role that interjurisdictional dynamics played in provincial instrument selection. The analytical approach, outlined in Figure 1, explores policy transfer and competition to explain provincial instrument selection. These two categories have been used previously to study policymaking among provinces within Canada's federal

Figure 1: An Analytical Framework to Explain Instrument Selection



system (Harrison, 2006). However, recognizing that climate change occurs in a multilevel governance context (Rabe, 2007; Burke and Ferguson, 2010; Weibust and Meadowcroft, 2014), the framework used here highlights that these factors can come from outside Canada, from US states or internationally. Local factors cannot be eliminated from the equation as they also shape provincial instrument mixes. These can be grouped into three categories: the interests of provinces and the local actors involved in policy development, the institutions which shape their behaviour and the ideas which condition and structure their choices.

Policy transfer

Most of the formal agreements that the provinces who engaged in collaborative initiatives signed with each other and US states prioritized sharing information and learning from each other in policy development (BC Government, 2007; Ontario Government, 2008). For example, a 2007 agreement between BC and Manitoba states that the provinces will: “share information and encourage partnerships in areas of mutual concern and interest between their jurisdictions” (BC Government 2007). Of course, high level statements about cooperation and knowledge-sharing do not necessarily translate into instrument adoption. Understanding the influence of policy transfer requires an in-depth analysis of the policy development process and instrument selection.

Policy transfer refers to “the process by which knowledge about policies, administrative arrangements, institutions and ideas in one political system (past or present) is used in the development of policies, administrative arrangements, institutions and ideas in another political system” (Dolowitz and Marsh, 2000: 4). The process of cross-jurisdictional information exchange has also been referred to as lesson-drawing (Rose, 1993). These approaches seek to understand the micro-level processes and dynamics by which policies move from one jurisdiction to another by virtue of imitation, emulation or learning (Wolman, 1992).

The emergence of the policy transfer approach is typically attributed to forces of globalization and developments in information and communication technologies which have shrunk the globe and increased the cross-pollination of policy ideas among states at the international level (Evans, 2009). However, the study of the inter-jurisdictional transfer of policy began in the US federal system (Walker, 1969; Grey, 1973) where state governments were hailed as the laboratories of democracy for producing innovative policies that could be replicated and spread across the country, even being adopted as federal standards.¹ Although there are fewer Canadian provinces than US states, policy experimentation and emulation among governments is an important aspect of policy making in Canada (Atkinson, et al. 2013; Harrison, 2006). For example, in 2016, Canada and the US announced an agreement to reduce methane emissions in both countries. The new standards were similar to those announced a few months earlier by the provincial government in Alberta. In response to the Canada-US announcement, Alberta Premier Rachel Notley said: “We are very proud to have been able to play the leadership role that we are playing on a continental basis” (Canada-U.S. agreement to cut methane emissions 2016).

Policy transfer is frequently thought of as an instrumental or technical process where bureaucratic officials mine other jurisdictions for examples of programs or instruments that could be used when developing policies at home (Rose, 1993; Schneider & Ingram, 1988). However, transfer can involve the exchange of ideas, including values, norms and beliefs. Stone (2004) refers to this exchange as soft transfer, because it is different from, and precedes, the transfer of a specific instrument or policy. She asserts that multi-jurisdiction institutions play an important role in the soft elements of transfer. In the context of provincial climate change policy, sub-federal forums like the WCI, MGGRA NEG-ECP and COF, raised the potential for the development of common norms and values among the participating jurisdictions. Ostrom (1990) argues that these values and norms create trust which can overcome collective action problems and drive the development of common policies. These norms replace formal mechanisms, like the threats of penalties or sanctions, which would be imposed from the federal government in a

¹ This phrase was first used by US Supreme Court Justice Louis Brandeis in 1932 in *New State Ice Co. v. Liebmann*.

national framework. For individual jurisdictions, the desire to conform to these norms and undertake actions which are in line with these values can drive policy transfer and the adoption of similar policies.

Provinces frequently look at what other jurisdictions are doing, not to copy them, but to use them as benchmarks to gauge where they rank among their peers (Harrison, 2006). This is common in the case of government spending or outcomes in a specific policy area, such as social-welfare or poverty indexes, but has also occurred with regard to specific policy instruments or organizational structures (for a climate change example see Holmes, 2012). This dynamic can lead to policy bandwagoning (Ikenberry 1990), where provinces take action to appear as a leader or ensure they are not branded as a laggard. Bandwagoning also occurs when jurisdictions look to put forward their interests in inter-jurisdictional debates, whether at the national, continental or international level. Acting as a leader, or fearing being left behind, is based on the desire to influence broader decisions which could affect a jurisdiction at home. For example, provinces may have wanted to join the WCI if they believed the policies emerging from California would influence North American policy. Joining the initiative would give them a seat at the table where they could put forward their interests or, at the very least, prepared for what was to come.

The preceding discussion outlines three different drivers of policy transfer: technical learning, the desire to conform to external norms and values, and political benchmarking and bandwagoning. But just because a policy maker puts an idea from another jurisdiction forward in the policy process does not mean it will be adopted. There is an obvious difference between the transfer of knowledge or ideas about a policy and the transfer or adoption of the policy itself (Radaelli, 2005; Stone, 2012; 2004; Evans, 2009). For example, Stone (2004) cautions that soft transfer is much more common, and does not necessarily lead to, the transfer of *hard* aspects of policy such as goals or instruments. There are three mistakes which typically lead to the failed adoption of a policy that was borrowed from another jurisdiction (Dolowitz and Marsh, 2000). Uninformed transfer occurs when the borrowing jurisdiction has insufficient information to establish a new policy. Incomplete transfer results when the borrowing jurisdiction does not adopt key elements of the policy that made it successful in the original jurisdiction. Inappropriate transfer takes place when the borrowing jurisdiction ignores important differences between itself and the original jurisdiction.

Transfer can occur on an aspect of a policy, while not on others. The parts of policy on which transfer can occur include: the goals that jurisdictions set, the instruments they use to achieve those goals, the specific content or details of the policy, the administrative institutions used to develop and implement the policy and the ideas and values which underpin it (Dolowitz & Marsh, 2000). In addition, a jurisdiction could combine aspects of several policies to create new one. It is also possible that a jurisdiction is simply inspired to act by a policy instrument in another jurisdiction but chooses a different instrument when it does so (Dolowitz and Marsh, 2000). This makes it particularly difficult to trace the influence of transfer as the resulting policy instrument is not the same as the original.

Finally, learning about policy in another jurisdictions could cause policy makers to avoid a similar course of action at home. Dolowitz and Marsh (2000) refer to this as negative lesson-drawing. Negative lessons from another jurisdiction could tell policy-makers that the policy was ineffective, that it could become politically controversial or that it would be a poor fit in their

own jurisdiction. Negative lessons from other jurisdictions are most effective when they fit with the political interests of an actor in the policy process or the institutional context of the jurisdiction that is developing policy (Illical & Harrison, 2007). As such, it may be that negative lessons are used more often to get a policy issue on the agenda or justify an existing belief or decision than to engage in technical learning about instrument effectiveness (Bennett, 1991a).

Competitiveness and leakage concerns

The other interjurisdictional dynamic, which can work against collaboration and policy transfer, is competitiveness concerns. Within Canada's federal system, the mobility of investment, goods and people among jurisdictions creates competitiveness pressures which influence policy decisions (Harrison, 2006). With regard to environmental policy, competitiveness pressures could force jurisdictions to lower the costs that industry faces to attract investment, which results in a race to the bottom caused by the movement towards fewer or less restrictive regulations.² Harrison (2006) concludes that although the literature is divided on whether inter-provincial competition will lead to efficient or inefficient outcomes, the potential for destructive competition which leads to inefficient outcomes in the real world is, at the very least, plausible.

Even if a race to the bottom does not occur, there may be a disincentive for jurisdictions to adopt a new policy, anticipating the loss of economic activity if others do not follow (Harrison, 2006). A province that is considering a new environmental policy must consider the extent to which the costs it imposes will result in industries, businesses or the production of goods moving to jurisdictions where it is cheaper to do business. In the context of climate change policy, this has often been referred to as *leakage*, and it creates two issues (Canada's Ecofiscal Commission, 2016). First, if a new policy shifts economic activity to other jurisdictions the local economy will be harmed because of the loss in investment and jobs. Second, climate change is a global issue that does not conform to political boundaries. GHG emissions have the same effect no matter where they originate. Therefore, the policy will not be effective in reducing emissions as the activity still occurs, just in another jurisdiction.

Concerns about leakage and competitiveness in environmental regulation are mitigated for two reasons (Harrison, 2006). First, regardless of discussions about the effectiveness of competition, there is a normative or political debate about whether less restrictive environmental regulations are a positive outcome or a negative policy outcome. The leakage argument has often been employed at the provincial level by those who oppose new climate change policies and argue they are not worth economic losses (Alberta Government, 2002; CBC News, 2016). But if there is a strong domestic demand for the environmental protection that a policy provides, decision makers may move ahead and risk the political and economic fallout. Second, the impact of environmental regulations on industry is often small compared to their total costs of operation (Oleweiler, 2006). Thus, a large disparity among environmental policy regimes would need to exist before an industry would move to another jurisdiction. In the case of carbon pricing policies, the risk of leakage is confined to specific sectors, including cement production, oil and gas and some manufacturing. A report from Canada's Ecofiscal Commission (2016) finds that,

² In some cases, the race may not always be to the bottom, as competition could lead to higher subsidies or benefit programs as well. The direction of the race is less important than the competitive dynamics at play.

overall, the share of provincial economic activity in Canada that is trade-exposed and has a high GHG-intensity is relatively small.

Importantly though, some provincial economies are more exposed to leakage concerns than others. Among the five provinces covered in this book, Alberta's economy, with its large oil and gas sector, is particularly exposed to competitiveness pressures compared to the other four provinces (Canada's Ecofiscal Commission, 2016). The costs of adopting new climate change policies, in terms of forgone economic activity, could be higher for the province, compared to its counterparts. In addition, rhetorical arguments regarding the risks and costs of adopting climate change policies could carry more weight in provinces where trade-exposed and emission-intensive industries makes up a larger share of their economy. Thus, competitiveness concerns and the possibility of economic leakage must be considered when explaining the instruments that provinces selected to address climate change.

The influence of US states on provincial instrument selection

The influence of the US on Canadian environmental policy has been well documented (Hoberg, 1991; VanNijnatten, 2008). The Canadian economy is highly integrated with its larger neighbour to the south. About three quarters of Canada's exports trade go to the US, while two thirds of its imports come south of the border (Statistics Canada, 2016b). As well, Canada and the U.S. have one of the largest bilateral investment relationships in the world (Statistics Canada, 2015a). At the provincial level, many regional economies are more integrated along a north-south axis than east-west within Canada. Between 2007 and 2011, the value of international trade, primarily with the US, was more than the value of trade with other provinces for all but one of the five provinces included in this study, Manitoba (Statistics Canada, n.d.). Economic integration between provinces and states is bolstered by close political ties, shared values and geography, and the predominance of American culture and media in Canada. Thus, the influence of US states on provincial instrument selection can be grouped in the same categories as interprovincial factors: policy transfer and competitiveness pressures.

Canadian jurisdictions transfer policy and learn from US states because of the ubiquity of American media in Canada, the large amount of research and scientific knowledge produced in the US and the existence of policy networks which contain actors in both countries (Hoberg, 1991). These networks can include experts and policy officials working on similar problems and sharing information, as well as environmental advocacy groups which use information and examples in the US to achieve their political goals and support their values (Hoberg, 1991). Thus, the influence of policy transfer from US states can take the form of technical learning, emulation of values and political benchmarking or bandwagoning,

Just like among provinces, there is a high degree of mobility in investments, goods and people between provinces and US states. Thus, provinces may be competing with their southern neighbours as much or more than they are with each other. As an example, the Cement Association of Canada argued that BC's carbon tax, which applies only to domestic cement production, led to increased imports from the US, fewer jobs in the province and increased emissions due to higher transportation costs (Cement Association of Canada, 2014). Because of the asymmetries in size and wealth between the two countries, Canadian governments are frequently affected by the decisions of state and national governments in the US. Often, they are essentially forced to adopt certain policies to mirror or respond to those of their larger partners

(Hoberg, 1991). In the case of vehicle emissions standards, Canada is not a large enough market to adopt policies out of sync with the US. When its southern neighbour announces new standards, the Canadian government essentially has to follow suit because the costs of doing otherwise would be too great (Harrison, 2012b).

All sub-federal jurisdictions are not created equal when it comes to their ability to influence policy development beyond their borders. In North America, California often plays an important role in setting environmental policy. In fact, the term *the California effect* has been coined to describe the influence that the state has on other subnational jurisdictions and North American policy as a large actor with a history of environmental leadership (Vogel 1997: 248). On climate change policy, California has played a lead role in the adoption on instruments such as jurisdiction-wide emission reduction targets, cap-and-trade, and vehicle emission and low-carbon fuel standards. This has provided information and lessons that other jurisdictions can use when selecting their own instruments while making it easier for them to adopt these policies by decreasing concerns about economic competition and political risks (Harrison, 2012b). The state has solidified this leadership by helping to coordinate the response of subnational governments through regional institutions like the WCI (Harrison 2012b). BC, Manitoba, Quebec and Ontario all joined the WCI and developed relationships with Governor Arnold Schwarzenegger. On climate change policy, the California effect expanded beyond US states and moved north of the border to Canadian provinces.

While California played an important role in provincial collaboration, it was not the only US state with which Canadian provinces cooperated. Provinces jumped on board similar initiatives that were emerging across the US. BC and California joined with Washington and Oregon to form the Pacific Coast Collaborative (PCC). The arrangement expanded collaboration beyond cap-and-trade to include initiatives like greening sea ports and developing infrastructure for a hydrogen highway stretching along the coast. Manitoba and Quebec participated in regional efforts in the American Midwest and Northeast respectively, while Ontario worked informally with policy makers in both of those regions. Those participating in the NEG-ECP set regional targets and pledged to share information on policy development. The MGGRA included six Midwestern states and explored what climate change policies like cap-and-trade and a low-carbon fuel standard would look like in the region.

Although provinces and US states have the capacity to influence each other's policy development, and frequently worked together, they operate in different federal systems. While US states' action on climate change has tested the limits of their constitutional authority (Huffman and Weisgall, 2008), in Canada, environmental policy is a shared jurisdiction. Most notably, Alberta pursued its own approach to climate change to protect provincial ownership of natural resources and prevent federal intrusions on its ability to develop its oil and gas industry (Houle, 2009). Canadian provinces have been less inclined than US states to pressure their federal government to adopt national policies (Harrison 2012b). For example Quebec, which supported strong action on climate change, has frequently joined Alberta in arguing for more provincial autonomy in policy development. It is important to keep provinces unique institutional contexts in mind when considering the instruments they pursued.

The influence of the international level on provincial instrument selection

As mentioned earlier, multi-jurisdictional institutions can play an important role in policy transfer. In the case of provincial climate change policy, it is not only multilateral forums at the sub-federal and regional level which could lead to transfer. Several provinces, particularly Quebec, were active in international institutions, like the UNFCCC, even after the Canadian federal government began to pull away from the process (Happaerts, 2012b). The presence of international institutions and influences is one of the reasons Rabe (2007) argues that Canadian climate change policy occurs within a multi-level governance context. Thus, it is important to consider the international level when assessing the role the policy transfer played in instrument selection.

The policy transfer approach has recognized that sub-federal jurisdictions can “go over the head” of their national governments and engage directly at the international level (Dolowitz and Marsh, 2000). But, as stated previously, the policy transfer approach focuses primarily on technical learning and information sharing. However, in his work on epistemic communities, Haas (1992) points out that policy transfer through international institutions is as much about the transfer of normative values and causal assumptions as it is about the sharing of “raw data”. Therefore, just like at the sub-federal and regional level, policy transfer from the international level to sub-federal jurisdictions can be driven by their desire to conform to international norms and values. Finally, sub-federal jurisdictions may wish to benchmark themselves against jurisdictions or engage in bandwagoning beyond their national borders. For example, provinces used international conferences and events to demonstrate how their actions aligned with international goals and contrast this with the federal government’s approach (CBC News, 2010).

There is the potential for provinces to face competitiveness concerns at the international level. However, the vast majority of Canada’s cross-border trade and investment is with the US. The numbers will, of course, differ according to sector. But in the energy sector, which is responsible for a large portion of Canadian emissions and an important target of emission-reductions policy, the US receives 93 per cent of all Canadian exports (Natural Resources Canada, 2015). The exposure that provincial economies face outside of North America, as a result of climate change policies, is likely to be relatively small compared to that from other provinces and the US. Thus, the analysis focuses primarily on competitiveness and leakage concerns coming from these jurisdictions.

Local factors: Interests, institutions and ideas

Focusing on interjurisdictional influences does not require dismissing or ignoring domestic circumstances in each jurisdiction. Both internal and external factors must be assessed to create a fulsome explanation of provincial climate change policies. The assessment should not involve choosing between the two sets of factors. Rather, there is a need for fine-grained analysis of the relative weight of salient factors, and how they interacted, to develop a comprehensive picture and explanation of provincial policy instrument choice. In short, local factors are required to fully understand and explain whether and how policy transfer and competitiveness pressures determined the instrument mixes that resulted in each province.

The local factors affecting provincial instrument choice can be divided into three categories: interests, institutions and ideas. The 3“T”s framework has been used widely in the study of Canadian environmental politics and policy (Amos, Harrison and Hoberg, 2001; MacDonald, 2007; Doern, Dorman and Morrison, 2001). With climate change emerging as an

important environmental concern, the framework has been employed to help understand the issue. Harrison uses variations of this framework to compare the domestic politics of the debate over Kyoto ratification in the U.S., Canada, EU, Russia, Japan, Australia and China (Harrison, 2006; Harrison and Sundstrom, 2010). She uses similar frameworks to examine the politics involved in decisions to adopt (or not) carbon taxes in Finland, Denmark, Germany and Canada at the federal level and in BC (2010; 2012a). Houle, Lachapelle and Purdon (2015) use the framework to compare implementation of cap-and-trade in four North American sub-federal jurisdictions. Purdon (2015) proposes 3“I” analysis as a means to bolster the comparative study of climate change policy and increase understanding of global climate change politics.

Interests represent the goals and positions of the actors involved in the issue or policy area. The approach used here focuses on governments who pursue their interests through relationships with other jurisdictions, while accounting for the actors within a jurisdiction who shape those interests. This could include political parties, leaders, bureaucrats and others stakeholders. Actors pursue their interests through the resources they have and the strategies they employ. Of course, they have different levels of access to resources and strategies which affects their ability to achieve their goals (Amos, Harrison & Hoberg, 2001). Institutions includes the structures and processes which govern how issues are addressed and decisions are made. This includes formal structures such as public and private organizations, laws and regulations, decision-making processes, and existing programs or policy decisions. Ideas includes both the normative paradigms which influence policy decisions and the knowledge which informs those decisions (Purdon, 2015). Normative paradigms encompass values, which are ideas about what is important; beliefs, which are causal assumptions about how the world works; and frames, which is how a policy area or problem is defined or perceived (Sabatier, 1988; Hall, 1993). Knowledge refers to the information and evidence which inform policy decisions.

Provincial interests and local actors

Economic and energy realities can play a role in shaping the interests and local policy preferences of the five provinces that are studied in this book. Provinces with large hydroelectric resources, such as BC, Manitoba and Quebec, have typically been more supportive of carbon pricing policies than fossil fuel-reliant jurisdictions like Alberta and Saskatchewan (Harrison, 2013). These policies would not require the same scale of transition and costs for provinces that already rely on low-emitting hydrogeneration for electricity compared to those that would have to replace generation from coal or natural gas. In addition, provinces which produce oil and gas could face increased costs from new climate change policies that would make production more expensive and create a competitive disadvantage for exports. But if these policies were adopted widely, provinces which export hydroelectricity could see increased demand for their product in jurisdictions which need to transition to lower-emitting sources of electricity.

Political factors can contribute to provincial interests. The level of public support for climate change and environmental issues in each province could affect their provincial preferences and positions. Surveys of public opinion on climate change have found that public awareness and support for action on environmental issues has been highest in BC and Quebec, where, traditionally, the most ambitious carbon pricing policies had been adopted (Lachapelle, Borick & Rabe 2012; Mildemberger, Howe, Lachapelle, Stokes, Marlon & Gravelle, 2015). However, public support clearly does not tell the entire story. Ontario’s decision to shut down its coal plants has produced the largest amount of GHG reductions of any province (Harris, Beck,

Gerasimchuk, 2015) and, although surprising to many, Alberta was one of the first Canadian provinces to price carbon with its regulatory system for oil and gas producers.

Political leadership also matters when explaining provincial interests and the adoption of climate change policies. For example, the personal commitment and leadership of Premier Gordon Campbell played a critical role in pushing through complicated and often controversial climate change legislation in BC (Harrison, 2012a; Jaccard, 2012). Under the provincial NDP, Alberta announced a carbon tax, set an annual limit on the emissions from oil sands and promised to phase-out coal-fired electricity. Only months before, the adoption of this suite of policies was unthinkable as the Progressive Conservatives, who had been in power in the province for over thirty years, were strictly opposed to them.

MacDonald (2009) argues that overall there is a lack of leadership on climate change at both the federal and provincial level in Canada. He attributes this to poor representation of environmental interests in Canada. MacDonald points out that environmental policy is largely made through closed negotiations between governments and industry, which guarantees private, elite-level access to business and generally denies it to environmental groups. In the case of climate change policy specifically, MacDonald argues that business interests have dominated the development of Canadian and US policy, typically working to stall action or push for weak regulations and voluntary, non-enforceable mechanisms (MacDonald & VanNijnatten 2010). A study of oil sands regulation in Alberta by Hoberg and Phillips (2011) found that although criticism from environmental interests led to their inclusion in policy debates, which had previously involved only the province and industry, this was largely symbolic and intended to mollify political pressure. They found there was little substantial change in policy or the distribution of power among the actors involved after the process was opened up to new interests.

Institutions: Governance structures and previous policy decisions

BC, Alberta, Manitoba, Ontario and Quebec operate in the same federal system; therefore, they share many institutional factors. These include the legal jurisdiction provinces have on environmental issues as well as the governmental and electoral systems they share. In theory, similar institutional factors could provide an explanation for convergence on policy instruments. In short, the factors they have in common could produce similar policy outcomes (Ankar, 2008). However, in previous periods of Canadian climate change policy, such as the debate over Kyoto, similar legal and political institutions have not led to convergence in provincial positions (Winfield and MacDonald, 2012). In many ways, Canada's federal system allow for increased variation on provincial policies by giving expression to the regional differences that exist within the country.

Canada's federal system gives provinces the constitutional and legal authority to develop climate change policy instruments because it provides shared responsibility between federal and provincial governments on environmental issues. Provinces have ownership of their natural resources; however, the federal government has responsibility for promoting the national economy and trade and representing Canada in international forums (Harrison, 1996). Because environmental policy is a shared jurisdiction, debates between the provinces and the federal government over their role in addressing climate change have occurred. Most notably during ratification of the Kyoto protocol, Alberta openly mused about mounting a constitutional

challenge against Ottawa for entering into an international agreement which infringed on provincial jurisdiction over natural resources (Kukuchka, 2005). As both levels of government began to develop policies to reduce GHG emissions, similar questions have been asked about the constitutionality of specific policy instruments, including traditional command-and-control regulations, carbon taxes and cap-and-trade. The general conclusion reached by constitutional scholars is that the federal government is within its right to enter into an international agreement on climate change and both levels of government are on solid constitutional footing in implementing the range of policy instruments available to reduce emissions (Kukuchka, 2005; Hogg, 2008; Elgie, 2009).

Because federal and provincial governments both have the constitutional authority to enact climate change policies, the extent to which each is involved in the file and the relationship between them is largely determined through political processes. Provinces have historically been more active in environmental policy because of their control and interest in natural resources. Harrison (1996) argues that the federal government has only attempted to expand its influence on environmental policy when there are clear electoral incentives to be gained. Some note that Canada's first-past-the-post electoral system - the candidate receiving the most votes in each riding wins the seat - does not allow for the same representation of minority interests, which might include concern for the environment, as proportional representation systems - where there is some mechanism to allocate seats based on popular support (Harrison & Sundstrom, 2010; MacDonald, 2009). As a result, even when there is public support for addressing climate change, it may not translate into electoral incentives or action in government institutions. For example, despite receiving higher percentages of the popular vote at times, the first representative of a provincial Green Party was only elected in 2013, in BC.

When both levels of government are inclined to act on environmental policy, Canada's federal parliamentary system, and a history of frequent majority governments in Ottawa and the provinces, has meant that policy is largely made through negotiation at the cabinet level (MacDonald, 2007). In contrast, much of US environmental policy is established through legislation passed in Congress and legal decisions made by the judiciary (VanNijnatten, 2008). Canadian intergovernmental negotiations on environmental policy often take place through meetings of first ministers, senior ministers and high level bureaucrats. This process follows Canada's tradition of executive federalism, where intergovernmental relations typically occur through a small group of elite leaders and policymakers (Smiley, 1980). In 1998 the federal government and all the provinces except Quebec signed the Canada-wide Accord on Environmental Harmonization which sought to improve cooperation and coordination on environmental issues. However, climate change was left out of the accord because of the disagreement between the federal government and the many provinces on Canada's participation in Kyoto (Winfield and MacDonald, 2008).

National climate change policy in Canada was originally debated in the joint meetings of federal, provincial and territorial environmental and energy ministers (JMM) (Gordon & MacDonald, 2014). This process required consensus from all federal-provincial and territorial governments. Smith (1998) suggests that this has resulted in the lowest common denominator in terms of policies because weak regulations and voluntary measures were the only actions on which all parties could agree. The process ended in 2002 as part of the fallout from Chretien's decision to ratify the Kyoto agreement. Under Chretien's successor, Paul Martin, the federal

government proposed a national cap-and-trade system for industry and funding for emissions reductions initiatives (Harrison, 2007). However, the cap-and-trade program did not come to fruition as the government was defeated in early 2006 by Harper and the Conservatives.

The Harper government reversed course by indicating it would not try to meet the Kyoto targets, arguing that it was unachievable and would disadvantage the Canadian economy. (MacNeil, 2014). The Conservative government did not establish a forum to debate national climate change policy and Harper refused to meet with the premiers to discuss the issue. This created a void on climate change policy in Canada while allowing provinces more freedom to choose how they would address the issue. The federal government even worked towards equivalency agreements with some provinces which gave them primary responsibility for regulating GHG emissions which would formalize the position that the federal government would not get involved (Government of Canada-Government of Nova Scotia, 2010; Government of Canada, 2012). Thus, efforts to coordinate policy and address the common issue of climate change occurred through interprovincial and regional forums that were initiative at the subnational level. The institutional context on climate change in Canada during this period increased the potential for interjurisdictional factors to play a role in provincial instrument selection.

The programs and instruments that are already in place in a particular policy area within a jurisdiction are also a form of institution which can affect the choice of instruments. Previous decisions and existing policy regimes within a jurisdiction are often referred to as policy legacies and can play an important role in Canadian environmental policy (VanNijnatten, 2008). Distinguishing between procedural instruments, those which seek to alter or manipulate the policy process, and substantive instruments, which directly affect societal outcomes, (Howlett, 2011) is particularly important here. It stands to reason that manipulating the information and actors operating in the policy process can affect the substantive policy outputs that result. But the vector of influence can run the other way as well. Once enacted, policies can condition or structure the politics that emerge on an issue. For example, Pierson (1994) notes how the establishment of welfare policies in the second half of the 20th century created constituencies of support, a new actor in the policy community, which would oppose their retrenchment.

Ideas: Values and knowledge

Like most environmental issue, climate change is about protecting the environment and preserving the quality of life of future generations. As such, there is a strong moral component to the issue. Those who are promoting or willing to accept actions that impose costs on them today, do so in large part because they value environmental protection and are concerned about the welfare of future generations. One of the reasons that provincial governments may have felt a moral responsibility to address climate change was that they believed they were filling the void left by a federal government that remained unwilling or unable to adopt a strong policy response (MacNeil, 2014; MacDonald, 2009; 2011). It is also important to remember that many sources of GHG emissions fall under provincial control, such as electricity production, resource development and transportation. As such, no matter how involved the federal government becomes, provinces will still have responsibility, and could feel a moral obligation, for reducing emissions in Canada.

The moral obligation that provinces felt may have been exacerbated by their desire to maintain Canada's reputation as a global leader on climate change. The 1988 Conference on the Changing Atmosphere, an event which brought scientists from around the world together and put climate change on the international agenda, was held in Toronto. The 1992 UN Conference on Environment and Development in Rio de Janeiro, which paved the way for the Kyoto agreement, was headed by Maurice Strong, a Canadian diplomat and a former executive in the country's oil and gas sector. In 1997, under the Liberal government of Jean Chretien, Canada signed the Kyoto Protocol and committed to reducing its GHG emissions by 6% from 1990 levels in the period between 2008 and 2012. In comparison the US, which did not end up ratifying the agreement, committed to a 3% reduction while Australia promised only to stabilize its emissions at 1990 levels. The Harper government was vilified internationally for backing away from Canada's Kyoto commitments. Provinces like Quebec and Ontario made it clear that they did not agree with the federal government's position and were still committed to meeting Canada's international obligations. Thus, the moral obligation provinces may have felt is closely tied to their desire to conform to international values.

Houle and MacDonald (2012)³ suggest that how climate change is framed as a policy issue in each province, and the assumptions that exist about the best way to address it, can determine the instruments they choose. Provinces that see climate change as an environmental threat are more likely to pursue strict regulations. These jurisdictions are considered *prime-time* actors on climate change. Those who view the issue as an economic opportunity are more likely to adopt market mechanisms or financial instruments. These jurisdictions are categorized as *opportunistic* actors if the policy explicitly addresses climate change. If they adopt a policy which addresses climate change, but highlights other goals or benefits, they are categorized as acting by *stealth*. For example, a government may promote a gasoline tax as a means to raise revenue, even though it could also reduce GHG emissions by reducing fuel consumption. Some provinces may perceive climate change as an economic threat. Those that push for voluntary measures or symbolic actions are considered *hostile* to action on climate change, while those who take no action at all are simply categorized as *indifferent*.

BC, Manitoba, Ontario and Quebec have typically viewed climate change as an economic opportunity and have tended to support market mechanisms as a solution. However, the trajectory of policy development has differed in each province. Alberta has typically seen climate change as a threat to its oil and gas industry. But rather than relying on voluntary measures or doing nothing, it was one of the first jurisdictions in North America to regulate the oil and gas sector and eventually adopted a carbon tax. Alberta took action on climate change to guard against having a policy imposed from the federal government and to try to improve its reputation abroad on climate change. This indicates that issue-framing may not tell the entire story of provincial climate change policy. A more in-depth explanation of provincial instruments in these five jurisdictions provides the opportunity to update and refine this categorization of instrument selection.

Provinces have spent significant resources generating knowledge to understand the effects that climate change will have within their borders (BC Government, 2008; Manitoba Government, 2015; Quebec Government, 2010). Ouranos in Quebec, the Pacific Institute for

³ The framework employed by Houle and MacDonald was originally designed by Rabe (2004) to understand the climate change policy responses of US states.

Climate Solutions in BC and the Prairie Climate Centre in Manitoba are research institutions which generate scientific data to inform decision making about climate change and its impacts. Many provinces have had first-hand evidence of the effects of a changing climate through extreme weather events. These include the mountain pine beetle infestation in BC, caused by warmer winters; major floods on the prairies, including in or near Calgary and Winnipeg, and heavy storms in eastern Canada. These disasters can serve as focusing events (Kingdon, 1995), which bring an issue to the attention of the public and increase its priority on government agendas.

Despite evidence about the severity of the threat that climate change presents, policy debates have frequently become politicized, which has hampered policy development (Purdon, 2015). Peer-reviewed research finds that there is agreement among 97 per cent of scientists working in the area of climate that it is extremely likely that climate change is due to human activity (Cook et al., 2016). The United Nations, Intergovernmental Panel on Climate Change brings together climate change research from around the world and produces reports designed to inform policy makers (UNFCCC, 2014). The reports have been consistent in stating that climate change represents a significant threat to the planet and recommending governments take action to keep average global temperature increase to under 2 degrees Celsius to avoid its worst effects. However, actors have frequently used scientific knowledge as rhetorical strategies to defend and support pre-established positions (Beland, 2009). The unauthorized release of emails and documents from the University of East Anglia's Climate Research Unit in 2009 is arguably the best example of how scientific information can become politicized. While multiple investigations found no incidences of wrong-doing, those who opposed climate change policies used the controversy to question the scientific basis of climate change and impugn the reputation of many of the scientists involved (Beck, 2012).

Knowledge can contribute to debates about what instruments should be chosen to address the issue. There has been a wealth of information produced about the effectiveness and efficiency of different policy instruments. In other words, which instruments will reduce the most emissions at the least cost? Instruments have been assessed by category, including regulations, market mechanisms and voluntary measures (Jaccard, 2016). Comparisons of similar instruments, such as cap-and-trade systems and carbon taxes are also common (Goulder and Schein, 2013; McKibbin and Wilcoxon, 2002). Similar to debates about the severity of climate change impacts, information about instrument effectiveness can be used for political rhetorical purposes. For example, while many economists regard carbon taxes as the most effective and efficient means to reduce emissions, policy makers typically face difficulty adopting them because it is so politically unpopular to implement new taxes (Harrison 2012a; 2010, Rabe and Borick, 2012). These examples serve as a reminder that the connection and interplay between information and values in the policy process has been a key dynamic for climate change policy and must be kept in mind in the study of provincial responses.

Conclusion

The approach that has been used here to study provincial transfer on climate change policy could be used to study provincial policy making and interjurisdictional dynamics in other policy areas. This would increase the understanding of transfer in these areas. Of course, it could be argued that policy transfer and interjurisdictional dynamics play a stronger role in environmental policy where provinces have joint responsibility and have typically been more

active than the federal government (Harrison, 1996). Indeed, the lack of centralized policy making has been noted in areas such as local air and water quality (Weibust and Meadowcroft, 2014), endangered species (Harrison and Illical, 2007) and forestry (Howlett, 2001). But inter-jurisdictional dynamics have been prevalent in areas such as health (Maioni, 2012), social (Boychuk, 2006) education policy (Friendly and White, 2012), fiscal policy (Bird, 2000), labour standards (Green and Harrison, 2006) and economic development (Brown, 2006), making them strong candidates for the application of an analytical framework which elaborates the role of policy transfer.

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