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Ph.D.(Geography)	2002
TITRE DE LA THÈSE / TITLE OF THESIS:	
The Political and Electoral Geography of Quebec: A Critical Analysis of the 1998 Quebec Provincial Election	

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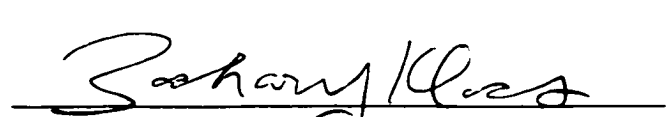

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GRADE - DEGREE

Geography

FACULTÉ, ÉCOLE, DÉPARTEMENT - FACULTY, SCHOOL, DEPARTMENT

TITRE DE LA THÈSE - TITLE OF THE THESIS

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A Critical Analysis of the 1998 Quebec Provincial Election

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DEAN OF THE FACULTY OF GRADUATE AND POSTDOCTORAL STUDIES

Doctoral Dissertation

The Political and Electoral Geography of Quebec: A Critical Analysis of the 1998 Quebec Provincial Election

In partial fulfillment of the requirements for the degree of Doctor of Philosophy in Geography, concentration in Canadian Studies

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Submitted: 17 September 2002
Final revisions completed: 17 January 2003

Dedicated to Janine and Colin

ACKNOWLEDGMENTS

I would like to recognise and thank my wife, Janine Klaas, and my parents, Erwin and Janet Klaas, for support, moral as well as financial, during the writing of this dissertation. I would also like to thank my young son Colin, if only at this point simply for having come into, and therefore brightened, our lives one year ago today. In addition, I would like to acknowledge the support and good will of my friends and colleagues, Carlos Tello Campos, Peter Kitchen, Dave Burhoe and Anne Watelet. Thanks go to Éric Duguay, who assisted me with some data requirements early on in my preparations for this project. Special thanks go to Éric Joly, who spent hours out of his free time to proofread and critique some chapters of this dissertation, and to whom I am quite grateful for rendering me that favour. Finally, I would like to acknowledge the singular contribution of Dr. Roger Roberge to my preparations for this dissertation. He has been an invaluable help to me as a student as well as a teacher, and his vigourous defence of both me and my work has not gone unnoticed.

ABSTRACT

The results of the 1998 provincial election in Quebec reveal the existence of six distinct "electoral regions" in the province. The concentration of the vote for the three major political parties, the *Parti Québécois* (PQ), the *Parti libéral du Quebec* (PLQ) and the *Action démocratique du Québec* (ADQ) defines these regions, in conjunction with information provided by a geographical and statistical database of indicators representing spaces, actors and rationales of action. The portrait of Quebec afforded us by an analysis of such a research database suggests strongly that there are "many Quebecs" rather than a unitary Quebec. A Quebec seeking to remain a political unity must culturally recognise the existence of six distinct regions within it, a number of which differ on basic matters with the majority culture of the province.

Les résultats des élections provincielles de 1998 au Québec montrent bien l'existence de six "régions électorales" distinctes dans la province. La concentration du vote pour chacun des partis politiques majeurs, le Parti Québécois (PQ), le Parti libéral du Québec (PLQ) et l'Action démocratique du Québec (ADQ) définit ces régions, en conjonction avec les renseignements contenus dans une base de données géographique et statistique des indicateurs représentant les espaces, les acteurs et leurs motivations pour l'action. Le portrait du Québec qui émerge d'une analyse d'une telle base de données suggère fortement qu'il y a "plusieurs Québecs" et non seulement un Québec unitaire. Si le Québec voudrait rester une unité politique, il doit reconnaître au plan culturelle l'existence de six régions distinctes au sein de la province, dont plusieurs ne s'entendent pas en matière de questions fondamentales avec la culture majoritaire de la province.

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I. ELECTORAL REGIONALISM AND THE QUEBEC PROVINCIAL GENERAL ELECTION OF 1998

This dissertation is a critical analysis of the provincial general election held on 30 November 1998 in the Canadian province of Quebec. In that election, the residents of Quebec chose government by the *Parti Québécois* (PQ), a party which advocates the political sovereignty of the province and its independence from Canada, for a second consecutive term of office and for the fourth time in a period of twenty-two years. The main opposition party, the *Parti libéral du Québec* ("Liberal Party of Quebec" or PLQ), was defeated by a decisive majority in terms of the number of seats won in Quebec's provincial legislature, the *Assemblée Nationale du Québec* ("National Assembly of Quebec"), though it won a slim plurality of the popular vote province-wide.

The distribution of the vote to the main parties winning seats to the National Assembly seemed pronounced in a geographic sense, with identifiable regions in the province disproportionately supporting the PQ and the PLQ over all their rivals. The pattern of the vote distribution across regions within Quebec was markedly similar in 1998 to what it had been in previous elections. This dissertation explores the geographic character of the vote in the 1998 provincial general election in Quebec and the significance of geographic voting patterns in Quebec politics.

The Results of 30 November 1998

The province of Quebec has 125 *circonscriptions* (provincial electoral districts or "ridings"), which elect *députés* to the National Assembly ("Members of the National Assembly, or MNAs). On the date of the 1998 provincial general election, 30 November

1998, 124 of these 125 ridings elected MNAs to the National Assembly. One riding, that of Masson, situated just north of the city of Montreal, held a special election on 14 December 1998. The candidate for the PQ in that riding had died roughly one month before the election date, necessitating the holding of a special election at a later date. For the purposes of this dissertation, the results of the special election of 14 December 1998 are considered as part of the general election of 30 November 1998.

The results of the election of 30 November 1998 are shown in Table 1.

Party	**Number of Seats in the National Assembly**	**Percentage of Seats in the National Assembly**	**Percentage of Popular Vote, Province-Wide**
Parti Québécois (PQ)	76	60.8%	42.9%
Parti libéral du Québec (PLQ)	48	38.4%	43.6%
Action démocratique du Québec (ADQ)	1	0.8%	11.9%
Other Parties and Candidates	0	0%	1.6%
Total	125	100%	100%

Table 1.
Seat Distribution and Popular Vote for Quebec Political Parties Represented in the National Assembly.
Source: ***Directeur-Général des Élections du Québec* [*DGÉQ*], 1998a**

As was mentioned previously, the PQ won a majority of seats in the National Assembly in 1998, despite having lost the popular vote to the PLQ. Due to Quebec's "first-past-the-post" electoral system, seats in the National Assembly are awarded only to those who receive the most votes at the level of the provincial riding. This system rewards parties which have moderate levels of support spread out over sufficiently wide areas. Conversely, the system punishes those parties which have strong levels of support

but overly concentrated in a small area, as well as those parties which simply have weaker levels of support, though spread out over a wide area.

In Quebec, there are three major provincial parties which constitute excellent examples of each of the three situations described above. The PQ, led during the 1998 election by Lucien Bouchard, is an example of the kind of party most rewarded by Quebec's electoral system, as it had a moderate level of province-wide support, but that support was distributed over a large number of provincial ridings. Consequently, its 43% level of support in the province translated to victory in 76 ridings, sufficient to return Mr. Bouchard as the *premier ministre* ("premier"), leader of the Quebec government.

By contrast, the PLQ, led during the 1998 election by Jean Charest, is an example of one of the two kinds of parties not rewarded by a "first-past-the-post" electoral system. Though it has roughly the same support in terms of the popular vote as does the PQ, the fact that this vote came overwhelmingly from concentrated areas within Quebec meant that the PLQ's 44% level of support translated into victory in only 48 ridings.

A third Quebec provincial party, the *Action démocratique du Québec* (ADQ), led during the 1998 election by Mario Dumont, represents the other kind of party not rewarded well by a "first-past-the-post" electoral system. Its level of support, roughly 12% of the province-wide vote, was a good deal lower than that of the two main Quebec provincial parties. However, worse still for the ADQ, that support is not geographically concentrated anywhere, with the exception of one riding, the Rivière-du-Loup riding in which the ADQ's candidate was Mario Dumont himself. Due to the ADQ's lack of spatial vote concentration, winning 12% of the vote province-wide only gained the party 0.8% of the seats in the National Assembly.

The geographic distribution of the 1998 vote by riding is shown in Figure 1. The colour of each riding on this map represents the party for which an MNA was elected for that riding. One can immediately see in this representation of the vote a clear spatial division between portions of the province which voted for the PQ (shown in blue on the map) and those that voted for the PLQ (shown in red). The riding in which the ADQ elected its leader is also evident on the map (shown in green).

The PQ found the bulk of its support in the north and centre of the province, whereas those areas voting for the PLQ found its support near borders with other jurisdictions, including the northeastern American states of New York, Vermont, New Hampshire and Maine as well as the Canadian provinces of Ontario to the west and New Brunswick to the east. As we will see in the next section of this chapter, a number of the divisions evident on this map are thoroughgoing, and have been reproduced in many previous Quebec elections.

In Figure 2, we see the geographic distribution of the vote by riding for the ridings immediately surrounding the city of Montreal. On the map, one can most prominently see the two large islands in the St. Lawrence River, the *Île de Montréal* ("Isle of Montreal", containing the city of Montreal as well as, at the time of the 1998 election, numerous "on-island" suburbs of Montreal) and the *Île de Jésus* ("Isle of Jesus", containing the city of Laval). In addition, surrounding these two islands, a number of Montreal's "off-island" suburbs or "ring suburbs" are shown. There is evidently, from what one can gather from this map, also a clear spatial distinction between parts of the Montreal area which voted PQ and parts which voted PLQ. The PQ finds its strength principally in the northeastern portion of the Isle of Montreal (often referred to as "East

Figure 1:
The 1998 Provincial Election, Province of Quebec

Source: DGÉQ, 1998

Figure 2: The 1998 Provincial Election, Montreal CMA

Seats Won By Party
Parti Québécois (PQ)
Parti libéral du Québec (PLQ)
Action démocratique (ADQ)

Source: DGÉQ, 1998

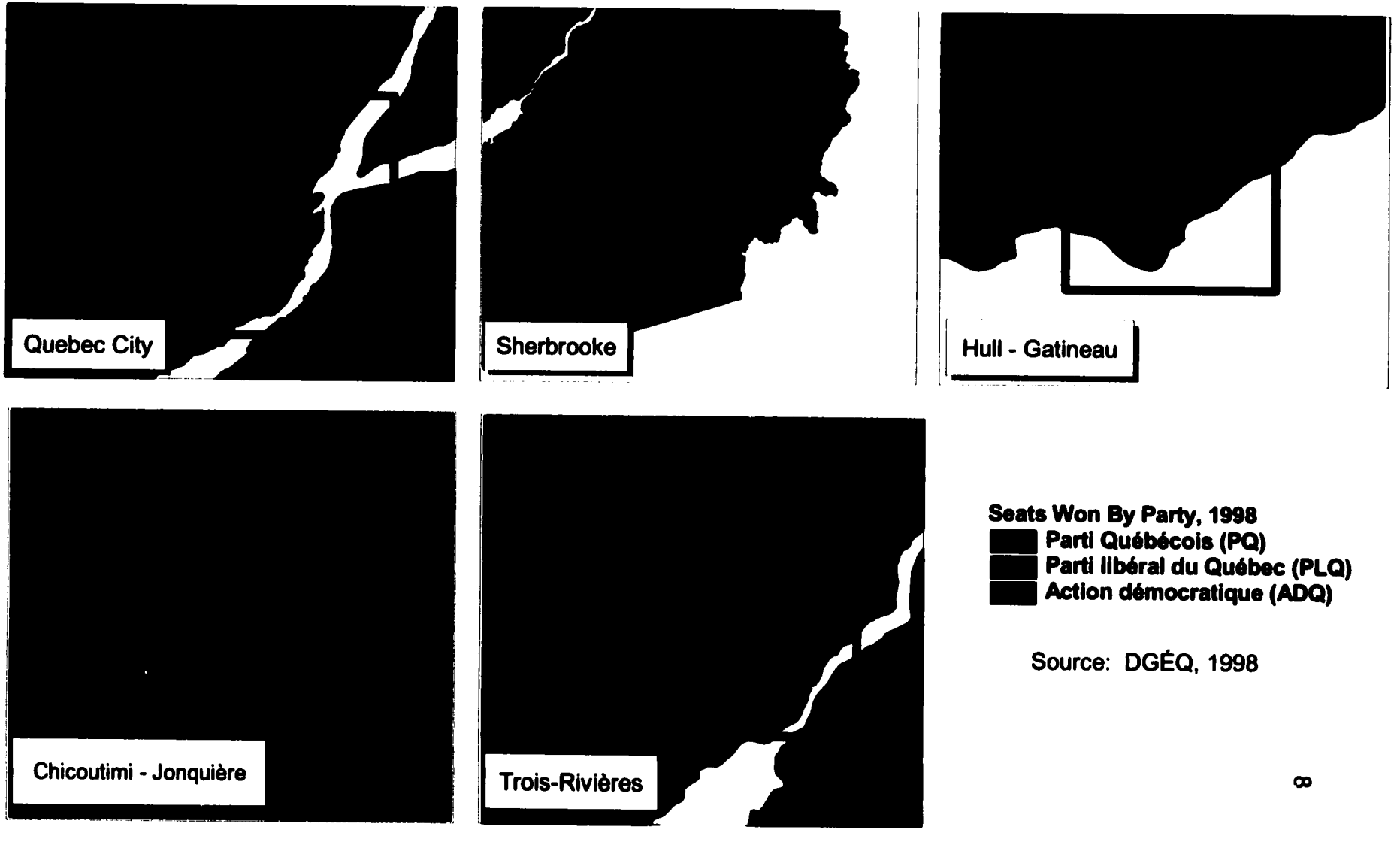
Montreal"), in the Isle of Jesus outside of the Chomedey riding, and in most of the ring suburbs. The PLQ, by contrast, is supported in the southwestern portion of the Isle of Montreal (often referred to as "West Island Montreal"), the northeastern portion of the Isle of Montreal (comprising "Central Montreal" and a number of on-island suburbs such as Montréal-Nord, St.-Léonard and Anjou), the riding of Chomedey on the Isle of Jesus and a few of the off-island ridings immediately adjacent to PLQ strongholds on the islands. Again, as we will see in the next section of this chapter, many of the divisions shown on this map are thoroughgoing, and have been reproduced in many previous Quebec elections.

In Figure 3, we see the geographic distribution of the vote by riding for the ridings immediately surrounding the cities of Hull-Gatineau, Chicoutimi-Jonquière, Trois-Rivières, Quebec City and Sherbrooke. These five census metropolitan areas (CMAs) demonstrate an inconsistent pattern in terms of their support for a particular provincial political party. This is somewhat surprising, given that "urban agendas" often distinguish urban voting patterns from rural voting patterns. We note on this map that the Hull-Gatineau CMA returned a solid contingent of PLQ MNAs, whereas Chicoutimi-Jonquière and Trois-Rivières returned PQ MNAs. Quebec City and Sherbrooke show evidence of splitting their votes between the PQ and the PLQ.

Electoral Regionalism and Mechanisms in Quebec

This dissertation uses variables representing the results of the 1998 Quebec provincial general election, in conjunction with variables representing key characteristics of Quebec ridings, in order to determine whether there are ***electoral regions*** in Quebec.

Figure 3: Urbanised Areas in Quebec, Seats in the National Assembly by Party, 1998 Quebec Provincial Election



Source: DGÉQ, 1998

Electoral regions are a particular kind of political region defined specifically by the political behaviour demonstrated in the act of voting. The concept of the political region has been elaborated theoretically by many researchers within the geographic sub-discipline of political geography. In this section, we will discuss a number of the prominent theories of regionalism and political regionalism, and set the stage for this dissertation's enquiry into whether electoral regions exist in the province of Quebec.

An Overview of Regional Geography

Paul Claval (1998: 9-20) identifies several discrete moments in the development of regional geography as a discipline that provides this work with a useful framework for its general description. We will briefly recount and describe Claval's argument in the following few paragraphs.

In the first phase of the development of the discipline, the focus was on ***describing features of populated areas.*** This phase was begun by the early Greek geographer/scholars such as Eratosthenes (275-193 B.C.E.) and Ptolemy (100-178 C.E.), and the Greek term *oikumene* (in modern English, "ecumene") was coined to identify lands populated by living creatures, particularly humans. The function of this kind of regional geography was to promote general knowledge of areas, for those who would understand them, but also, importantly, for administrators in ancient empires who would administer these areas. This kind of regional geography largely ignored geographic realities outside of space inhabited by humans.

In the second phase of the development of the discipline, the focus shifted to ***promoting rational land use patterns.*** Land survey techniques and cartographic

advances made it possible to plot and map areas effectively, and the spirit of the Age of Enlightenment did much to encourage land administrators to mete and bound out regions according to what they took to be logical or scientific principles. In France, this sort of regional geographic practice led directly to the creation of the *départements* with the advent of the French Revolution at the end of the 18th Century. These *départements* continue to be used today as regional administrative units with little alteration from their original forms. In the United States, this spirit of rationalistic regional unit design led to the creation of square grid pattern units in many states: the counties, townships and ranges of a good many states in the midwestern and western portions of the U.S. are generally uniformly square or square with minimal deformations due to considerations imposed by the physical landscape.

In the third phase of the development of the discipline, which Claval calls the "classic phase", the focus moved towards ***describing the specific patterns of interaction of humans with the physical landscape in a specific region***. Mostly, the biggest change ushered in by this phase of the development of regional geography was the rise of the "possibilist" school of geographic thought, alternatively known as the Vidalian geographic school. The titular leader of this school of thought, the French geographer Paul Vidal de la Blache, advanced a view of regional geography which stressed that physical landscapes furnished a material setting for humans to express their "personality", and though the lack of certain material advantages might constitute a limit on how that personality was expressed on the landscape, people were nevertheless free to choose how they would employ material objects furnished in the natural world or what they would build from these materials. In other words, the physical landscape both

determines, to some extent, what people may do and makes possible, to some extent, what people may do. The Vidalian school focused more on the second part of this picture, namely, the part of the picture emphasising how the physical landscape empowers those who live upon it, work it or claim it in some respect to make choices – the landscape provides a range of possibilities amongst which people may choose. The different kinds of interactions between specific physical landscape formations and specific sociocultural ways of life, or *genres de vie*, began to be the focus of geographers, particularly in the French tradition (Buttimer 1971; Dickinson 1969; Holt-Jensen 1999; Sanguin 1993, also cf. Evans 1981 [1973]). The tradition of regional monographs, which took as their task a case-study description of specific *genres de vie* in specific landscapes, developed during this phase of regional geographic practice.

Finally, in the fourth phase of the development of the discipline, interests in ***regional regulatory mechanisms*** began to find expression within regional geography. In a way, this trend in regional geography may just represent the pendulum swinging back in geographic thought, from the Vidalian school's optimistic, libertarian stressing of the capacity of the landscape to confer choices back to a pessimistic, deterministic stressing of the limits imposed by the landscape and state of human needs, both of which serve to restrict those choices. This phase focused on elements which constrain the many different *genres de vie* of differing landscapes towards universal patterns. Examples of such elements include ecological constraints (cf. Claval 1998: chapter 4), economic constraints (cf. Claval 1998: chapter 5) and social/cultural constraints (cf. Claval 1998: chapter 6).

The Vidalian tradition in regional geography emphatically does not exclude the consideration of universal or outside, conditioning trends such as studied by representatives of this fourth wave of regional geographers whilst considering particular regional landscapes. On the contrary, the Vidalian tradition identifies regional localisation phenomena as always existing within the context of exterior settings:

> *Ce que la géographie, en échange du secours qu'elle reçoit des autres sciences, peut apporter au trésor commun, c'est l'aptitude à ne pas morceler ce que la nature rassemble, à comprendre la correspondance et la corrélation des faits, soit dans le milieu terrestre qui les enveloppe tous, soit dans les milieux régionaux où ils se localisent.*
>
> That which geography, in exchange for the help it receives from other sciences, can offer to the common treasure, is the aptitude not to break up what nature brings together, to understand the correspondence and the correlation of facts, be they in the terrestrial milieu which envelopes them all, or in the regional environments in which they are localised (Vidal de la Blache 1911, quoted in Sanguin 1993: 368, Dickinson 1969: 211, and Roodenburg & Buesink 2002).

To put this another way, the Vidalian school did not reject that the world's various regions, characterised by their various distinct *genres de vie*, were affected by underlying universal conditions, among which the most basic might be the laws of physics, but also among which we might number, with varying degrees of completeness to the universality of the conditions, the ecological, economic and sociocultural processes which the fourth phase of regional geographic practice addressed. The school rejected that these underlying universal conditions could never empower individuals as well as constrain them.

Whether outside mechanisms empower or constrain, they exist and must be recognised: this is the essential point of representatives of this fourth wave in regional

geography. Their foundational philosophy is that realistic scientific practice is always in search of mechanisms to explain nature – in essence, nature functions as does a machine (Sayer 1984). Those acting within the purview of this new trend in regional geographic practice sought to understand how this "machine" worked and to announce their results in precise terms; for this reason, many involved in this new school of regional geographers were oriented towards quantitative methods which could afford them this precision.

As Paul Claval notes, not all regional geographers were convinced that this last trend in regional geography constituted a step in the right direction:

> People are not robots. By considering only the regulating mechanisms, one overlooks the diversity of human beings, their sensitivity and the element of daydream which is always a part of their lives: a number of aspects of observed distributions thus escapes explanation...French geographers insist on the *espace vécu* [life-space] dimension of regional existence (Claval 1998: 22).

Debates within regional geography over the extent to which humans control and are controlled by their environment certainly have not receded into nothingness, and indeed we may justly portray an continuing opposition between determinism and possibilism in the discipline of regional geography to the present day.

An Overview of Political Geography

Since the question at hand at present is how, if possible, we may divide the province of Quebec into representative electoral regions, it behooves us to also consider the major trends in the literature of the subdiscipline of political geography. What follows are some of the major highlights from the development of this subdiscipline.

The first major trend in political geography dealt largely with ***effective control over resources and territory***. This theme has been pursued by many in the so-called

"geopolitics" school within political geography (Cohen 1969 [1963], Cohen & Kennedy 2000; Kennedy 1987; Mackinder 1969 [1904]; Mahan 1980 [1889]; Ratzel 1969 [1896]; Spykman 1969 [1944]; Whittlesey 1969 [1935].) This school of thought emphasises the material position and capacity of actors to defend encroachments in space. These encroachments can be described by the now-discredited German term *Lebensraum* or the current and less objectionable French variant *espace vécu*: loosely translated, this means a living area, and the general meaning of this concept is the "geographical area within which living organisms develop" (Ratzel 1901, quoted in Dickinson 1969: 71). Despite the claimed misuse of the former term by the Nazi regime in the Germany of the 1930s and 1940s, the coiner of this term, the German geographer Friedrich Ratzel, is sometimes credited with having introduced a key notion to the science of geography:

> ...[T]he term *Lebensraum*, in spite of its distortion by the Nazis, is one of the most original and fruitful of all concepts in modern geography. It was not designed in the mind of its coiner as a political concept or as a guide to national policy, though, as he emphasised, there was always a tendency for a state to expand or contract its political area according to its interests or capacities. Ratzel, as a biologist, thought of the anthropogeographic unit as an areal complex whose spatial connections were needed for the functioning and organisation of a particular kind of human group, be it the village, town or state. The concept of *Lebensraum* deals with the relations between human society as a spatial (geographic) organisation and its physical setting. Community area, trade area, milk-shed and labour-shed, historical province, commercial entity, the web of trade between neighbouring industrial areas across state boundaries – these are all subsequent variants of the concept of "the living area" (Dickinson 1969: 71).

The geopolitics school emphasises the extent to which states expand their influence in space, both within recognised borders and outside of them. In many respects, the adoption of the *Lebensraum* idea by fascist-leaning academics such as the Swedish political scientist Rudolf Kjellén and the German geographer Karl Haushofer

was not entirely surprising, as a geography based on the analysis of existing dominances over space on the part of a particular society or culture was bound to attract those practitioners who hoped to establish such a dominance over space on the part of their own society or culture. However, it is still the case that we can understand a good deal about the intersection between political science and geography by asking ourselves to what extent effective control over territory is exerted, by whom, by what means, and to serve what purpose. In our efforts to mark out electoral regions in Quebec, the issue of whether there are regionally-based issues of effective control will be interesting to consider – is it the case that residents in these electoral regions can effectively control their own agenda, or is the agenda controlled from without?

The well-known geographer Richard Hartshorne (1969 [1950]) argued that political regions are defined by their tendency to cohere institutionally. His view was that the political institutions governing spatial units tended either towards consolidation of power or dissolution of power. In other words, *political jurisdictions can be characterised by a "centripetal" force which causes the unit to cohere around particular notions of what the jurisdiction should do or be (the "state-idea") or a "centrifugal" force which causes the unit to fail to cohere around such notions.* Hartshorne's emphasis on the institutional consolidation of power and its effect on defining the political region adds a significant dimension to the notion of an electoral region; since the point of elections is to return a government, the capacity of the government to unite the governed of a region behind it is of paramount importance.

Stephen Jones (1969 [1954]) contrasted to these views of political geography one which he called a "unified field" theory of politics; by this view, the geography of politics

can be defined by three elements – political decisions, the movement across space engendered by these decisions, and the area or field demarcated in space by that movement. Thus, for Jones, *political regions can be identified by the formula "decision-movement-field", where decisions taken by individuals in space demarcate regions.* Jones' contribution to the definition of the electoral region brings in the element of local histories of space penetration as a distinguishing factor, which is a significant addition to political geographic methodology.

Jean Gottmann (1952) and Harold and Margaret Sprout (1965; 1978) discuss the importance of the relationship of the human population to the physical environment in their works, and this perspective has been somewhat influential in political geography. *The expressly political relationship between "man and milieu" or between humans and their environment* provides content to decision-making in a spatial context, which necessarily influences both the setting of regional boundaries and land use patterns on the one hand and the development of policy affecting the landscape on the other. The similarity of this perspective within political geography to the Vidalian school of regional geography should not be ignored; indeed, Jean Gottmann is generally considered a geographer within the Vidalian tradition, and his work in political geography can best be understood as a branching out of the Vidalian tradition of regional geography into the subdiscipline of political geography. Indeed, Gottmann's concept of *iconographie* (or "iconography"), which describes the conversion of the landscape into a cultural object through the interaction of human beings with their regional environments, is clearly of Vidalian inspiration.

Another theme in political geography, also related to a broader theme in regional geography, is one that emphasises *world-level patterns of capital accumulation and social regulation*. This theme has been pursued most notably by Immanuel Wallerstein (1974) and Peter Taylor (Taylor 1982; Taylor & Flint 2000). Wallerstein's seminal work defining a "world-systems theory", drawing heavily on the writings of Fernand Braudel (1979 [1967]), has been influential in many social science disciplines beyond simply geography. This work describes a pattern of economic differentiation of function in regions at the global level, particularly with respect to *core*, *peripheral* and *semi-peripheral* regions. The core regions represent the urbane, industrialised portions of the world, to which goods are exported, and which controls the deployment of capital; thus, profits from capital investment are returned to the residents of these core areas. The peripheral regions are, by contrast, rural areas where primary industry – agriculture, forestry, fishing, mining – predominates, from which goods are exported, and where capital controlled by others is deployed; thus, profits from capital investment are not returned to these areas. Semi-peripheral regions are peripheral areas in transition towards becoming core areas. They are urbanising areas where primary industries are being replaced by other industry types, and which are accumulating their own capital for investment; these investments can therefore make a profit for residents of the region. Both Wallerstein and Taylor attribute particular political roles to these different kinds of economic regions. Wallerstein argues that *core regions, for example, are able to have strong environmental protection laws, strong welfare systems and strong protections of individual liberties*, whereas peripheral regions, in order to attract investment by companies unwilling to pay high taxes or fees, deal with labour unions or respond to

popular protests, are all too willing to sacrifice having such things. Taylor goes further, identifying the three kinds of economic regions with particular orientations towards economic process; the *core regions favour a free-market system, the semi-peripheral regions favour protectionism for their budding industries, and peripheral regions seek to play form alliances with one side or another in exchange for development assistance.* In the case of the peripheral regions, trade policy "oscillates" between support for free-market *laissez-faire* and for protectionism or state interventionism as the peripheral regions constantly switch their sides in strategic alliances with the core and semi-periphery regions, respectively. In electoral situations, this would involve switching of electoral alliances, and consequently, peripheral areas often constitute "swing vote" regions in electoral geography.

Ladis Kristof (1969 [1959]) introduces a final new perspective to our awareness. He highlights in his work the importance of the difference between ***political regions which are homogeneous ("bordered" regions) and regions which are heterogenous ("frontier" regions).*** Paul Claval discusses this difference in an enlightening extract of his work as well (Claval 1998: 50-61). It is possible for a region to come together and cohere institutionally *pace* Hartshorne – in other words, for the region to be governed without pulling apart and being overwhelmed by internal divisions – and yet be very heterogenous in terms of its composition, though in many cases homogeneity is more conducive to the continued coherence of the jurisdiction. If the heterogenous area is to remain a political unity, however, there must be efforts taken to engender a consensus among members of different communities attempting to live in the same general physical space. The political and constitutional requirements of a heterogenous population have

been the subject of much interest among political scientists (Lijphart 1968; Lijphart 1977; Lijphart 1981; McRae 1964; McRae 1974; McRae 1986; Stephenson 1999), and constitutional innovations dubbed the "consociational" approach to governance have been applied to manage conflicts and relieve tensions between members of differing linguistic, ethnic and cultural groups in the Netherlands, Switzerland, Belgium and Austria. Such an approach was also applied in Canada during the Act of Union period and continues to a smaller extent to be applied in modern Canada; furthermore, a number of consociational traditions existed in the province of Quebec itself until the rise to power of the PQ in 1976 (Stephenson 1999).

II. HISTORICAL BACKGROUND: POLITICAL GEOGRAPHY CLEAVAGES IN QUEBEC

Having thus discussed what the notions of political and electoral regions and mechanisms entail, we proceed now to a discussion of political and electoral geographic patterns in the history of the province of Quebec. There was considerable continuity between the geographic trends of the 1998 Quebec general election and those trends exhibited in the province's previous electoral and political history. This chapter of the dissertation will explore that continuity and exposit how the 1998 Quebec election demonstrated a long-term trend in the electoral geography of the province.

The purpose of this chapter of the dissertation is to clarify the main political cleavages in the Quebec political system and to give these cleavages their contexts in space. There have been a number of geographic "constants" which have marked both general political behaviour and the spatial distribution of voting in Quebec more or less since the beginning of representative and elective government in the province (Drouilly 1989; Drouilly 1990; Drouilly 1997) and there have been in particular a set of electoral geography constants which particularly describe the political behaviour and the spatial distribution of the vote over the last three decades (Janda 1998; Janda 1999).

What follows hereafter are descriptions of seven such political cleavages, support for the existence of which is amply demonstrated both in academic literature and in analyses of historical voting patterns. After each of these descriptions, a summary of the cleavages the chapter identifies will be provided.

The Anglophone/Francophone Cleavage

Certainly, the most enduring feature defining the Quebec political landscape is the cleavage between anglophone and francophone communities. Indeed, histories of Quebec largely read as histories of this particular cleavage between linguistic communities (Bourdon & Lamarre 1998; Lacoursière 1995; Lacoursière et al. 2000; Linteau et al. 1989; Rouillard 1993). In this section of the dissertation, we will explore some of the historical reasons for the continued existence of this political cleavage.

The Conquest and the "Rights of Englishmen"

The ideological underpinnings for this cleavage were established by what the francophone community in Quebec continues to call *La Conquête* ("the Conquest") – namely, the capture of the regions colonised by the French in the 17th and 18th Centuries by British forces in the two-year period from 1759 to 1760. The Treaty of Paris of 1763 formalised British control over what was at this point for the first time called the "Province of Quebec". This province, though it bears the same name as the modern-day province of Quebec, must be distinguished from its modern counterpart, however, as the "Province of Quebec" established in 1763 was expanded by the Quebec Act of 1774 to comprise much of what is today known as the Canadian province of Ontario as well as parts or the whole of the present-day American states of Michigan, Wisconsin, Illinois, Indiana, Ohio, New York, Vermont and New Hampshire.

Before the Conquest, residents of what is now modern-day Quebec had either considered themselves residents of *La Nouvelle France* ("New France") or as *les Canadiens* ("Canadians"). This latter term was understood, as it is not in this day and

age, as specifically referring to French-Canadians; *les Canadiens* were by definition not the same as English-Canadians. Though the situation prevalent after the Conquest made it impossible to continue to refer to oneself as a resident of New France, francophone Quebecers continued to refer to themselves as *Canadiens*, and for at least the next century that term was understood to distinguish them as a community from English-Canadians or anglophone Quebecers. Thus, from a very early point in the common history of these two Quebec constituencies, an awareness of a thoroughgoing difference was present.

New anglophone migrants to Quebec tended to settle either in established port or trading cities (such as Montreal and Quebec City) or in areas close to the border with other jurisdictions which had large English-speaking populations, such as the American Thirteen Colonies to the south or the province of New Brunswick to the east. Trade with these other areas likely played a role in location decisions as well, and as the area which is now modern-day Ontario began to populate with anglophone migrants, there was also a good deal of anglophone settlement of western Quebec.

The Quebec Act established an important definition of the parameters that the British administration in North America set for its co-existence with the large French-language culture for which it recently acquired stewardship. The Act recognized two important realities. Firstly, francophone settlers were simply too numerous to compel to assimilate to British norms without investing a great deal in terms of military power. Secondly, if the British recognised and protected key aspects of the French-language culture of the area, members of this culture would probably provide a strong buffer against American-style democratic revolutionism. It was for these reasons that the

Quebec Act explicitly recognized and protected the Catholic religion, language, and cultural/legal system of francophone residents of the Province of Quebec. Thus, the cleavage or distinction between anglophone and francophone cultures was recognised in law under the British administration as early as 1774.

The Quebec Act was widely understood as an agreement between the previous francophone residents and the newer anglophone residents of British North America which underlay the legitimacy of the British administration of Quebec. So long as the British administrations in North America adhered to the principles of accommodation for French culture and institutions, in the absence of a better alternative, French-Canadians accepted the legitimacy of rule by the British and their participation in the British Empire. The fact that French-Canadians did accept this legitimacy was especially evident in their reactions to two wars the British fought on the North American continent. During the American Revolutionary War, when troops from the rebellious Thirteen Colonies entered Quebec, they fought to repel the invading American troops (Bird 1968). In the War of 1812, French-Canadian *voltigeur* troops fought energetically on the side of the British against American invaders at the Battle of Châteauguay (Berton 1980).

After the American Revolution and the subsequent Treaty of Paris of 1783 and Northwest Ordinance of 1785, the "Province of Quebec" was pared down to what are the modern-day Canadian provinces of Quebec and Ontario, due to the loss of the remainder of the "Quebec" territory to the Americans. Loyalists to the British Crown fled the republican United States for unsettled lands; though many of these American loyalists settled in what is now modern-day Ontario, creating a more strongly English character to the new settlements west of the Ottawa River in comparison to the generally French-

Canadian domain east of the river, some settled in what is now modern-day Quebec, along the American border in the Estrie.

The Constitutional Act of 1791 recognised that territories west of the Ottawa were predominantly anglophone by means of the establishment of two new jurisdictions from the remaining territory of the "Province of Quebec", named *Bas-Canada* ("Lower Canada": the French-Canadian domain east of the Ottawa, today's province of Quebec) and Upper Canada (in French, "*Haut-Canada*": the new English-Canadian domain west of the Ottawa, today's province of Ontario). These new jurisdictions were provided each with their own powers of self-government and somewhat autonomous legislative assemblies. In Lower Canada, the anglophone minority was now outweighed by a demographically far more potent francophone majority; in short, this meant that the Lower Canadian legislative assembly would be controlled by francophones. In Upper Canada, on the other hand, francophones were clearly outnumbered by anglophones, and thus anglophones would be more likely to find their voice in the Upper Canadian legislative assembly.

The Constitutional Act was taken by the francophone community to be an extension of rights won under the Quebec Act. Many French-Canadians believed during this period that, so long as the cultural and institutional autonomy of Lower Canada was preserved, participation in the British Empire was unproblematic; indeed, many were of the view that this autonomy was far more likely to be preserved by a British administration than by an American administration, given the propensity of the Americans to demand cultural assimilation from all their new territories. This being the case, French-Canadians tolerated their place within the British Empire, some more

enthusiastically than others. George-Étienne Cartier perhaps exposited the new mood best, suggesting that residents of Lower Canada were "Englishmen who spoke French" (Sweeney 1976: 131).

The Rebellions of 1837

Where it was not as clear that the cultural or institutional autonomy of Lower Canada was assured, however, French-Canadians were capable of questioning the Empire and their place within it. The 1830s saw a general rise in this sort of questioning in the legislative assembly of Lower Canada, in light of increasing awareness of the lack of accountability that representatives of the British Crown who were charged with overseeing the administration of the British North American provinces demonstrated to local public opinion. Members of the *Parti patriote*, a loose grouping in the assembly led by the reformists Louis-Joseph Papineau and Étienne Parent, were now actively beginning to voice criticisms of this lack of accountability or "responsible government" in the province. The writings of Parent in his periodical *Le Canadien* expressed the concern of Lower Canadians for continuing protections under the Constitutional Act of 1791, given a political system that increasingly disregarded the opinions of Lower Canadians, in favour of those of the British administrators. The journal's motto, "*Notre langue, nos institutions, nos lois*", inspired a generation of Lower Canadian leaders either to rally to support for change within existing British institutions or to rebel against the Crown, in defence of these protections. Parent advocated the former of these tendencies:

> *[N]ous ne sommes pas prêts...pour l'indépendance; prenons patience, faisons nos preuves, la législation reprendra son cours.*

> We are not ready...for independence; let us be patient, prove ourselves reliable, the law will retake its course (Falardeau 1975: 20).

In penning the above words, Parent meant to distinguish himself from what he took to be the more rebellious path of Papineau, with whom he broke over his proposition of the "92 resolutions", a set of demands for constitutional change deposited in the legislative assembly after the *Parti patriote* came to control the assembly in 1834. Resolutions 41-47 specifically previewed the establishment of a new constitution to protect the acquired rights of French-Canadians, in language many moderates such as Parent found intemperate. In Resolution 47, in fact, the intent of rebellion is barely concealed in the text:

> *Résolu, que c'est l'opinion de ce comité, que la fidélité des peuples et la protection des gouvernements sont des obligations correlatives, dont l'une ne saurait longtemps subsister sans l'autre; que par suite des défectuosités qui se trouvent dans les lois et constitutions de cette province, et de la manière dont ces lois et constitutions ont été administrées, le peuple de cette province n'est pas suffisamment protégé dans sa vie, ses biens et son honneur...*
>
> Resolved, that it is the opinion of this committee, that the fidelity of peoples and the protection of governments are correlative obligations, of which one would not long subsist without the other; that it follows from the defects that can be found in the laws and constitutions of this province, and the manner in which these laws and constitutions have been administered, that the people of this province are not sufficiently protected in their life, their goods and their honor... (Bédard 1869: 347)

In 1837, there were rebellions in both Lower and Upper Canada protesting against the lack of "responsible government". Though leaders of both rebellions saw this lack of accountability to be a rationale for open revolt against British authority, it was only in Lower Canada where the revolt took on an added linguistic and cultural dimension (Bernard 1983). In Lower Canada, authority rested in the hands of two particular groups, estate owners (*seigneurs*) and a merchant elite (Ouellet 1976). The latter of these two

groups was mostly anglophone, and thus the rebellion of 1837 in Lower Canada also pitted the mostly francophone culture, against an elite class disproportionately composed of anglophones and centred in Montreal.

The rebellion of 1837 in Lower Canada, as led by Papineau thus had a nationalist flavour which was notably absent in its Upper Canadian counterpart as led by William Lyon Mackenzie. Both of the 1837 rebellions drafted "Declarations of Independence" along the lines furnished by the American Declaration of Independence, but only in the document drafted for Lower Canada by the *Parti patriote*'s Robert Nelson were there specific protections for language and culture included.

The British colonial government, as they did in Upper Canada, put down the rebellion in Lower Canada through a show of military force. Violent exchanges between the rebels and the British military, principally those at the towns of St. Denis and St. Eustache, occurred throughout 1837 and 1838. When the British finally gained the upper hand, leaders of the rebel army were prominently hanged in 1839; despite their ability to reassert control, however, the British administrators became singularly aware of the capacity of French-Canadians to challenge the existing order.

The Durham Report and the Act of Union

This awareness led to the proposals made by Lord John Lambton, Earl of Durham (1970 [1839]). In response to the nationalistic threat symbolised by the *Parti patriote* and the 1837 rebels, Lord Durham suggested, in a document that has come to be known as the "Durham Report", that the two Canadas be merged into a unified province. This would have the effect of assimilating the francophone population of Lower Canada into

an anglophone culture held by Durham to be more progressive and generally superior. Within two years, this proposition had been approved as part of the Act of Union of 1841, and the two Canadian provinces were fused into the "Province of Canada"; Lower Canada would henceforth be *Canada-Est* ("Canada East") and Upper Canada would be Canada West (in French, "*Canada-Ouest*"), two sections of the unified province.

The timing of this change was precipitous, as the Lower and Upper Canada had existed during a time when the francophone population in both of the Canadas combined outnumbered the anglophone population in both of the Canadas combined. At this point, however, anglophone immigration to Upper Canada was changing that picture. The indication to many seemed clear – continued protections for the autonomy for Lower Canadian francophones would exist so long as francophones had the demographic advantage, and now that they were losing that advantage, so too they would lose their autonomy (Careless 1967).

The Durham Report also conceded the need for government accountable to local populations; however, the changes of 1841 were experienced differently by Lower Canadians and Upper Canadians. For Upper Canadians, "responsible government" was the key issue of the 1837 rebellions, and it was now being addressed; the Act of Union signified that the "family compact", the quasi-aristocracy of Upper Canada, had been successfully challenged (Noel 1990). For Lower Canadians, however, "responsible government" was not the only issue involved with the 1837 rebellions. The protection of the francophone population's language and culture was at issue as well, and the Durham Report seemed to make things worse in those areas, not better. Thus, the Act of Union, for Lower Canadian reformers ranging from moderates like George-Étienne Cartier and

Louis-Hippolyte LaFontaine to comparative radicals like Louis-Joseph Papineau or Robert Nelson, was a mixed bag of victories and defeats (Nish 1967). Certainly the reformers were glad to have "responsible government", but it also seemed to them that the rights won under the Quebec Act and the Constitution Act were being compromised. This would be seen by francophone Quebecers as the first of many examples of the erosion of their previously-won collective rights.

The new union depended for its legitimacy among French-Canadians upon a system of representation in which Canada East and Canada West had an equal number of seats in the parliament of the unified province of Canada. Though at the time of the Act of Union, Canada East's population was slightly larger, the changing demography of Canada was such that this was understood not to be long the case, as Canada West was continuing to undergo a settlement boom. French-Canadians forewent pressing their majority while they had it, and fully expected English-Canadians to forgo pressing their majority when they attained it; instead, French-Canadians held to a doctrine of "sectional equality" in representation, a key principle they held would protect their interests within the union not only while they were in the majority, but after they became a minority (Moore 1997: 14-17).

Many symbols of "sectional equality" and the participation of the French-Canadian and English-Canadian "sections" in the Union were prominent during this period. The French language, after a period of disuse in government, was adopted as one of the two languages of business of the Canadian legislative assembly alongside English (Chévrier 1996). The reform leaders in the legislative assembly, Louis-Hippolyte LaFontaine and Robert Baldwin, each campaigned for election in the other's "section" –

LaFontaine sought election in York (modern Toronto) in Canada West, and Baldwin sought election in Rimouski in Canada East. In time, the tradition arose that each of the sections would contribute one of two "first ministers" (the equivalent of the modern Canadian prime minister) who would govern the province jointly with another first minister from the other "section". LaFontaine and Baldwin would be the first pair of first ministers in this mold in 1848, and a number would follow until the demise of the union and its replacement by the Canadian confederation in 1867.

The conception of the francophone peoples of the Canadas constituting an equal "section" upon which the nation is based endures today in the notion that francophones constitute, along with English-Canadians and aboriginal Canadians, a "founding people" of Canada. This notion is used to frame ideologies in modern-day Quebec ranging from Trudeauvian liberalism and official bilingualism (Quebec must be given its due as a "founding people") to outright political sovereigntism (Quebec is not given its due as a "founding people" and consequently must leave the Canadian federation.)

The demographic boom in Canada West soon gave English-Canadians the power to extricate themselves from the arrangements prevailing under the Act of Union. George Brown, a Toronto newspaper editor and reform leader associated with the radical-democratic "clear grit" faction of the reformists in the Canadian legislative assembly, quickly rose to prominence as the proponent of the "rep-by-pop" (representation by population) political option. Under this option, sectional equality of representation in the legislative assembly would be rejected and members of the legislative assembly would be apportioned by population. Towards the end of the Union period, Canada West's population was finally higher than Canada East's, this doctrine became quite popular

amongst anglophones. The rise of the Brown faction in the legislative assembly was consolidated in 1864, when Brown came to hold the balance of power in the legislative assembly. Under the "sectional equality" system, Brown seemed an "impossibility" as the first minister, given that his primary aim was to abolish that system. Indeed, a government led by him and Antoine-Aimé Dorion lasted only two days (Moore 1997: 18-22). Thus, when it became clear in 1864 that a government could not be formed without Brown's lasting participation in it, it signalled that the consensus upon which government in the province rested had been inalterably shattered. Brown, for his part, used his newfound power to demand that, as a condition for his participation in the government, the government must seek to establish a new constitution. Meetings were shortly thereafter convened at Charlottetown, Prince Edward Island, between representatives of the two Canadas and two other British North American provinces, Nova Scotia and New Brunswick, to establish a new federal constitution.

Confederation

The new constitution involved a substantial reordering of French-Canadians place within the political system by which they were governed. Firstly, the new constitution reseparated the Canadas, now into two provinces called Quebec and Ontario, the progenitors of the modern-day Canadian provinces by those names. Secondly, two other provinces were included in this new constitution, New Brunswick and Nova Scotia. The doctrine of "rep by pop" was conceded to the followers of George Brown; in return, the constitution was created as a federal constitution. A number of areas of exclusive provincial jurisdiction within this federal system were defined in Article 92 of this

constitution, known as the British North America Act; this gave French-Canadians in Quebec hope that there was an improved chance for the French language, francophone culture, the civil law system and the Catholic religion under the auspices of provincial-level protections. George-Étienne Cartier spoke for many when he wrote, in the periodical *La Minerve*:

> Such is...the significance that we much attach to this constitution, which recognises the French-Canadian nationality. As a distinct, separate nationality we form a State within the State with the full use of our rights and the formal recognition of our national independence (Cartier 1867, quoted by Clift 1982: 64-65; also cf. Hamelin 1974: 7-8).

George-Étienne Cartier continues to be regarded, in French Canada and English Canada alike, as a "Father of Confederation", and if anyone should have understood the character of the deal made at Charlottetown, presumably it would have been him. It should not be lost upon the reader that his view of the significance of the new constitution directly contradicts the view held by most contemporary English-Canadians – and that his view also directly contradicts the view held by modern English-Canadians as well. His view of Quebec as a "state within a state" has been directly appealed to by many francophone Quebecers since.

After Confederation, there began a period of rule by the Conservative Party, both at the federal level under the prime minister John A. Macdonald and at the provincial level under a series of conservative premiers representing the *Parti conservateur du Québec* ("Conservative Party of Quebec"). The sole break in the period of conservative rule came with the ministry of Honoré Mercier (1887-1891). Louis Riel, one of the founders of the new Canadian province of Manitoba as well as a leader of the Métis, a mixed French-Canadian/aboriginal ethnic group, was hanged by the federal government

in 1885 because of his role in the death of an English-Canadian, Thomas Scott. Prime Minister Macdonald's vehement prosecution of Riel inflamed Quebec opinion, and Mercier was able to convince a group of pro-Riel members of the Quebec legislative assembly to form a provincial government under the banner of a new party, the *Parti national* ("National Party"). The choice of this particular name was not accidental, as it was the "national" sentiments of French-Canadians that had been offended by the federal government's behaviour in the Riel affair. The *Parti national* was a clear forerunner of later Quebec political parties with increasingly open nationalist sympathies (Gallichan 1994).

Jean Hamelin, Jacques Letarte and Marcel Hamelin (1960) refer to the situation of the Conservative party during this period from 1867-1897, in the following manner:

> *Les comtés à forte population anglaise dans le sud de la Province constituent la troisième forteresse du parti conservateur. Huntingdon, Missisquoi, Brome, Compton, Richmond, Wolfe, Dorchester... envoient au parlement des conservateurs. C'est le tribut de gratitude d'un groupe minoritaire envers le parti qui, par la Confédération, l'a sorti de son isolement ethnique et lui a garanti l'exercise de ses droits les plus chers. Un dernier fief conservateur englobe les extrémités de la province. Pontiac, Ottawa à l'ouest, et Gaspé à l'est.*
>
> The ridings of a strong English population in the south of the Province constitute the third fortress of the Conservative Party. Huntingdon, Missisquoi, Brome, Compton, Richmond, Wolfe, Dorchester...brought the Conservatives to the parliament. It was the tribute of gratitude of a minority group to the party which, by means of the Confederation, delivered it from its ethnic isolation and guaranteed it the exercise of its most treasured rights. A final Conservative fiefdom comprises the edges of the province. Pontiac, the west of Ottawa and the eastern Gaspé (Hamelin, Letarte & Hamelin 1960: 190).

Quite clearly, the Conservative party was the vehicle for the anglophone electorate during this period in Quebec's political history. Note here that the regions of

the Eastern Townships ("Huntingdon, Missisquoi, Brome, Compton, Richmond, Wolfe, Dorchester...") and the Outaouais ("Pontiac, the west of Ottawa...") are specifically mentioned in this account as centres for the English-Quebecer community which regularly supported the Conservatives.

With the rise of the federal Liberal Party under Quebec's own Wilfrid Laurier in 1896, the balance of provincial power also turned towards the party's Quebec wing, the *Parti libéral du Québec* (PLQ). In 1897, the first of five provincial ministries was formed under Félix-Gabriel Marchand. Two ministries, those of Lomer Gouin (1905-1920) and Louis-Alexandre Taschereau (1920-1936), were particularly long-lived.

Hamelin, Letarte and Hamelin refer to the period from 1897-1935 in the following manner:

> *Dès 1897, la vague libérale pulvérise la zone traditionnellement conservatrice des Cantons de l'Est. En onze scrutins successifs, Brome, Missisquoi, Huntingdon et Shefford élisent onze députés libéraux. En 1900, Sherbrooke, Compton, Stanstead, puis Dorchester et Wolfe en 1904, adhèrent au libéralisme. Le nationalisme pan-canadien de Laurier, le long malaise suscité par la crise économique du 19e siècle finissant, la pénétration dans ces comtés de groupes canadiens-français expliqueraient peut-être cette volte-face politique des Cantons de l'Est...*
>
> Since 1897, the Liberal wave pulverised the traditionally conservative zone of the Eastern Townships. In eleven successive elections, Brome Missisquoi, Huntingdon and Shefford elected eleven Liberal members of the legislative assembly. In 1900, Sherbrooke, Compton, Stanstead, then Dorchester and Wolfe in 1904, adhered to liberalism. The pan-Canadian nationalism of Laurier, the long malaise sustained by the economic crisis of the end of the 19th Century, the penetration in these ridings of French-Canadian groups perhaps explain this turnabout of the Eastern Townships (Hamelin, Letarte & Hamelin 1960: 191).

In this description, we can see that the PLQ picks up and strongly retains the support of one of the most strongly Conservative regions in Quebec, the Eastern

Township region. The Eastern Townships' experience in this realignment tells us a great deal about what sort of character the governing PLQ took on during this era. The apparent draws towards the PLQ, according to Hamelin, Letarte & Hamelin, had to do with its espousal of a Canadian nationalism which valued French-Canadians and English-Canadians equally (perhaps understandable in an anglophone area where "the penetration...of French-Canadian groups" made the bilateral character of Canadian nationalism important), and with its determination to reverse to economic "malaise" identified with the protectionist Conservatives (equally understandable in an area bordering the United States and with a definite interest in reducing trade restrictions).

The War Years

French-Canadian nationalism in Quebec also finds at least a portion of its historical identity in the progressive ideology of anti-imperialism. At the turn of the 20th Century, the nationalist parliamentarian Henri Bourassa (Murrow 1968; Petrie 1980; Rumilly 2000 [1953]) sought to influence Canada from pursuing foreign entanglements thrust upon it by its participation in the British Empire.

Henri Bourassa's anti-imperialism was perhaps the defining feature of the contemporary expression of French-Canadian nationalism at the turn of the 20th Century. Bourassa believed in a conception of Canada that involved the co-equal participation of two founding peoples, French-Canadians and English-Canadians. The idea that English-Canadians, in virtue of their national majority, could direct French-Canadians to fight the British Empire's wars for it, despite any clear relationship of the fight to Canada's own self-defence, struck Bourassa as a negation of this co-equality within the federation. His

primary task, as he saw it, was therefore to oppose Canada's involvement in these foreign entanglements. He was active in resisting Canada's involvement in the South African War of 1899-1902, confronting in the process the prime ministry of Wilfrid Laurier (Rumilly 2000 [1953]: chapter 5). When Britain prepared for potential naval wars, in response to the fantastic growth of German naval power, Bourassa opposed the creation of a Canadian marine force to support the British navy (Rumilly 2000 [1953]: chapter 17).

Canada being directed to fight Great Britain's wars could be taken to be symbolic of Quebec's being directed to bear unreciprocated burdens for the rest of Canada, despite various perceived injustices such as the rejection of "sectional equality" and the "State within a State" conception of Cartier, or the execution of Riel, by English Canada. With the onset of the First and Second World Wars, there were conscription crises, as Quebecers came to see the draft as another instance of being called upon to fight Britain and Canada's battles instead of its own. In 1918, the imposition of conscription led to a formal motion by Joseph-Napoléon Francoeur, a Liberal member of the Legislative Assembly, for Quebec to leave the Canadian confederation, the first such motion to be considered by the government of Quebec, and one which convinced some nationalists for the first time that separation could be, under certain circumstances, an appropriate political option for Quebec (Laurendeau 1973 [1942]: 57). In 1918, there was an anti-conscription riot in the streets of Montreal (Bourdon & Lamarre 1998). In 1939, the Canadian prime minister, William Lyon Mackenzie King, promised Quebecers they would not be conscripted, though by 1942, King regarded that pledge as no longer tenable and called a Canada-wide referendum to release the government from that pledge.

Though 80% of Canadians voted to do this, 71% of Quebecers, the largest share of them French-Canadians, voted to hold King to his original word; French-Canadians denounced the vote's outcome, claiming it represented a "vote by race" which pitted English-Canadians firmly against French-Canadians (Bourdon & Lamarre 1998: 178; Laurendeau 1973 [1942]: 91-95). This time around, an anti-conscriptionist party, the *Bloc Populaire*, emerged briefly in provincial politics under the leadership of the left-liberal nationalist André Laurendeau (Bouvier 1996; Horton 1995; Laurendeau 1973 [various], Monière 1983; Paquet 1998).

The Duplessis Era

The long era of Liberal ascendancy in Quebec provincial politics under the premiers Lomer Gouin and Louis-Alexandre Taschereau ended in 1936 when a new political party, the *Union nationale* (UN) won election under the leadership of Maurice Duplessis. The UN was the result of an electoral coalition between the Conservative Party, which had been headed by Duplessis, and the *Action liberale nationale* (ALN, or "National Liberal Action"), a party of dissident liberals and nationalists unhappy with Premier Taschereau's open-door policy towards foreign capital, founded in 1935 and led by Paul Gouin. The ALN was a newer and more populist kind of nationalist party, which connected the economic situation of francophone Quebecers with the long-standing nationalist tradition. In short, the ALN was a party in favour of an "economic nationalism", which advocated that the francophone community in Quebec solve its own economic problems through the expansion of provincial autonomy. The party, though influential, foundered on its division between those attracted by its liberal vision and

those attracted by its nationalist vision. The ALN reached a francophone constituency with its economic nationalism, while the PLQ retained in its electoral coalition the strong support of the anglophone business elites (Dirks 1991; Ferland 1991; Vigod 1986).

The UN governments of Maurice Duplessis (Black 1998; Boismenu 1981) tended to take on more of the programmatic character of the element of the party corresponding to the old Conservative Party than of that corresponding to the more radical ALN. Interestingly, however, as demonstrated by the remarkably thorough the *Université Laval* master's thesis of Paul Cliche (1960: tome 2), the character of support for the UN was remarkably different from that of the old Conservative party. Whereas the old Conservative party's strongholds before 1935 were in ridings such as Westmount or Hull, in regions where anglophones were present in abundance, the UN's strongholds after 1935 were in strongly francophone ridings similar to those won by its ALN component; the anglophone constituency turned to the PLQ, a party this community has supported ever since.

Instead of becoming the kind of party that many in the ALN might have hoped it would be, the UN became a mostly conservative party trending on occasion towards nationalist policies to provincial autonomy (Quinn 1979 [1963]). Despite this, given this clear divergence between the character of support for the Conservatives before 1935 and support for the UN after 1935, one would have to concede that this conservative party owed its repeated elections to office to a nationalist electorate. Some later critics of the party would explain this apparent contradiction by means of a hypothesis referred to as the "black king" (*roi nègre*) hypothesis. By this view, the Duplessis governments epitomised the kind of neocolonialist rule found in African countries. Leaders of such

countries accede to the demands of foreign elites – in other words, they support a status quo of foreign domination, and are hence conservatives – but they accede to these demands while appearing publicly to protest foreign domination – in other words, they appear to be nationalistic defenders of the domestic population (L. Dion 1973: 16; Laurendeau 1973 [1958]: 177-179). Duplessis, as seen by his critics, was a captive both to the anglophone business elite internal to Quebec and to foreign capitalists, and used the rhetoric of nationalism to mask the reality of those facts.

The "Quiet Revolution"

The governments of Maurice Duplessis reigned for the better part of two decades, from his ascension to office in 1936 to the time of his death in 1959, with only one interruption (by the Liberal government of Adélard Godbout, from 1939 to 1944). After this time, the electorate was ready to return the Liberals to power, and it did so in 1960 with the election of the government of Jean Lesage. The Lesage government sought, upon its ascension to power, to pick up where the ALN had left off in the 1930s and advance the economic fortunes of French-Canadians through an expansion of the powers of the provincial government, rejecting the PLQ's earlier *laissez-faire* approach (Daignault 1981; Thomson 1984). In the economic domain, this included the creation of provincially-run state enterprises to stimulate Quebec's development, as well as the "nationalisation" of seven hydroelectric companies into the provincially-run Hydro-Québec company. This latter development took place under the direction of the Lesage government's Minister of Natural Resources, René Lévesque (Godin 1994).

The campaign slogan of the Lesage government, "*maîtres chez nous*", symbolised best the intentions of his government to defend a vision of liberal economic nationalism via the development and expansion of the jurisdiction of the province of Quebec. This was the same vision that had motivated the ALN in the 1930s, and as with the ALN, divisions within the Lesage liberals would soon become apparent between those more inclined towards the liberal part of this vision and those more inclined towards the nationalist part.

The Rise of the Parti Québécois

Those more inclined towards the nationalist part of the vision of the Lesage administration eventually coalesced around the leadership of his Minister of Natural Resources. René Lévesque, though a minister in the Liberal government perhaps the most defining of that government's implementation of the Quiet Revolution's key reforms, came to experience considerable dissatisfaction with his role, particularly where Quebec's relationship with Ottawa was concerned:

> As early as 1963 I said that Canada was made up of two nations, not ten provinces, adding that I felt like an Indian leaving his reservation each time I left Quebec. I contested the federal appropriation of credits for the national defense. I demanded that Quebec recover the direct taxes levied by Ottawa. I attacked "Confederation": "The current situation is abnormal. It is a jungle with a monster, the federal government, growing out of all proportion" (Lévesque 1978: 19-20).

Familiar themes are apparent in the above-cited quotation, and we should pause a moment to reflect upon them. Most of them have to do with the perspective of George-Étienne Cartier regarding Quebec's place in Confederation. Lévesque's comment returns to Cartier's notion of a binational Canada, and his suggestion that the province "recover"

taxes levied by the federal government indicates at least tacit approval of Cartier's view of the province as a "state within a state". Furthermore, Lévesque attacks Confederation, but does so because the federal government has grown "out of all proportion", suggesting that Quebec entered Confederation in the first place under a certain understanding of federal-provincial relationships that he believed had long since ceased to exist in reality. Lévesque's awareness that this understanding of a binational Canada was not shared in the rest of Canada is also a clear part of this quotation – "Canada is made up of two nations, not ten provinces."

Lévesque's commentary also touches on other historical themes thus far discussed. His sense of injustice at the "appropriation of credits for national defense" is quite intelligible in light of the conscription crises of the First and Second World Wars. His view that Quebecers were considered by outside elites as "Indians" on a "reservation" sounds like a variation of the *roi nègre* hypothesis, and thus expresses a familiar theme in economic nationalism.

Indeed, it is not difficult to see the views of Lévesque as a pretty clear collection of long-standing, historical frustrations of Quebecers with the Canadian Confederation. In addition, though the above-cited quote does not mention this theme specifically, Lévesque's politics took up one more long-standing theme in Quebec nationalist politics, that of sovereigntism.

Though pursued somewhat in the period of the 1837-1838 Lower Canada rebellions, and a bit further by the Francoeur resolution in 1918, separatism had been a fairly inactive trend in Quebec nationalism. The economic development of the first decade of the Quiet Revolution, from 1960-1970, however, gave some new life to the

notion; there was now emerging a francophone middle class, and expectations were rising amongst French-Canadians. With rising material progress, French-Canadians hoped to secure better protections for their language and culture – and perhaps for the first time they were in a position to act autonomously to do this. In light of this, fetters on the use of any autonomous powers Quebecers might have to secure these protections were galling to many French-Canadians.

It is often said that radical changes to the body politic, especially revolutions, occur whenever expectations are rising. J. C. Davies (1962) and T. R. Gurr (1970), in particular, are associated with this argument in sociological circles. There certainly seems to be ample reason to view the developments of both the Quiet Revolution and the meteoric rise of sovereigntism as at least sharing a number of elements in common with "revolutions of rising expectations" as discussed by both Davies and Gurr. The sociological theory propounded in particular by Davies suggests that revolutionary events are most likely to occur "when a prolonged period of objective economic and social development is followed by a short period of sharp reversal". In other words, these events occur when expectations are allowed to rise and then are suddenly dashed. During the time of the Lesage ascendancy, Quebecers most certainly experienced this period of "objective economic and social development". With these developments, French-Canadian nationalists had hoped to better secure protections for their language, culture and institutions; it was here that expectations would not be met, and whenever there were reversals, it would be René Lévesque to whom they would turn.

The political system was also changing at the federal level in important ways, largely in response to the new prominence of French-Canadians given the success of the

Quiet Revolution's development policies. The Canadian prime minister, Lester Pearson, had long been trying to shore up support for the federal Liberal Party in Quebec, and had been increasingly worried about accommodating a more favourable place for Quebec within the federation. The Royal Commission on Bilingualism and Biculturalism founded by Pearson, partially with the assistance of André Laurendeau, had come to the conclusion that Canada's francophone citizens, most of whom live in Quebec, were poorly served by the federal government in their own language. The commission identified long-standing economic disparities between anglophone and francophone communities in Canada, and most disturbing to Pearson were the patterns of discrimination in hiring, particular in hiring by the federal government (Government of Canada 1967).

The commission's report highlighted the gap between the economic and social progress of many Quebecers and the disadvantages many French-Canadians continued to bear, especially where language and culture were concerned. A small minority of radicals in Quebec, particularly those associated with the *Front de liberation du Québec* (FLQ, or "Quebec Liberation Front"), were already moved to violent tactics by an awareness of this gap. Comparing the situation of Quebec to that of Third World nations which were at that time gaining their independence from colonial powers, *felquistes* (supporters of the FLQ) hearkened back to the spirit of the rebels of 1837 (Trait 1970; Dumont 1971). With the publication of the Bilingualism and Biculturalism Commission report, the experience of this gap was even more widespread, and extended to the political mainstream within Quebec.

The commission's report also sent a shock wave through the federal Liberal Party, to which it became clear that Quebec's desire for linguistic protections, particularly in federal employment, should be better represented in the parliamentary caucus. The result was that Pearson was authorized by his caucus to woo intellectual and social leaders from Quebec to the party, who could make the case for the reforms advocated by the commission. The party did attract three such prominent Quebec leaders, Gérard Pelletier, Jean Marchand and Pierre Elliott Trudeau – a threesome which quickly was dubbed "the three wise men" (*les trois colombes*). Of these three, Pierre Trudeau obtained the greatest celebrity and rose quickly through the ranks of the federal Liberals, becoming the prime minister of Canada in 1968. Trudeau's impressively quick rise to the top confirmed to many that "French Power" was the dominant trend in federal politics.

It was in this context, when hope for economic and social changes benefitting francophone Quebecers was beginning to be mixed with pessimism regarding that change, that René Lévesque left the PLQ and founded a new electoral coalition, which would become the PQ. After the electoral defeat of the PLQ in 1966, when leaving the party would not imply a lack of confidence in the Lesage government, Lévesque felt himself ready to take political action independently of the Liberals to promote sovereignty. He founded the *Mouvement souveraineté-association* (MSA, "Sovereignty-Association Movement" in English) in 1967, and soon joined it with the *Rassemblement pour l'Indépendance nationale* (RIN, "Organisation for National Independence" in English), a radical and socialist organization led by Pierre Bourgault (D'Allemagne 1974; Pelletier 1976) and the *Ralliement national* (RN, "National Rally" in English), a conservative yet overtly sovereigntist group led by Laurent Legault and René Jutras

(Jutras 1965). These three organizations formed the nucleus of a new political party, the *Parti Québécois*.

The Cosmopolitan/Traditional Cleavage

In this section of the dissertation, we will describe a political cleavage between a an urban-based, "cosmopolitan" constituency (where "cosmopolitan" may be defined as favouring trade, interaction or integration with other jurisdictions) and a rural–based "traditionalist" constituency (where "traditionalist" may be defined for our purposes as being less favourable to trade, interaction or integration with other jurisdictions).

The Taschereau Free-Trade Agenda

At the time of Confederation, the majority of Quebec politicians, like the majority of Canadian politicians generally, advocated a policy of economic protectionism, aimed at shielding Canadian industry from strong competition from the United States. The "National Policy" mixed protectionism with respect to Canadian industry with an aggressive development of national infrastructure including a national railroad system. Provincial Conservatives in Quebec City advanced this policy as much as federal Conservatives in Ottawa. Indeed, the political downfall of George-Étienne Cartier, one of the founders of the Conservative Party of Quebec, was due to his involvement a corruption scandal related to the promotion of this national railroad system.

As we have already noted, Quebec turned from supporting the Conservatives towards the Liberal Party at the tail end of the 19th Century. The Liberal Party at this time, both provincially and federally, opposed economic protectionism and advocated a

policy of free trade. Quebec's own Wilfrid Laurier advanced the free trade cause at the federal level; at the provincial level, the person responsible for the strongest advocacy of this position, during his 16-year reign as Quebec premier, was Louis-Alexandre Taschereau. Taschereau believed that greater economic integration with jurisdictions outside both Quebec and Canada itself were necessary to promote economic development in the province. He believed it was better to accept a certain amount of control and ownership in Quebec from outside the province, or outside the province's francophone majority, rather than lose the province's population to migration:

> We want to bring in new industries, and we are ready to do all that is possible in that direction. We are not afraid of foreign capital. We invite foreign capital to join with us in developing our natural resources and creating industries here. Let the capital of England and of the United States come here as much as it wishes and multiply our industries, so that our people will have work. Such capital is welcome. I am not afraid, and I never will be afraid, that our French-Canadians will become Americanised because of an inflow of foreign capital. They have resisted other dangers and other trials, and as I have said many times, I prefer importing American dollars to exporting Canadian workingmen. (Vigod 1986: 122-123; cf. also Armstrong 1984; Hamelin & Roby 1971).

This theme, that Quebec's autonomy was of secondary consideration to its economic development, was to remain consistent in PLQ policy in later generations, and was to characterise the standpoint of Quebec anti-nationalist opinion from that point onwards. The Liberal Party's identity became clearly tied, during the long Taschereau reign, to this view, that a certain involvement with outside jurisdictions was beneficial. This is a stance we will refer to here as "cosmopolitan", since it advocates greater involvements with the world outside of the province.

Hamelin, Letarte and Hamelin note that a number of previously Conservative strongholds which were also majority francophone turned Liberal after 1897. Notably,

areas fitting this description lay along major trading routes, such as along the Saint-Lawrence River or in territories on the border with other jurisdictions, such as the United States or the province of Ontario:

> *Dès 1897, la vague libérale pulvérise la zone traditionnellement conservatrice des Cantons de l'Est...*
>
> *Dans la région trifluvienne, Trois-Rivières, Saint-Maurice, Champlain tombent aux mains des libéraux en 1900, Nicolet en 1904...*
>
> *Non moins étonnant nous apparaît l'évanouissement subit de l'empire des leaders conservateurs au nord de Montréal : Argenteuil et Montcalm revêtent le bonnet rouge dès 1900; Terrebonne, la même année, devient une forteresse libérale grâce a l'influence de la famille Prévost...*
>
> Since 1897, the Liberal wave pulverised the traditionally conservative zone of the Eastern Townships...
>
> In the three rivers region, Trois-Rivières, Saint-Maurice, Champlain fell into the hands of the Liberals in 1900, Nicolet in 1904...
>
> Not less surprising, it appears to us, is the reversal dealt to the empire of Conservative leaders found north of Montreal: Argenteuil and Montcalm rewear the red cap after 1900; Terrebonne, the same year, becomes a Liberal fortress thanks to the influence of the Prévost family (Hamelin, Letarte & Hamelin 1960: 191).

Involvement with the outside world threatened to foster a dependency on foreign capital, but it also threatened to expose individuals living in communities centered around traditional values, most often rural areas, to new ideas deemed dangerous by community leaders, most often the Catholic church. The Taschereau administration's policies were definitely taken in this vein:

> Even the long-suffering agricultural sector was gaining from the expansion of urban markets. Of course, not everyone approved. But those idealists who still opposed industrialisation as a threat to French-Canadian nationality spoke for an isolated and shrinking

> constituency. This was so even though their worst fears were being realised in the increasingly cosmopolitan nature of Montreal, the circulation of secular ideas, and the growth of secular institutions. New problems were arising, to which sincere critics could point without constant reference to French Canada's pastoral and religious vocation (Vigod 1986: 55).
>
> It was at this point that French [Quebec] elites began to suspect that the political ideas prevalent in Quebec before the [Second World W]ar had become almost totally irrelevant and had lost whatever hold they might have had over the population. The manner in which traditional elites had managed to harmonise North American capitalism with the social doctrines of the Catholic Church and with the national sentiment of French Quebec no longer met the very serious problems raised by accelerating industrialization and massive urbanisation, by the progressive deterioration of the economy and by the rapid expansion of federal powers and initiatives (Clift 1982: 5)

In light of the preceding quotations, we now proceed to look more closely at the phenomenon the quotes describe, namely that of the conservative French-Canadian nationalism, particularly as espoused by ultramontane representatives of the Roman Catholic church.

Clerical Nationalism

Conservative nationalism, in the context of Quebec history before 1960, is virtually synonymous with the nationalism of the Catholic Church (Bélanger 2002; L. Dion 1973: 113-125, also cf. Barreto 1998: 105-109; Rioux 1971: 45). The period of the clerical nationalist ascendancy in Quebec coincided with the failure of the 1837 rebellions to achieve a French-Canadian independence from Great Britain and English Canada. Believing a reversal of *La Conquête*, on the basis of the 1837 experience, to be an impossibility, French-Canadians turned away from political solutions and inward

towards their shared Catholic faith. In essence, the strategy after 1837 had turned from demands aimed at a thriving of French-Canadians through political reform and self-government towards demands only aimed at the survival of French-Canadians in a society which recognised at least the bare essentials of the French-Canadian culture. *La survivance*, or survival (G. Bouchard 2001: 107-110), had replaced the hope of *épanouissement*, or thriving (Behiels 1985: 84; G. Bouchard 2001: 107-110; Pepin & Robarts 1977: chapter 3). The political philosopher Serge Cantin (2000: 61) describes the choice of French Canadians in post-1837 Lower Canada and Quebec as a bleak "second-best solution" and the "response to a historic dead end":

> The road to political freedom was impassable, but that to survival remained, and the community ended up making this its avocation: Survive and be witness. But surviving is not living, as the historian Michel Brunet liked to say (Cantin 2000: 61).

The clerisy of Catholic Quebec, with its belief that "all authority comes from God" was well-suited to leadership in a culture which was, for a long period, ruled by outsiders. The church, since it saw no alternative to this domination, helped its flock to bear the hardships of the domination, while at the same time nurturing within them a sense that the culture itself was worth the hardships borne. The church, in other words, sought to preserve rather than to develop – since the threats to the very survival of the French-Canadian culture were so obvious, there could be no question of expansion of the culture...francophone Quebecers would have to accept poverty and humility in life...as one common phrase put it, they would have to accept that they were *né pour un petit pain* ("born for a small loaf of bread", or more loosely, "born for a small lot in life"):

> Thus it was that conservative nationalism contributed its support, sometimes diffuse and sometimes specific, to the established political system. Whenever conservative nationalists felt tempted to upset

> the apple cart, a strong sense of incompetence and powerlessness ("we were born to be poor and humble") and especially an absolute respect for authority soon reminded them that, although they were patriots, their conservative allegiance was perhaps still stronger (L. Dion 1975 [1973]: 119).

Léon Dion summed up the conservative nationalist's position best in the following statement: "Things being what they are, the English cannot swallow us up, but there is no way we can grow." (L. Dion 1975 [1973]: 120). The conservative nationalist movement, particularly as led by the Catholic clergy, invested its efforts strongly into the prevention of "the English swallowing us up", at this price of growth; in so doing, the Christian doctrine of "rendering unto Caesar things which are Caesar's" was well-respected. Authority, even if it came from a threatening anglophone elite, came through them from God.

It has been suggested by some, sometimes with little regard for the considerable advances in the recent history of the province, that Quebec was an especially backward place in the period from the 1840s to the onset of the Quiet Revolution in the 1960s. In some senses this is true, if by "backward" we mean oriented towards the past rather than the present or the future. The chief spokesperson for the conservative and clericalist nationalism of this period, the *Abbé* Lionel Groulx (Gaboury 1970, Hébert 1996; Mann Trofimenkoff 1973) the editor of the journal *L'Action française*, left little doubt in his writings of his reverence for the agrarian past. Indeed, the evidence of the extent of his association of the agrarian way of life with the survival of French-Canadian culture is striking:

> Then there was 1760. We lost our empire, but we kept the stronghold of our agrarian position. Recoiled into our Laurentian soil, we girded our loins for an effort as moving and audacious as the conquest of

> America: our French survival (Groulx 1937, quoted in Mann Trofimenkoff 1973).

The above quote identifies a sentiment that led many francophone Quebecers to reject out of hand, for a lengthy period in the province's history, a non-agrarian vision for their society. The sociologist Guy Rocher put it this way, using metaphors that evoke strongly the very spatial cleavages in world views within Quebec:

> Franco-Québécois reacted to this period of urbanisation and industrialisation with a *pre-industrial mentality*. Undoubtedly, this is what struck the observers of the 1930s and 1940s: Quebec resembled a place where two large streams of water met without mingling. Elements of traditional and industrial society existed side by side without interpenetrating; in rural Quebec, large regions remained well-protected enclaves of purely traditional society (Rocher 1980, emphasis in the original).

Despite the prevalence of this "preindustrial mentality", Quebec was a rapidly-industrialising province through out the late 19th Century and into the 20th Century:

> Quebec had experienced significant levels of industrialisation and urbanisation since the 1870s but these phenomena had never penetrated, to any significant degree, the collective identity of the French-Canadian people. In particular, the socioeconomic changes had not altered the ethos or *mentalité* of French Canada's clerical elite or nationalist intelligentsia...The clichéd slogan 'Notre Maître, le passé,' ["our master, the past"] coined by the clerical nationalist *Abbé* Lionel Groulx, was a faithful reflection of that historical reality. (Behiels 1985: 8)

Though Quebec was industrialising and urbanising, the clerical nationalists distrusted this change, which placed French-Canadians at the mercies of foreign capital; they preferred to defend the agricultural lives French-Canadians had lived to that point: "The land provided stability, strength, and insulation from the foreigner." (Oliver 1991 [1956]: 157) If it did not provide much in the way of wealth, at the least it provided sustenance. The church would soon be pressed to defend even this small vision against the encroachments of rapid urbanisation, however, and this was not a task at which

clerical nationalists succeeded – the challenges of the past were not the same as those with which they were now faced:

> Abbé Groulx was a historian-cleric whose colleagues were largely from university or clerical circles. This may help to explain the differences between the old nationalism and the new...[T]his tendency can be seen exaggerated a hundredfold in *L'Action française*. Abbé Groulx slogan, 'Notre Maître, le passé,' showed the focus of his interest; but it was an idealised past, and its projection into the future made a blinding screen from present reality. (Oliver 1991 [1956]: 71)

Given this domination by the clergy of Quebec social life, demands for reform, if made, had to be made through the church as an institution. Left-wing social movements were unlikely to take root in Quebec because of the evident conflict between socialist or communist prescriptions and Catholic social teaching:

> The Continental Left had had its effect in Quebec in the 19th Century, but because it was secular and anti-clerical, it had a brief and largely undistinguished history. (Oliver 1991 [1956]: 38)

Since a native Quebec political Left did not develop, reform energies were mostly channeled through a "social Catholicism" centered around the personalist French philosophical school led by Emmanuel Mounier, Gabriel Marcel and Jacques Maritain. The personalist school defended a view of a socialised individual, whose freedom comes through his participation in the community, and for whom society is responsible to provide the conditions of free development. The critical journal *Cité libre*, in fact, would organise its appeal to left-wing sentiment in the province through identification with these teachings :

> ...*Cité libre*'s deliberate public identification with French left-wing Catholicism helped it to legitimise for French-Canadian Catholics many Citélibriste ideas and proposed reforms, especially those entailing a marked discontinuity with the past. (Behiels 1985: 68)

Such was the extent of the power of the Quebec Catholic church that even those who sought drastic changes were under a great deal of pressure to make those changes consistent with the eternal verities of church doctrine, and even then, heresies were suspected. A good example of this is the controversy surrounding *Père* Georges-Henri Lévesque's 1950 suggestion that, in addition to authority, "freedom, too, stems from God":

> Authority stems from God; when Father Lévesque, in 1950, was to declare that "freedom, too, stems from God", nationalist circles viewed him as a dangerous revolutionary, which of course went down well with the authorities, not least with Premier Maurice Duplessis who quite correctly saw Father Lévesque as an intractable adversary (L. Dion 1973: 119).

Father Lévesque, as an advocate of free and compulsory education to age 16, as well as the founder of the *Université Laval*'s *Ecole des Sciences sociales* (Faculty of Social Sciences), was indeed an adversary of conservative nationalists; the traditional elites had long favoured a classical education system which led to the cultivation of an elite over a more generally accessible system given to social criticism. Many of the more trenchant Quebec social critics of future generations would be schooled in the social science faculty at Laval, and all would benefit from the free, compulsory education he advocated. In this respect many have argued Father Lévesque was in some sense the father of the Quiet Revolution, or at least of its ideas. Paradoxically, these changes in Quebec's social fabric came against the will of the clerical elite as well as through the actions of one of their number.

The Rise of the Union Nationale

The *Union Nationale*, as indicated previously, owed its electoral genesis to the joining of two political factions, the Conservatives and the ALN. The Conservatives represented protectionism in opposition to the free-trade sensibilities of the Laurier and Taschereau Liberals at the federal and provincial levels, respectively. The ALN tied this protectionism to the agrarianism that had characterized Quebec nationalism since 1837. The result was a new party that vaulted Maurice Duplessis to office in a strong electoral rejection of the economic openness of the Taschereau years, which was most strongly supported (as the pre-merger Conservatives had not been) by rural constituencies rather than urban ones:

> Such a conception of the future development of Quebec was not shared by Premier Duplessis. It was rejected out of hand by all those who supported the Union Nationale and participated in the exercise of power: the Catholic hierarchy, local elites throughout the province...The political base supporting this edifice was the mass of voters whose livelihood was linked to agriculture (Clift 1982: 7).

Hamelin, Letarte and Hamelin describe the change in Quebec politics during the period from 1936-1956 in the following manner:

> *Le libéralisme se refugie surtout dans les villes. Dans les comtés de l'agglomération montréalaise, Westmount-Saint-Georges, Outremont Notre-Dame-de-Grâce donnent plus souvent 70% que 60% de leurs votes au parti libéral. Ces comtés, avec Montréal-Saint-Louis, ont toujours élu un libéral depuis 1936...Verdun et Jacques-Cartier n'ont adhéré qu'une fois à l'Union nationale...dans la ville de Québec, Québec-Ouest a tendence de maintenir le flambeau du libéralisme.*
>
> *On peut s'interroger à bon droit sur la signification du vote urbain. Ces comtés donnent-ils un vote en faveur du parti libéral ou un vote de censure à l'égard du parti au pouvoir? Montréal-Saint-Georges et Verdun, par exemple, sont conservateurs à tous crins durant l'apogée du parti libéral et libéraux durant l'apogée de l'Union nationale. Ce serait pour eux une façon de manifester leur désapprobation d'une politique provinciale trop axée sur les*

campagnes.

> Liberalism finds refuges most of all in the cities. In the ridings of the Montreal agglomeration, Westmount-Saint-Georges, Outremont, Notre-Dame-de-Grâce, give more often 70% than 60% of their votes to the Liberal Party. These ridings, with Montréal-Saint-Louis, have always elected Liberal members of the legislative assembly since 1936... Verdun and Jacques-Cartier have only supported the *Union nationale* one time...in the city of Quebec, Quebec-Ouest has the tendency to keep lit the torch of liberalism.
>
> One may well ask oneself about the significance of the urban vote. These ridings, do they vote in favour of the Liberal Party or in order to censure the party in power? Montréal-Saint-Georges and Verdun, for example, were Conservatives at all costs during the height of the rise of the Liberal Party, and Liberals during the height of the rise of the *Union nationale*. It would be for them a way of manifesting their disapprobation for a provincial politics too centred around the countryside (Hamelin, Letarte & Hamelin 1960: 192).

The rise of the UN to power in 1936 signified the end of the old Conservative-Liberal dichotomy in Quebec politics; a realignment, fundamentally stressing the cleavage between the cosmopolitan, urban, integrationist liberals and the traditionalist, agrarian and isolationist nationalists. This cleavage was to become much more significant with the 1936 election in terms of electoral geography – urban areas supporting the Liberals and rural areas, massively, supporting the UN. Though somewhat muted today, the cleavage clearly remains in present-day patterns.

The Founder/Immigrant Cleavage

In this section of the dissertation, we explore a political cleavage between those "founding" peoples in Canadian society – namely the francophone majority culture in Quebec, the anglophone majority culture in Canada taken as a whole, and the aboriginal culture native to Quebec and Canada – and those peoples who are not regarded as

"founding" peoples and whom we describe here as "immigrant" cultural communities, even though many of them are of long-standing in Canada and thus are perhaps not properly so designated. We will speak of these cultural communities and how they relate to Quebec voting patterns in the first part of this section, and then of the Quebec "allophone" linguistic phenomenon, associated with certain of these communities, in the second part of the section.

Cultural Communities and Voting in Quebec

Cultural communities within Quebec have varying degrees of relationships to the province's political mainstream; some communities have been and remain radically distinct in their political behaviour with respect to the majority of Quebecers, while others have become more a part of the mainstream. The principal examples in today's Quebec of politically distinct cultural communities are Italian-Quebecers, Jewish-Quebecers and Greek-Quebecers. These three communities have been characterised by the sociologists M. Michael Rosenberg and Jack Jedwab (1992) as communities exhibiting a large amount of "institutional completeness" in the province of Quebec; in other words, the Jewish, Italian and Greek communities in Quebec generally, and particularly in the Montreal metropolitan area, can depend upon their own institutions to the point where reliance on either federal or provincial institutions is not necessary.

Congresses representing these three peoples – Jewish-Quebecers, Italian-Quebecers and Greek-Quebecers, formally joined into a coalition shortly after making presentations to the Bélanger-Campeau provincial commission on the status of Quebec in late 1990. This coalition, the Coalition of Hellenic, Italian and Jewish Congresses, was a

very active opponent of Quebec sovereignty during the 30 October 1995 referendum on sovereignty held by the government of Quebec. In this way the institutional completeness of these communities expressed itself in an important way. In the aftermath of the 1995 referendum, a number of prominent supporters of sovereignty took note of the organised opposition to the referendum of these communities. Most notable of the comments raised concerning the institutionalised opposition of these communities and the *en bloc* voting of these three communities against sovereignty came from the writers Pierre Bourgault (League for Human Rights 1995; Bourgault 1996: 184-187), Jacques Parizeau (League for Human Rights 1995; League for Human Rights 1997) and in the specific case of the Jewish-Quebecer community, Yves Michaud (2000).

Another long-standing cultural community, which has a certain distinct character but which also has greater ties to the viewpoints of the province's dominant political culture, would be the Irish-Quebecer community. Today, the Irish-Quebecer community stands as an example of an anglophone cultural community that has been assimilated into the majority francophone culture to a remarkable degree. In the past, however, this community was a key swing vote between the francophone and anglophone linguistic communities.

Jewish-Quebecers

The story of the social and political interaction of Jewish-Quebecers with the "founding peoples" of the province of Quebec is sufficiently complicated as to warrant more detailed enquiry. In the text of this dissertation, we will forego this enquiry, and instead focus upon elements more directly relevant to specific voting behaviours in the

Jewish-Quebecer cultural community. The cleavage between Jewish-Quebecers is, whatever else can be said about it, clearly thoroughgoing. Works pertaining to this division are identified symbolically in the bibliography. A number of points directly relevant to the present dissertation will be made directly in this section.

Jewish-Quebecers have a long-standing association with the PLQ. This association goes back to the first two decades of the 20th Century when the Jewish community in Montreal was represented by the Liberal member of the legislative assembly, Peter Bercovitch. Jewish representation in the National Assembly has always been provided by the PLQ, except for two instances. The first of these was in 1938 when the UN forwarded a Jewish candidate in the Montréal-Saint-Louis riding by the name of Louis Fitch, who served for a year until replaced by the PLQ's Maurice Hartt, also a Jewish-Quebecer. The second of these involved Robert Libman, the leader of the Equality Party elected an MNA for the D'Arcy-McGee riding, who had broken with the PLQ in 1989 and was beaten in the subsequent election by Lawrence Bergman, the PLQ's candidate and also a representative of the Jewish community.

Outside of these aberrations, the PLQ has generally gotten one or two of its Jewish candidates elected in traditionally "Jewish ridings" such as the old Montréal-Saint-Louis riding or the current D'Arcy-McGee riding routinely each election. Support for Lawrence Bergman, the Jewish-Quebecer PLQ candidate in D'Arcy-McGee in 1998, was so high in the overwhelmingly Jewish former municipalities of Côte-Saint-Luc and Hampstead that the average percentage vote by the polling stations in these two cities exceeded 90%. The other major political party in the province of Quebec, the PQ, was supported at these polling stations by an average of less than 2% of the voters. The

average number of registered voters per polling station was 241.9 for Côte-Saint-Luc and 250 for Hampstead; at roughly one-third of the polling stations in each municipality, the PQ's candidate, Jean-Claude Gaudette, received zero votes.

Table 2 shows how Jewish-Quebecer voting in these two former municipalities where the largest concentration of Jews in the province of Quebec live is strongly oriented towards the PLQ as represented in the 1998 election by Lawrence Bergman.

Town	**Percentage Jewish religion (1991 census)**	**Percentage Jewish ethnicity (1996 census), unique ethnicity, part of ethnicity**	**Average support by poll for PLQ candidate Lawrence Bergman in municipality**	**Average support by poll for PQ candidate Jean-Claude Gaudette in municipality**	**Polls in which zero voters supported PQ candidate Jean-Claude Gaudette**
Côte-Saint-Luc	73.6%	48.4% - unique 18.5% - part	92.41%	1.13%	30 of 92 (32.61%)
Hampstead	74.1%	49.5% - unique 21.1% - part	92.65%	1.88%	6 of 21 (28.57%)

Table 2.
Jewish-Quebecer Voting in Côte-Saint-Luc and Hampstead (D'Arcy McGee riding) 1998 Provincial General Election
Sources: Statistics Canada 1991, 1996; *DGÉQ* 1998

In part, this massive demonstration of support for the PLQ owes to a historical decision; Quebec's decision in the 1920s to send Jewish students to the largely English-speaking Protestant school system, rather than integrate them into a school system in which French was the language of education, meant that Jewish-Quebecers would largely gravitate towards English rather than French as a language of expression. This is true for the main group of Quebec Jews, of the *ashkenazi* sect of the faith, though a group of

sephardi Jews which immigrated in a later wave of immigration in the 1960s from the Middle East, mostly from Morocco, is oriented more towards French.

Jewish-Quebec voting patterns have historically not only been pro-PLQ but also anti-sovereignty *per se*. Twelve polling stations in Côte-Saint-Luc also recorded not a single vote in favour of the sovereignty referendum, and other stations reporting not a single vote in favour of sovereignty included the municipalities of Hampstead, Montreal West and Dollard-des-Ormeaux, all of which have substantial Jewish populations (Michaud 2000: 32). The D'Arcy McGee riding voted 3.62% in favour of sovereignty, by far the lowest of any of the Quebec ridings (*DGÉQ* 1995).

It is evident, despite the claims of the journalist and politician Yves Michaud to the effect that this opposition to sovereignty amongst Jewish-Quebecers can be considered an "ethnic vote against sovereignty ("*un vote ethnique contre la souveraineté*", cf. Michaud 2000: 32), that opposition to the sovereigntist project among Jewish-Quebecers comes from the suspicion of Quebec nationalism's association with antisemitism. Other cultural communities in Quebec did not meet with quite the level of open hostility coming from the nationalist population that Jewish-Quebecers did, and it is fairly evident that the weight of this past hostility still bears down heavily on Quebec Jews. Most disturbing to the Jewish-Quebecer population is the knowledge that individuals who have demonstrated open hostility to Jews have been amongst the most important and currently revered leaders of the nationalist movement – leaders such as Henri Bourassa, Montreal mayor Camillien Houde (Tard 1999), André Laurendeau, and Lionel Groulx.

Today, the MNAs representing the Jewish-Quebecer community in the National Assembly are D'Arcy McGee's Lawrence Bergman and the nearby riding of Notre-Dame-de-Grâce's Russell Copeman. Both individuals sit on the PLQ side of the assembly.

Italian-Quebecers

Italian-Quebecers also have a long-standing political association with the PLQ, principally dating back to the 1967-1969 Saint-Léonard dispute. This dispute involved the decision of the Catholic school board in the Montreal suburb of Saint-Léonard to set French as the language of teaching for schools serving a largely Italian-Quebecer population. To that point, Italian-Quebecers had either gone to "Anglo-Catholic" schools, such as those serving the Irish-Quebecer population, or had created bilingual schools which taught in both English and French, as well as some amount in Italian:

> *Ce choix des parents italiens trouve ses racines au début des années 1920 et dans les décennies qui suivirent. Deux éléments fondamentaux d'abord: la pauvreté du réseau français et catholique (manque d'écoles et enseignants mal payées, comparativement au réseau protestant anglais) et accueil mitigé, sinon rejet, des "étrangers" dans les écoles très catholiques qui refusaient même les catholiques immigrants. C'est précisement pour ces raisons que, dès 1907, la paroisse italienne du Mont-Carmel avait mis sur pied ses propres classes "bilingues". Celles-ci enseignaient l'italien et le français de la maternelle à la troisième année, et ensuite le français et l'anglais, mais aussi le catéchisme en italien.*
>
> The choice of Italian parents finds its roots in the beginning of the 1920s and in the decades that followed. Two fundamental elements: the poverty of the French Catholic system (few schools and poorly paid teachers, compared to the English Protestant system) and mitigated welcome, if not rejection, of "outsiders" in the very Catholic schools which refused even Catholic immigrants. It was precisely for these reasons that, since 1907, the Italian

> parish of Mont-Carmel undertook their own "bilingual" classes. These taught in Italian and French from kindergarten to Grade 3, and then French and English, but also the catechism in Italian (Painchaud & Poulin 1988: 152).

To put this in the somewhat clichéd vocabulary of today's generation of Quebecers, Italian-Quebecers sought English and bilingual education for "money" reasons (English schools were better funded, and also were likely to lead to better job opportunites, both because of this better funding and because prospective employers in Quebec's business elite were likely to be English) and "ethnic" reasons (Italians were seen as unwelcome outsiders in French schools). Part of the construction of the Saint-Léonard schools crisis also lay in the fact that the English Protestant school system, as well as schools in the "Anglo-Catholic" sector of the Catholic system, had been more welcoming:

> *...[L]es écoles "irlandaises" anglo-catholiques et les écoles protestantes acceptaient, sinon sollicitaient, tous les enfants des immigrants qui s'installaient à Montréal.*
>
> ...[T]he "Irish" Anglo-Catholic schools and the Protestant schools accepted, if not solicited, all the children of immigrants that located in Montreal (Painchaud & Poulin 1988: 152).

In many respects, the inclusiveness with respect to immigrants in these school systems had to do with a certain self-interestedness on the part of Quebec anglophones. If the French schools in the Catholic system behaved in an exclusive fashion with respect to the immigrants, this made it all the more likely that immigrants would assimilate towards English rather than French, thus bolstering the anglophone community's demographic weight in Quebec (Painchaud & Poulin 1988: 153). Nevertheless, the possibility of doing so was only open because immigrant communities did not feel welcomed by the French Catholic schools.

In failing to welcome Italian-Quebecers, francophone Quebecers missed an opportunity. Italian-Quebecers were, according to the 1967 Bilingual and Bicultural Commission report, the only non-Aboriginal ethnic group that ranked lower than French-Canadians in terms of average income (Stephenson 1999: 101). In addition, they were Latins by heritage and Catholic by faith. French, being a Romance language, is a more congenial language for Italians to adopt than a principally Germanic language such as English. One might have thought on the basis of these facts that the two communities could have found considerably greater amounts of common ground. In earlier years, in fact, they had found it to some extent – but coming into the late 1960s they would decisively oppose themselves to each other:

> A study of Montreal Italians conducted in 1964 and 1965 discovered that a larger proportion could speak French than could speak English. They were more likely to marry francophones than to marry anglophones. They did not wish to be forced to take sides between the French and the English, although they were overwhelmingly opposed to the separation of Quebec from Canada. However, they preferred, for essentially pragmatic reasons, to send their children to English schools (Stephenson 1999: 102).

The Saint-Léonard dispute, to Italian-Quebecers, represented one of two phenomena – it was either an extension of the resented exclusive attitude of the French Catholic school system towards ethnic minorities or a contraction of greater economic possibilities that the learning of English might afford members of their community. In either case, by the conclusion of the Saint-Léonard crisis in 1969, Italians had made up their mind that one of these reasons was sufficient to side against Quebec nationalism, and the electoral strongholds of the Italian community in the north-central part of the Isle

of Montreal have been PLQ ever since, save for a brief flirtation with the UN's Rodrigue Biron in 1976.

The three Quebec ridings with the most solid concentration of Italians have voted PLQ since the 1980s. Table 3 shows the concentration of the Italian population, by linguistic and ethnic criteria, and the vote for the PLQ in the ridings in question. The Jeanne-Mance, Viau and Viger ridings centre around the Saint-Léonard area, which remains the preferred location for Italian-Quebecers in Montreal. Two of these three ridings are represented by members of the Italian-Quebecer community at present: the Viau riding, representated by William Cusano, formerly the secretary-general of the *Consiglio Educativo Italo-Canadese* ("Italian-Canadian Educational Council"), who has represented Viau since 1981 in the National Assembly; and the Viger riding, represented by Anna Mancuso, formerly the national president of the Italian-Canadian Congress. Ms. Mancuso was elected in a special election in 2002, but she also took over from an Italian-Quebecer representative for this riding, Cosmo Maciocia, who was the MNA for Viger since its creation in 1980.

Table 3 shows that these three riding strongholds for the Italian-Quebecer community have not deviated from warm support for the PLQ nor from strong opposition to the sovereignty referenda in any election since 1981.

Riding	Percentage Italian as language: "mother tongue" and spoken at home	Percentage Italian as ethnicity: unique ethnicity, part of ethnicity	PLQ Voting in Past Elections	*Non* Voting in Past Sovereignty Referenda
Jeanne-Mance	30.9% - mother 18.2% - at home	34.1% - unique 3.6 - part	1998 – 77.31% 1994 – 74.22% 1989 – 65.06% 1985 – 70.24% 1981 – 49.0%	1995 – 75.31% 1980 – 67.46%
Viau	17.8% - mother 12.4% - at home	18.6% - unique 2.1% - part	1998 – 70.08% 1994 – 63.19% 1989 – 61.48% 1985 – 66.12% 1981 – 44.5%	1995 – 68.80% 1980 – 65.92%
Viger	21.3% - mother 12.9% - at home	23.5% - unique 2.4% - part	2002 – 72.26% 1998 – 64.80% 1994 – 64.27% 1989 – 60.73% 1985 – 68.28% 1981 – 49.7%	1995 – 67.88%

Table 3.
Pro-PLQ and Anti-Sovereignty Voting in Ridings Comprising Concentrations of Italian-Quebecers
Provincial Elections After 1980
Sources: *Assemblée Nationale du Québec* 2002; Statistics Canada 1996; *DGÉQ* 1998

Greek-Quebecers

The cultural community of Greek-Quebecers also has, in an overall sense, a clear association with the PLQ and with opposition to sovereignty, though some clarifications do need to be made about this statement at the outset. First, some political attitudes expressed by Greek-Quebecers need to be explained in the context of their mother country's post-World War II history. Shortly after World War II, Greece had its own civil war between communist revolutionaries and Greek nationalists; each side to the

conflict was supported by the USSR and the US, respectively, so the civil war can properly be seen as itself being a battle in the Cold War. This civil war endured for three years, from 1946-1949, and ultimately saw the defeat of the communists and the establishment of parliamentary democracy. A number of right-wing pro-American governments governed in Greece until 1963, when the liberal/social democratic George Papandreou was elected. The King of Greece, Constantine II, dismissed Papandreou in 1965, and a short two-year period of institutional instability followed as various leaders attempted to form interim governments before the next elections in 1967. Just before those elections, a military junta led by George Papadopoulos took over the country. During the rule of General Papadopoulos, which lasted from 1967 until he was deposed at the end of 1973, liberals and leftists were greatly on the defensive.

Greek-Quebecers were strongly divided during the Papadopoulos regime into "pro-junta" and "anti-junta" factions, and to some extent, the war between supporters and opponents of the Papadopoulos government spilled into life in the Greek community in Montreal. Christos Sirros, today the PLQ MNA for the Laurier-Dorion riding in central Montreal, recalled the worries about political expression which characterised the feelings of many in the Montreal Greek-Quebecer community during the days of the junta:

> To compound an already difficult situation, there existed a definite lack of unity amongst even the immigrant population. In fact it may be said that there was a state of active disunity. Political events in Greece during 1967 served as a catalyst for such disunity. Many Greeks had left Greece for political reasons as well as economic ones. There were those who wanted to forget about any sort of politics, those who wanted to continue their fight against the Greek regime, those who supported the Greek regime and those who feared any kind of association with any of these groups. Suddenly, people who had previously been friends began to question each other on the issue of the *coup d'état*. Suspicion, long a trait of people who must fight for their survival, began

to creep into almost all community affairs (Sirros 1973: 6).

The leader of Greece's socialist party in exile, Andreas Papandreou, the son of George Papandreou and an academic economist by profession, accepted a post in 1969 as a professor at York University in Toronto, bringing the mother country's political situation further home to Greek-Quebecers. Strong support for the two Papandreous soon manifested itself in Montreal's "working-class socialist Greek immigrants" (Chimbos 1980: 128), and this translated into support for the New Democratic Party:

> Most of the Greek-Canadians who participated in the New Democratic campaign in Montreal had been involved previously in socialist movements and campaigns in Greece. The immigrants' involvement in the NDP campaign enhanced their political solidarity and later facilitated their active involvement in the political issues of the home society. For example, in 1965 they organised the mass rally in Montreal against King Constantine's dismissal of George Papandreou. Later on they became the organisers of the anti-junta movements in Montreal (Chimbos 1980: 128-129).

Since the PQ also had its connections to social democracy, some of this "working class socialist" political sentiment could also translate into support for the PQ:

> The editor of the Greek-Canadian newspaper The Hellenic Postman (the most popular Greek-Canadian socialist newspaper in Canada) expressed his views about the [1976] victory of the *Parti Québécois* as follows: "The electoral victory of the *Parti Québécois* opens new horizons in the life of our province. It brings a new message of progress, justice, happiness and security for all people of this beautiful and wealthy province...With faith, trust and devotion to the new leaders of our province let's all...contribute to the creation of a NEW QUEBEC which will provide equality, justice and affection for all." (Chimbos 1980: 130).

However, the honeymoon for Greek-Quebecers with the PQ after the 1976 election was short lived, given the quick implementation of Bill 101 the following year. Greek-Quebecers believed that "immigrants already established in Quebec would have freedom of choice in the language of their children's education" (Chimbos 1980: 130), a

somewhat naïve belief since the Saint-Léonard crisis had made it fairly clear that this kind of choice was not generally advocated amongst linguistic activists in the francophone community. Like the Italian community, the Greek community was a community of long standing in Quebec; there were 1000 Greeks in Montreal by 1906 and the earliest Greek immigration occurred around 1820 (Stathopoulos 1971: 25). It was likely for this reason that the Greek community reacted very negatively as well to controls over the language of instruction in their schools, and did so not so much because of hostility to learning French, but because of the perceived economic and social benefits of learning English. A brief submitted to the province by Greek-Quebecer community activists from the Greek Community of Montreal organisation provides some insight into their position:

> We wish first of all to state that French must be established as the main official language in all facets of public life in our province. However, we also support the position that knowledge of the English language is indispensable for success in any career in Quebec, in other parts of Canada and in the North American context. This knowledge is also indispensable for the proper optimisation of the human resources of our community, within the framework of the desired development and progress of the Quebec society (Chimbos 1980: 130).

The roots of this attitude amongst Greek-Quebecers can be traced to some of the same sources in Quebec's educational policy; like Jewish-Quebecers, Greek-Quebecers, the vast majority of whom practice the Greek Orthodox religion, were not welcomed into the French Catholic school system during the early periods of immigration, and consequently were also officially relegated to the English Protestant school system (Chimbos 1980: 83).

Unlike the other ethnic groups discussed in this section, Greek-Quebecers do not control as strongly the voting behaviour of any specific riding. Greek-Quebecer voters are numerous in the Laurier-Dorion, Acadie and Chomedey ridings, the former two ridings in the central part of the Isle of Montreal and the latter riding in central Laval. Laurier-Dorion has been generally regarded as the "Greek riding", and has been represented since 1981 by Christos Sirros of the PLQ, a member of the council of the Greek Community of Montreal himself born in Athens. However, as Table 4 shows, the Chomedey riding in Laval is perhaps now more properly considered the "Greek riding", as it has a much larger Greek-Quebecer population, which even surpasses 10% speaking

Riding	**Percentage Greek as language: "mother tongue" and spoken at home**	**Percentage Greek as ethnicity: unique ethnicity, part of ethnicity**	**PLQ Voting in Past Elections**	***Non* Voting in Past Sovereignty Referenda**
Acadie	6.1% - mother 0.3% - at home	6.3% - unique 0.5% - part	1998 – 75.19% 1994 – 73.71% 1989 – 65.62% 1985 – 74.04% 1981 – 56.7%	1995 – 78.78% 1980 – 73.58%
Chomedey	15.8% - mother 11.1% - at home	15.9% - unique 1.3% - part	1998 – 69.87% 1994 – 67.70% 1989 – 53.39% 1985 – 72.66% 1981 – 54.8%	1995 – 72.62%
Laurier-Dorion	11.1% - mother 9.4% - at home	11.1% - unique 0.4% - part	1998 – 56.70% 1994 – 55.53%	1995 – 62.78%

Table 4.
Pro-PLQ and Anti-Sovereignty Voting in Ridings Comprising Concentrations of Greek-Quebecers
Provincial Elections After 1980
Sources: *Assemblée Nationale du Québec* 2002; Statistics Canada 1996; *DGÉQ* 1998

Greek in the home. The Chomedey riding shows the expected warm support for the PLQ – the only election in which support was not overwhelming for the PLQ was 1989, when a strong Equality Party candidate took votes away from the PLQ candidate, Lise Bacon – and strong opposition to sovereignty. The expected pattern is also demonstrable in the Acadie riding in which Greeks are less numerous but fairly evidently part of a pro-PLQ and anti-sovereignty consensus. Interestingly, it is the renowned "Greek riding" of Laurier-Dorion which demonstrates less fervour for the PLQ than the other ridings, though admittedly still an outright majority in every election, and enough to elect and re-elect the main representative of the Greek community to the National Assembly.

Irish-Quebecers

The cultural community of Quebecers of Irish extraction has been involved in the politics of the province since before the days of Confederation, as Irish immigrants to Quebec were largely part of a pre-20th Century wave of immigration. Unlike Italian-Quebecers and Jewish-Quebecers, Irish-Quebecers have been in the province for such a long time that intermarriage of the Irish-Quebecer community with the majority francophone Quebecers and assimilation towards French has been much more of a factor with regard to this community.

This being the case, Irish-Quebecer voting preferences, which were quite distinct in the 19th Century, have tended in the 20th and 21st Centuries towards indistinguishability with those of the majority francophone culture. Quebecers with Irish roots abound in the political history of the province, and include the federal prime ministers Louis Saint-Laurent and Brian Mulroney, the provincial premier Edward James Flynn, the provincial

premiers from the Johnson family (Daniel *père*, Pierre-Marc and Daniel *fils*), a recent leader of the PLQ, Claude Ryan, as well as the current leader of the PLQ, Jean Charest, and a list of other influential players in Canadian politics, such as Thomas D'Arcy McGee, and Quebec politics such as Robert Neilson, Edmund O'Callaghan, Joseph Shehyn, Robert Burns, Claire Kirkland-Casgrain and Louis O'Neil. Some of these were *patriotes* in the days of Papineau and the 1837 rebellions (Robert Neilson, Edmund O'Callaghan) while others were full-fledged sovereigntists after the founding of the PQ (Pierre-Marc Johnson, Robert Burns, Louis O'Neil).

In a way, the story of Irish-Quebecers' political participation in the province has epitomised bipartisanism. The Irish immigrated to Canada in order to escape conditions in the mother country which were intolerable, and for which most held the government of Great Britain responsible. Most important of these was the Potato Famine of 1847, which was seen by the Irish as "a monolithic Irish peasant nation being starved by the prosperous British" (Ó Gráda 1988: 62)[1]. Furthermore, the Catholic faith of many of the Irish immigrants was something they had in common with francophone Quebecers, and which separated them in large measure from other anglophone Quebecers. For these reasons, some political affinity with other groups, such as francophone Quebecers, who felt held back or dominated by the British was probably inevitable, and it was quite natural that many Irish-Quebecers would be supporters of the *Parti patriote* and the 1837 Rebellions. On the other hand, Irish-Quebecers were anglophones for the most part in the 19th Century, and this constituted a tie with English-Quebecers. Furthermore, many of the Irish Catholics who emigrated to the Canadian provinces in the 19th Century did so

[1] Cormac Ó Gráda does not share this interpretation of the history of the Irish famine, but his acknowledgment that this has been the dominant interpretation of the event amongst the Irish establishes the present point.

because they were Loyalists politically; those who were in no sense Loyalists to the British crown had the choice of emigrating to the republican United States which had long since cast off the monarchy, after all. Thus, appeals to Loyalism could indeed sway Irish-Quebec voters, even those of the Catholic faith. These appeals were to be much more effective after roughly the year 1835, as schisms in the *Parti patriote* and changes in electoral rules were to drive Irish-Quebecer voters into the arms of the tories.

In 1832, the *Parti patriote* in the Montréal-Ouest riding selected the Irish-Quebecer Dr. Daniel Tracey to represent them in a by-election against Stanley Bagg, an anglophone tory. Tracey had recently been arrested for libel for writing an editorial against certain members of Quebec's then-existing upper house, the Legislative Council, in his newspaper *The Vindicator*. The editor of *La Minerve*, Ludger Duvernay, had also recently been arrested for that offence in a similar incident. The timing of these arrests made it seem clear that Irish-Quebecers and francophone Quebecers were fighting the same enemy and were being punished unjustifiably for the same offences. For this reason, according to the historian France Galarneau (1979), francophone Quebecer voters did not have to be overly convinced to support Tracey. In fact, many French-Quebecers not only identified with Tracey, but indeed with the Irish quest for Home Rule from Great Britain, as sought by the Irish parliamentarian Daniel O'Connell. Helen Taft Manning (1962), in her history of the pre-1837 "Irish-French alliance" in Quebec, quotes a contemporary English observer in confirmation of this reverence of Mr. O'Connell and his anti-unionist vision:

> It is astonishing how much the name of Daniel O'Connell is known and used among the Canadians [French-Quebecers]. I have seen in the most distant situations little framed engravings of "O'Connell the man of the people" suspended on the walls in juxtaposition with

> the Virgin and the Crucifix in the Bed Chambers of French Canadians (quoted in Manning 1962: 206).

David De Brou, a historian at the University of Saskatchewan, describes the response of Irish-Quebecer voters in early 19th Century elections as being complex for the sorts of reasons described above. De Brou's work focuses on Irish voting behaviour in Upper Town Quebec City; after looking at a number of polling books, census returns and assessment rolls, he was able to piece together a picture of voting behaviour amongst Irish-Quebecers in Quebec City. He argues that during a period in Quebec electoral history when voters could cast two votes in legislative assembly elections, it was often the case that Irish Catholics, as well as British Catholics and religious Non-Conformists, would split their vote between an anglophone tory candidate and a francophone *Parti patriote* candidate. When the two-vote system was abolished and Irish Catholic voters had to "choose between religion and language" in the Upper Town by-election of 1836, they chose language (De Brou 1991: 326). Though Irish Catholic support for the *Parti patriote* was undeniable, this article by De Brou suggests that this support was certainly not monolithic.

In more recent electoral history, Irishness seems to be not much of a salient feature in terms of whether voters support the PQ or the PLQ, or whether they support sovereignty or federalism. About the most one can say for this thesis is that where Irish-Quebecers have largely assimilated to the francophone majority culture, support for sovereignty is greatly improved. Strongholds for those of Irish descent in Quebec include regions, predominantly rural, such as the Laurentians, Lanaudière, the Gaspé Peninsula and the Beauce-Appalaches region (Grace 1993: chapter 3) all of which are fairly warm to the sovereigntist or nationalist currents of opinion, or to the PQ. In other

predominantly rural such as the Eastern Townships and the Outaouais, on the other hand, such assimilation less characterises the Irish community's history, and there is a great deal more support for federalism and the PLQ. This very likely is accounted for by the fact that these regions lie along borders with other jurisdictions where the predominant language is English, rather than Irishness *per se*. Irish-Quebecers of the Protestant faith were also more likely to be found in these regions where English predominated (Grace 1993: 45), while Catholics were much more likely to choose regions which were overwhelmingly francophone.

The history of Irish-Quebecer relations with francophone Quebecers in the Eastern Townships merits special consideration here. A region first settled by anglophones, francophones began to establish themselves in the region in large numbers in the 1840s. In 1848, an association to advance francophone Quebecer settlement of the region was founded, called *l'Association pour l'établissement des Canadiens français dans les Townships du Bas-Canada* ("the Association for the Establishment of French-Canadians in the Lower Canadian Townships"). This organisation was led by the Irish-born priest Bernard O'Reilly (Little 1989: 17-18). This kind of overlap between Irish-Quebecer and francophone Quebecer interests is certainly a remarkable example of where common religious and political beliefs united rather than divided the two communities.

Qui prend langue, prend pays...

In their work, the political scientists Pierre Serré and Nathalie Lavoie have coined a term that describes well the tendencies of the vote of ethnic groups and visible minority groups in Quebec. In this section, we will describe at length the phenomenon described

by this term of theirs. The term is "*qui prend langue, prend pays*" ("who partakes the language, partakes the nation"). The phenomenon this term describes is the tendency of immigrant communities in Quebec that are linguistically integrated into the francophone community to support sovereigntism, and hence the political party most associated with sovereignty, the PQ.

A representative illustration of "*qui prend langue, prend pays*" is the following, drawn from Dorothy Williams' description of the black Quebecer community, the largest group amongst Quebec's visible minorities. This illustration shows how the language debate in Quebec has drawn widely differing reactions from anglophone blacks, which are spatially concentrated in downtown Montreal, near the Lachine Canal, and from the more numerous and spread out francophone black population in the city:

> The language-related legislation and the [1980] referendum created anxiety and uncertainty among English-speaking blacks as they attempted to define the black position in this great political debate. There were some blacks who felt that the language debate did not concern them because it reflected the concerns of two white, European groups, and that blacks should sit on the sidelines of the debate and await the outcome...The passing of the language acts produced a strong negative reaction in the English-speaking black community. The French-speaking population was generally sympathetic to "the goals being pursued by Quebecers to acquire political instruments." (Williams 1997: 146-147).

Black Quebecers who "partake the language", in this example, also "partake the nation" – francophone blacks demonstrate their sympathies towards the nationalist cause of Quebecers. Black Quebecers who do not "partake the language", by contrast, not only reject sovereigntism, but do so in a "strong negative" way.

Michel Brûlé, in his opinion piece *PQ-de-sac*, sets forth the view of many sovereigntists when he describes his particular take on the history of Quebec

immigration. In his view, those immigrants arriving after the 1960s have been better integrated into Quebec by virtue of policies which encouraged immigration from French-speaking countries or policies which encouraged non-francophones to adopt the French language – and the difference between post-1960s immigrants and those arriving before 1960, which were much more assimilated into the anglophone community, is glaring:

> *Néanmoins, les communautés ethniques et culturelles qui se sont installées au Québec depuis les années 60, telles que les Juifs sépharades, les Arabes, les Haïtiens, les Vietnamiens et les Latino-Americains, sont assez bien intégrées à la majorité francophone...puis une large majorité de Juifs ashkénazes, de Grecs et d'Italiens, qui sont plus ou moins assimilés aux Anglais et qui leur servent de faire-valoir, sont entrés dans la danse. Les Québécois sont des veritables criminels: ils prennent des mesures pour que les immigrants qui habitent leur territoire parlent la langue de la majorité...*
>
> Nevertheless, the ethnic and cultural communities which were located in Quebec after the 1960s, such as the Sephardic Jews, the Arabs, the Haitians, the Vietnamese and the Latin Americans, were well enough integrated into the francophone majority. But a large majority of Ashkenazi Jews, Greeks and Italians, which were more or less assimilated to English and which served to make it valuable to them, entered into the dance. The *Québécois* are really criminals: they're taking measures such that immigrants who live in their territory speak the language of the majority (Brûlé 1997: 27).

Brûlé's description of this divide is supported by Serré and Lavoie, though the figures these scholars provide do not establish that a majority of immigrants in groups that are more acculturated to the francophone community in fact support sovereignty. Despite this, the figures provided by Serré and Lavoie do establish that these immigrants are far more likely to support sovereignty than those immigrants with little connection to the French language. In Table 5, the results uncovered by Serré and Lavoie are provided.

	By Country of Origin Support for sovereignty	**By Mother Tongue** Support for sovereignty	**By First Language** Support for sovereignty
Native to country, or francophones	47.2% (native to country)	60.8% (francophones)	61.8% (francophones)
Very Integrated examples: French, Haitian, Spanish, Arabic, Latin American, Southeast Asian	33.3%	25.9%	25.2%
Moderately Integrated examples: Portuguese, African, Italian, Armenian, Iranian, Turkish, Eastern European, German, Polish	18.4%	12.0%	12.8%
Poorly Integrated examples: English, Chinese, Greek, American, East Indian, British West Indian			

Table 5.
Effect of Integration and Francisation of Communities on Polling Preferences, 1995-1997.
Source: Pierre Serré and Nathalie Lavoie, "Le comportement électoral des Québécois d'origine immigrante dans la région de Montréal, 1986-1998", *L'Annee Politique au Québec*.

Support for sovereignty roughly doubles amongst the immigrant communities that have been linguistically acculturated, and this does translate into support for sovereignty and the finding of "political instruments" for the expression of *Québécois* nationalism. Nevertheless, this support is nowhere near the 60.8% and 61.8% levels of support for sovereignty, by mother tongue and first language, respectively, demonstrated by francophone Quebecers generally. It is also not all that close to the 47.2% support for sovereignty demonstrated by those from Quebec/Canada as their "country of origin" (in contrast with origins in the national communities of the three groups identified in Table 5.) Despite the effect of "*Qui prend langue, prend pays*", ethnic voters and visible minorities in Quebec have not come to be majority supporters of the sovereigntist project.

The Quebec Allophone Phenomenon

All of the foregoing allow us context to discuss the nature of the debate over Quebec's "allophone" population, or, that portion of the population with a maternal language that is not one of the languages of the Canadian "founding peoples": that is, not French, not English, and not one of the many aboriginal languages of Canada. The assumption that "*qui prend langue, prend pays*" has led generations of Quebec policy makers to prepare policies that have as their objective the conditioning of French-language usage and preference amongst the allophone population.

In 1977, the new PQ government introduced the "Charter of the French Language", also known as Bill 101. This bill moved to establish French as a language of everyday usage and commerce within the province, through a number of specific and highly controversial means. Principal among these were the requirements that all commercial signage be in French and that all businesses employing more than 50 people conduct their business in French. Another key requirement of the bill was that, though French and English school systems would be retained in the province, new immigrants to Quebec would be required to send their children to the French language school system, in order that they be integrated into the province's French civic culture.

These policies have met with certain successes and failures. According to the University of Ottawa mathematician Charles Castonguay, Bill 101 has largely succeeded at encouraging linguistic transfer towards French for those allophone immigrants less than age 15 upon arrival in Quebec in 80 percent of cases. Those over 15 upon arrival, and those born in Quebec still are, however, disproportionately attracted to English rather

than French (Castonguay 1999: 48). These results from an analysis of the 1996 Canadian census suggest pretty clearly that it is Bill 101's provisions on the language of education that is responsible for the greatest changes in transfers towards French.

Castonguay does give its due the fact that "three quarters of allophone immigrants arrive aged 15 or more", and that intergenerational transmission of English is likely to contribute to a "demographic forecast of a decline in Quebec's French-speaking population in the near future" (Castonguay 1999: 48). Despite this, he places strong emphasis on the fact that the PQ's language laws did have an effect on the preservation of the French language in the province:

> ...[C]ompulsory public schooling in French – already partially implemented in the mid-1970s by the Bourassa government's Bill 22 – has had a decisive impact on language shift among allophones who arrive in Quebec at school or pre-school age (Castonguay 1999: 48).

Castonguay cites a distinction made by Canada's Bilingualism and Biculturalism Commission in explaining the reason behind this success. This distinction is between two principles identified in the commission's report, those of the "territorial principle" and the "personality principle":

> [The report's] findings, based largely on the 1961 census, subsequently determined major aspects of Canadian language policy. The commission's most fundamental decision in this respect was to reject what it called the "territorial principle" adopted by countries such as Switzerland and India. Under this principle, jurisdiction over most aspects of language use is devolved to regional governments, with the full expectation that they adopt divergent policies reflecting the interests of the local majority language community...in rejecting the "territorial principle", the commission instead opted for what it defined as the "personality principle". Under this alternate principle, language rights adhere to individuals, not to territories (Castonguay 1999: 39-40).

Castonguay identifies Quebec and New Brunswick as isolated instances of the application of the "territorial principle" within the national context of Canada's linguistic policies which are otherwise characterised by this "personality principle". Importantly, Castonguay explicitly and emphatically argues that policies fashioned according to the "territorial principle" do better at preventing linguistic assimilation than those created with the "personality principle" in mind.

New Brunswick is identified by Castonguay's analysis as the only other province in Canada where anglicisation is even slowing down; his contention is emphatically that New Brunswick as well has benefited from the "territoriality" of its language policies:

> ...[A]nglicisation rates among all provincial francophone minorities have increased since 1971, save in New Brunswick [where the rates of increase have dropped since 1971]...The one positive trend in anglicisation rates of francophones outside Quebec remains the slight decrease in New Brunswick...There are several reasons for this. New Brunswick's francophones have gained far more in the way of language rights and institutional completeness than any other provincial francophone minority. Under New Brunswick's 1981 *Act Recognising the Equality of the Two Linguistic Communities in New Brunswick*, which was subsequently entrenched in the Canadian Charter of Rights, they have even received recognition as a kind of collectivity – if not as a people or nation. This is more than the francophone minority of Canada as a whole has obtained thus far from English Canada (Castonguay 1999: 45-46).

Where Quebec's language laws are concerned, Castonguay makes the point equally emphatically; the exercise of territorial jurisdiction over language policy is the sole positive tale to tell about the preservation of the French language in the province:

> ...[I]n the short run, Quebec language policies have achieved some success by applying the "territorial principle" within the limits of provincial jurisdiction. They have to a certain extent helped preserve Montreal as a majority francophone metropolis (Castonguay 1999: 50).

Though some assimilation towards English has clearly been prevented by Quebec's language legislation, it remains the case that English exerts a powerful hold on Quebec's allophone population. This is so much the case that, despite the fact that the 1980 referendum was won fairly handily by the *Non* side and the 1995 referendum was won by a very slim margin, ridings with many allophone residents supported the 1995 *Non* considerably more than the 1980 *Non*. Table 6 shows the findings of Pierre Drouilly (1997) at the riding level for the three main linguistic groups in Quebec.

Referendum Vote	Francophones	Anglophones	Allophones
Non in 1980 all 125 Quebec ridings	-.808	.834	.469
Non in 1980 Montreal's 40 ridings	-.977	.909	.460
Non in 1995 all 125 Quebec ridings	-.861	.795	.650
Non in 1995 Montreal's 40 ridings	-.959	.801	.626

Table 6.
Correlation Coefficients (*r*) Relating the Linguistic Characteristics of Ridings to the 1995 Referendum on Sovereignty *Non* Vote
Source: Drouilly 1997: 286-290.

There are various plausible explanations for Drouilly's findings. One would certainly be that, despite the limited but identifiable successes of post-Bill-101 language legislation, the battle to integrate the allophones into the francophone majority culture is being lost and that identification with federal, English Canada would rise as a result. Another might well be that members of the allophone community found the *étapiste* social democracy of René Lévesque, the leader of the 1980 *Oui* campaign, less

threatening than the assertive *indépendantiste* nationalism of Jacques Parizeau, the leader of the 1995 *Oui* campaign.

The Suburban/Non-Suburban Cleavage

Suburbanisation began to occur as a major phenomenon of urbanisation in the province of Quebec during a period around the beginning of the 20th Century, then again during a period encompassing the decades of the 1950s and 1960s, much as it did across North America. The linguistic divide we have already spoken of in a previous section of this chapter had a marked effect on how that suburbanisation took place in the province, particularly where the city of Montreal was concerned.

The two major cities of the province, Montreal and Quebec City, had markedly differing patterns of suburbanisation given their differing statuses linguistically, as Raoul Blanchard (1954) pointed out in his book *L'Ouest du Canada Français* in the section entitled *Montréal et sa région*:

> *Tandis que la vieille ville, à Québec, semble un fragment détaché d'une cité de l'Ouest français, Montréal est bien d'Amérique.*
>
> Just as the old town, in Quebec City, seems a detached fragment of a city in the French West, Montreal is clearly of America (Blanchard 1954: 344).

It was for this reason that while Quebec City, fairly homogeneously French linguistically, developed equally French suburbs, the suburban pattern around Montreal developed along linguistic lines. Jean-Bernard Racine, in a 1973 study of Montreal's suburbanisation pattern, expressed his findings concerning language and the Montreal suburbs fairly bluntly:

> *Les variations spatiales de l'importance de la répresentation de*

> *l'ethnie française sont sur la Rive-Sud [de l'Île de Montréal] strictement inversement proportionelles des variations spatiales de l'ethnie britannique: -0.99254. Autrement dit, si on ajoute un anglais dans une municipalité, il faut enlever un français, et inversement.*
>
> The spatial variations regarding the representation of the French ethnicity are on the South Shore [of the Island of Montreal] strictly inverse proportional to the spatial variations of the British ethnicity: -0.99254. Said otherwise, if one adds an English person in a municipality, it is necessary to remove a French person, and vice-versa (Racine 1973, vol 1: 392).

Racine's work organises the history of suburbanisation in the Montreal area according to its direction away from Montreal's centre and its general concentration patterns. The "decentralisation" pattern he identified as heading in two different directions from the city; one vector of suburbanisation (*le rang* or "the range" in his terminology) heads in a direction parallel to the St. Lawrence River, another vector (*la montée de rang* or "the widening of the range" in his terminology) heads in a direction perpendicular to the river. Suburbanisation along *le rang* took place earlier, largely due to the lack of a large number of transport routes leading off the island in earlier generations. The time period usually given for this first period of suburbanisation in Montreal is that of between 1860 and 1930. The height of this wave of suburbanisation was in the 1890s, and was diminished towards the end of that decade with the construction of the Victoria Bridge towards what is present-day Longueuil. The early 1930s saw the building of the Jacques Cartier Bridge, also towards what is present-day Longueuil; this bridge gave would-be suburbanites a new route to escape the city, and two decades later, this bridge would indeed be well-used by residents of a legion of new suburbs east of the Isle of Montreal.

The first period of suburbanisation, before the construction of these two bridges, saw the creation of municipalities in both the predominantly francophone north and east of the Isle of Montreal and the predominantly anglophone south and west of the island. The municipalities founded in the francophone part of the island generally were fused by the provincial government to the existing city of Montreal:

> *En quarante ans la vielle ville doubla ses effectifs (1871-1911) grâce à l'afflux massif de canadiens français ruraux venant s'installer parmi leurs compatriotes des vieux quartiers situés à l'est de la rue Saint-Laurent.*
>
> In forty years the old city doubled its territory (1871-1911) thanks to the massive influx of rural French-Canadians coming to settle among their compatriots of the old neighbourhoods situated to the east of the *rue Saint-Laurent* (Racine 1973, vol 1: 357, paraphrasing Blanchard 1954: 290).

These municipalities tended to be places of work as well as places for people to live; in contrast, those suburban municipalities founded on the anglophone part of the island were definitively places for people to live:

> *À l'inverse cependant, les "forteresses" britanniques semblent entrer dans une relative stagnation démographique, et le vieux Centre, sur sa butte, "est décidément devenu une* City, *d'où les habitants permanents se retirent lentement, laissant la place aux édifice administratifs, aux banques, aux bureaux, aux entrepôts".*
>
> Contrarily therefore, the British "fortresses" seemed to enter into a relative demographic stagnation, and the old Centre over the hill "had decidedly become a City, from which the permanent residents returned slowly, leaving their place in the administrative buildings, banks, offices and warehouses" (Racine 1973, vol 1: 357, internal quote is from Blanchard 1954: 290).

These anglophone bedroom suburbs retained their charters as independent municipalities for a great deal longer, most of them not losing their home rule until the provincial government fused all the municipalities of the Isle of Montreal into one at the

beginning of 2001. Though some of these municipalities, such as Outremont, Mont-Royal and Verdun, would eventually see an influx of francophones that would render them "contested" municipalities linguistically and culturally (Blanchard 1953: 334-336), many others, such as Westmount, Hampstead and Montréal-Ouest, acquired a reputation of linguistic exclusiveness to the English-speaking community. These residential suburbs were, as one might expect, largely inhabited by those in higher economic classes; during this time period, being anglophone and being wealthier largely went hand in hand. By 1970, the term "Westmount Rhodesian", made popular in general usage after René Lévesque first used it in a speech, gave expression to the common feeling amongst francophone Quebecers that the affluent English-speaking minority returned to its sleepy bedroom suburb after a day in the city of controlling the provincial economy of Quebec, a province with a French-speaking majority; in the same manner, the suggestion went, the white colonial minority in Rhodesia controlled the destiny of the black majority. As Raoul Blanchard put it in his sketch on the urban geography of Montreal:

> *[E]n matière économique l'élément britannique et ses alliés juifs sont de loin au premier rang. Les Anglais et les Israélites tiennent l'argent; ils disposent de la plupart des grandes affaires et d'une notable partie des moyennes. Économiquement parlant, ils sont les maîtres, tandis que les Français fournissent des employés et les ouvriers. Situation poignante d'un peuple qui, chez lui, dans sa ville où ils possède une grosse majorité, se voit considéré comme inférieur et relégué aux petits emplois.*
>
> [I]n economic matters the British element and their Jewish allies are by far on the first rung. The English and the Israelites have money; they conduct for the most part big business and dispose a notable part of the means. Economically speaking, they are the masters, even if the French furnish the employees and the workers. Poignant situation of a people who, at home, in their city where they possess a large majority, see themselves considered as inferior and relegated to small jobs (Blanchard 1954: 325).

Though little evidence is marshalled by Blanchard to demonstrate that Jewish-Quebecers were particularly wealthy among ethnic groups in Quebec, and indeed evidence is provided by Blanchard himself to the effect that most Jews at the time in which he wrote his works lived not in the affluent, spread-out housing of the bedroom suburbs but rather in the poorer, more densely populated part of the central city of Montreal (cf. Blanchard 1954: 333, 339 for a pair of maps which illustrates this fact quite well), his comments regarding the British ethnicity had, and continues to have, greater resonance. The image of "Westmount Rhodesian" would continue to have at least a moderate basis in fact for decades to come.

A second wave of suburbanisation followed in the 1950s and 1960s given three developments in the provincial context. The first was the creation of a system of autoroutes as well as a number of additional bridges or other forms of egress from the Isle of Montreal to other locations. The second was the liberalisation of mortgage financing by the Canadian Mortgage and Housing Corporation (CMHC), which made financing new homes easier in the pan-Canadian context, not merely in Quebec. The third was the rise of the francophone middle class in the 1960s, a phenomenon greatly assisted by the creation of *sociétés d'état* or "state companies" by the provincial government after the rise of the Lesage government and the beginning of the Quiet Revolution.

"[T]he leading forces in Quebec's capitalist *émergence*," writes the commentator Matthew Fraser (1987: 264), "have been either government-owned, -controlled, or mixed enterprises." The most important of these government-influenced enterprises are the *Société générale de financement* (SGF) and the *Caisse de depôt et placement du Québec*, the former being a finance company with the objective of providing loan backing for

francophone businesspersons hoping to expand their operations and the latter being an investment pool based on Quebec's pension fund, which has also historically primarily supported francophone Quebecer business efforts (Fraser 1987; Gagnon 1984). The government's role in the economy has been so strong that in 1987, in a ranking of the top 30 Quebec companies with shares publicly traded on the stock exchange, three were controlled by the province either through the SGF or the *Caisse*, and a number of others, including the Provigo grocery chain, the Vidéotron communications company, the Cascades paper and container company and the Bombardier transportation manufacturing company were either the beneficiaries of direct government investment or were partly owned by the province (Fraser 1987: 264).

The suburbs to the north, east and south of the Isle of Montreal were developed during these decades of the 1950s and 1960s. The *Rive-Sud*, or "South Shore", suburbs, ranging from Longueuil to Châteauguay across the St. Lawrence River from the island, were settled by francophones, but also by numerous other linguistic and cultural groups. The suburbs to the north and east, by contrast, were settled primarily by francophone Quebecers:

> *...[L]es immigrants québécois s'établissent dans les banlieues; s'ils se dispersent dans l'ensemble du territoire métropolitain plus que ne le font les étrangers et les canadiens [des autres provinces], ils affichent pourtant une nette prédilection pour la Rive-Sud, l'Île Jesus et l'extremité orientale de l'Île de Montréal. Il se confirme donc que si la Rive-Sud, qui accueille également un grand nombre de canadiens, développe sa pluralité ethnique, les banlieues du nord et de l'est tendent à devenir de plus en plus francophones...*
>
> Quebec immigrants are establishing themselves in the suburbs; if they are dispersing through the entirety of the metropolitan area, moreso than foreigners and Canadians [from other provinces], they show, however, a clear predilection for the South Shore, the Isle of Jesus and the easternmost part of the Isle of Montreal. It is

> thus confirmed that if the South Shore, which welcomes equally a large number of Canadians, is developing its ethnic plurality, the northern and eastern suburbs are tending to become more and more francophone (Racine 1973, vol 1.: 390).

In Tables 7, 8 and 9, the "ring suburb" ridings encircling the Isle of Montreal and

Riding	French as Mother Tongue	French Spoken at Home	Percentage Above Or Below Quebec Average Income	Percentage Above Or Below Canadian Average Income	Amount of Majority for *Parti Quebecois* in 1998 (negative means PQ lost in riding)
Marguerite D'Youville	95.54%	96.65%	37.99%	27.04%	23.74%
Chambly	90.05%	91.23%	24.14%	14.30%	17.06%
Borduas	93.44%	94.55%	20.04%	10.53%	25.09%
Verchères	98.15%	99.29%	11.91%	3.03%	37.45%
Vachon	83.89%	85.60%	10.09%	1.36%	15.34%
Taillon	89.98%	93.08%	8.99%	0.35%	22.01%
Richelieu	98.68%	99.40%	-5.60%	-13.09%	28.65%
Saint-Hyacinthe	97.97%	99.06%	-7.59%	-14.92%	13.65%
Marie-Victorin	88.77%	91.18%	-9.45%	-16.63%	19.15%

Table 7.
Eastern "Ring Suburb" Ridings

Riding	French as Mother Tongue	French Spoken at Home	Percentage Above Quebec Average Income	Percentage Above Canadian Average Income	Amount of Majority for *Parti Quebecois* in 1998 (negative means PQ lost in riding)
Blainville	93.76%	95.54%	21.47%	11.84%	22.98%
L'Assomption	97.08%	98.50%	19.37%	9.90%	26.26%
Groulx	87.81%	89.43%	18.72%	9.31%	13.03%
Terrebonne	96.20%	97.85%	11.38%	2.55%	36.54%
Masson	96.01%	97.21%	4.24%	-4.02%	46.08%
Deux-Montagnes	90.21%	91.43%	3.49%	-4.72%	16.06%
Bertrand	91.94%	92.91%	-3.80%	-11.43%	5.19%
Prévost	97.34%	98.47%	-8.10%	-15.39%	22.85%
Joliette	98.57%	99.28%	-8.72%	-15.95%	28.80%
Rousseau	94.71%	95.96%	-15.40%	-22.11%	26.16%

Table 8.
Northern "Ring Suburb" Ridings

Riding	French as Mother Tongue	French Spoken at Home	Percentage Above Quebec Average Income	Percentage Above Canadian Average Income	Amount of Majority for *Parti Quebecois* in 1998 (negative means PQ lost in riding)
La Pinière	57.49%	59.46%	23.24%	13.47%	-31.19%
Vaudreuil	70.23%	69.65%	22.36%	12.66%	-15.19%
Laporte	71.36%	72.75%	16.99%	7.72%	-17.16%
La Prairie	90.57%	91.97%	16.54%	7.30%	19.62%
Châteauguay	72.62%	72.72%	5.35%	-3.01%	-3.84%
Saint-Jean	95.23%	96.22%	-3.35%	-11.01%	9.07%
Salaberry-Soulanges	95.72%	96.99%	-4.84%	-12.39%	15.97%
Brome-Missisquoi	72.64%	72.76%	-6.25%	-13.69%	-26.30%
Beauharnois-Huntingdon	81.77%	81.56%	-8.96%	-16.18%	-6.22%
Iberville	95.57%	96.62%	-9.87%	-17.01%	11.75%

Table 9.
Southern Suburban or *Rive-Sud* Ridings

the Isle of Jesus are presented according to their francophone populations, their average yearly incomes and their support for the *Parti Québécois*. Table 7 shows the eastern suburbs, Table 8 the northern suburbs, and Table 9 the suburbs to the south of the city, considered as the "*Rive-Sud*" suburbs. It will be noted that fair number of these ridings in both the northern and eastern ring suburbs are well above both the Quebec and Canadian average income figures, and also reflect the clear dominance of French in the area. There are six ridings out of the total nine in the eastern suburban area which are above the Canadian national average income, and three of those six have incomes at least ten percent higher than the Canadian national average. In the northern suburban area, four out of the total ten ridings are above the Canadian national average income, and one is at least ten percent higher than the Canadian national average. In addition, two ridings are not above the Canadian national average, but are above the Quebec average income.

In the southern ring suburbs, there are four of a total ten ridings that have average incomes above the Canadian national average; of these, however, only one riding fits the pattern we have seen with the northern and eastern suburban areas, namely, the riding of La Prairie, which is overwhelmingly francophone and supportive of the PQ. The other three ridings are more linguistically diverse and supportive of the PLQ. The Châteauguay riding also fits this latter pattern, and it has an average income above the Quebec average, though not the Canadian average.

The Federal Employment/No Federal Employment Cleavage

A cleavage based on the amount of federal employment located in the province of Quebec manifested itself particularly in the region of the Outaouais, across the Ottawa River from the Canadian national capital of Ottawa, after 1976. This cleavage emerged in response to three developments. The first of these developments was the rise to power in Ottawa of the Liberal government of Pierre Elliott Trudeau, whose commitment to "French Power" and official bilingualism in the pan-Canadian context highly suggested that the relocation of public service and government positions in the federal capital region to the Quebec side of the Ottawa River was desirable. The second of these developments was the election in 1976 of a sovereigntist government in Quebec City under the PQ's René Lévesque. The third of these developments was the election of the first sovereigntist members of the National Assembly for the Hull and Papineau ridings, also in the 1976 election, in the persons of Ms. Jocelyne Ouellette in Hull and Mr. Jean Alfred in Papineau. These latter two developments suggested that, from the perspective of the federalist, the relocation of federal employment to Quebec's Outaouais was a pressing political concern, lest the Outaouais, across the river from the very capital of Canada itself, fall under the political sway of separatism.

In Table 10, we see the results of a National Capital Commission report which identifies the extent of federal employment in public administration jobs in the national capital region's Ontario and Quebec parts, respectively. After 1976, the number of positions on the Quebec side explodes due to the relocation of "15,000 federal jobs [that] were shifted to Hull, most to the Place du Portage and Terrasses de la Chaudière office complexes" (Gaffield et al. 1997: 510). A short three years later, in 1979, the proportion

of federal jobs in the Outaouais burgeoned to constitute 16.1% of all federal public administration jobs in the national capital region.

Year	National capital region total	Ontario side	Quebec side	% on Quebec side
1973	92,341	86,555	5,786	6.3%
1976	99,348	92,583	6,765	6.8%
1979	102,791	86,224	16,567	16.1%
1981	108,305	88,668	19,637	18.1%
1983	114,373	93,007	20,366	17.8%
1986	112,351	89,587	22,764	20.3%

Table 10.
Presence of the Federal Public Administration in the Outaouais, 1973-1986.
Source: National Capital Commission 1979; National Capital Commission 1986; Gaffield et al. 1997

By 1981, federal government employment accounted for 20% of all employment in the Outaouais (Gaffield et al. 1997: 795). The loss of the federal government's economic influence in the Outaouais would now be devastating, as has been noted by observers in the fields of economics and regional development since this point (cf. Côté & Johnston 1995 and McCallum & Green 1991 for the most coherently developed arguments along these lines). In 1992, the regional economic committee *Comité Outaouais* identified the essence of this situation of dependence in blunt terms:

> *Bref, 50% de l'économie de la région repose sur la fonction publique fédérale.*
>
> In short, 50% of the regional economy is based on the contribution of the federal public service (*Comité Outaouais* 1992: 8)

The economist Maurice Saint-Germain, in his study for the Quebec government called *La Souveraineté du Québec et l'économie outaouaise*, essentially conceded the overarching importance of this economic connection to the federal government, but made

the further claim that Quebec both would have need of these federal employees in the event of separation and would be able to pay them at the same rates (Saint-Germain 1995: 72-73). If this is the case and voters can be convinced of that fact, the firm ties currently linking the Outaouais to the PLQ and the federal Liberal Party might well be weakened.

Before the rise of the government of Maurice Duplessis in 1936, the ridings in the Hull and Pontiac portions of the Outaouais region often returned Conservatives to Quebec City by large margins, even during periods of ascendency for the PLQ, a fact most likely explained by the large English language populations in these ridings at the time of those elections, a majority in the Pontiac, and a significant population in the Hull area (Cliche 1960; Gaffield et al. 1997: 342-343). After the rise of Duplessis, it was generally the case that the Outaouais was to be considered a swing region politically:

> The Outaouais, in the postwar period, has tended to support the party in power. In the period of *Union nationale* domination of Quebec politics, the region sent mainly *Union nationale* representatives to Quebec City. After [the political realignment of] 1970, its political allegiance gradually shifted to the Liberals, who represented all five ridings in the region in the early 1990s. (Andrew 1997, in Gaffield et al. 1997: 717-718).

After 1976, however, the Outaouais became a markedly different region. Its economic ties to the federal government shifted the Outaouais firmly to the Liberal camp at both the level of the federal House of Commons and the provincial National Assembly. In 1981, both Outaouais MNAs elected under the banner of the PQ were defeated by Liberals, and all five ridings have been won by the PLQ ever since.

The Report of the Royal Commission on Bilingualism and Biculturalism first proposed the establishment of federal government installations in the Outaouais, on the

basis of forwarding equality between the French and English linguistic groups:

> *Nous recommandons que le gouvernment fédéral assume un rôle direct et positif dans la capitale actuelle [Ottawa] comme dans la région qui serait designée capitale fédérale [l'Outaouais], afin de promouvoir, sous tous ses aspects, l'égalité entre anglophones et francophones.*
>
> We recommend that the federal government assume a direct and positive role in the current capital [Ottawa] as in the region which would be designated the federal capital [the Outaouais], in order to promote, in all its aspects, equality between anglophones and francophones (Government of Canada 1967).

That the point of increasing economic ties to the federal government was at least in part to avoid Quebec separation (and presumably with that, support for sovereigntist political parties) was never really in doubt:

> Keeping Quebec in Confederation was the central objective – to be achieved, first, by trying to increase employment in Quebec, thereby generating economic development and reducing social imbalances, and, second, by making it more difficult to separate Hull from Ottawa. The main tool that the federal government could use was locating its employees in Hull (Andrew 1997, in Gaffield et al. 1997: 462).
>
> Given the vitality of the Quebec independence movement and the proximity of central Hull to the Parliament Buildings, it made good political and planning sense to demonstrate a concern for the development of the Outaouais (Andrew 1997, in Gaffield et al. 1997: 724)

At the present time, the PQ, as well as its federal counterpart, the BQ, are effectively shut out of winning seats by the provincial and federal Liberals, respectively. Though a sizeable minority does support these parties, a clear majority can be expected to vote for the PLQ and the Liberal Party of Canada in each of the seats in the Outaouais; this "swing" region has morphed into one of the most reliably Liberal parts of Quebec.

The Aboriginal/Non-Aboriginal Cleavage

A cleavage of more recent prominence in Quebec's political history has been that separating lands in which aboriginal people are numerous from lands where non-aboriginal peoples predominate numerically. One of the reasons this cleavage has taken on more significance recently involves the very recent extension of the franchise to aboriginal peoples, both in Canada as a whole and in Quebec:

> *Les Amérindiens ont obtenu le droit de vote aux élections québecoises en 1969, et il devint effectif à partir des élections de 1970. Au niveau fédéral, le droit de vote aux Amérindiens fut acquis en 1960 et devint effectif à partir des élections fédérales de 1962...*
>
> The Amerindians obtained the right to vote in Quebec elections in 1969, and it became effective beginning with the elections of 1970. At the federal level, the right to vote of Amerindians was acquired in 1960 and became effective beginning with the federal elections of 1962 (Drouilly 1991: 126).

This electoral cleavage could not, obviously, become a cleavage until aboriginal peoples were considered electors, so this was obviously an important development in the rise after the 1970s of a clear opposition between aboriginal voters, whose voting tendencies lean towards federalism, the PLQ, and the federal Liberal and New Democratic parties, and other Quebec voters, many of whom are sovereigntists.

The reason it seemed to make sense that aboriginals, before the 1960s, were not allowed to vote in Canadian or Quebec elections is that aboriginal peoples were taken to be outside the community of "founding" peoples – which they generally are taken to be a part of today. Not really Canadians or Quebecers, and not naturalised immigrants to Canada or Quebec, aboriginal peoples fell into a political limbo which was rationalised by the Indian Act of 1876; they became peoples which were not sovereign and yet at the same time, not really Canadians or Quebecers.

The point of the changes instituted by the Conservative government of John Diefenbaker at the federal level and the *Union Nationale* government of Jean-Jacques Bertrand at the provincial level was to change this limbo status and integrate aboriginal people into the national fabric as undifferentiated Canadians or Quebecers, people with no claims to distinctness as peoples that would counter their identities as Canadians or Quebecers. At the federal level, this kind of treatment of aboriginal affairs was epitomised by the 1969 White Paper of the federal Liberal government under Pierre Trudeau, written by his Minister of Indian and Northern Affairs, Jean Chrétien. The rights and responsibilities of aboriginals in Canada was, by the view expressed in this document, to be taken to be the equivalent of the rights and responsibilities of any other citizens of the country: no specificity of rights or responsibilities, could, by this view, be accepted.

In at least one case, a specific aboriginal national community, that of the Mohawks, has come to the fore as opposing this view in fairly strident terms. The Mohawks, ever since the vote has been accorded them either at the federal level or the provincial level, have rejected participation in the political process as Canadians or Quebecers, undifferentiated from anyone else. Pierre Drouilly (1991: 131) reports that, since receiving the federal vote in 1960, the Mohawks have voted on average at a rate of 1.8%; Mohawk aboriginal reserve communities vote at a slightly higher rate in provincial elections, but it is still an almost negligable 3.6%. Participation rates, defined as the number voting divided by the number registered to vote, are misleading for the Mohawk communities, as it is generally the case that the Mohawk, not recognising themselves as part of the electorate of Quebec, will abstain from registering to vote. The number of

Mohawk registered to vote in the province dropped off precipitously between the 1973 provincial election (1811 Mohawks registered to vote on the reserves) and the 1976 provincial election which brought the PQ to power (12 Mohawks registered to vote on the reserves). The number of Mohawks on the reserves registered to vote in provincial elections has remained tremendously low ever since 1976.

At present, the government of Quebec recognises as "nations" 11 aboriginal peoples in the province: the Abenaquis, the Algonquins, the Attikameks, Cree, the Hurons, the Malecites, the Micmacs, the Mohawk, the Montagnais, the Naskapis, and the Inuit. The PQ government of René Levesque accorded this recognition in 1985, and since then, serious efforts have been applied by the *Ministère des ressources naturelles et affaires autochtones* ("Ministry of Natural Resources and Aboriginal Affairs") to negotiate with aboriginal peoples on a nation-to-nation basis. Aboriginal peoples, excepting the Mohawks, do participate somewhat in the political process, ranging in their participation rates on the aboriginal reserves between 32.8% (the Micmacs) and 51.4% (the Attikameks) in federal elections; in provincial elections, the range is between 18.7% (the Micmacs) and 47.9% (the Inuit). According to the political sociologist Pierre Drouilly, the effect of successful negotiations with the Quebec government had often been that majorities in favour of the PQ could be found on aboriginal reserves:

> *Aux élections de 1985, les Attikameks, les Montagnais et les Inuit accordent une majorité au Parti Québécois alors que, chez les Cris, le Parti libéral et le Parti Québécois arrivent pratiquement nez à nez. On remarquera que, avec un vote de 47.1% pour l'ensemble des réserves, le Parti Québécois fait beaucoup mieux que dans l'ensemble du Québec [38.7%]. On remarquera qu'en 1985, le vote au Parti Québécois est surtout élevé auprès des nations qui ont négocié des ententes avec l'État québécois (Inuit et Cris), ou qui ont entamé des négociations sérieuses avec celui-ci (Attikameks*

> *et Montagnais): ce vote serait alors une mesure du niveau de satisfaction des Amérindiens face à la normalisation de leurs rapports avec le Gouvernement du Québec, plutôt qu'un adhésion au programme politique du Parti Québécois.*
>
> In the elections of 1985, the Attimakeks, the Montagnais and the Inuit accorded a majority to the *Parti Québécois* while, among the Cree, the *Parti libéral* and the *Parti Québécois* were practically neck-and-neck. One will note that, with a vote of 47.1% for the total of reserves, the *Parti Québécois* did much better than in the entirety of Quebec [38.7%]. One will note that in 1985, the vote for the *Parti Québécois* is above all elevated in the nations which had negotiated ententes with the Quebec state (the Inuit and the Cree), or which had taken on serious negotiations with it (the Attikameks and the Montagnais): this vote might then be a measure of the level of satisfaction of Amerindians in light of the normalisation of their relations with the Government of Quebec, moreso than adherence to the political program of the *Parti Québécois* (Drouilly 1991: 188).

This openness towards the PQ was, definitively, not openness towards sovereignty for Quebec, however. In 1980, aboriginal reserves opposed the sovereignty-association referendum: 83.2% supported the *Non* to 16.8% for the *Oui*. In addition, those reserves voting with a strong participation rate obliterated the *Oui* side while those with weak participation rates allowed the *Oui* side to compete, suggesting that the *Oui* depended upon low turnouts to do well in the aboriginal communities. A separate referendum commissioned by the leadership of the Inuit in the Makivik Corporation found 87% of the Inuit opposed sovereignty in 1980. What this means, fairly evidently, is that the pro-PQ vote in aboriginal reserves indicates a certain amount of respect for perceived good government and faithful negotiations on the part of the PQ government under Lévesque rather than support for the PQ's *raison d'être* of sovereignty.

Most of the important political developments involving aboriginal peoples in Quebec have involved one of three particular peoples – the Mohawks, the Crees and the

Inuit. In the case of the Mohawks, a nationally-famous armed standoff at the site of an ancestral burial ground which was about to be incorporated into a golf course at Oka, Quebec illustrated nightly on television newscasts the extent to which antipathies between aboriginal activists and both the federal and provincial government could boil over into open rebellion (Austin & Boyd 1994 [1993]; Ciaccia 2000; Greén & Stier 1991; Hornung 1991; Lamarche 1990; MacLaine & Baxendale 1990; Philpot 2000 [1991]; York & Pindera 1991). In the case of the Crees, the main development involved the negotiation of a land agreement on a "nation-to-nation" basis between the Crees organised as a collectivity, the government of Quebec and the government of Canada. This land agreement, the James Bay and Northern Quebec Agreement, allowed Quebec access to hydroelectric resources and the power to create employment for Quebecers in the energy industry; in return it allowed the Cree collectively to gain royalties from the use of their ancestral lands, as well as to continue to use certain lands in ways traditional to their culture (Salisbury 1986: 56-60). Canada, in a supporting role, passed supporting legislation in order to implement the act legally and to provide infrastructural support for social programs benefitting the Cree and administered by Quebec. In the case of the Inuit, an act to institute autonomous self-government for the region inhabited by this northern aboriginal group was enacted by Quebec and Canada in 1999 (*Gouvernement du Québec* 1999). Though this government has yet to be established, the groundwork for a recognised institution for Quebec's Inuit has been laid according to a set of principles agreed upon by all three parties to the negotiation.

All three of the above dramas have had three basic players, and these are in each case: an aboriginal peoples, Quebec and Canada. Where there have been agreements,

they have been tripartite agreements between these three parties; where there have been disagreements, likewise, they have been tripartite disagreements between these three parties. Aboriginal peoples have considered their interactions with those encroaching on their ancestral lands as interactions between nations over proper jurisdictions; it has been Canada which they have recognised as the nation with whom they have been negotiating, and insofar as they have recognised Quebec, it is as a province in the nation which has been ceded a certain amount of jurisdiction by the nation of which it is a part.

The idea that Quebec might secede from Canada has met with considerable opposition from aboriginal peoples, to a large extent because aboriginal peoples fear the loss of benefits resulting from the "fiduciary responsibilities" which are owed to them under treaties that have been negotiated or federal laws that have been enacted on their behalf. These fiduciary responsibilities were taken up by the British Crown, and after the devolution of its powers to the Canadian government, these responsibilities primarily inhered in Canada:

> Since the arrival of the Europeans, and especially after the British conquest, the aboriginal nations have lived under a fiduciary relationship with the Crown. The Crown is responsible for ensuring that the interests of the aboriginal people are protected (*Commission d'étude des questions afférentes à l'accession du Québec à la souveraineté* 1992, quoted in Grand Council of the Crees 1995: 353).

The Supreme Court of Canada first affirmed the existence of these fiduciary responsibilities in the *Guerin et al. v. The Queen* case in 1984. In a number of cases following that case, the court spelled out the importance of these responsibilities. In the *Blueberry River Indian Band v. Canada* case of 1995, Justice Beverly McLachlin explained the concept of a fiduciary relationship as follows:

> Generally speaking, a fiduciary obligation arises where one person possesses unilateral power or discretion on a matter affecting a second "particularly vulnerable" person...the vulnerable party is in the power of the party possessing the power or discretion, who is in turn obligated to exercise that power or discretion solely for the benefit of the vulnerable party. A person cedes (or more often finds himself in a situation where someone else has ceded for him) his power over a matter to another person. The person who has ceded power trusts the person to whom power is ceded to exercise the power with loyalty and care. This is the notion at the heart of the fiduciary obligation (*Blueberry River Indian Band v. Canada* 1995: 349).

The essential idea here is that the aboriginal nations, as "particularly vulnerable" nations, accept the impositions placed upon them by the federal government of Canada because Canada recognises in its law the notion that it is to protect the best interests of aboriginal peoples. In cases where these best interests are indeed protected by the Canadian government, aboriginal peoples respond to the loyalty of the Canadian federal state with loyalty and recognition of the state's legitimacy. In cases where these best interests are not protected by the Canadian government, aboriginal peoples may take recourse to the Canadian court system, to get the Canadian federal state to live up to the duty it has in law to aboriginal peoples to protect those interests. In short, many aboriginal communities have become staunchly federalist in orientation because they value the assistance of the Canadian state in good times and the recourse to its legal system in bad times.

Given that aboriginal nations quite often think of themselves as sovereign entities, one can think of the fiduciary relationship as a relationship of trust between nations which forms the basis for the recognition of legitimacy; the aboriginal nations, after years of negotiation with Britain and then with federal Canada, have reached a point where this

trust exists at least minimally, and where disagreements can be adjudicated in a process which is respected, at least minimally, by both sides.

The point to be made here is that this level of trust does not apparently exist between the Quebec provincial state and aboriginal nations. As a 1991 study by the Government of Quebec pointed out, the possibility of Quebec independence is interpreted by the aboriginal nations mostly in terms of the uncertainty it would engender in their communities:

> In the context of a potentially sovereign Quebec, the elaboration of a Quebec policy on aboriginal affairs is perceived as a sign of Quebec's determination to repatriate federal jurisdictions. The eventual changes to the Canadian Confederation raise a number of questions and many uncertainties. What will happen to the Amerindians in an independent Quebec? Will their distinct character be recognised? Will ancestral rights be considered? Will there still be reserves? Will they have to pay taxes?
>
> The uncertainty they feel in the face of a future in a redefined Quebec hardly inspires confidence among these peoples. All the more so, because they have not yet been consulted on the subject and because they do not know whether or not they will be consulted during negotiations between Quebec and Ottawa. They reminded the Minister that the federal government is the trustee of their interests (Pelletier, Proulx & Vincent 1991: 10).

Though recent negotiations with the province have given aboriginal nations within Quebec some encouragement and built trust between the provincial government and aboriginal bands, the most recently available participation rates in elections reflect the fundamental identification with the federal government of Canada of the aboriginal reserve territories. Unlike most Quebecers, who have historically voted more often in provincial elections than in federal elections, aboriginals on the reserves have historically

voted more often in federal elections than in provincial elections (Drouilly 1991: 129). The conclusion from this fact drawn by Pierre Drouilly seems apt:

> *On peut d'abord noter que le taux de participation aux élections fédérales est en général plus élevé qu'aux élections provinciales, contrairement à ce qui se passe pour l'ensemble du Québec, surtout pour la période 1970-1980...Ceci se vérifie pratiquement dans chacune des réserves...Cela est une indication que l'État fédéral a une plus grande légitimité que l'État provincial pour les Amérindiens du Québec, même si dans les deux cas la faible participation indique un grand désintérêt pour la sphère politique de la société blanche.*
>
> One can first note that the rate of participation in federal elections is in general higher than in provincial elections, to the contrary to that which is the case for the entirety of Quebec, above all for the period of 1970-1980...This was verified in practically every one of the reserves...That is an indication that the federal state has a greater legitimacy than the provincial state for the Amerindians of Quebec, even if in both cases the weak participation indicates a great disinterest for the political sphere of white society (Drouilly 1991: 127).

Another element of the aboriginal view is that "self-determination" is the key interest of aboriginal people that Canada has the fiduciary responsibility to protect. This notion of self-determination is defined as that which "guarantees a people the opportunity to make a choice and implement it" while not necessarily prescribing "what that choice should be" (van Walt van Praag 1993: 319, quoted in Grand Council of Crees 1995: 65). Aboriginal peoples generally present self-determination as a bottom-line goal, a goal towards which Canada's exercise of its fiduciary responsibility should tend. If the purpose of the fiduciary responsibility is for the "powerful" Canadian government to protect the "vulnerable" interests of aboriginal peoples, then those peoples would have it known that this is how they intend those interests to be defined – in terms of the right and the capacity to choose one's future, as others have the right and the capacity to choose

theirs. "Vulnerability" itself is understood as the incapacity to make one's own decisions.

The crisis at Oka spurred the government of Quebec towards a series of consultations on the state of aboriginal relations with non-aboriginal Quebecers. In 1991, the *Ministère des ressources naturelles et affaires autochtones* under the PLQ indicated its willingness to consider accepting different legal systems and regimes of social choice in aboriginal and non-aboriginal territories in the name of fostering self-determination, subject to the understanding that inequalities would not be created in the process:

> Aboriginal and non-aboriginal peoples have expressed the desire to achieve social peace and mutual respect. Quebecers are not generally opposed to maintaining different sets of laws. Indeed, Quebec is governed by a civil code unlike that found elsewhere in Canada. Would the rights of non-aboriginal Quebecers be infringed if only the residents of certain territories were allowed to sell caribou meat? Would aboriginal peoples feel their ancestral rights were being infringed if non-aboriginal Quebecers also enjoyed the right to engage in subsistence hunting? Have not compromises been reached in several areas, e.g., adoption, school curricula and the school year? Differences are damaging when they create social or economic inequality, not when they make it possible to overcome such inequality (Pelletier, Proulx & Vincent 1991: 31).

Some sovereigntists as well were willing to consider the importance of aboriginal distinctness on a par with the distinctness of Quebec itself. Daniel Turp, a federal *Bloc Québécois* MP and legal scholar from the *Université de Montréal*, was one of a number of sovereigntists who claimed that aboriginal self-determination could equally justify the political sovereignty of aboriginal nations:

> *Et à mon avis, le fait que [les autochtones] constituent des peuples qui se sont autoqualifiés comme peuples...leur donnerait un droit à l'autodetermination au même titre que le Québec...*
>
> And in my opinion, the fact that [aboriginals] constitute peoples

> who are self-identified as peoples...gives them a right to self-determination of the same title as Quebec... (Turp 1991, quoted in Grand Council of Crees 1995.)

However, Turp's opinion on this matter is clearly a minority opinion within Quebec sovereigntism. Most Quebec sovereigntists believe that sovereignty for aboriginal nations constitutes a threat to the territorial integrity of the nation they wish to establish. The PQ government of Lucien Bouchard insisted, contrary to Turp's view, upon the recognition of the claims of aboriginal peoples in a way which balanced them with those of non-aboriginals and with the need to preserve Quebec's territorial base:

> *Le défi qui se pose maintenant au Québec est de repenser les questions liées au territoire dans une double perspective: développer une approche de partenariat avec les Autochtones dans le respect de leur identité, concilier les aspirations avec celles de l'ensemble de la population, et ce, dans le respect de l'integrité du territoire du Québec.*
>
> The challenge which poses itself now in Quebec is to rethink the questions linked to territory in a double perspective: develop a partnership approach with aboriginals in respect of their identity, conciliate the aspirations with those of the the entirety of the population, and this, in respect for the integrity of the territory of Quebec (Government of Quebec 1998: section 1.3).

If one replaces the parts of this quote referring to aboriginals with "Quebec" and the parts of this quote referring to Quebec with "Canada", the unacceptability of this approach to sovereigntist Quebecers becomes immediately obvious. When applied to aboriginal peoples within the context of Quebec, however, the unacceptability of the approach to sovereigntist aboriginal peoples goes without comment, despite the fact that the double standard undercuts the apparent legitimacy of Quebec sovereigntism.

David Cliche, a longtime special aboriginal affairs advisor to the PQ government during the Parizeau years, stated the position of the PQ more bluntly:

> ...the freedom to walk away from an independent Quebec...That's where we don't agree...We can never accept the idea that aboriginal lands can be taken out of Quebec (Cliche 1995, quoted in Came 1995: 14-15).

The largest threat to this territorial integrity portrayed in the above quotes as a paramount concern is seen to be coming from the Cree and Inuit aboriginal nations, as their ancestral territories comprises nearly half of the physical territory of the province and the site of numerous economic resources, including mineral resources, forestry resources and particularly, hydrolectric resources. These territories were added to Quebec by the federal government of Canada in 1898 (the part of Rupert's Land, comprising the Cree lands) and 1912 (Ungava, comprising the Inuit lands). Without access to the resources in these territories, Quebec, formally independent or not, would be considerably less viable as a geopolitical and economic player, a point driven home by no less a player in the Quebec government than Robert Bourassa, whose obsession with northern development led him to write an entire book on the subject while campaigning to be returned to the office of the premier in 1985 (Bourassa 1985).

After the Oka crisis, which involved a clash between an armed faction in the Montreal-area Mohawk nations and the police force of Quebec, the *Sureté du Québec*, some of the electoral goodwill shown towards the PQ evaporated amongst aboriginal populations. In 1994, aboriginal voters turned with a vengeance against the newly-*indépendantiste* PQ, supporting the party of Jacques Parizeau at a rate of 18.4% (Drouilly 1997: 292). In 1995, 90% of voters in aboriginal territories that participated in the pan-Quebec referendum on sovereignty-partnership voted for the *Non*, a larger majority against in this referendum, which was defeated quite narrowly, than in the 1980 referendum, which had been defeated soundly. The participation rate was high,

indicating aboriginal interest in the referendum; a participation rate of 73.9% was obtained on the aboriginal reserves (Drouilly 1997: 290). In 1995, the Inuit repeated the exercise of holding a pre-referendum shortly before the pan-Quebec referendum on the subject and found that 96% of the Inuit opposed sovereignty – this figure comprised 75% of voters in the Inuit areas (Wherett 1996). Later in the pan-Quebec referendum, the Inuit territories would vote for the *Non* at a rate of 85.4%, with 80.4% of the Inuit participating (Drouilly 1997: 291). The Cree also held a pre-referendum in 1995 and found 96% of the Cree reserves opposed to sovereignty with 77% of voters casting their ballots (Wherett 1996). In the regular referendum, boycotted by some Cree, it was nevertheless the case that 75.2% of those in the Cree territories voted in the referendum; the Cree voted *Non* at roughly the same rate as in their own referendum, at 95.7% (Drouilly 1997: 291).

In 1998, the trend towards the abandonment of the PQ continued. In Tables 11-21, results from the 1998 election for ten of the eleven recognised aboriginal peoples of Quebec are shown. The eleventh, the Malecites, are nomadic and tend not to live on the reserves accorded to them, so data is lacking for this group.

	Votes Cast of Total Registered; Participation Rate	**PLQ vote in 1998**	**PQ vote in 1998**	**ADQ vote in 1998**
Abenaquis Aboriginal Lands	257 of 397 (65%)	161 (63%)	67 (26%)	27 (11%)
Odanak	195 of 299 (65%)	135 (69%)	42 (22%)	16 (8%)
Wôlinak	62 of 98 (63%)	26 (41%)	25 (40%)	11 (18%)

Table 11.
Voting of Abenaquis Aboriginal People, 1998 Quebec Provincial Election
Sources: Drouilly 1991, *DGÉQ* 1998.

	Votes Cast of Total Registered; Participation Rate	PLQ vote in 1998	PQ vote in 1998	ADQ vote in 1998
Algonquin Aboriginal Lands	637 of 1449 (44%)	562 (88%)	41 (6%)	25 (4%)
Grand-Lac-Victoria	0 of 3 (0%)	0 (0%)	0 (0%)	0 (0%)
Kebaowek	123 of 166 (74%)	118 (96%)	2 (2%)	2 (2%)
Kitigan Zibi	36 of 254 (14%)	26 (72%)	9 (25%)	1 (3%)
Lac-Rapide	0 of 26 (0%)	0 (0%)	0 (0%)	0 (0%)
Lac-Simon	145 of 343 (42%)	125 (86%)	9 (6%)	8 (6%)
Pikogan	109 of 207 (53%)	89 (82%)	10 (9%)	8 (7%)
Témiscamingue	176 of 301 (59%)	169 (96%)	6 (3%)	1 (1%)
Wineway [Winneway]	48 of 149 (32%)	35 (73%)	5 (10%)	5 (10%)

Table 12.
Voting of Algonquin Aboriginal People, 1998 Quebec Provincial Election
Sources: Drouilly 1991, *DGÉQ* 1998.

	Votes Cast of Total Registered; Participation Rate	PLQ vote in 1998	PQ vote in 1998	ADQ vote in 1998
Attikamek Aboriginal Lands	221 of 659 (34%)	137 (62%)	38 (17%)	38 (17%)
Manouane [Manawan]	88 of 232 (38%)	70 (80%)	6 (7%)	9 (10%)
Obedjiwan	26 of 159 (16%)	9 (35%)	12 (46%)	5 (19%)
Weymontachie [Wemotaci]	107 of 268 (40%)	58 (54%)	20 (19%)	24 (22%)

Table 13.
Voting of Attikamek Aboriginal People, 1998 Quebec Provincial Election
Sources: Drouilly 1991, *DGÉQ* 1998.

	Votes Cast of Total Registered; Participation Rate	PLQ vote in 1998	PQ vote in 1998	ADQ vote in 1998
Cree Aboriginal Lands	2409 of 6021 (40%)	1990 (83%)	289 (12%)	130 (5%)
Chisasibi	583 of 1556 (37%)	498 (85%)	60 (10%)	25 (4%)
Eastmain	137 of 300 (46%)	108 (79%)	18 (13%)	11 (8%)
Mistissini	468 of 1250 (37%)	409 (87%)	29 (6%)	30 (6%)
Nemiscau	121 of 260 (47%)	88 (73%)	19 (16%)	14 (12%)
Oujé-Bougoumou	116 of 320 (36%)	92 (79%)	18 (16%)	6 (5%)
Waskaganish	401 of 856 (47%)	309 (77%)	78 (19%)	14 (3%)
Waswanipi	260 of 599 (43%)	205 (79%)	43 (17%)	12 (5%)
Wemindji	288 of 617 (47%)	253 (88%)	19 (7%)	16 (6%)
Whapmagoostui	35 of 263 (13%)	28 (80%)	5 (14%)	2 (6%)

Table 14.
Voting of Cree Aboriginal People, 1998 Quebec Provincial Election
Sources: Drouilly 1991, *DGÉQ* 1998.

	Votes Cast of Total Registered; Participation Rate	PLQ vote in 1998	PQ vote in 1998	ADQ vote in 1998
Huron Aboriginal Lands	579 of 1013 (57%)	395 (68%)	99 (17%)	79 (14%)
Wendake	579 of 1013 (57%)	395 (68%)	99 (17%)	79 (14%)

Table 15.
Voting of Huron Aboriginal People, 1998 Quebec Provincial Election
Sources: Drouilly 1991, *DGÉQ* 1998.

	Votes Cast of Total Registered; Participation Rate	PLQ vote in 1998	PQ vote in 1998	ADQ vote in 1998
Micmac Aboriginal Lands	84 of 295 (28%)	78 (93%)	2 (2%)	4 (5%)
Gesgapegiag	84 of 295 (28%)	78 (93%)	2 (2%)	4 (5%)

Table 16.
Voting of Micmac Aboriginal People, 1998 Quebec Provincial Election
Sources: Drouilly 1991, *DGÉQ* 1998.

	Votes Cast of Total Registered; Participation Rate	PLQ vote in 1998	PQ vote in 1998	ADQ vote in 1998
Mohawk Aboriginal Lands	0 of 117 (0%)	0 (0%)	0 (0%)	0 (0%)
Akwesasne	0 of 17 (0%)	0 (0%)	0 (0%)	0 (0%)
Kahnawake	0 of 90 (0%)	0 (0%)	0 (0%)	0 (0%)
Kanesatake	0 of 10 (0%)	0 (0%)	0 (0%)	0 (0%)

Table 17.
Voting of Mohawk Aboriginal People, 1998 Quebec Provincial Election
Sources: Drouilly 1991, *DGÉQ* 1998.

	Votes Cast of Total Registered; Participation Rate	PLQ vote in 1998	PQ vote in 1998	ADQ vote in 1998
Montagnais Aboriginal Lands	871 of 3810 (23%)	491 (56%)	187 (21%)	192 (22%)
Betsiamites	170 of 1118 (15%)	137 (81%)	14 (8%)	19 (11%)
La Romaine	33 of 204 (16%)	11 (33%)	21 (64%)	1 (3%)
Maliotenam	67 of 414 (16%)	5 (7%)	9 (13%)	53 (79%)
Uashat	90 of 449 (20%)	3 (3%)	15 (17%)	72 (80%)
Mashteuiatsh	232 of 976 (24%)	102 (44%)	96 (41%)	33 (14%)
Matimekosh	42 of 194 (22%)	40 (95%)	2 (5%)	0 (0%)
Mingan	14 of 29 (48%)	1 (7%)	12 (86%)	1 (7%)
Natashquan	147 of 275 (53%)	127 (86%)	12 (8%)	8 (5%)
Pakuashipi	76 of 151 (50%)	65 (86%)	6 (8%)	5 (7%)

Table 18.
Voting of Montagnais Aboriginal People (Innu), 1998 Quebec Provincial Election
Sources: Drouilly 1991, *DGÉQ* 1998.

	Votes Cast of Total Registered; Participation Rate	PLQ vote in 1998	PQ vote in 1998	ADQ vote in 1998
Naskapi Aboriginal Lands	128 of 257 (50%)	124 (97%)	2 (2%)	2 (2%)
Kawawachikamach	128 of 257 (50%)	124 (97%)	2 (2%)	2 (2%)

Table 19.
Voting of Naskapi Aboriginal People (Innu), 1998 Quebec Provincial Election
Sources: Drouilly 1991, *DGÉQ* 1998.

	Votes Cast of Total Registered; Participation Rate	PLQ vote in 1998	PQ vote in 1998	ADQ vote in 1998
Inuit Aboriginal Lands	2370 of 4130 (57%)	1644 (69%)	477 (20%)	249 (11%)
Akulivik	134 of 205 (65%)	99 (74%)	22 (16%)	13 (10%)
Aupaluk	56 of 80 (70%)	37 (66%)	13 (23%)	6 (11%)
Inukjuak	201 of 325 (62%)	166 (83%)	24 (12%)	11 (5%)
Ivujivik	63 of 116 (54%)	46 (73%)	13 (21%)	4 (6%)
Kangiqsualujjuaq	185 of 373 (50%)	117 (63%)	36 (19%)	32 (17%)
Kangiqsujuaq	129 of 224 (58%)	89 (69%)	31 (24%)	9 (7%)
Kangirsuk	128 of 221 (58%)	87 (68%)	29 (23%)	12 (9%)
Kuujjuaq	582 of 929 (63%)	395 (68%)	125 (21%)	62 (11%)
Kuujjuarapik	166 of 339 (49%)	116 (70%)	39 (23%)	11 (7%)
Puvirnituq	228 of 510 (45%)	138 (61%)	64 (28%)	26 (11%)
Quaqtaq	75 of 120 (63%)	54 (72%)	11 (15%)	10 (13%)
Salluit	224 of 412 (54%)	142 (63%)	49 (22%)	33 (15%)
Tasiujaq	77 of 105 (73%)	71 (92%)	3 (4%)	3 (4%)
Umiujaq	122 of 171 (71%)	87 (71%)	18 (15%)	17 (14%)

Table 20.
Voting of Inuit Aboriginal People, 1998 Quebec Provincial Election
Sources: Drouilly 1991, *DGÉQ* 1998.

	Votes Cast of Total Registered; Participation Rate	PLQ vote in 1998	PQ vote in 1998	ADQ vote in 1998
Total on Aboriginal Lands	7556 of 18148 (50%)	5582 (74%)	1202 (16%)	746 (10%)

Table 21.
Overall Voting of Aboriginal People, 1998 Quebec Provincial Election
Sources: Drouilly 1991, *DGÉQ* 1998.

In general, this data reveals the continuing and marked unpopularity of the PQ in the reserved areas of the province for aboriginal peoples. The overall vote for the PQ dropped in 1998 by two percentage points under the already low totals obtained in 1994 as the party plummeted to 16% on the reserves. Support for the PLQ was overwhelming at 74%, and what non-PLQ voting took place on the reserves was divided to include the ADQ, which garnered 10% of the on-reserve vote.

The only real anomalous patterns in the vote were in Montagnais territory, in the far northeast portion of the province, where a couple of reserves opted strongly for the PQ and another pair of reserves opted equally strongly for the ADQ. However, each of these anomalous outcomes were on reserves with relatively small numbers of votes cast, and the overall trend in the vote amongst the Montagnais remained strongly Liberal, with the PLQ receiving 56% of the Montagnais vote.

One possible interpretation of the drop in support for the PQ in aboriginal territories, as suggested by the earlier quote from Pierre Drouilly, is that aboriginal nations that had negotiated with the Lévesque government were satisfied with the good faith of those negotiations. By comparison, then, the argument would go that they were less satisfied with their relations with the Parizeau government or the Bouchard government, and were threatened by what they took to be an assertive ethnic nationalism, where they had not been similarly threatened by the Lévesque government. To some extent, the fervour of *indépendantisme* after the election of the 1994 Parizeau government was the issue: even if aboriginal peoples disagreed that Quebec should become a sovereign state, perhaps, they could support the PQ under Lévesque because at that point the PQ was not placing its sovereigntist agenda before all other agendas. Aboriginal

voters satisfied with the pace of land claims and aboriginal title negotiations with the province could reward the PQ for its efforts. After 1994, many aboriginal voters doubted the PQ had anything else on its mind but sovereignty, to which they had already demonstrated their opposition in 1980, and which they would soundly reject in 1995. Consequently, they were in no mood to reward the PQ as they had done in previous elections.

Another possible interpretation of the drop in PQ support in aboriginal communities is the tendency of aboriginal voters towards social democracy. The federal New Democratic Party has tended to do fairly well in aboriginal areas, much better than generally in the province of Quebec, where the party has an exceedingly low profile. One might well characterise the voting pattern of the pattern of the aboriginal nations of Quebec at the federal level as left-wing Liberal/New Democratic in orientation, where normally the vote goes to the Liberals, but the New Democrats are often a convenient protest vote when the Liberals do not seem to be paying sufficient and proper attention to aboriginal issues or the general social welfare concerns of those living on the reserves. At any rate, if we can accept a general characterisation of aboriginal nations as enclaves of social democratic feeling within the province, then it may be intelligible that the more assertively social democratic orientation of the PQ as led by René Lévesque would more likely meet with aboriginal approval, whereas the independence-first politics of Jacques Parizeau or the *virage à droit* policies of Lucien Bouchard might meet with more opposition on the reserves.

One final observation from this data – the participation rate of 50% for all aboriginal communities, shown in Table 21, constitutes a comparatively high rate with

respect to previous aboriginal involvement in provincial elections. This high rate of involvement mirrors what was seen in the 1994 election and the 1995 referendum, and seems to be part of a continuing trend towards involvement in provincial politics which was probably also spurred on by this change in policy at the head of the PQ and the perceived threat constituted by the more assertive *indépendentisme* of the post-Parizeau administrations of the party.

The "Bilingual Zone"/"Non-Bilingual Zone" Cleavage

The final cleavage of which we will speak before continuing on with this project is a cleavage between areas of the province of Quebec which contain large numbers of both francophone and anglophone residents and areas of the province which have a more uniformly francophone or anglophone population. The areas where francophones and anglophones live in dispersed patterns – that is to say, patterns where there is no concentration of one or the other linguistic group in a portion of the area in question, but are both spread out across the area – tend towards the PLQ, whereas areas where linguistic groups are clearly concentrated in specific subareas tend towards the PQ.

The main examples of locations in which this cleavage is noticeable are in the Eastern Townships region on Quebec's border with the states of New York, Vermont, New Hampshire and Maine, and in the Outaouais region on Quebec's border with Ontario. Lesser examples include a portion of the Gaspé region on the Atlantic Ocean and near the border with New Brunswick and a portion of northern and eastern Montreal.

The most exemplary region for this cleavage is by far the Eastern Townships. Settlement in the Eastern Townships was originally anglophone, representing either

direct immigration from the British Isles, or in some cases the acquisition of lands by Loyalists escaping the American Revolution at the end of the 18th Century (United Empire Loyalists 1984). Francophones began to settle the area later on in the 19th Century (Little 1977); at this point francophones are clearly dominant in most of the territory, but sizeable anglophone populations remain. The Eastern Townships region is mostly rural, but one large population centre, Sherbrooke – with a population of 75,916 according to the 2001 census – serves to anchor the region economically.

In Table 22, we can see the extent of English-speaking and French-speaking in the provincial ridings of the Eastern Townships. The ridings of Brome-Missisquoi, Orford and Saint-François have large anglophone populations, with Brome-Missisquoi weighing in with roughly one quarter of its population anglophone, both historically (25% with a "mother tongue" of English) and in practice (27% speaking English in the home).

Riding	English mother tongue, 1996 census	French mother tongue, 1996 census	English spoken at home, 1996 census	French spoken at home, 1996 census
Brome-Missisquoi	12715 (25%)	36850 (73%)	13435 (27%)	36745 (73%)
Johnson	1870 (4%)	47300 (96%)	1560 (3%)	47700 (97%)
Mégantic-Compton	3075 (7%)	38435 (92%)	2930 (7%)	38640 (93%)
Orford	7460 (11%)	57590 (88%)	7435 (11%)	57665 (88%)
Richmond	1965 (5%)	41240 (95%)	1785 (4%)	41550 (95%)
Saint-François	5250 (9%)	49485 (88%)	5205 (9%)	49975 (89%)
Sherbrooke	2005 (4%)	46280 (92%)	1725 (3%)	47130 (94%)

Table 22.
Anglophones and Francophones in the Eastern Townships
Source: Statistics Canada 1996; *DGÉQ* 1998.

In Figure 4 we plot the results for each polling station for the three major parties of Quebec against each other in order to gain an understanding of the within-group variation for the vote in the Brome-Missisquoi riding. Though Brome-Missisquoi, as a

riding with a great many anglophones, has a number of polls where the PLQ predominates very strongly, we see no sharp separation between polls where anglophones overwhelmingly carry for the PLQ and polls where francophones overwhelmingly carry for the PQ. Instead, we can see that there is a broad linear range of polling results, ranging from a number of polls in the more anglophone areas, such as the towns of Brome and Lac-Brome, which carry for the PLQ at 90% to around 5% for the PQ, through to a number of polls in the more francophone areas, such as Saint-Alphonse, which carry for the PQ at 50% to around 30% for the PLQ. Furthermore, a number of towns exhibited very strong divisions within themselves at the poll level between the PLQ and the PQ. In Figure 5, poll variation solely within the town of Cowansville – a town with a population of 12,032 in the 2001 Census – is shown. Solely within the boundaries of this small to middling city, we can see that some polling areas are overwhelmingly Liberal, with polling percentages ranging around 60% and 70%, while others are strongly *péquiste* and *adéquiste*, with percentages for the PQ ranging around 40% or 50% and percentages for the ADQ ranging around 10% or 20%. If we sum these "francophone parties" together, that means the PQ and ADQ together poll in some areas around 70% in some polls. So here in this small place, opinions differ widely – some citizens opt for the federalist PLQ by a vote of around 70% while others opt for the sovereigntist PQ or ADQ by a vote of around 70%.

This is the nature of the cleavage we attempt to describe in this section; in the "bilingual zone" ridings, generally find that there is this characteristic range of polling strengths for the various parties. In most places in Quebec, however, the normal range of

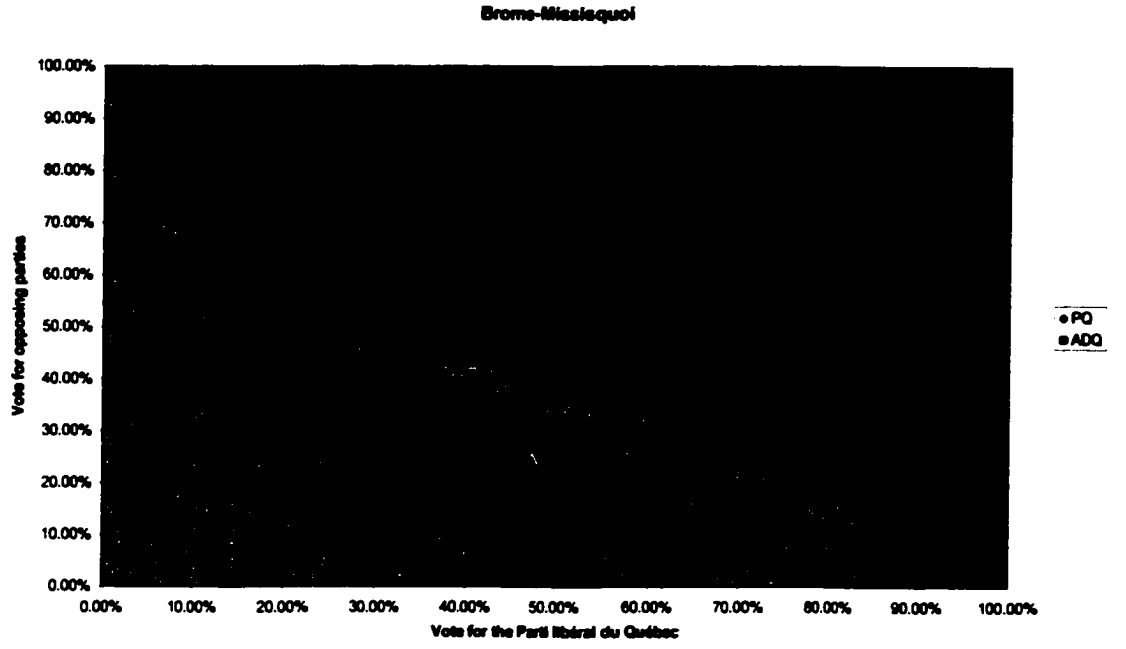


Figure 4.
Distribution of Vote by Poll, Brome-Missisquoi riding, 1998 Quebec Election
Source: ***DGÉQ*** **1998.**

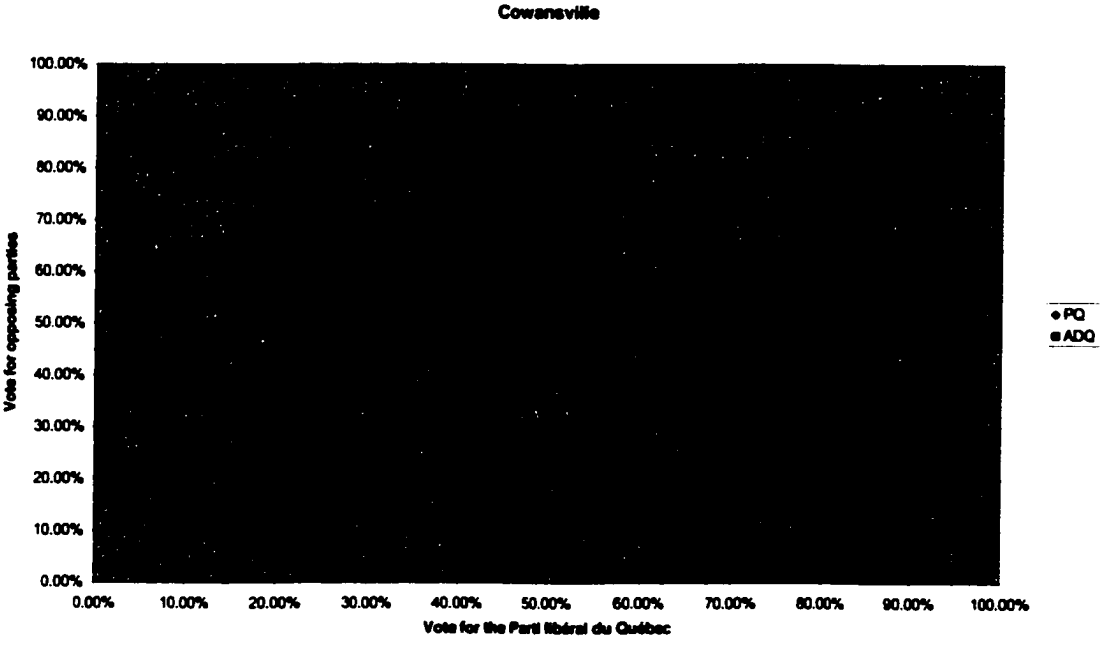


Figure 5.
Distribution of Vote by Poll, Town of Cowansville, 1998 Quebec Election
Source: ***DGÉQ*** **1998.**

polls is small compared to what is shown in Figures 4 and 5, either because one party dominates in all the polls (an example of this is shown for Montreal's solidly Liberal D'Arcy McGee riding in Figure 6) or because the parties run at comparable strengths in all the polls (an example of this is shown for the Abitibi-Est riding in Figure 7, where the PQ usually gets from 40-60% of the vote, the PLQ from 30-50% and the ADQ from 5-15%consistently across all the polls, save for three extreme outlier polls; there is not much in the way of variation).

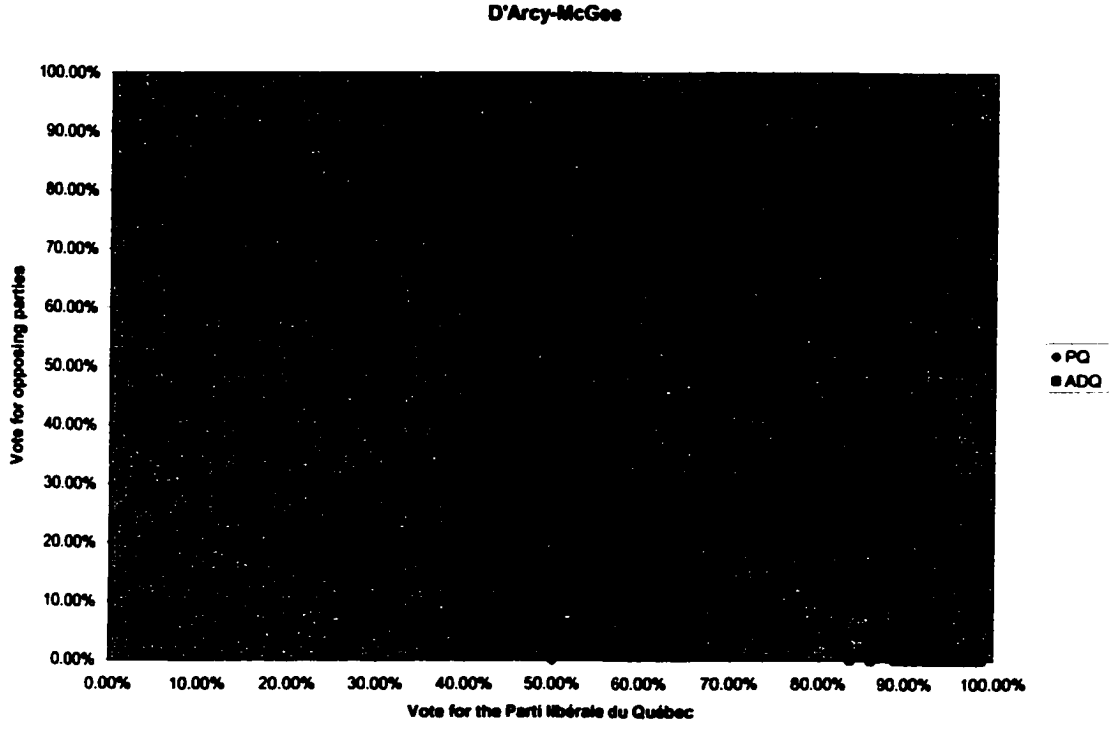


Figure 6.
Distribution of Vote by Poll, D'Arcy-McGee riding, 1998 Quebec Election
Source: *DGÉQ* 1998.

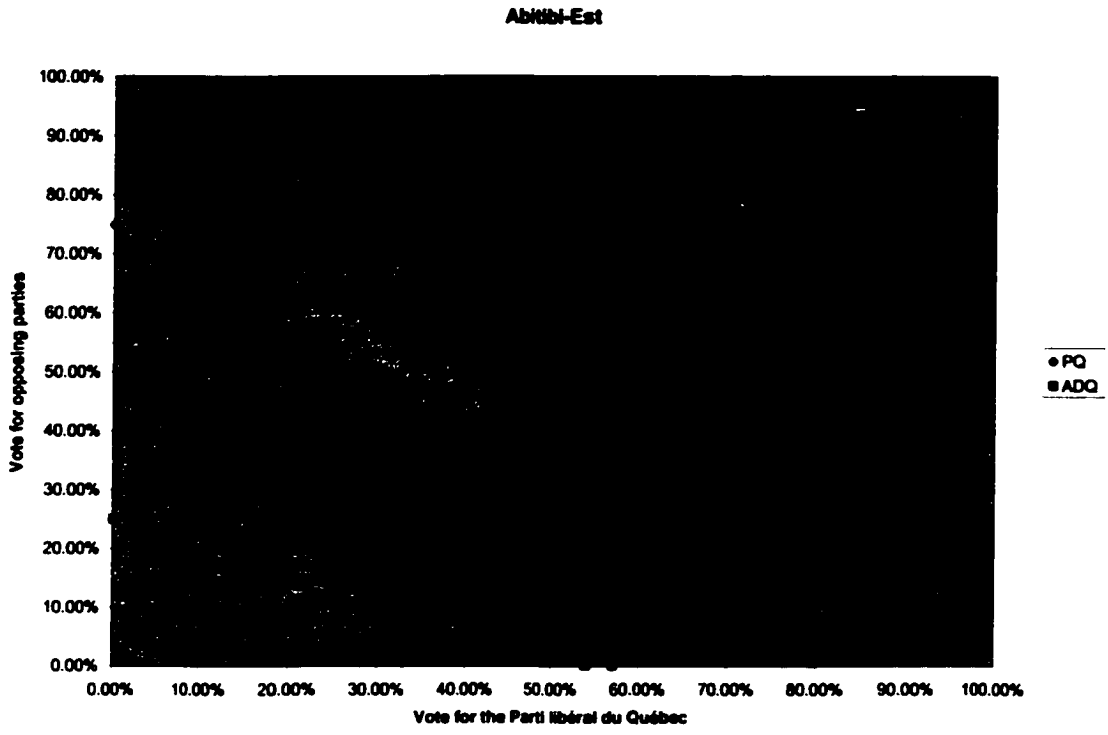


Figure 7.
Distribution of Vote by Poll, Abitibi-Est riding, 1998 Quebec Election
Source: *DGÉQ* 1998.

The city of Sherbrooke is split between two ridings, those of Sherbrooke and Saint-François. Saint-François riding has a slightly higher population of anglophones than Sherbrooke riding. In Figures 8 and 9, we can see the poll distributions for these two ridings that comprise the Sherbrooke metropolitan area. In Figure 8, we can see that Saint-François has the expected broad distribution of polls between the parties for an area of linguistic diversity, leaning more towards the federalist/PLQ side than the sovereigntist/PQ and ADQ side, but reflecting a wide diversity in the vote within this territorially small riding. In Figure 9, we see a similar distribution for the less linguistically diverse Sherbrooke, but we can also detect that the distribution is beginning to contract – polls at either end of the linear progression take on more of the character of

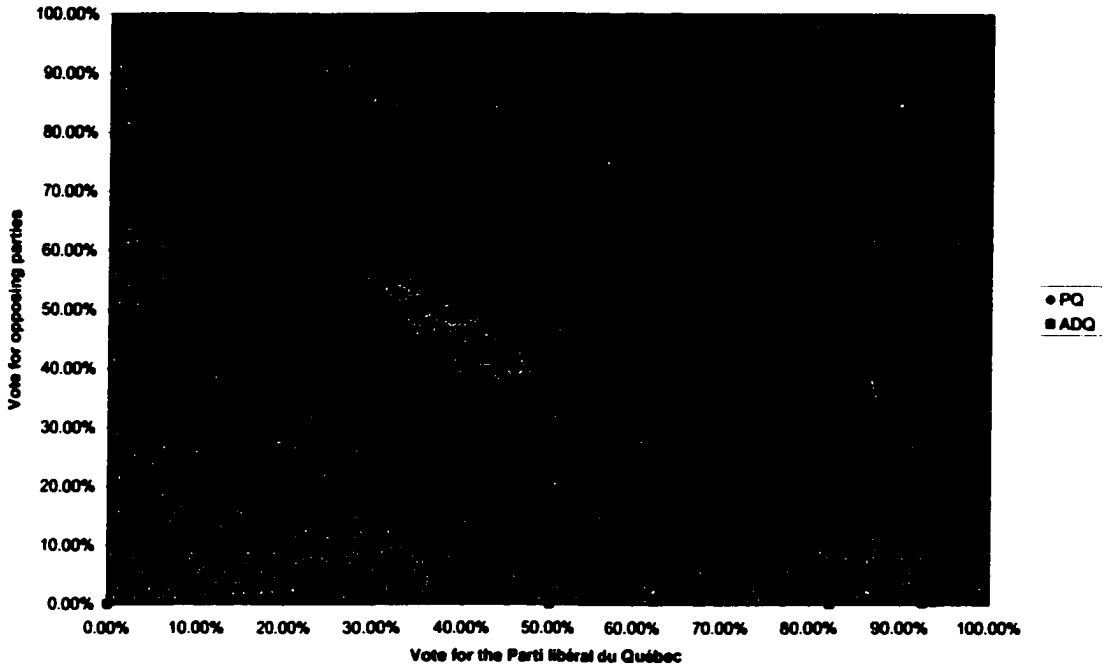


Figure 8.
Distribution of Vote by Poll, Saint-François riding, 1998 Quebec Election
Source: ***DGÉQ*** **1998.**

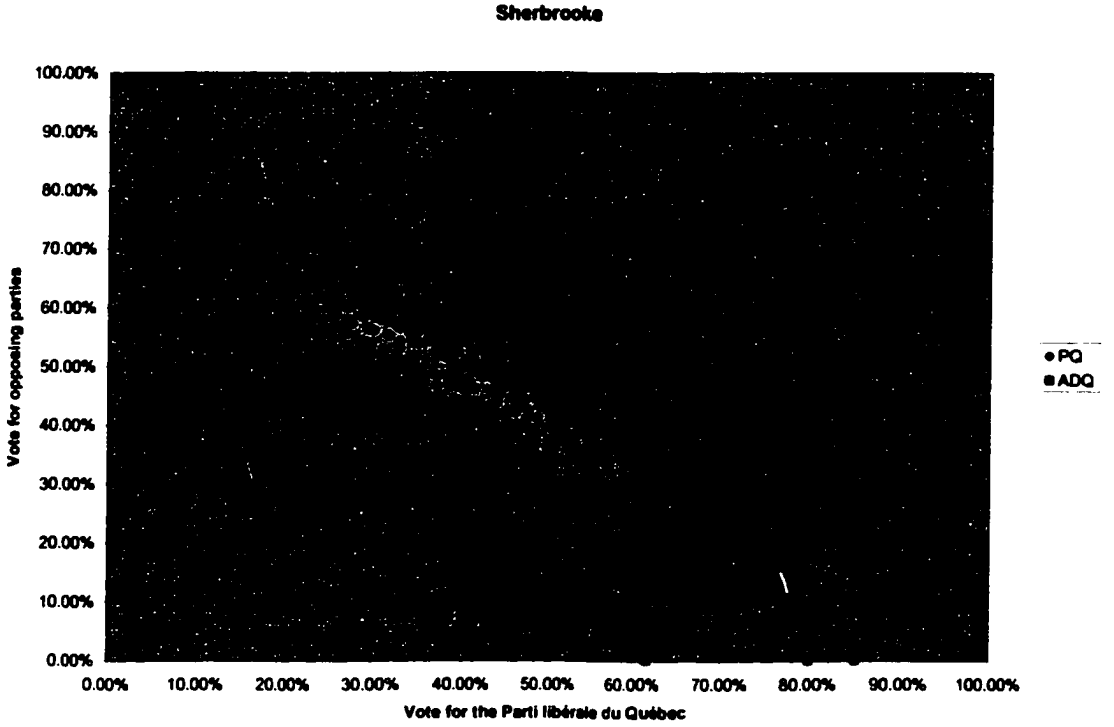


Figure 9.
Distribution of Vote by Poll, Sherbrooke riding, 1998 Quebec Election
Source: ***DGÉQ*** **1998.**

outliers rather than parts of the continuous linear spread of polls from the sovereigntist side to the federalist side of the spectrum.

The persistence of the pattern to some extent in Sherbrooke riding, despite the clear predominance of the francophone community in that riding, is interesting. The strong support for the PLQ in some quarters of Sherbrooke riding may well indicate a desire to participate in the culture of the larger bilingual region of the Eastern Townships rather than primarily focus upon interactions with the pan-Quebec francophone culture; in other words, the point, for such Liberal voters, might not be that one is in a riding where both linguistic groups predominate, but that such ridings are close by and one must deal with the "English fact" of the Eastern Townships, even if one lives in a particularly francophone part of Sherbrooke.

In general, the pattern of broad ranges of polling results in the Eastern Townships reveals that this part of Quebec is not really "federalist", even if Liberals tend to win there often and the vote is usually for the *Non* in sovereignty referendum elections. If we were to permit ourselves to call the Eastern Townships "federalist", we would be well-advised to remind ourselves that there is a strong sovereigntist subcurrent in the region. A better characterisation of the area would identify it as a place where there are more anglophone residents than one generally finds in Quebec ridings, so the ridings trend Liberal, but nevertheless it is a place where federalists and sovereigntists share space. If the decision were made once and forever to choose either option, residents of the Eastern Townships would have to learn to live with those of their neighbours on the losing end of the decision.

In the Outaouais, the dynamics of the "bilingual zone" relationship change somewhat. The PLQ is far more dominant in this part of the province, in part due to the effects of the federal employment cleavage already discussed in this chapter. Thus, the broad continuum of polling results across the spectrum runs from some polls where the PLQ is supported by nearly every single person who votes to some polls where the PQ manage a majority. In Figure 10, we see this relationship obtaining in the Gatineau riding, a rural Outaouais riding which also comprises a small part of the city of Gatineau. Though the PLQ is dominant in this riding and has won it every year since 1970, it is clear from this figure that there are significant *péquiste* parts of the riding – in the sea of red there are at least some small pools of blue.

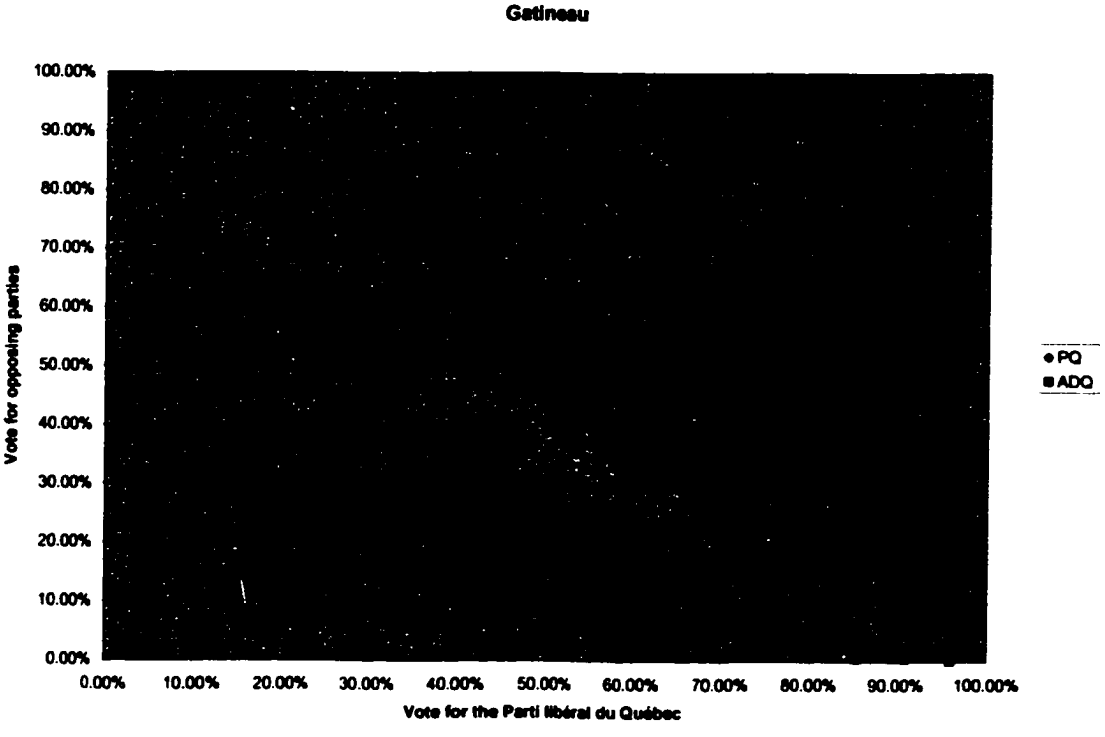


Figure 10.
Distribution of Vote by Poll, Gatineau riding, 1998 Quebec Election
Source: ***DGÉQ*** **1998.**

Summary of the Cleavages

The observable constants that have marked Quebec political behaviour over the long term have included the following:

The Anglophone/Francophone Cleavage: A cleavage between an anglophone constituency centered in Montreal and in the border regions with other jurisdictions, and a francophone constituency centered in the heart of the province;

The Cosmopolitan/Traditionalist Cleavage: A cleavage between a more liberal, cosmopolitan constituency (the *rouges*) keen upon trade with other jurisdictions and thus centered in urban areas along trade routes leading outside the province, and a conservative, traditionalist constituency (the *bleus*) located in the rural interior of the province and which is relatively unconnected with these trade links.

The Founder/Immigrant Cleavage: A cleavage between the province outside of Montreal, where the population is strongly composed of persons originating from one of the three "founding peoples of Canada" (in other words, persons of English, French or aboriginal origin); and, cultural communities of immigrants mostly located in Montreal.

These three cleavages have been recognisable throughout hundreds of years of Quebec political history, and continue to be recognisable to the present day.

In contrast to these patterns, there have been a group of four more recent patterns that have emerged since the realignment of the Quebec political system after the election of 1970.

Some of these observable constants in Quebec electoral geography which have developed within the period of the last three decades include:

The Suburban/Nonsuburban Cleavage: A cleavage between suburban area and non-suburban area constituencies. There are two suburban patterns, namely the "anglophone suburbs" pattern (defined by the long-standing presence of an affluent anglophone population) and the "francophone suburbs" or "ring suburbs" pattern (defined by the more recent creation of suburban areas where a newly-affluent francophone population resides);

The Federal Employment/No Federal Employment Cleavage: A cleavage between a constituency dependent upon employment by the Canadian federal government, centered in the Outaouais region near the federal capital of Ottawa, and the rest of the province, where federal employment is less prominently a factor in voting;

The Aboriginal/Nonaboriginal Cleavage: A cleavage between northern localities where aboriginal voters predominate, and the rest of the province where aboriginals constitute a much smaller portion of the population; and,

The "Bilingual Zone"/Non-"Bilingual Zone" Cleavage: A cleavage between areas where there are anglophone and francophone populations living in close proximity to one another, such as the Eastern Townships region, the Outaouais region, the environs of the city of Montreal and parts of the Gaspé region and other parts of the province which are more uniformly French-speaking.

III. HISTORICAL BACKGROUND: QUEBEC ELECTORAL GEOGRAPHY

There was considerable continuity between the geographic trends of the 1998 Quebec general election and those trends exhibited during a period of roughly three decades proceeding it. This chapter will explore that continuity and exposit how the 1998 election demonstrated a long-term trend in the electoral geography of the province.

The Realignment of the Quebec Political System

The election of 1970 was a "realignment" election for the Quebec political system (Lemieux, Gilbert & Blais 1970). In the election of 29 April 1970, the PQ gained seats in the National Assembly for the first time after its founding in 1968. After that election, the PQ would begin a process of replacing the conservative nationalism of the UN with its brand of social democratic nationalism, as well as a newer party of populist protest which had recently emerged, the *Ralliement créditiste* (RC, cf. Pinard 1975 [1971] for background on the party).

Date of Election	PLQ	PQ	UN	RC	Other	Total
5 June 1966	50	0	56	0	2	108
29 April 1970	72	7	17	12	0	108
29 October 1973	102	6	0	0	2	110
15 November 1976	26	71	11	1	1	110

Table 23.
Seat Distribution for Quebec Political Parties in the National Assembly, 1966-1976.
Source: *DGÉQ*, 2002.

Table 23 shows how the split vote between the PQ and the two parties it was in the process of replacing electorally enabled the PLQ to win the election of 29 April 1970

and 29 October 1973 decisively, in the latter case with a crushing 102 of 110 seats. During these elections, the PQ consolidated its strength while the UN progressively weakened as a source of opposition to the PLQ. By the time of the 15 November 1976 election, the PQ had sufficiently consolidated itself as to succeed at electing a government of its own with René Lévesque as the premier. After the election of this government, Quebec's first avowedly sovereigntist government, the PQ remained as one of the two major parties in the province, and the UN and RC disappeared from the provincial scene.

Date of Election	PLQ	PQ	PÉ/EP	ADQ	Total
13 April 1981	42	80	0	0	122
2 December 1985	99	23	0	0	122
25 September 1989	92	29	4	0	125
12 September 1994	47	77	0	1	125

Table 24.
Seat Distribution for Quebec Political Parties in the National Assembly, 1981-1994.
Source: *DGÉQ*, 2002.

Table 24 shows how Quebec's provincial political system settled down after the 1976 election into a relatively stable two-party system in which the PQ and PLQ predominate, only to be challenged weakly by smaller parties. In the past two decades, those parties have been the staunchly federalist *Parti Égalite*/Equality Party (PÉ/EP, cf. Libman 1995 for a background of the party) and the populist ADQ, which remains to the present day (cf. Allaire 1994 for a background to the founding of the party).

A Regional Analysis of the Post-1970 System

For the purposes of demonstrating the historically continuous pattern into which the 1998 election fits, it is most useful at this point to concentrate on the geographic patterns shown in the elections which preceded it in the period from 1970 onwards. In order to accomplish this quickly and in a serviceably intelligible way, we utilise a scheme of regional representation employed by the *Parti Québécois* itself, which is based in turn on the administrative regions used by the *Institut de statistique du Québec*, Quebec's statistical agency. The PQ's version of these regions differs only from the "official" administrative regions in that it splits the provincial region of "Montreal" into two regions, "Montréal-Centre" (the northern and eastern part of the Isle of Montreal) and "Montréal-Ville-Marie" (the southern and western part of the island), and in that it conflates the provincial regions of Saguenay/Lac-Saint-Jean and Nord-du-Québec into one region, "Saguenay/Lac-Saint-Jean/Nord-du-Québec". The former difference allows us more detail in interpretation, the latter difference avoids having a regional category (Nord-du-Québec) which would only comprise one riding (the areally-huge riding of Ungava, located at the far north of the province).

In Tables 25 and 26, a comparison of elections since 1970 is undertaken, emphasising regional strengths for the PQ and PLQ, respectively. In Table 25, one can immediately see that Montréal-Centre and Saguenay/Lac-Saint-Jean/Nord-du-Québec have been important centres of support for the PQ, the former region in the early formative elections where the party was beginning to assert itself, and the latter region consistently across all the elections of the post-1970 period. By contrast, the Estrie (the

Eastern Townships), Montreal-Ville-Marie ("West Island" Montreal) and the Outaouais have always been important centres for the PLQ.

One can also see the importance of certain "swing" regions in Tables 25 and 26. These regions include Bas-Saint-Laurent ("Lower St. Lawrence", an area centering

Parti Québécois	29 Apr 1970	29 Oct 1973	15 Nov 1976	13 Apr 1981	2 Dec 1985	25 Sep 1989	12 Sep 1994	30 Nov 1998
Abitibi-Témiscamingue	0	0	**2**	**3**	1	**2**	**3**	**3**
Bas-Saint-Laurent	0	0	**4**	**4**	0	0	**2**	**2**
Capitale nationale	0	0	**8**	**8**	0	0	**10**	**9**
Centre-du-Québec	1	0	**2**	**2**	0	1	**3**	**3**
Chaudière-Appalaches	0	0	**3**	**6**	1	2	**4**	**5**
Côte-Nord	1	1	**2**	**2**	1	1	**2**	**2**
Estrie	0	0	2	3	1	1	2	1
Gaspésie/Îles-de-la-Madeleine	0	0	**2**	**3**	0	0	**3**	**3**
Lanuadière	0	0	**5**	**5**	2	**4**	**7**	**7**
Laurentides	0	0	**2**	**3**	0	1	**4**	**5**
Laval	0	0	**2**	**4**	0	0	**4**	**4**
Mauricie	0	0	**4**	**4**	1	1	**5**	**5**
Montérégie	0	0	**11**	**13**	5	**6**	**13**	**13**
Montréal-Centre	6	3	**12**	9	4	5	7	7
Montréal-Ville-Marie	0	1	4	3	1	0	2	1
Outaouais	0	0	2	0	0	0	0	0
Saguenay/Lac-Saint-Jean/Nord-du-Québec	0	1	**4**	**6**	**6**	**5**	**6**	**6**
TOTAL in Province of Quebec	7	6	**71**	**80**	23	29	**77**	**76**

Table 25.
Regional Strengths for the PQ in Terms of Number of MNAs Elected
Numbers in bold in table cells indicate a majority of riding in the region were won by the party.

Sources: Drouilly 1989; Drouilly 1990.
Coding of Data : Appendix A

around cities like Rimouski and Rivière-du-Loup), Capitale nationale (Quebec City and its environs), Chaudière-Appalaches (across the St. Lawrence from Quebec City, near the Appalaches mountains), Gaspésie/Îles-de-la-Madeleine, Laurentides (the Laurentian mountains), Laval, Mauricie (the area around the St. Maurice River near Trois-Rivières)

and Montérégie (the area between Montreal and the U.S.-Canada border). In the elections of 1970 and 1973, as well as the elections of 1985 and 1989, the PLQ was victorious. In those elections, the swing regions generally went to the PLQ. By contrast, in the elections of 1976, 1981, 1994 and 1998, the PQ was victorious. In those elections,

Parti libéral du Québec	29 Apr 1970	29 Oct 1973	15 Nov 1976	13 Apr 1981	2 Dec 1985	25 Sep 1989	12 Sep 1994	30 Nov 1998
Abitibi-Témiscamingue	**1**	**2**	0	0	**2**	**1**	0	0
Bas-Saint-Laurent	**4**	**4**	0	0	**4**	**4**	**1**	**1**
Capitale nationale	**6**	**10**	3	3	**11**	**11**	**1**	2
Centre-du-Québec	**2**	**3**	0	**1**	**2**	**2**	0	0
Chaudière-Appalaches	0	**6**	**1**	**1**	**6**	**6**	**4**	**3**
Côte-Nord	**1**	**1**	0	0	**1**	**1**	0	0
Estrie	**4**	**7**	**2**	**4**	**6**	**6**	**5**	**6**
Gaspésie/Îles-de-la-Madeleine	**4**	**4**	**1**	**1**	**4**	**4**	**1**	**1**
Lanuadière	**3**	**5**	0	**1**	**4**	**3**	0	0
Laurentides	**2**	**3**	**1**	**1**	**4**	**3**	**2**	**1**
Laval	**2**	**3**	**1**	**1**	**5**	**5**	**1**	**1**
Mauricie	**4**	**5**	**1**	**1**	**4**	**4**	0	0
Montérégie	**12**	**14**	**1**	**4**	**12**	**11**	**5**	**5**
Montréal-Centre	**11**	**15**	**6**	**9**	**14**	**11**	**8**	**8**
Montréal-Ville-Marie	**8**	**12**	**8**	**12**	**14**	**13**	**14**	**15**
Outaouais	**4**	**4**	**2**	**5**	**5**	**5**	**5**	**5**
Saguenay/Lac-Saint-Jean/Nord-du-Québec	**3**	**4**	**1**	0	0	**1**	0	0
TOTAL in Province of Quebec	**72**	**102**	26	42	**99**	**92**	47	48

Table 26.
Regional Strengths for the PLQ in Terms of Number of MNAs Elected
Numbers in bold in table cells indicate a majority of riding in the region were won by the party.

Sources: Drouilly 1989; Drouilly 1990.
Coding of Data : Appendix A

the swing regions went to the PQ. We do not see a pattern where some regions swing one way in the same election that other regions swing in the opposite direction.

There are a pair of plausible explanations for this clear pattern we see in the swing ridings. The first is suggested by the political geographer Peter Taylor (Taylor & Flint

2000) who argues that "oscillation" between sides in elections on the part of electoral regions is part of a strategy to maximise the usefulness of the support offered by the region's voters to the main parties or power blocs vying for that support. By this interpretation, none of the parties or power blocs are in themselves natural choices for these swing regions, and the regions act to maximise their influence by supporting parties or blocs which appear close to election, in order to convey the impression that regional support put them "over the top" and therefore deserves compensation in the form of political favours after the election is over. Taylor suggests that areas in the economically dependent periphery, in particular, exhibit this tendency towards "oscillation" in voting behaviour. A number of the regions that have oscillated between the parties since 1970 are indeed areas where a resource-based rural economy predominates and economic dependence on outside urban areas, is pronounced.

However, this explanation is not sufficient to capture all of what we are seeing in Tables 25 and 26, and there is another explanation that merits our attention. The failure of the Meech Lake accord in 1990, according to the political scientist Maurice Pinard (1992), occasioned the disruption of a period of PLQ dominance in provincial politics, and also spurred the Quebec electorate to endorse sovereignty anew as a cause after a period of attempting to negotiate a basis for a Canadian federation in which Quebec has greater autonomy. Consequently, the period after 1970 took a certain shape whereby sovereignty entered public debate in earnest (with the rise of the PQ after 1970 and its elections in 1976 and 1981 under René Lévesque), then became less salient of an issue as Quebec negotiated with the other provinces in the Meech process (occasioning the election of PLQ governments under Robert Bourassa in 1985 and 1989), but returned to

public debate with a vengeance after the failure of Meech (occasioning the return of the PQ under Jacques Parizeau in 1994 and Lucien Bouchard in 1998.) Given these historical developments as a backdrop, the case could be made that the swing regions swung from one party to another on the basis of local voters' interpretations of policy developments during this period of Canadian constitutional change.

Political Developments Since 1970

The post-1970 realignment in Quebec politics is a realignment along clear sovereigntist/federalist lines. The rising expectations of the Quiet Revolution gave strength for the first time to a radical sovereigntist portion of the electorate. In addition, it gave strength for the first time to a homegrown strain of social democracy, a perspective for which Quebec had not previously been known, but for which it is widely known today. These two elements, sovereigntism and social democracy, were the constellating elements around which the PQ formed.

The first campaigns of the PQ under René Lévesque were strongly social-democratic in character, partly owing to his own personal sensibilities and partly owing to a clear need to outstrip an even more radical and revolutionary sovereigntism, as advocated by the *Front de liberation du Québec* (or, FLQ; cf. Dumont 1971; Trait 1970 for a background on this group) as well as the socialist/sovereigntist scholarly journal *Parti pris* (Potvin 1970). In 1963, the FLQ started a campaign of bombings on the Isle of Montreal; Lévesque, disturbed by this development, strongly desired to substitute a more peaceful campaign for sovereignty for the FLQ's "desperate mixture of anarcho-nationalism and kindergarten Marxism" (Lévesque 1978: 22). In Lévesque's opinion,

there needed to be a liberal and social-democratic alternative to such an approach emphasising violence (Fitzmaurice 1985).

Though the party, since its inception, always sought to be identified with other "national" parties of the social democratic left, many would argue with a considerable amount of justification that the party was never truly analogous to other social democratic parties on the world scene. Yves Vaillancourt and Annie Autones (1983) made this argument in its most coherent form by emphasising points of departure, where the PQ was clearly a different sort of party from the typical social democratic faction:

> *Le PQ n'est pas, à la manière des partis sociaux-démocrates, une formation née de l'intérieur du mouvement ouvrier et populaire organisé...[l]e PQ, comme partie et gouvernement, s'est toujours refusé systématiquement, à la suite des positions fermes de sa direction, à entretenir des liens organiques avec les organisations du mouvement ouvrier et populaire...[l]e projet de société véhiculé par le PQ, comme parti et comme gouvernement, notamment le contenu du projet de souveraineté-association, n'a jamais été le "socialisme-démocratique"...*
>
> The PQ is not, in the manner of social democratic parties, a faction born from inside the labour and people's movement... the PQ, as a party and a government, always has refused systematically, in terms of its leadership positions, to undertake organic links with the labour and popular movement...the social/ national project forwarded by the PQ, as a party and as a government, notably the content of the project of sovereignty association, has never been "democratic socialism"... (Vaillancourt & Autones 1983: 97).

Vaillancourt & Autones added that the social democratic wing of the PQ has always been "dominated minority tendency" (*une tendance minoritaire et dominée*) within the party (Vaillancourt & Autones 1983: 96) and that this has resulted in a strengthened tendency to political gradualism as well as a tendency towards uncritical support for economic development initiatives (Vaillancourt & Autones 1983: 98). These

tendencies are present in social democratic parties worldwide, but Vaillancourt's point is that they have always been greater in the PQ because much of the membership of the PQ is far more oriented towards nationalism than social democracy. Despite this, the early campaigns of the PQ emphasised the roots of the party in the social democratic movement, and the solidaristic notion of the *modèle québécois* (or "Quebec social model") remains an important part of the ideological canon of the party. Nevertheless, in later years, a *virage à droite* ("right turn") characterised the behaviour of the PQ; this "right turn" was symbolised particularly by the rise of Lucien Bouchard, the former federal Progressive Conservative Minister of the Environment, to the premiership in 1996. The rise of Jean Charest, also a key member of the federal Progressive Conservative government led by Brian Mulroney, to the leadership of the PLQ, confirmed this tilt towards the right in Quebec's major political parties.

A fascinating aspect of the realignment that had taken place is in Quebec politics is that socialists, liberals and conservatives now found themselves represented in both of the major political parties. Whereas in Canada, political parties defined themselves on the basis of these three ideologies, socialism, liberalism and conservatism, in modern Quebec, these ideologies became secondary in importance to the sovereigntist and federalist ideological positions. In the more radical 1970s, the social democratic and liberal influence on both the PQ and the PLQ was more pronounced; afterwards, the *virage à droite* brought a more conservative leadership to both parties.

In the campaign of 1976 in which the PQ would prove victorious, René Lévesque promised the voters that his government would not take Quebec out of the Canadian federation unless this action were endorsed by means of a province-wide referendum.

Upon his victory of 15 November 1976 (Dupont 1976), Lévesque repeated this pledge, and the stage was then set for the calling of the first of Quebec's two sovereignty referenda to date. Lévesque advocated a kind of sovereignty known as "sovereignty-association", or sovereignty coupled with the possibility of a continued economic association with the rest of Canada (Lévesque 1997 [1968], Lévesque 1986). The first government of the PQ (cf. Fraser 1984 for a good description of these years) set itself two primary tasks, to address the conditions that were leading to the assimilation of the francophone community in the province by the anglophone community, and to call a referendum on sovereignty-association sometime within the new government's mandate.

The first of these two tasks was actually somewhat begun even before the PQ reached power. In a conciliatory response to the nationalistic pressures clearly evident after the elections of 1970 and 1973, Robert Bourassa's PLQ government passed Bill 22, establishing for the first time that French was the sole official language of the province of Quebec (Government of Quebec 1974).

Bill 22 was intended to appease nationalism, but struck many nationalists as not going far enough, while at the same time threatening anglophone Quebecers. Garrett Stephenson (1999) has argued somewhat persuasively that the passing of Bill 22 was a first step in dismantling a consociational political structure in the province of Quebec, much like the one that had existed between Canada West and Canada East at the time of the Union of the Canadas. This structure, largely the artifice of traditional practices, ensured anglophone Quebecers a certain amount of representation in government and participation in governmental operations, particularly within the province's Cabinet. After the passing of Bill 22 in 1974, this "sectional" protection of the anglophone interest

in provincial government would progressively be scrapped in favour of an understanding that Quebec's political culture was to be majoritarian – in the same fashion as Canada's post-George-Brown political culture – but in Quebec that political culture would reflect a francophone majority.

In 1977, the National Assembly enacted Bill 101, with its provisions concerning the language of commercial signage, the education system and the workplace. Such demands created a furor among many in Quebec's immigrant cultural communites, as we have already discussed, particularly with respect to the Saint-Léonard crisis.

The second of the tasks, the calling of a referendum on sovereignty-association, was set for 20 May 1980. The calling of this referendum was roughly four years into the mandate of the province's first sovereigntist government, at a time when Canada's prime minister, Pierre Trudeau, himself from Quebec, was known to be forwarding a spate of new constitutional initiatives. The most important of these initiatives were: the "repatriation" of the Canadian constitution, at this point considered to be an act of the British parliament; the addition of a Charter of Rights and Freedoms to the constitution which would, in the same fashion as similar "bills of rights" in other nations, specify those civil liberties considered to be fundamentally protected for each citizen; and the formula by which the constitution would in the future be amended, which to that point had been the subject of much debate. Trudeau gave what came to be a famous speech at the Paul Sauvé arena in Montreal on 14 May 1980, promising that if Quebecers voted against the referendum, he would do his best to redesign the Canadian confederation to better suit the interests of Quebecers. The fact that the constitution was, so to speak, on the table for discussion in 1980, coupled with the prime minister's promises of federalist

renewal, led many residents of the province to conclude that the *projet de société* ("social/national project") designed by Premier Lévesque was unnecessary. Though many were sympathetic to the "*Oui*" side ("Yes", or in favour), on referendum day most voted "*Non*" ("No", or in opposition), arguably to give Canada a chance to make good on Trudeau's promises (Bothwell 1995: 165).

Regions	*Oui*	*Non*
Abitibi-Témiscamingue	1	2
Bas-Saint-Laurent	1	3
Capitale nationale	1	9
Centre-du-Quebec	0	3
Chaudière-Appalaches	0	7
Côte-Nord	2	0
Estrie	0	7
Gaspésie/Îles-de-la-Madeleine	0	4
Lanaudière	1	4
Laurentides	0	3
Laval	0	3
Mauricie	0	5
Montérégie	1	13
Montréal-Centre	3	15
Montréal-Ville-Marie	0	13
Outaouais	0	4
Saguenay/Lac-Saint-Jean/Nord-du-Québec	5	0
TOTAL for Province of Quebec	15	95

Table 27.
Ridings Voting for the "*Oui*" and "*Non*" sides in the 20 May 1980 Referendum on Quebec Sovereignty-Association.
Source: Drouilly 1989; Janda 1998.

The 1980 referendum was soundly defeated across nearly all regions in Quebec, and by a province-wide vote of 59.56% in favour of the *Non* to 40.44% in favour of the *Oui* (*DGÉQ* 1980). Table 27 shows a regional breakdown of the province-wide vote by riding for both sides of the referendum question on sovereignty-association.

As one can readily see, there were only two regions that supported the "*Oui*" side of the referendum, the regions of Saguenay/Lac-Saint-Jean/Nord-du-Québec and Côte-Nord deep in the interior of the province. All other regions in the province supported the "*Non*" side overwhelmingly. Even Montréal-Centre, where most of the first PQ MNAs had been elected in the early 1970s, overwhelmingly supported the *Non*, though it must also be noted that there were at least three ridings carried by the *Oui* in this region, numerically the most seen in any of the regions.

The failure of the *Oui* to carry the referendum of 20 May 1980 was interpreted different ways by different individuals. Supporters of the *Non* characterised the election of the PQ in 1976 and the threat ostensibly posed by this referendum as precipitating factors in economic shocks which damaged the province's economy. This characterisation would have continuing resonance in a number of economic analyses of "what would happen if Quebec leaves" that became popular in the academic press from this point on (Côté & Johnston 1995; Freeman & Grady 1995; Gibson 1994; McCallum & Green 1991; Fortin 1980; Lo & Texeira 1998; Young 1995). Thus, a vote for the *Non* was a vote to save the Quebec economy from imminent destruction. For supporters of the *Oui*, just the opposite was true – the province had been denied local control over its own economy and would continue to have to depend upon a remote and, in the eyes of some, colonialist federal government (Milner & Milner 1973).

The aftermath of the failure of the referendum, as well, was interpreted differently in the two camps. The supporters of the *Oui* side expected that the federal government, since it got the result it wanted in the referendum, would now go about the business of constitutional reform as promised, and Quebec nationalists would thus get what they

wanted within the Canadian confederation instead of outside it. Supporters of the *Non*, by contrast, believed the decisiveness of the 1980 referendum vote to be a rejection of Quebec nationalism *tout court*. This difference in perception regarding the outcome of the 1980 referendum may account for the controversy that emerged at a first ministers' conference on constitutional reform in Hull, Quebec the following year.

The night of 5 November 1981, the so-called "Night Of The Long Knives" (Morin 1988; Lougheed 1982; Romanow 1982), is a strange and complicated subject. It was, whatever else can be said about it, a night when representatives of the nine provincial governments outside of Quebec and the federal government of Canada met and reached an accord on the repatriation of the Canadian constitution, without the consent of Quebec, and without either making Quebec aware of the meeting or inviting them to the meeting. This event occurred after Quebec had committed itself for the better part of a year to coordination and *en bloc* negotiation along with seven other provinces (the so-called "Gang of Eight" provinces).

Recriminations and blame for who was responsible for this rupture between the federal government and the nine provinces on the one hand and Quebec on the other abound; both sides have well-fleshed-out theories of why they were not responsible for the breakdown in communication and the subsequent exclusion of Quebec from a constitutional pact. The practical upshot, however, regardless of one's position on this matter, is that Quebec to this day refuses to accept the constitutional accord arrived at on 5 November 1981, and nothing has been done to secure their agreement to a common constitutional accord with the other provinces and the federal government.

The election of the Progressive Conservative Party's leader Brian Mulroney to the federal prime ministry in 1984 began a period during which the Quebec government's political strategy changed dramatically. The PQ government was faced with three developments which seemed to argue for this change in strategy: the recent extensive failure of the 1980 sovereignty referendum, the exclusion of Quebec from the 1981 constitutional accord, and the openness of the Mulroney government to wide-ranging constitutional talks which could possibly undo the damage felt to have been wreaked upon Quebec by the Trudeau repatriation. Mulroney had sought and received a good deal of support from Quebec "soft separatists" in the 1984 federal election, including, most prominently, the politically influential Jonquière lawyer Lucien Bouchard. Bouchard would become a prominent minister in the new Mulroney government, as an important concession to nationalist opinion in Quebec.

The failure of the referendum, coupled with this openness towards Quebec interests, convinced the PQ government to pursue a provisional shelving of its goal of sovereignty in order to see what the federal government might offer in terms of a renewed federalism. This interim strategy of shelving sovereignty as a direct goal for the PQ came to be referred to as the *beau risque* or the "worthwhile risk".

The immediate response of the Quebec electorate, after the year left in the PQ mandate expired, was to return the PLQ to power in Quebec City. In part this had to do with the resignation of the popular René Lévesque and his replacement as premier by Pierre-Marc Johnson. But in general, since the PQ's *raison d'être* of independence was not actively being pursued by the government, and since the PLQ was just as likely to continue this constructive engagement with the Mulroney government, the PLQ seemed a

logical choice to even those voters who approved of the *beau risque*. Many in the PQ took away from this election some lessons about the centrality of sovereignty as an issue to the electoral fortunes of the party; most evidently, the PQ's outgoing finance minister Jacques Parizeau, would come to this conclusion, and later he would seek to reintroduce sovereignty as the key goal of the party.

A set of accords agreed to at a chalet outside of Meech Lake in the Outaouais' Gatineau Park became the substance of Mulroney's offer of renewed federalism (Government of Canada 1987). The accords were functionally a codification of five conditions for continued participation in the Canadian federation advocated by Robert Bourassa, despite a continued effort on the part of the federal government to encourage the participation of all of Canada's provinces on a formally equal basis (Dunsmuir 1995; Loriot 1998). The conditions advocated by Bourassa, which came to form the backbone of the Meech accords, were as follows:

1) Quebec would be recognised in the constitution as a "distinct society";
2) New constitutional amendments would now be capable of being blocked by the veto of any one province;
3) Any province could withdraw with compensation from federal programs given the establishment of similar programs at the provincial level meeting national standards;
4) The practice of appointing three Supreme Court justices from lists provided by Quebec would be "entrenched" in the written text of the constitution; and,
5) Interprovincial agreements concerning immigration would become "constitutionalised" at the federal level.

Notably, Bourassa regarded the Meech Lake accord as a "first round" of bargaining with the federal government and the other provinces of Canada, a view certainly not shared by either the federal government or the rest of the provinces. This

was perhaps a political view, in that much of Quebec opinion opposed Meech as a kind of "cosmetic federalism" which did not address the basic issues between Quebec and Canada, so a "second round" would be necessary in order, presumably, to get at the real issues.

The ruling of the Supreme Court of Canada regarding the unconstitutionality of Bill 101's regulation of signage was an additional element complicating Bourassa's position politically. Predictably, the nationalist community was upset by Canada's interference in this matter. Bourassa could only extricate himself from political difficulties at home in Quebec by invoking the "notwithstanding clause" of the Canadian constitution, which permitted the Quebec government to ignore the court's ruling for five years, at which point the Quebec legislature would have to review the action taken. Though Bourassa weathered the political storm at home, his use of the "notwithstanding clause" infuriated public opinion in the rest of Canada, possibly playing a crucial role in the eventual demise of the Meech accords. A further influence complicating both Bourassa's political position and that of his federal counterpart, Brian Mulroney, was the development of the Oka crisis. The takeover of the golf course in Oka, Quebec by members of Mohawk First Nations communities, spurred by the golf course's appropriation of Mohawk burial grounds for an extension of the 9-hole course into an 18-hole course, pitted both the federal and provincial governments against armed Mohawk warriors in a tense physical standoff over aboriginal land rights and cultural protections. The irony of Quebec's demanding protection as a "distinct society" and nonetheless confronting an apparently equally distinct Mohawk society, rather than granting it the rights and protections for which Quebec itself was vying was evident to a pan-Canadian

public. Bourassa's identification with these unpopular stands, by pan-Canadian standards, of invoking the "notwithstanding clause" to negate the Supreme Court's ruling on Quebec's language laws and of sending in the army to put down representatives of an aboriginal sovereigntism which looked little different from the general Quebec variety, posed considerable hurdles for the Meech process to overcome.

Evidence of the foundering of the Meech process finally manifested itself in the introduction of a new "companion resolution" to the accords which called, most notably, for the promotion of Canada's "linguistic duality" in all provinces; this resolution was proposed at the behest of the province of New Brunswick, itself the leading example of linguistic duality in Canada. Substantively, this was a call for the promotion of French in majority English-speaking provinces and, more problematically from Quebec's point of view, the promotion of English in majority French-speaking provinces – of which there is only one in Canada, namely Quebec. The introduction of this companion resolution created a grave problem for those involved in the accord negotiations. It had been clear from the beginning that Quebec advocated a policy of promoting French as the official language of the province and the language of Quebec's civic culture; for many Quebecers, this sort of status for the French language was the defining characteristic of "distinct society". For this reason, the sudden inclusion of this "companion resolution" was seen as an attempt to derail the Meech process.

The reaction to the release of the "Charest Report", a report of a committee chaired by the Progressive Conservative MP Jean Charest, later to be the leader of the PLQ in the 1998 provincial election, is a complicated subject. For our purposes here, we shall confine ourselves to noting that there exists a great difference of opinion as to

whether the disagreements raised by the "companion resolution" discussed and promoted in the report of Charest's committee were unavoidable, or rather whether they were used by Quebec as a pretext to break off negotiations and by Lucien Bouchard to break with the Progressive Conservatives and found the *Bloc Québécois* (BQ), a federal counterpart to the PQ.

The developments that finally halted the Meech Lake accords bear some mentioning here, given the themes that these developments were to introduce into the next round of constitutional discussions. In the province of Newfoundland, the newly-elected Liberal government of Clyde Wells rescinded the province's earlier support for the accords on 5 April 1990, citing discomfort at the inequality between the provinces that "distinct society" as a sort of special status seemingly conferred upon Quebec. In the province of Manitoba, an aboriginal member of the Legislative Assembly representing the New Democratic Party, Elijah Harper, used a parliamentary rule requiring unanimous consent to delay and eventually prevent Manitoba's adoption of the accords by the deadline date of 16 June 1990. Harper's rationale for this was the accords' silence regarding aboriginal language, culture and self-government, despite their engaging of similar issues where Quebec was concerned. As we will see, both of these issues discussed above were addressed in the next round of constitutional discussions.

The Meech Lake accords died after having been on the table for three years, and the Mulroney government was now faced with the prospect of having nothing to show for six years of work on constitutional reform. Mulroney acted quickly to return to constitutional talks, and in 1992, the federal government and the provinces agreed upon the Charlottetown accords (Government of Canada 1992). These accords contained the

following points:

1) Canada would be recognised in a new clause of the constitution, referred to as the "Canada Clause", as being diverse, with specific protections for linguistic and cultural rights for aboriginal Canadians, and a general protection of Quebec's "distinct society". Protections for both language communities in New Brunswick would also be retained.
2) The Senate of Canada would be reformed to be a "Triple E" Senate: "equal, elected and effective". Equal representation would be determined by province – each province would elect an equal number of senators.
3) The signatory governments would recognise a commitment to negotiate aboriginal self-government. In addition, aboriginal representation in the House of Commons and the Senate would be dealt with as an issue by ensuing Parliaments.
4) A "social charter", establishing the rules for opting out of federal programs while still adhering to national standards, would be added to the constitution.

The main issue for Quebecers, the protection of the province's "distinct society", in this set of accords took on a diminished prominence. As has been the case with Meech, there was no particular linguistic or cultural definition given to the phrase "distinct society"; thus, defenders of the accords were left open to attack by the PQ, which argued the wording of the accords was inadequate – how could the accords protect language and culture without specifically referring to them? But in addition, the lumping together of the vague phrase "distinct society" with a very specific set of protections for the language, culture and self-government of aboriginal peoples was disconcerting for Quebecers. It seemed to them as if their issues, which were the reason constitutional talks had begun in the first place, were now taking a backseat to Canada's other constitutional concerns.

Indeed, the remainder of the accords did seem targeted at addressing concerns in Canada outside of Quebec. The second point was aimed at mollifying those who felt Meech Lake had threatened the principle of the equality of provinces, such as Newfoundland's Clyde Wells. The third point was directed at meeting the criticisms of aboriginal opponents to the accords such as Manitoba's Elijah Harper. The fourth point was a restatement of a primary federal objective at the Meech talks, the establishment of reasonable rules by which provincial "opting out" of federal programs would be permitted. To a large segment of Quebec public opinion, Charlottetown was all about Canada and very little about Quebec.

In an attempt to distance the accord from claims that constitutional summitry was essentially an elite-driven process with no popular support – such claims abounded during the Meech negotiations – the decision was made to submit the accords to a national referendum vote. As Table 28 shows, in Quebec, the constitutional accords were none too popular, having only carried a majority of the provincial ridings in the strongly federalist regions of Montreal and the Outaouais. In all other regions of Quebec, the accords were overwhelmingly rejected.

The very next year of 1993, the effects of the death of Meech and Charlottetown accords began to be felt. Brian Mulroney's government was overwhelmingly defeated by the federal Liberal Party under Jean Chrétien, with the help of Lucien Bouchard's BQ, which won 54 seats in the federal House of Commons, siphoning off Mulroney's base of "soft separatist" support. The year after that, 1994, an election was called in Quebec, and nationalist outrage over the failure of the constitutional process took its next electoral victim. The caretaker PLQ premier, Daniel Johnson *fils*, who had replaced Robert

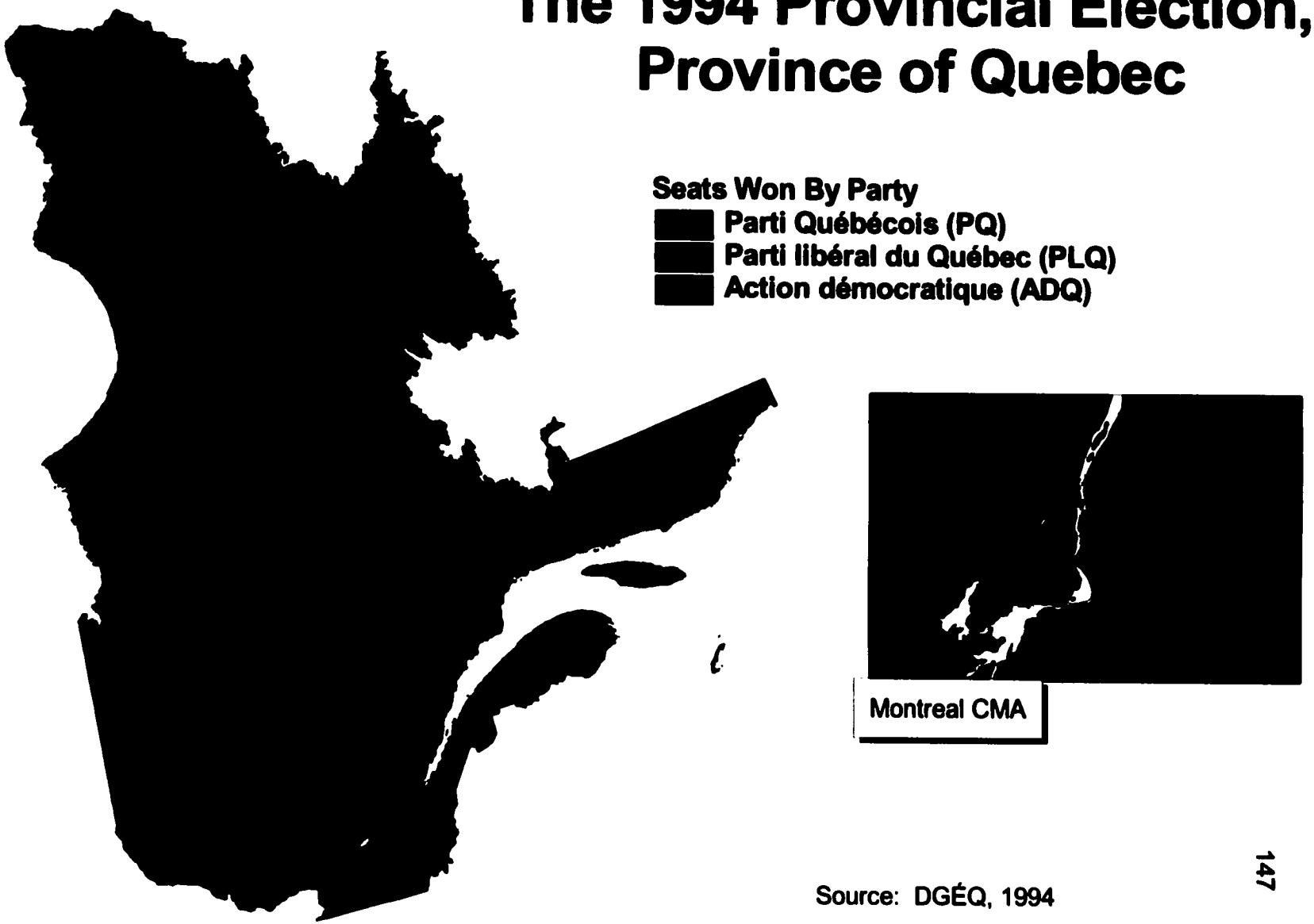
Regions	Yes	No
Abitibi-Témiscamingue	0	3
Bas-Saint-Laurent	0	4
Capitale nationale	0	11
Centre-du-Québec	0	3
Chaudière-Appalaches	0	8
Côte-Nord	0	2
Estrie	1	6
Gaspésie/Îles-de-la-Madeleine	1	3
Lanaudière	0	7
Laurentides	0	4
Laval	1	4
Mauricie	0	4
Montérégie	2	16
Montréal-Centre	9	9
Montréal-Ville-Marie	14	2
Outaouais	5	0
Saguenay/Lac-Saint-Jean/Nord-du-Québec	0	6
TOTAL for Province of Quebec	33	92

Table 28.
Ridings Voting for the "Yes" and "No" Sides in the 26 October 1992 Referendum on the Charlottetown Constitutional Accord.
Source: Janda 1998.

Bourassa in the last year of his term, was handily defeated by the former PQ finance minister Jacques Parizeau, an ardent *indépendantiste* (in the Quebec political lexicon, this term has come to denote someone who values independence for Quebec above all other intermediate objectives). For Parizeau, adding "association" to "sovereignty", as Lévesque had done, was mincing words – a sovereign Quebec could associate with whom it wished, but the key thing was sovereignty.

This assertive approach to sovereignty was apparently given a strong mandate at the polls in 1994. In Figure 10, the spatial distribution of seats in the National Assembly by party and by riding is shown. Comparing this map with that presented in Figure 1, it

Figure 11:
The 1994 Provincial Election, Province of Quebec



Source: DGÉQ, 1994

should be immediately noticed that the main patterns in the seat distribution have remained constant with those in our election of study, the 1998 provincial election.

Parizeau had promised that, if elected, he would call a referendum on sovereignty immediately. He kept this promise, proceeding to set the terms of a new referendum question, emphasising sovereignty and changing the previous goal of "association" as advocated by Lévesque to the more *indépendantiste* notion of "partnership" between sovereign nations (Parizeau 1994). The date for this referendum was set for 30 October 1995.

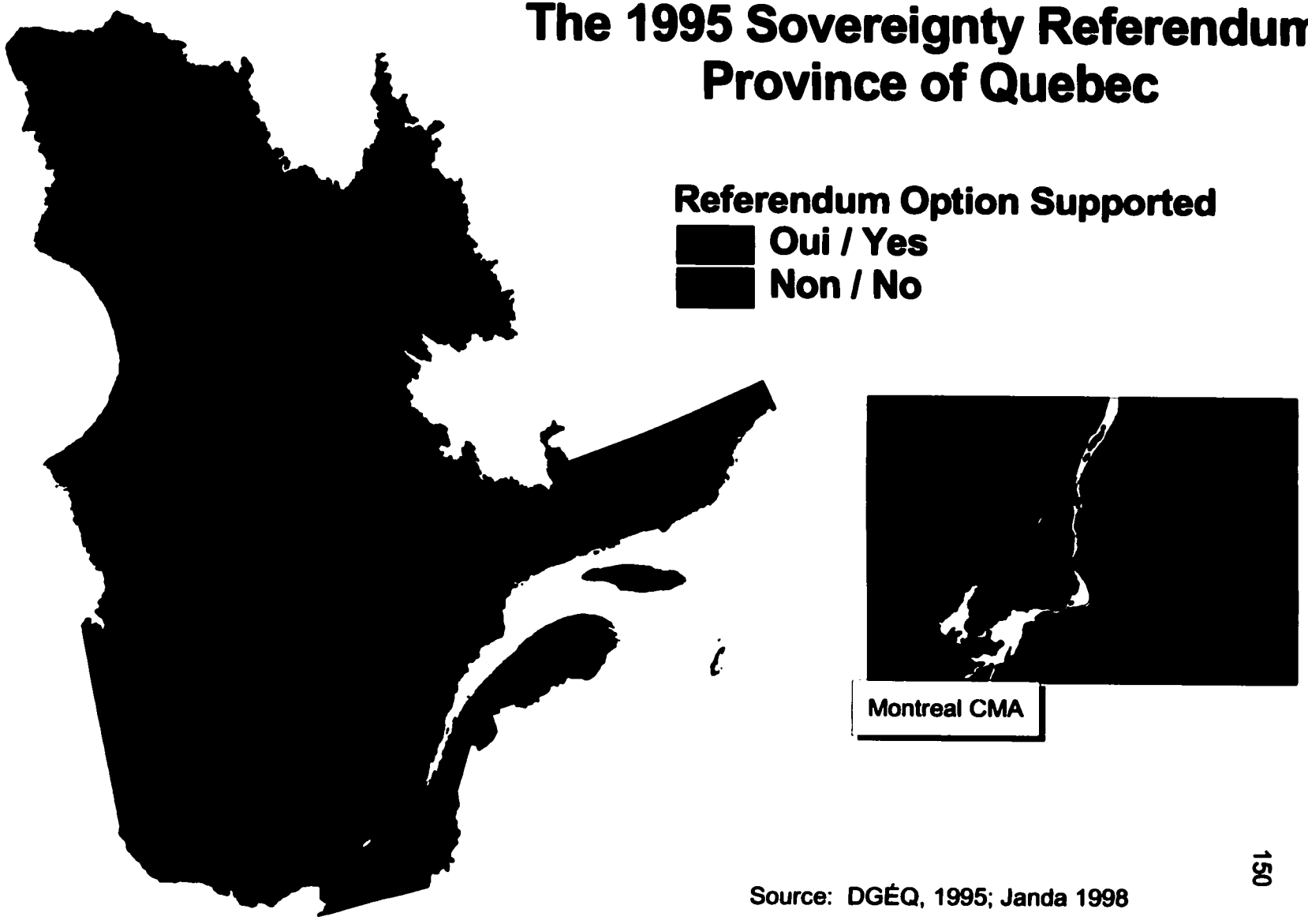
This second referendum on "sovereignty-partnership" was a watershed event in both the histories of Quebec and Canada. As most Canadians know, the results of this referendum was 50.4% voting for the *Non* side against sovereignty and 49.6% voting for the *Oui* side in favour of sovereignty. In Table 29, we can see in great detail why this defeat was so bitter for Quebec nationalists. The number of ridings carried by both the *Oui* and *Non* sides are shown on the right-hand side of the table. On the left and in the middle of the table, the data previously presented for the 1980 referendum on sovereignty-association and the 1992 referendum on the Charlottetown constitutional accords are reprised for comparison. The *Oui* triumphed in nearly all of the regions of the province in 1995, in stark contradistinction to 1980, when only two regions were carried by the *Oui*. Furthermore, it carried regions in 1995 by the same overwhelming margins as it had lost them in 1980. In addition, there was an evident inverse relationship between regions that supported the *Oui* in 1995 and those that voted No on the constitutional accords in 1992.

	20 May 1980 referendum (sovereignty-association)		26 October 1992 referendum (Charlottetown constitutional accords)		30 October 1995 referendum (sovereignty-partnership)	
Regions	*Oui*	*Non*	Yes	No	*Oui*	*Non*
Abitibi-Témiscamingue	1	2	0	3	3	0
Bas-Saint-Laurent	1	3	0	4	4	0
Capitale nationale	1	9	0	11	10	1
Centre-du-Québec	0	3	0	3	3	0
Chaudière-Appalaches	0	7	0	8	4	4
Côte-Nord	2	0	0	2	2	0
Estrie	0	7	1	6	4	3
Gaspésie/Îles-de-la-Madeleine	0	4	1	3	3	1
Lanaudière	1	4	0	7	7	0
Laurentides	0	3	0	4	5	1
Laval	0	3	1	4	4	1
Mauricie	0	5	0	4	4	0
Montérégie	1	13	2	16	15	4
Montréal-Centre	3	15	9	9	7	8
Montréal-Ville-Marie	0	13	14	2	0	16
Outaouais	0	4	5	0	0	5
Saguenay/Lac-Saint-Jean/Nord-du-Québec	5	0	0	6	5	1
TOTAL in Province of Quebec	15	95	33	92	80	45

Table 29.
Ridings Voting Affirmatively or Negatively on the Questions Posed in the Referenda on Sovereignty-Association (1980), the Charlottetown Constitutional Accords (1992) and Sovereignty-Partnership (1995).
Sources: Drouilly 1989, Janda 1998.

In Figure 11, the vote in the 1995 referendum is represented spatially, in terms of the number of ridings that were carried by the two options. One gets a very clear impression from this map of the correspondence of the pattern of support for the referendum to the pattern of voting for the PQ in both 1994 and in our study election of 1998. In addition, one gets a clear sense of the correspondence of PLQ voting in both 1994 and the study election of 1998 to opposition to the referendum. The only major difference is the addition of the rather sizeable Ungava riding in northern Quebec, where

Figure 12:
The 1995 Sovereignty Referendum, Province of Quebec



Source: DGÉQ, 1995; Janda 1998

aboriginal voters (mainly the Cree and the Inuit) mobilised against Quebec sovereignty, and Bonaventure riding, located in a part of Quebec with a small but politically active anglophone population bordering on the strongly federalist province of New Brunswick.

The narrow defeat of the 1995 referendum engendered an emotional reaction from those in the sovereigntist camp, some of whom felt that sovereignty had been stolen from Quebec's francophone voters, which overwhelmingly supported the *Oui*, by non-francophone communities. The premier, Jacques Parizeau, in a concession speech the night of the referendum, publicly blamed the defeat of sovereignty at the polls on "money and some ethnic votes" (*de l'argent et des votes ethniques* in the original French; the literalness of this translation is important, as many *indépendantistes* insist upon acknowledgment that Parizeau was not blaming all ethnic voters for the loss, only those in selected cultural communities which voted against sovereignty *en bloc*; this clarification generally does not impress those offended by the comment). Parizeau noted in his speech that the francophone population of Quebec "voted for the Yes by a margin of 60%. Never forget that 3/5 of who we are voted Yes." (Edmonton Journal 1995). Notably, non-francophone Quebecers did not figure in this rather exclusive definition of "we" forwarded by Parizeau. Parizeau's comments created an instant scandal, and it was not long before the premier chose to resign in their wake.

In addition, the deputy premier, Bernard Landry (now the premier of Quebec) was involved in a separate incident in which his views regarding the opposition of Quebec's cultural communities to sovereignty were aired. Landry was filmed as he "harangued" a hotel clerk of Mexican origin about the opposition of the cultural communities to

sovereignty, asking why Quebecers welcome immigrants into the country so they can vote no (League for Human Rights 1995).

Pierre Bourgault, the former leader of the RIN and a leading campaigner for the *Oui*, had worried members of Quebec's cultural communities earlier with a comment that these communities faced a "dangerous situation" if they voted for the *Non* and defeated sovereignty. Now that the referendum was concluded and the margin of loss was so small, Bourgault reappeared on the scene within a few days to make public claims that the Jewish, Greek and Italian communities were racist for their block votes against sovereignty (League for Human Rights 1995). In a sense, the more off-the-cuff comments of Parizeau and Landry on referendum night reflected variations on the theme earlier developed by Bourgault regarding the "ethnic vote". In the wake of the loss of the 1995 referendum, given the active pursuit of these themes by Bourgault, the pan-Canadian media began to portray Parizeau's PQ as if it were dominated by xenophobes for whom sovereigntism could only be defined in terms of the communities it excluded from consideration. The PQ, especially after the near victory of sovereignty at the polls, could not afford this image; the inclusive, pluralist nationalism it had embraced since the days of René Lévesque was shown to be remote from the party's values on the very day sovereignty had arguably nearly triumphed. Perhaps as a result of pressure from within the PQ itself, Parizeau resigned the day after the referendum, and was in short order replaced by Lucien Bouchard, who resigned as the parliamentary leader of the BQ to take his position as the premier of Quebec.

After the ascension of Lucien Bouchard to the premiership was made official in early 1996, some trends in the political economy of both Quebec and Canada as a whole

began to affect decision-making on the part of the provincial government. After the recession of 1990-1991, both the federal and provincial governments began to pursue a "neoliberal" political agenda; this sort of agenda combines classical *laissez-faire* economic doctrine with a host of more modern implementative approaches such as monetarism, supply-side economics and public choice theory (McBride & Shields 1997: 23). This neoliberal approach, already followed at the federal level by the Progressive Conservative government of Brian Mulroney, was increasingly being adopted by provincial governments after the 1990-1991 recession. Reducing deficit spending, held to be inflationary by neoliberals, became a priority in provincial governments around this time (McBride & Shields 1997: 23).

Another part of the neoliberal agenda is the advocacy of free trade. The theory of comparative advantage of David Ricardo holds that specialisation on the part of particular trading regions leads naturally to the mutual benefit of the said regions; this view is invoked frequently by neoliberals as an article of faith – those regions which "produce for export" can expect to fully reap the benefits of trade, so long as trading is unconstrained by laws or legislated disincentives. Canada had negotiated a Free Trade Agreement (FTA) with the United States, which came into effect in 1989. In 1993, it broadened the scope of the agreement to include Mexico, under what was now called the North American Free Trade Agreement (NAFTA). These agreements created, in the view of critics, a "substantial threat" to social programs, labour laws and environmental standards due to their implied levelling of the playing field across the borders of the signatory countries – countries such as Canada which have stronger social, labour and environmental protections would likely respond to pressures to weaken these protections

in order to participate on such a "level playing field" (McBride & Shields 1997: 168). Consequently, governments in Canada, federal and provincial alike, had a new responsibility to comport themselves in accordance with the demands of the negotiated treaties.

All of this had the combined effect of encouraging what has been termed the *virage à droite* ("right turn") in Quebec provincial politics of the post-Parizeau era. In the context of these movements towards neoliberalism in the North American economic community, and given the failure of the assertive nationalism of the 1995 referendum, the government of Lucien Bouchard turned towards a more adaptive politics:

> ...[T]he PQ government, by now under the premiership of Lucien Bouchard, demonstrated that it was little committed to social programs, when forced to prioritise them against the imperatives of deficit reduction, as had its federal and most provincial counterparts. By the spring of 1997 the Quebec government had embarked upon "the deepest cuts in social spending in the province's history" with major strains being caused in the sovereigntist coalition as a result (McBride & Shields 1997: 134).

This move to the right was coupled with a change in strategy regarding sovereignty. The government of Bouchard, in stark contrast to the position of the outgoing premier Parizeau, opposed the calling of a third referendum on sovereignty until "winning conditions" (*conditions gagnantes*) could be secured ensuring the victory of the *Oui* side.

Bouchard's policies illustrated how both the assertive and *indépendantiste* wing and the social democratic wing of the PQ were being challenged for power by a faction much more *étapiste* (or "incrementalist") than the former wing and with a far more conservative or neoliberal economic agenda than the latter. Coming into our study

election of 1998, then, the PQ was a party only superficially united, with many thoroughgoing divisions and subject to many fractious internal debates.

The PLQ could be said to be suffering from similar maladies. Since the demise of the Charlottetown accords in 1992, a faction of the PLQ that had opposed the accords split off to form the ADQ. The party's first leader, Jean Allaire, who had previously been the head of an internal commission within the PLQ having as its object a statement of the principles guiding Quebec's relationship with Canada under a renewed federalism (PLQ 1991), spoke for a segment of francophone voters which could be described as "soft separatist" or "conditional federalist". The ADQ participated in its first election in 1994 and elected its second leader, the former chair of the PLQ's Youth Commission Mario Dumont, as an MNA for Rivière-du-Loup riding.

The breakoff of the ADQ allowed the remaining rump of the PLQ to take a more solidly federalist stand than had been the norm during the Bourassa years. In 1998, when the PLQ leader of the opposition, Daniel Johnson *fils*, announced his retirement, the name of Jean Charest, by this time the leader of the federal Progressive Conservative party, was quickly advanced as a possible replacement. Charest, who had already done battle with Lucien Bouchard in the context of the release of the Charest Report, was seen in the pan-Canadian political context as a sort of "Captain Canada" who could logically be parachuted into the middle of Quebec provincial politics and be expected to save the day for the federalist cause (Clarke, Kornberg & Wearing 2000: 246). After months of consideration, Charest opted to quit his position as the federal leader of the Progressive Conservatives and run for the premiership under the banner of another party, the PLQ. Charest's choice contributed further to the rightward drift in Quebec politics, as now the

two major Quebec provincial parties were led by former members of the Progressive Conservative government of Brian Mulroney that had come to power federally in 1984. In addition to representing a break from the more autonomist-oriented federalism of the Bourassa years, Charest's public pronouncements confirmed a commitment ot a tax-cutting economic agenda and an openly neoliberal interpretation of political ideology.

With a new leadership at the helm of the PLQ, Lucien Bouchard and the PQ moved quickly to call a provincial election for the end of 1998.

The Significance of the 1998 Election

When Lucien Bouchard called a snap election for 30 November 1998, his goal was certainly to test the newly-minted leadership of Jean Charest at the helm of the PLQ. However, Bouchard himself lacked a personal mandate given that he was serving out the term of Jacques Parizeau as premier, so in many respects, the election call also constituted a personal test for Bouchard and his leadership.

The State of the Parties

Leaders had changed for both of the large parties since 1994, and to some extent, so had the issues. The referendum of 1995 had taken place between these two elections of 1994 and 1998, and the aftermath of the referendum affected Quebec public opinion greatly. Pre-election polling surveys indicating the salience of major issues coming into the elections are reproduced in Table 30. The main information these surveys provide is that voters in 1998 were quite evidently suffering from "referendum fatigue". After two

failed sovereignty referenda, most Quebec voters were keen to avoid encouraging the major political parties towards a premature third referendum attempt.

Issue	Most Important Issue	Party Closest			
		PLQ	PQ	Other	Don't Know/None
Quebec sovereignty	17	**61**	26	4	10
Defend Quebec's interests	3	0	**100**	0	0
Economic	31	26	**42**	12	21
unemployment	11	21	**37**	14	29
deficit	7	11	**75**	8	6
other	13	**40**	25	13	22
Social	28	**38**	23	14	27
cuts in health care, education, etc.	27	**38**	23	13	27
other	1	**33**	17	**33**	17
Leadership	3	21	14	0	**64**
All Other Issues	1	0	**71**	0	29
Don't Know, no issues	17	--	--	--	--
Party closest (on all issues)	--	29	28	8	**36**

Table 30.
Most Important Election Issues, 1998 Provincial Election Surveys
Numbers in bold cells indicate party most identified as closest to the views expressed as held by those polled in each issue area.
Source: Clarke, Kornberg & Wearing 2000: 253

Since the PLQ was the more anti-referendum party of the two large parties, those surveyed naturally identified with its policies regarding sovereignty. Interestingly, however, those surveyed still credited the PQ rather than the PLQ with "defending Quebec's interests". Reading polls like this one, no doubt, Jean Charest concentrated his election efforts on identifying the PLQ with opposition to a new referendum. Though Charest read correctly the electorate's desire not to have a referendum at the current time, it is possible that he misread the electorate's attitude towards sovereignty referenda. The

voters might well have been advocating a tactical delay in calling a referendum rather than indicating their clear opposition to referenda on sovereignty in general; indeed, this support for the PQ as the best "defender of Quebec's interests" would seem to indicate that sovereigntism was not being rejected *per se* by the electorate. Such an interpretation can be further confirmed by noting that the PQ received strong support in the "all other issues" category as well.

The PQ also received support from a seemingly contradictory set of sources regarding economic policy issues. They were rewarded in the survey by more "neoliberal" voters concerned about cutting the provincial deficit, and yet the social democratic electoral base of the party also continued to identify the PQ as the party more concerned about unemployment. Outside of these two issues, however, it was the PLQ which won the most voter support where the economy was concerned, possibly owing to the more natural connection of the new "neoliberal" mood with the Liberal Party.

Another bit of interesting data from these surveys involves Quebec's social issues. As we have seen, the PQ was rewarded for its deficit-cutting behaviours in these surveys; however, it was punished for the effects of its cuts on the health care and education systems. It was clear that the PLQ had a strong campaign issue against the Bouchard government where these cuts were concerned; the fact that Jean Charest did not make greater use of this kind of attack in the 1998 campaign was widely criticised. The fact that Charest did not take electoral advantage of these issues in the campaign could be the greatest evidence of "neoliberalism" in Quebec politics; Charest might well have not chosen to pursue Bouchard in this area where he was clearly vulnerable because he would have made these same cuts that Bouchard made and did not want to draw attention to the

fact. Late in the campaign, Bouchard's government also restored some amount of extra funding to the health care system as well, perhaps undercutting Charest's possible message concerning the state of health care in Quebec.

A final bit of important data from this survey indicates the growing unpopularity of the major political parties. A strong majority of Quebecers felt neither of the two large parties clearly offered better leadership for the province, and a plurality felt they could not identify generally with any of the major parties.

Some other important polls from pre-election surveys are worth sharing here. Table 31 shows the relationships of certain predictor variables to the establishment of

Predictor Variables	Party Identification	
	Value of *b* for the PLQ	Value of *b* for the PQ
Age	.01	.00
Education	.05	-.05
Gender	-.15	-.10
Income	.07	.28**
Language	-.70***	.69**
Retrospective evaluations of the national economy	-.01	.28***
Support/oppose Quebec sovereignty	-.73	.80***
McKelvey R-squared	**.43**	**.36**
Percent correctly classified	**83.2**	**77.3**
Proportional reduction in error	**.37**	**.18**

Table 31.
Ordered Probit Analysis of PLQ and PQ Party Identifications, 1998 Provincial Election
*** - significant at $p \leq .001$, ** - significant at $p \leq .01$, * - significant at $p \leq .05$ (one-tailed test)
Source: Clarke, Kornberg & Wearing 2000: 257.

party identifications at the time of the 1998 election. Using probit analysis, a technique designed to transform multiple regressions based upon the normal distribution, Harold Clarke, Allan Kornberg and Peter Wearing (2000: 256-257) provide interesting

estimations of the relative effects of various predictor variables on self-reported identification levels with the PLQ and the PQ. Table 31 shows that language and positions regarding the *question nationale* of Quebec sovereignty almost exclusively define the appeal of the two large parties. Higher incomes and a positive evaluation of the state of the economy also condition the establishment of identifications with the PQ to some extent. This reflects what strategists for the PQ have long known, that the fate of a sovereigntist party largely is decided by voters' assessments as to the strength of the economy – hence three decades of proposals for economic "associations" and "partnerships" to shore up that strength, as well as Lucien Bouchard's more recent emphasis on "winning conditions" for a possible third sovereignty referendum. It is a point worth stating directly – the PQ does better with voters when the national economy is perceived to be improving rather than declining (Clarke, Kornberg & Wearing 2000: 258).

Table 32 shows the interaction of party identification with other predictor variables for the party vote in the 1998 election. As we can see from this table, not too surprisingly, party identification explains most of the electoral choice of Quebecers. What is interesting in this table is how much issue voting affects the model, even after party identification is added to the probit equation. Demographic variables and variables representing attitudes towards the party leaders are neutralised by the party identification variables. However, variables relating to issue voting show that both the PLQ and to a lesser extent the PQ benefited from the support of voters who felt they as parties best represented them on the issue they considered most important. We stress here once

Predictor Variables	Vote			
	PLQ		PQ	
	b	standard error	*b*	standard error
Age	.00	.01	.01	.01
Education	-.10	.08	-.05	.10
Gender	.13	.15	-.12	.16
Income	-.05	.13	-.01	.13
Language	-.20	.28	.08	.36
Provincial party identification				
PLQ	.84***	.25	-.71***	.25
PQ	-1.36***	.22	1.02***	.24
ADQ	-.54	.36	-1.02**	.38
Party leader effect				
Bouchard	-.10*	.01	.02***	0
Charest	-.02***	.01	-.01*	.01
Dumont	-.01*	.01	-.01	.01
Party closest on most important issue	.56***	.15	.40**	.12
Retrospective evaluations of the national economy	.06	.11	-.17	.14
Support/oppose sovereignty	.18	.12	-.18	.12
McKelvey R-squared	**.78**		**.71**	
Average % correctly predicted	**77**		**71.2**	
Average proportional reduction in error	**56.5**		**48.5**	

Table 32.
Ordered Probit Analysis of PLQ and PQ Voting, 1998 Provincial Election
***** - significant at $p \leq .001$, ** - significant at $p \leq .01$, * - significant at $p \leq .05$ (one-tailed test)**
Source: Clarke, Kornberg & Wearing 2000: 256.

more: these figures represent the amount that the perception the parties were close to the voters on their most important issue conditioned their vote, even when party identification is factored out. Revisiting Table 30, we can see that issues in the economic and social domains were the ones considered most important by the voters, with issues relating to sovereignty largely taking a backseat. We can also see that both the PLQ and the PQ were perceived to best represent the opinions of Quebecers on certain of the issues they considered the most important in different areas. This paints an accurate

picture of the saliency of issues in the 1998 campaign. The real battle was over economic and social visions, and swing voters rewarded parties for their identification with particular economic and social visions. The illusory battle in 1998, though Jean Charest in particular tried to fight it, was over sovereignty and the constitution. Swing voters were less interested in that, and failed to move to Charest and the Liberals due to the comparative lack of saliency of this issue for voters in 1998.

The State of Sovereigntism

If 1998 marked a time when the parties were in flux because their leaderships were changing, so too was it the case that 1998 marked a time when attitudes towards the goal of Quebec sovereignty were in flux due to the recent experience of the 1995 referendum. A quick sociological inquiry into the nature of support for sovereigntism at the time of the 1998 election will thus be somewhat edifying for our purposes. Though, given the rancour and drama of the 1995 referendum, voters emphatically did not want to confer a mandate upon a new government to hold another referendum after the 1998 election, as we have just seen, positions on sovereigntism still fundamentally characterised party loyalties at the time of the election. For this reason, attitudes towards sovereignty continued to be quite important in the campaign of 1998.

In Table 33, a breakdown of attitudes toward Quebec sovereignty by sociodemographic categories is provided. We can see that support for sovereignty around the time of the 1998 election was most pronounced among francophones, young voters, male voters and voters of a moderate educational attainment level, whereas

opposition to sovereignty was more pronounced among voters speaking languages other than French, older voters, university-educated voters and voters with a high income.

Sociodemographic Variables	Pro-Canada	Undecided, don't know	Pro-sovereignty or pro-independence
Age			
18-24	39	9	**52**
25-34	43	13	**44**
35-49	41	13	**46**
50-64	**52**	13	35
65 and older	**63**	16	21
Education			
Less than high school	**45**	17	38
Graduated high school	**44**	13	**44**
Some university	**47**	9	44
Graduated university	**52**	11	38
Gender			
Men	**46**	10	44
Women	**47**	16	38
Income			
Under 35,000$	**45**	15	40
35,000$ - 75,000$	**45**	13	42
75,000$ and higher	**52**	7	41
Language			
French	40	14	**46**
Other	**85**	7	9

Table 33.
Federalist and Sovereigntist Opinion by Sociodemographic Groups Combined October 1996 through April 1999 Surveys
Numbers in bold cells indicate position most held by those polled in each group.
Source: Clarke, Kornberg & Wearing 2000: 265.

Clarke, Kornberg and Wearing (2000: 277-283) note that the strength of support among young voters for sovereignty may largely be explained by elements of the political socialisation process in Quebec. They contrast a "life-cycle hypothesis" for sovereigntist strength among young voters, which would hold that sovereignty has an idealistic appeal to the young which will be lost upon them as they become older and deal with more

practical, day-to-day concerns of living, with a "socialisation hypothesis", which would hold that, during particular temporal periods, people would be socialised to hold more strongly sovereigntist opinions. Clarke, Kornberg and Wearing note that support for sovereignty crests in two places over time: first, among those under 30; second, among those of the generation that brought the PQ to power originally, in the 40-50 age range at the time of the 1998 election. The existence of the former category of sovereignty enthusiasts seemingly confirms the "life-cycle hypothesis" whereas the existence of the latter group suggests there is a certain staying power to sovereigntism that may be better explained by the "socialisation hypothesis."

Gilles Gagné and Simon Langlois (2000) provide an analysis of polling data from just before the 1995 referendum to a year after the 1998 election that seems generally to confirm the "socialisation hypothesis" rather than the "life-cycle hypothesis". Interestingly, they find that support for sovereignty among anglophones and allophones was extremely low in regions historically hostile to sovereigntism, but higher in regions which historically have been more favourable to it. This sort of regional difference in the anglophone and allophone vote is much more likely to be due to the influence of socialisation.

In Table 34, we can see the specifics of this regional difference. In Montreal and the Outaouais, where support for sovereignty has always been quite low, anglophone and allophone voters very strongly opposed sovereignty in the days just before the 1995 referendum vote. However, in the "belt" and "periphery" regions surrounding Montreal, as well as Quebec City, the "centre of Quebec" region and northern "remote regions" support among anglophone and allophone voters is much higher, though admittedly still

removed from a pro-sovereignty majority. The suggestion is that if one is raised in an area that functions in the context of a strong French-language civic culture, even if one is not primarily French-speaking oneself, it will have a fairly strong influence on one's support for the sovereigntist project.

	Anglophones and Allophones, Ages 18-54	Anglophones and Allophones, Ages 55+
Montreal	6.0	2.9
Belt of Montreal	19.5	10.5
Periphery of Montreal	19.0	6.3
Quebec City	16.7	*
Outaouais	9.6	*
Centre of Quebec	15.8	*
Remote Regions	16.7	*

Table 34.
Support for Sovereignty, Average of Four Polls, October 1995
*** - group too small for analysis**
Source: Gagné & Langlois 2000: 39

The numbers provided by Gagné and Langlois are not entirely conclusive. Since the numbers of anglophones and allophones surveyed in a number of Quebec's regions are too small to provide correlations which attain significance, we cannot state with confidence that all regions of Quebec where there has been some historical sovereigntist strength exhibit these patterns. Furthermore, Gagné and Langlois conflate anglophones and allophones into one amorphous "non-francophone" category, whereas these two linguistic groups have very different properties with respect to their participation in Quebec society and civic culture. Since Bill 101 introduced the requirement that allophones be educated in French whereas the anglophone community retained its acquired rights to be educated in English, one would expect the socialisation effects of past schooling on Quebec voters to be very different amongst these two linguistic

communities. Gagné and Langlois readily admit that allophone support for sovereignty is much higher than anglophone support, but do not indicate whether most of the regional effect to which they point is explained by allophone voting behaviour or by anglophone voting behaviour.

	Oui			*Non*		
	1995 (23-26 Oct)	**1999 (Apr-June)**	**1999 (Aug-Dec)**	**1995 (23-26 Oct)**	**1999 (Apr-June)**	**1999 (Aug-Dec)**
Type I: Francophones, 18-54, students or in labour market, income of 20,000$ or more	**66.4**	**59.6**	**53.2**	26.8	37.0	42.0
Type II: Francophones, 18-54, out of labour market or low-income workers	45.4	**52.0**	**50.0**	28.4	40.1	39.4
Type III: Francophones, 55+, in labour market	36.2	39.6	42.1	**57.4**	**57.7**	**54.5**
Type IV: Francophones, 55+, not in labour market	32.0	33.1	31.2	44.9	**60.2**	**63.1**
Type V: Anglophones and allophones, 18-54	7.3	16.0	13.0	**82.1**	**80.6**	**80.7**
Type VI: Anglophones and allophones, 55+	4.7	7.5	8.2	**79.1**	**85.5**	**84.3**
TOTAL	46.1	43.9	40.3	40.7	**51.1**	**53.6**

Table 35.
Declared Support for Sovereignty, Polling Data, 1995-1999.
Numbers in bold cells indicate a majority for the referendum option indicated among the group indicated.
Source: Gagné & Langlois 2000: 42.

Despite the conflation of these two distinct groups in their analysis, Gagné and Langlois provide a useful organising framework for understanding both the 1995 referendum and the subsequent 1998 election. In Table 35, Gagné and Langlois provide a typology for understanding the basic cleavages in the vote. The analysis that follows from the application of this typology is aspatial, but nevertheless enlightens the reader by providing a classification scheme for the declared voting intentions of the Quebec

sovereignty referendum voter in 1995. Most notably, among francophone voters, active status in the labour market and earning power are critical factors with regard to whether one is supportive of the *Oui* side in a sovereignty referendum. The explanation offered by Gagné and Langlois for this is somewhat revealing of an important divergence of opinion regarding the reasoning behind a pro-sovereigntist vote among political analysts:

> In contrast, the strongest support for the sovereigntist project should be found among persons who are in the labour force. People who work – including the temporarily unemployed as well as students, who are the workers of the future – are first and foremost responsible for themselves. They see their possessions as having been earned through their labour. Working gives them security and self-confidence. Studying and working also provide confidence in the future and make it possible to develop projects and plans. Workers, using the term broadly, are often involved in occupational and professional groups such as unions, corporations and associations, which give them collective strength and a degree of control over their destiny. Finally, workers and students expect the state to establish rules for the economy and to define the space in which they work, or will be working, with such measures as: minimum wage policies, export assistance for small and medium-sized businesses, retraining of labour, funding for universities, hospitals and public services, anti-dumping policies, anti-strikebreaking legislation, defence of the interests of enterprises in international negotiations, monetary policies and so on.
>
> Through their personal effort, knowledge and associations, and with the support of state policies, workers can imagine their futures and be responsible for them. Because they are more autonomous, they are less threatened by the political change implied by sovereignty. It might be argued that the possible break-up of the constitutional order would threaten jobs, as is usually suggested by No supporters during referendum campaigns. In fact, workers are less influenced by this type of argument than are others who have less control over their lives, and a weaker sense of their "usefulness" (Gagné & Langlois 2000: 32).

This suggestion that workers see themselves as more independent and autonomous political actors is an interesting and contentious one. Certainly generations of radical political economists have argued just the opposite – that workers are alienated from their

labour power and are dependent upon those who control the means of production for their daily bread. The suggestion conflicts further with the observation Gagné and Langlois make elsewhere in their work that residents of the Outaouais vote federalist out of a fear of losing federal employment. Presumably, the fear which federal workers have for losing jobs controlled by a force hostile to sovereigntism is somehow different than a fear which workers for Quebec-based, Canadian-based or internationally-based corporations might have. But this assumption carries with it another unstated assumption, namely, that Quebecers will be able to succeed in the world marketplace in the context of sovereignty, and thus Quebecers would be able to retain these jobs even if they would most certainly lose the Canadian federal government jobs. These assumptions do not logically flow from the "self-confidence" of Quebec workers – indeed, a self-confident worker today could, if corporate leaders so choose, be an unemployed worker tomorrow.

Though sovereigntism was clearly in a decline after the date of the 1995 referendum, it remained the case that a large number of Quebecers continued to plead the case for the Quebec *projet de société*, and it also remained the case that attitudes towards sovereignty continued to form the main basis of party identification in the province. As the date of the 1998 election advanced, the candidates made no case to seek a third referendum mandate in the results of the election; nevertheless, we cannot conclude from this that sovereignty had left the radar screens of the major parties.

IV. RESEARCH QUESTIONS AND HYPOTHESES: WHAT CAN THE 1998 ELECTION TELL US?

We are now at a point where we may address the significance of our particular study election, the election of 1998. The previous three chapters set the historical stage for our election of interest. The background of the three main parties, the PLQ, the PQ and the ADQ, have been discussed in depth, and we have been introduced to the three leaders of the parties, Jean Charest, Lucien Bouchard and Mario Dumont, respectively. Furthermore, the issue context of the campaign has been explored in greater depth. In this chapter of the dissertation, then, we are now prepared to proceed to formulate research questions for a quantitative study of the province's regional and electoral geography. These questions will then lead us to the formulation of research hypotheses, which the remaining chapters will operationally test.

Research Questions

The two main research questions we will want to address in this dissertation relating to the basic facts of the electoral geography of Quebec are as follows:

1) Are there "electoral regions" in Quebec?
2) What are the mechanisms by which the major provincial political parties relate to these electoral regions?

The sense behind this first question is that we must justify the units of analysis for the dissertation – a study of electoral geography must be done in units of electoral relevance. These units are the *electoral regions*. The sense behind the second question is that we are attempting to understand the results of a particular election, the provincial

election of 1998, in which a number of political parties participated, three arguably of major prominence and a number of others of lesser prominence. The strengths and weaknesses of these participants is a phenomenon in which we are most interested, particularly because the two largest parties, the PQ and the PLQ, represent the sovereigntist and federalist options in Quebec in their most basic form. Consequently, the relationships of the political parties to their electoral bases in the regions can help us understand better how the sovereigntist and federalist agendas play out at the regional level.

Research Question 1: Are There Electoral Regions in Quebec?

This first question addresses whether we can in fact identify coherent electoral regions at all in the province of Quebec. In order to proceed to identify such regions operationally, we must first state the criteria by which such regions are generally identified. This will require a quick look at the main trends in regional geography writ large, as well as a glance at some of the trends in political geography as a subdiscipline within that rubric.

Using some of the literature mentioned in the first chapter of this dissertation, we may now proceed to a discussion of the mode of investigation this dissertation will utilise. It is our object to define electoral regions for use as units of analysis in an electoral geography of the province of Quebec, so some useful synthesis of the views we have encountered of regional and political geography would seem to be requisite.

There are, evidently, some broad unifying themes that underlie the sorts of commentaries which one finds in this regional and political geographic literature. One

theme, not surprisingly, is **space**. Geography as a discipline confronts the spatial aspects of the relationship between humans and their environment, and points us towards an understanding of *how space is used* and *how space is given meaning* (Gottman 1952; Sprout & Sprout 1965; Sprout & Sprout 1978). In addition, we are concerned with patterns of *concentration* and *dispersion* in space (Claval 1998; Kristof 1969 [1959]). Are we dealing with homogeneous or heterogenous populations, and what impacts would this have on the ways in which the territories containing the population is governed?

Another such unifying theme relates to the specific **actors** who are involved in political decision-making. The relevance of the persons making decisions and the decisions themselves in the process of carving out political regions is clear from the "unified field" theory of Stephen Jones (1969 [1954]). Furthermore, when particular political actors have known positions relative to a given idea about the political state, the "state-idea" theory of Richard Hartshorne has direct relevance to us; actors advocating rallying around the "state-idea" have one kind of role in the way a political region develops, actors rejecting the "state-idea" out of hand have quite another role. When considering actors, we are interested to know whether the groups of persons we are considering describe a *general* pattern – in other words, if we are dealing with majorities or large pluralities – or if the groups we are considering describe a *specific* pattern – in other words, are we dealing with a subculture within the greater population.

The first of these unifying themes, space, addresses elements of electoral regionalism that are "place-based" rather than "people-based"; the second of the unifying themes, actors, addresses elements of electoral regionalism that are "people-based" rather than "place-based". The distinction we are drawing here is to some extent the same

distinction that is drawn in the literature of urban planning with respect to "place-based" and "people-based" social indicators (Bolton 1992; Myers 1987; Myers 1988; Sawicki & Flynn 1996); this literature addresses the question of whether the success of an urban area is better understood through the analysis of social indicators that are collected to represent residents of a common place, whatever their personal characteristics, or to represent people with characteristics in common, whatever their place of location. The impetus for the author of this dissertation to look at both areas in part flows from an awareness of this debate.

A final unifying theme relates to the **rationales** behind political action. One can know where something is occurring and amongst whom that thing is occurring without understanding why it is occurring. If we can assume that people act politically with purposes in mind, which admittedly is not something that can always be assumed, but certainly is often enough the case, then the reasoning behind their actions, if this reasoning can be said to be that of a large population within a region, is crucial to an understanding of electoral regions.

Over the past few decades, there has been a trend towards summarising indicators related to the rationales for political action into a coherent set of "benchmark" measures. This trend began with the work of the sociologist Raymond Bauer, who argued for the creation of benchmark measures that would allow people to gauge "where we stand and are going with respect to our values and goals" (Bauer et al. 1966: 1). The interest of Bauer and others of his contemporaries was to establish "social indicators" which would determine where people stood specifically with respect to goals relating to social welfare; he defended the creation of such indicators as a response to what he termed the

"philistinism" of the purely econometric approach towards the measurement of quality of life and personal well-being by the scientific establishment of the day via "economic indicators". The work of Raymond Bauer and his colleagues was very influential, and in more recent years, due to the influence afforded by their approaches, there has been considerable interest both in the development of a social welfare geography (Cox 1979; Smith 1977; Smith 1994) and in the development of benchmark indicators in a wider context, as particularly epitomised by "sustainable development" research.

Building upon the ideas of Bauer and the social indicators movement, those in the "sustainable development" school of research extended the idea of the benchmark measure to apply to goals in the ecological domain, as well as in the social and economic domains more typical of Bauer's generation of benchmark indicator research. Recently, a consensus methodology for devising sustainable development indicators was formalised by a group of researchers meeting in Bellagio, Italy; the principles underlying this methodology are known as the "Bellagio Principles" (Hardi & Zdan 1997).

Given the historical development of the benchmark indicators movement, it is not surprising to see that the majority of models created according to the Bellagio Principles organise indicators into three distinctive domains. Since the original social indicators movement was founded in reaction to the perceived "philistinism" of previously and exclusively utilised economic indicators, and the sustainable development movement added its environmental indicators to these, most of the benchmark indicator models being done at present organise benchmark measures into three categories: ***economic*** indicators, ***social*** indicators and ***ecological*** indicators (Consultative Group on Sustainable Development Indicators 1999; Hart 2002; Klaas 1997).

Subsequent developments at the level of the United Nations have introduced two possible additional categories of note. The publication of the Cuéllar Report by the World Commission on Culture and Development (1995) strongly suggested the integration of ***culture*** into the benchmark framework. Using the original Bauer framework, we certainly can conceive of measuring where one stands with respect to cultural values and cultural goals. However, one possible criticism of actually doing this might be that cultural goals are quite often culturally relative, so it might be difficult to get different cultures to agree to accept the use of general benchmark measures that are extremely specific to one culture. An influential group which has popularised the use of benchmark measure methodologies, Sustainable Seattle (1998) has since integrated the cultural domain into its four-domain indicator framework along with the more traditional economic, social and ecological domains of indicators.

A possible alternative domain to the cultural domain is what has been termed an ***institutional*** domain. The United Nations Commission on Sustainable Development (2002) prefers this approach and includes the institutional domain along with the economic, social and ecological domains in its four-domain model. The idea here is to measure where institutions stand with respect to their goals. If these institutions are democratic, respect basic civil liberties and represent the aspirations of large numbers of people, then institutional indicators might well be expected to serve a useful purpose. However, everything depends on the institution – how Nazi Germany's institutions or Soviet Russia's institutions proceeded with respect to their goals might well define the very opposite of what is generally desirable in terms of quality of life.

The five kinds of areas we have just highlighted in the previous discussion concerning indicator domains will form an important part of the research design for this dissertation. We will proceed to operationalise these concepts as the basis for our concept of a Quebec electoral region.

In Table 36, the general form for the research design for this dissertation is

Space		
Geographic	GEOG database cases: the 125 Quebec ridings	Elements that are concentrated in space.
Statistical	STAT database variables: the six datasets listed below	Elements that are dispersed in space.
Actors		
Political	POL dataset of variables	All political actors considered generally.
Cultural	CULT dataset of variables	Some political actors considered specifically.
Rationales		
Ecological	ECOL dataset of variables	Political rationales recognising ecological limits.
Social – "Surviving"	SOC I dataset of variables	Political rationales recognising human needs within a society.
Social – "Thriving"	SOC II dataset of variables	Political rationales recognising human capacities within a society.
Economic	ECON dataset of variables	Political rationales recognising economic benefits.

Table 36.
The Research Design: Indicator Domains

shown. The domains shown are the basis for answering the first of the research questions: they go to the heart of our inquiries concerning spaces, actors and rationales.

Each of the eight indicator domains will be referred to in the text of this dissertation by the codes listed in Table 36. The first two of these domains (GEOG and STAT) will constitute the cases and variables of the database we shall assemble for the purpose of responding to the research questions outlined in this chapter. The cases in our database (GEOG) shall be the 125 Quebec provincial ridings. The variables in the database represent the elements that may identify regionalism within the province. These elements fit into the other six domains, which are properly considered subsets of the STAT domain that describe particular elements of regionalism. This is why, in Table 36, a dark line separates these domains from the others, which are subsets of the STAT domain, which we will refer to as datasets. Tables 37-42 break down the content of the six remaining domains according to the kinds of variables populating the domains. For specific variables located within each of the domains, the reader is encouraged to consult Appendix B.

Voting Results By Party	Variables measuring the level of support for the major and minor political parties of Quebec ridings.
Locality Measures	Variables measuring the level of support for candidates in specific ridings in Quebec relative to to the level of support throughout the province for the parties they represent.

Table 37.
The Research Design: The Political Dataset (POL)

Language	Variables measuring identification with linguistic groups in Quebec ridings ("mother tongue" , spoken at home, used predominantly, known).
Ethnicity	Variables measuring "unique" ethnic identification in Quebec ridings.
Aboriginal Status	A variable measuring membership in aboriginal groups, as recognised by the government of Canada, in Quebec ridings.
Religion	Variables measuring identification with religious groups in Quebec ridings.

Table 38.
The Research Design: The Cultural Dataset (CULT)

Air Resources / Site Particulate Measures	Variables measuring air contamination in Quebec ridings by various kinds of airborne particulate matter, as provided by Quebec provincial data.
Land Resources / Site Contamination	Variables measuring land contamination in Quebec ridings by various kinds of deposited materials, as provided by Quebec provincial data.
Land Cover / Water Cover	Variables measuring the physical extent of land and water coverage over the Quebec ridings. Land usage is broken down by land use type.
Biodiversity	Variables measuring the number of species in existence in each of the Quebec ridings.
Ecological Health	A variable measuring the number of species at risk in each Quebec riding divided by the number of total species in each Quebec riding.

Table 39.
The Research Design: The Ecological Dataset (ECOL)

Population Demographics	Variables measuring the population of Quebec ridings and its breakdown by age, sex and family status.
Morbidity	Variables measuring the number of individuals in Quebec ridings affected by diseases which are mandatorily reported to the government of Quebec and constitute serious threats to public health.
Mortality	Variables measuring the number of individuals in Quebec ridings who die according to cause of death.
Poverty-Related Exclusion	Variables measuring poverty and exclusion related to lack of income in Quebec ridings.

Table 40.
The Research Design: The Social "Surviving" Dataset (SOC I)

Access to Health Care	Variables measuring the general availability of health care facilities in Quebec ridings.
Physical Integrity	Variables measuring the extent to which residents of Quebec ridings are affected by general health concerns of both serious and non-serious natures.
Educational Attainment	Variables measuring the educational attainment levels of residents of Quebec ridings.
Group-Related Exclusion	Variables measuring membership in groups that suffer discrimination by virtue of their minority status in Quebec ridings.

Table 41.
The Research Design: The Social "Thriving" Dataset (SOC II)

Income	A variable measuring the average income of Quebec ridings.
Property Values	Variables measuring the value of property in Quebec ridings.
Sectors of Employment	Variables measuring the broad sectors of employment of residents of Quebec ridings.
Types of Employment	Variables measuring the broad types of employment of residents of Quebec ridings.

Table 42.
The Research Design: The Economic Dataset (ECON)

Each of the variables in the datasets presented in Tables 37-42 are intelligible in terms of GEOG and STAT – the data described by these variables have both a specific location in Quebec (and thus is explicable in terms of GEOG) and may be considered part of the overall data for the entire province (and thus is explicable in terms of STAT).

If a region is homogeneous with respect to any of the variables in the six datasets, then we will know this with respect to GEOG, the cases in the database representing the 125 Quebec ridings; these cases will demonstrate a concentration of particular variable values within particular ridings in the same area spatially. If a region is heterogenous with respect to any of the variables in the six datasets, then the cases will not demonstrate that particular variable values are concentrated within particular ridings in the same area spatially, but variable values will be distributed throughout the 125 ridings. To put this another way, when there is concentration, values concentrate in the cases representing the provincial political geography units (GEOG), but when there is dispersion, values are spread across the entire variable (STAT).

Since this is a work of regional geography, we are obviously hoping GEOG will tell us something and that variable values will concentrate according to the 125 ridings,

the cases in the overall database. Since this is also a work of political geography, we are equally well hoping that the POL dataset, which contains the raw data representing the results of the 1998 election, will provide a key basis for our partitioning of space in the province of Quebec into regions. If the regions we uncover are truly to be "electoral regions", then the POL dataset's contents should logically play a major role in their definition.

The remaining datasets, then, are important in terms of how they relate to GEOG and POL. If we find concentrations in space of particular choices by political actors, then we hope to explain why this is the case. Cultural identifications among some actors may have something to do with this, and hence our CULT dataset should be useful in clarifying how these are related to political choice in particular areas. Rationales for political action may also have something to do with this, and hence our ECOL, SOC I, SOC II and ECON datasets should be able to shed some light on political choice in particular areas.

What we are interested in, then, is exposited in Table 43. This table shows how the various domains will be tested in order to establish the existence of electoral regions within the province.

GEOG	STAT	POL	CULT	ECOL	SOC I	SOC II	ECON
Defines regional trends distinct from those of the province.	Defines overall trends for the province.	Defines electoral choice of the overall population.	Defines the content of electoral choice in terms of the self-identification of specific actors or rationales of choice.				

Table 43.
Significance of the Elements of the 1998 Election Database

These five remaining datasets are presented in Table 43 as if it is obvious that the elements within them are sufficiently linked such that they have each been placed in their proper group; the idea that there is sufficient linkage and that the datasets are conceptually coherent is in fact an assumption which will need to be itself tested. We presume, at this point with no evidence, that the "cultural" variables will covary with each other, the "ecological" variables will similarly covary, and so on with the "social" and "economic" variables; the presumption we are making is that there are cultural, ecological, social and economic ***factors*** which affect voting. This assumption may be tested by means of ***factorial ecology*** (also known as ***factor analysis***[2]), a statistical technique that groups large numbers of variables into a smaller number of supervariables (called statistical "factors") on the basis of the intercorrelation of those variables. If we run a factor analysis and find that the "cultural", "ecological", "social" and "economic" categories do not emerge as we expected they would, naturally on the basis of the intercorrelation of variables, then this will have a clear bearing on the reasonableness of our results. It could be that different statistical "factors" will emerge, and our analysis might be better served to use these factors to explain the behaviour of voters in Quebec's electoral regions.

The organisation of the database as conceived of in Table 43 is structured such that the most general population (Quebecers taken on the whole) and proxy measures for the general orientations of individuals within this general population (group identities and rationales) are related to spatial units (electoral ridings).

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[2] The method of factor analysis used in this dissertation project is "principal components analysis". A nomenclature dispute exists to the effect of whether this analysis is properly called "factor analysis", since it can represent variance which is unique to a particular variable as well as variance which is held in common with other factors. We accept the commonly-accepted nomenclature in referring to PCA as "factor analysis", in full knowledge of this dispute and the reasons behind it.

Research Question 2: What are the Mechanisms by which the Major Provincial Political Parties Relate to Electoral Regions?

If we may define electoral regions through the methods described in the previous section, then an important remaining task is to establish what connections the provincial political parties, particularly the PQ and the PLQ, have to the regions we have identified through this sort of analysis. Given the kind of analysis we have thus far defined, it should be clear that the mechanisms of relation that we conceptualise and investigate should have something to do with our three unifying themes: space, actors and rationales.

According to the sociologist Andrew Sayer, we must understand what a thing is principally through how it works. "The nature of an object and its causal powers are internally or necessarily related: a plane can fly by virtue of its aerodynamic form, engines, etc" (Sayer 1984: 105; Schapendonk 2002). Cause and effect patterns, if we accept this view, help us to understand the nature of what reality is, not simply the nature of how processes function in reality.

What we are searching for, then, is ways that our unifying themes of space, actors and rationales can help us to define cause and effect processes that will help us better understand how the electoral regions we find work, and hence, what character we can attribute to them. What follows here are some examples of how this could be done.

We would expect the provincial political parties to have agendas and messages that relate specifically to regional physical realities – in other words, we would expect these agendas and messages to relate to *territories* marked out in space within the province, and not to be simply directed at the entirety of the province. The question in

which we are interested here is "What brings residents of particular territories to favour particular parties?" The nature of the object, in this case, a territorial area, and its causal powers in causing or conditioning political choice, are internally and necessarily related. We understand the political nature of a territory by understanding how processes set in motion in that territory lead to political results. The processes may have their geneses in the land itself. For example, *genres de vie* that develop in response to specific challenges posed by the landscape may well define the "territorial mechanism". The processes may also be directed at specific areas from without. For example, the province of Quebec has 17 "administrative regions", organised largely along the example of French *départements*, and policy is administered differently in these different regions to some extent. It is possible that dissatisfaction with administrational choices in particular administrative regions may lead to differential voting choices. This, too, would be voting choice that has a "territorial mechanism".

We would also expect the provincial parties to have agendas and messages that relate to human realities – in other words, we would expect these agendas and messages to relate to *constituencies* defined by certain groups of actors within the province, either majorities or large pluralities, which would be more representative of the province as a whole, or minorities, which would be more representative of specific subcultures within the general population. The question in which we are interested here is "What brings members of particular constituencies to favour particular parties?" The nature of the object, in this case, a constituency group, and its causal powers in causing or conditioning political choice, are internally and necessarily related. We understand the political nature of a consituency by understanding how processes set in motion relative to that

constituency lead to political results. These processes may be set in motion by the particular constituency. For example, a constituency may assert the precedence of its own cultural values in some area, such as language or religion, and then vote for parties most favourable to protecting those asserted values; this would be voting that has a "constituency mechanism". These processes may also be set in motion from without by others acting upon that constituency. For example, the civil liberties of a particular ethnic group might be under threat from outside an ethnic community, and members of that ethnic group might then vote for a party that will defend the group against this outside threat; this, too, would be voting inspired by a "constituency mechanism".

Finally, we would expect the provincial parties to have agendas and messages that relate to *issues*, and to reflect an interest in responding programmatically to the goals, aspirations and beliefs of particular parts of the electorate. This presumes that voters sometimes do identify with parties or candidates because of their own rationales, and that this does sometimes lead to their casting their votes one way or another. The question in which we are interested here is "Why does the stance taken by particular parties on issues bring voters to favour them?" In this case, we will need to explore somewhat what it is that makes an issue an issue before we can understand the process we wish to understand. Our research design as specified to this point already distinguishes between ecological, social and economic rationales for political behaviour. What is it, however, which constitutes the essence of the "ecological", the "social" and the "economic"? In Figure 13, we consider this question in terms of cause and effect mechanisms at a broad theoretical level. The assumptions portrayed in this figure are those of a model we will

call for the purposes of this dissertation a "rational actor model".[3] This model seeks to enumerate, as succinctly as possible, the basic reasons why people act as they do politically.

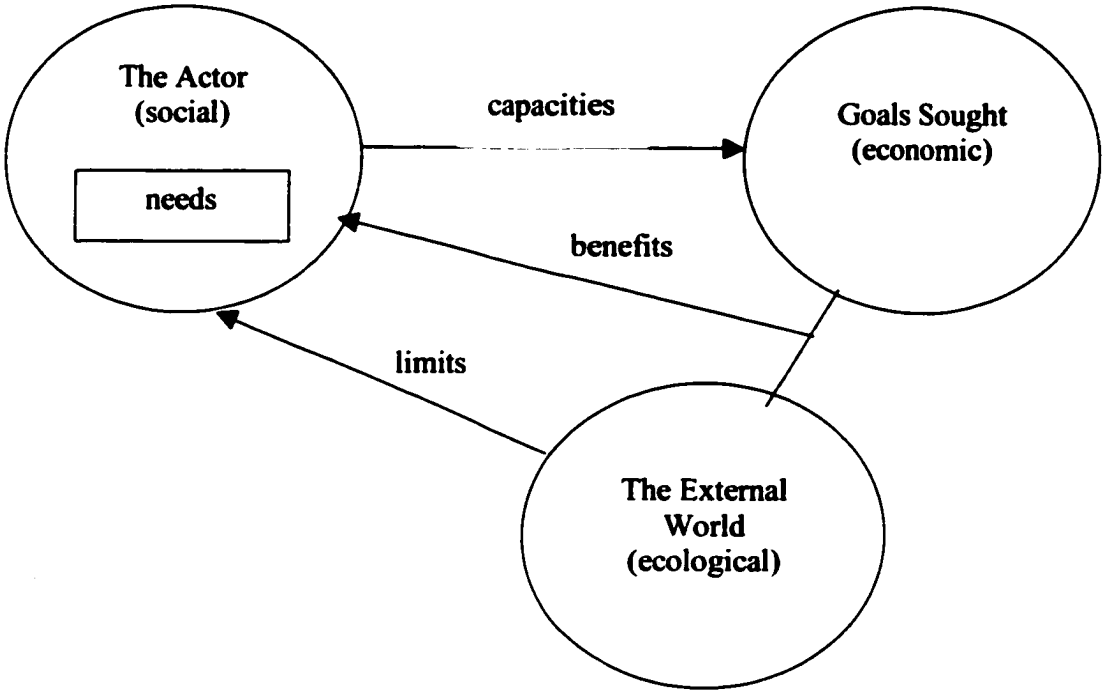


Figure 13.
The Operational Model: A Rational Actor Model

The "moving parts" of the rational actor model are ***limits***, ***needs***, ***capacities*** and

[3] The operational model we use in this dissertation is but one possible example of a "rational actor" model, so we are circumspect about not making the claim that there is only one such model. This particular model is designed according to Raymond Bauer's basic formulation: in other words, something is "rational" for an individual if it proceeds towards the achievement of an individual's goals. This sort of rationality is akin to the *Zweckrationalität* ("purposive rationality") category of Max Weber (1920; 1922). Criticisms of this kind of rationality abound – for example: Amartya Sen's characterisation of some purposively rational activity as the activity of "rational fools" (Sen 1977); the "satisficing" or "bounded rationality" model of Herbert Simon (1957) and the resurrection of Weber's own idea of *Wertrationalität* ("rationality of ends" or "rationality of values") by Raymond Boudon (1998) to critique some of the "egoistic" implications of modern "rational choice theory". Our present model is a *Zweckrational* model, but one based on the premise that failure to consider outside constraints on one's action results eventually in lessened achievement of one's goals and purposes.

benefits. We will now describe each of the four elements of the model in greater detail.

The ecological domain deals with that which is external to the actor: the natural and built environment that surrounds the actor. External influences serve as constraints upon actors; in other words, what we can do in this world is limited by the influences of external forces. Though we may assert, with the geographic possibilists of the Vidalian school, that these limits do not totally determine our behaviours and that nature still provides a range of possibilites for our actions, it is within the range established by these limits that such a comment makes sense in the first place. Even if we assert that these limits can be expanded somehow or broached, it remains the case that one must recognise the limits before it makes sense to claim one can expand or broach them. By considering the effect of ***ecological limits*** on our actions (cf. Meadows et al. 1972 for the first well-known theoretical model stressing the importance of such limits), we recognise the possibility of resources necessary for action possibly not being present, or that we must replenish them if we can in order to safeguard our ability to act in the future.

The social domain deals with the person who acts. As such, it must comprise two areas: the life of the actor, and the sufficient power to act. Without either of the two, no action is possible, and hence there is no actor to speak of. In Figure 13, a box internal to the circle representing the actor represents the needs of that actor. By this, one operationally means those elements that are necessary to sustain the life of the actor. Since different individuals may have different biological requirements for life at different stages in the life cycle, considerations of human needs defined this way do vary from person to person; however, by this operational definition, "needs" such as happiness or fulfillment are not included. We mean in this case only those needs without which the

human organism will cease to be alive, and hence to be an actor. Of course, man does not live by bread alone, so a consideration of needs does not end our assessment of the social domain. It is important to survive – to achieve *survivance* – but once survival is accomplished, it is also important to thrive – to achieve *épanouissement*. We move from the realm of securing what is needed to pursuing what is wanted. The capacity to meaningfully pursue what is wanted, the sufficient power to act, constitutes therefore an important second dimension to the social domain. The actor is constrained to some extent by external limits (the arrow leading into the "actor" circle) and by his own internal needs (the box inside the "actor" circle) but whatever residual powers remain after these constraints take their toll constitute the capacity to act, which, presuming the rationality of the actor, would then be directed towards the individual's goals (the arrow leading out of the "actor" circle towards the circle representing "goals sought").

The economic domain deals with that which is sought by the actor. The economic system valuates goods and services according to how much these are sought by actors in the aggregate according to willingness to pay, either directly via some form of currency, or indirectly through some kind of barter or equity exchange. This willingness to pay stems, if we assume the rationality of the actor, from a perceived benefit of a good or service to the actor. When a benefit resulting from the consumption of a material good is experienced by the actor, unless it is possible to reproduce this benefit without depleting the environment – in other words, unless the resource is renewable – then two results follow from the enjoyment of a good by an actor. First, this depletes the supply by a discrete amount, meaning that others will likely have to pay more to enjoy the same sort of good in the future. Second, this depletes environmental stocks of raw materials, so

that the creation of similar goods in the future will be more limited, or perhaps totally limited, such that such goods are no longer possible to fashion. This is symbolised in Figure 13 by means of a line emanating from both the "goods sought" circle and the "external world" circle.

Given the preceding argument, we can now see why the ECOL, SOC I, SOC II and ECON datasets are described as they were in Table 36. Limits, needs, capacities and benefits form a crucial part of the definitions of the ecological, social and economic domains. Furthermore, the splitting of the social domain into two datasets, one of which dealing with needs and "survival" and the other of which dealing with capacities and "thriving", is now intelligible.

Hypotheses

Our six research hypotheses flow logically from the research questions as posed and discussed in the previous section. These research hypotheses may be usefully organised into three groups. ***Hypothesis 1 (H_1) establishes the existence or non-existence of electoral regions in the first place, by means of an analysis involving the GEOG and POL domains. Hypotheses 2 through 5 ($H_2 - H_5$) then establish the relationships of the CULT, ECOL, SOC I, SOC II and ECON domains to these electoral regions. Finally, Hypothesis 6 (H_6) provides further background into these relationships, indicating for us whether these relationships are better understood as direct interactions between variables or interactions which are parts of more complex causal processes.***

H_1: There are spatially-compact regions which represent concentration of support for one of the provincial political parties, as defined by the locality weight statistic.

In H_1, we address a major preliminary question of the research, namely, whether voting even displays regional characteristics. From the maps already presented in the dissertation thus far, it can be assume that support for the major political parties in the election of 1998 has some basis in geography. Nevertheless, we glean this only from appearances on these maps – a more exacting and quantitative method of determining the level of concentration in voting patterns must be used to gain more knowledge of electoral "regionalism" as a phenomenon. What we need to know, in other words, is how the data in the POL dataset relates in quantitative terms to Quebec's geography, or more exactly, the 125 provincial ridings forming the cases in the overall database, which we refer to as the GEOG domain. This we propose to do by means of two measurement techniques.

The first is embodied in what we will call a ***locality weight***. This is a kind of location quotient (Isard et al. 1998) which we will specially construct to represent the level of concentration of support for a political party in a given Quebec electoral riding. The locality weight takes the following form:

$$\frac{\%\, vote\ for\ candidate\ in\ riding}{\%\, vote\ for\ party\ in\ province} \times N\ voting\ for\ candidate\ in\ riding$$

This locality weight statistic is based on a ratio of the percentage support for a given candidate, riding-wide, to the percentage support for the candidate's party, province-wide. This ratio, taken by itself, we will call the ***locality index***. If this locality index is equal to one, then the candidate is doing equally well as his or her party. If the ratio is higher than one, the candidate is doing better than his or her party, and we may

say that there is a concentration of votes for the party this candidate is representing in this riding – whether this owes to the popularity of the candidate, to that of the party, or both, we will leave for speculation at the moment. If the ratio is lower than one, the party is doing better province-wide than it is doing in this particular riding with this particular candidate – again, we will leave the question of whether this owes to the unpopularity of the candidate, the party, or both.

The locality index, taken by itself, gives a good sense of whether a concentration of support for a particular party exists in a given riding, but it does not bring to our attention the strength of that concentration demographically. There are, for example, small ridings in terms of population. The most extreme example of this is the Îles-de-la-Madeleine riding, which had an electoral population of 10,537 voters at the time of the 1992 redistricting, 72% under the riding average of 37,332 voters. This is permitted despite the requirement of Article 16 of the 1992 *Loi electorale du Québec* ("Electoral Law of Quebec") that ridings not be 25% over or under riding average for electoral population; the Îles-de-la-Madeleine riding was statutorily exempted from this general requirement. Another small riding in terms of population is the riding of Ungava, which is 33% under the riding average for electoral population, in violation of the principle set forth in the electoral law of the province, but defended in its established size by Quebec's *Commission de la répresentation du Québec*, which felt that extenuating circumstances relating to the remoteness of Ungava permitted it to use its overriding powers under Article 17 of the law (*DGÉQ* 1992).

Outside of these two extremely small ridings, the range of electoral populations in Quebec ridings runs the gamut from 46,666 electors (Montmorency riding near Quebec

City) to 28,088 electors (Matane riding in the Gaspe region of the province). Taking into account that even in the absence of the Îles-de-la-Madeleine and Ungava as extreme outliers there is this great difference between demographically large ridings and demographically small ridings, we clearly need to weight the locality index to reflect the impact of differing raw numbers of voters. Thus, the locality weight takes into account the raw number of votes for a particular candidate, as well as the ratio between votes for that candidate and his or her party; in short, multiplying this ratio by the raw number of votes the candidate received demographically weights the locality index result.

To illustrate, if two candidates for the same party get a 50%+1 majority in a small riding and a 50%+1 majority in a large riding, then the locality index of these two ridings will be equivalent. However, the locality weight of these two ridings will be different: the 50%+1 in the large riding involves more people than the 50%+1 in the small riding.

The second measurement technique we will use to evaluate this hypothesis is ***spatial autocorrelation*** (Anselin 1994; Cliff & Ord 1973; Griffith 1987; Ord & Getis 1995; Sawada 1998). Spatial autocorrelation is a method in geographic statistics used to determine whether features in space are clustered, randomly distributed or evenly distributed in that space. When we measure locality weights for each of the candidates in the Quebec elections, we will likely find that there are some ridings where locality weights for a particularly party are similar. These values will indicate the concentration of support for the various parties in each individual riding, but they will not indicate whether there is a general concentration across ridings. Since we are attempting to evaluate the regionalism of the vote, we would like to know if concentrations of the vote for a particular party are similar in ridings that are located in the same general regions.

Spatial autocorrelation can be used to address this question. The test statistic of Moran's *I* can be used on locality weight values for candidates of the same party. In this context, values for *I* nearing +1 indicate that the spatial pattern of voting is very distinctly regional – in other words, that candidates doing much better than their party did province-wide are ***clustered*** in a region. Values nearing –1 indicate that the spatial pattern is very indistinct and "unregional" or "pan-Quebec" – that is, the candidates doing much better than their party did province-wide are ***spread evenly*** throughout Quebec. Values around 0, then, indicate a pattern which is ***random*** – the candidates doing much better than their party did province-wide are neither wholly clustered or wholly spread out across all of Quebec.

The means by which we may verify that there are spatially-compact regions in the province where support for a particular political party is concentrated, the proposition which is made by our hypothesis, H_1, should now be apparent. Our locality weight statistic should verify that there are ridings that have disproportionately high values for the locality weight statistic – we may use the conventional standard of 2 or 3 standard deviations above the mean to operationally define what counts as "disproportionately high" – and the Moran's *I* spatial autocorrelation test statistic should verify that there are clusters of such ridings in specific regions of the province. Should there be both high locality weight values in certain ridings and clusters of high locality weight ridings in certain regions, H_1 may be considered as verified. Conversely, should neither of these obtain, H_1 may be considered as falsified.

H_2: These spatially-compact regions are also strongly characterised by their relationships to cultural variables.

In H_2, we test the relationship of the variables in the CULT dataset to the regions marked out by the results of our analysis for H_1 of the GEOG and POL domains. What we wish to know with regard to this hypothesis is whether the specific cultural identifications of certain Quebecers in certain regions influence their vote.

It is certainly expected, in light of the literature review, that cultural variables will have an important explanatory role with respect to regional voting behaviours in Quebec. As stated previously, however, we must first verify that our conception of "cultural" variables is itself appropriate. Factor analysis may uncover that the grouping of the variables initially identified as the "cultural" domain of variables is improper.

We may consider H_2 to be verified if the variables of our CULT dataset, as initially assembled by this researcher, correlate highly with specific electoral regions identified by the results of H_1, and falsified if they do not. However, we may distinguish between a "strong verification" and a "weak verification" of H_2. A strong verification would be accomplished if it should be the case that our initial CULT dataset is generally reproduced in a factor analysis of the research database. In such a situation, variables in a "cultural factor" which well and truly exists would have been shown to correlate highly with certain electoral regions. A weak verification, contrastingly, would be accomplished when it is not the case that our initial CULT dataset is generally reproduced in factor analysis of the research database. In such a situation, variables in a "cultural factor" created by the researcher's classification schemes but which does not really exist statistically would have been shown to correlate highly with certain electoral regions.

This verification, if we are going to consider it one, imposes a theoretical ordering on our results that may well be inappropriate.

There are a number of reasons we must consider this possibility. First, it may be the case that we truly have not just one kind of "cultural" voting pattern, but several, and pushing all "cultural" voting into one category deprives us of the explanatory power we might have had if we could split our initial category up. Second, it may be the case that parts or the whole of others of our initial categories might converge upon parts or the whole of our initial "cultural" category. In this case, the classification scheme itself would become an obstacle to understanding what we wish to understand.

Thus, we need to consider our evaluation of this hypothesis in a way that admits of three possible resolutions: strongly verified, weakly verified, falsified. Such an evaluative scheme for the hypothesis integrates two approaches to our work: the "scientific method" approach stresses, as it should, that our hypothesis must be either verified or falsified; a more exploratory approach stresses that the categories by which the analysis is being done in the first place must be investigated before any real sense can be made of the results from our hypothetical enquiries.

H_3: These spatially-compact regions are also strongly characterised by their relationships to ecological variables.

In H_3, we test the relationship of the variables in the ECOL dataset to the regions marked out by the results of our analysis for H_1 of the GEOG and POL domains. What we wish to know with regard to this hypothesis is whether ecological limits and the prevailing state of the environment of Quebec in particular regions influences the vote of Quebecers.

In distinction from the regionalism of cultural voting patterns in Quebec, which have been pretty well documented by geographers, sociologists and political scientists, there has been little evidence presented specifically of the regionalism of ecological voting patterns. If such evidence were to be found in the context of this research project, this would constitute a fair contribution to knowledge of Quebec's regional voting patterns. As it is, "ecologism" as a political movement is barely present in Quebec. The *Parti vert du Québec* (PVQ, or "Green Party of Quebec" in English) has only very recently reassembled itself as a functioning provincial political party in Quebec, and at the time of our study election in 1998 there was no ecologist party in the running, the precursor party to the PVQ having disbanded before 1998. It is also fairly clear from the 1998 campaign that environmental issues played an extremely limited role in the agendas and messages of the major parties; if there was an "ecological" vote in 1998, it is fairly certain that the leaderships of the major provincial parties were not aware of this. It should be, however, noted that one political scientist, Timothy Thomas (1997), has made the argument that the Montreal municipal political party called the *Rassemblement des citoyens de Montréal* ("Montreal Citizens' Movement" in English) has a number of key characteristics in common with the "left-libertarian" or "post-materialist" parties of Western Europe analysed in successive studies by the political scientist Ronald Inglehart (1990; 1997); principally included amongst the "left-libertarian" or "post-materialist" parties of Western Europe are the various ecologist parties. Another pair of political scientists claim to have found evidence that "post-materialist voting" occurs in Quebec and that the PQ is the party which benefits the most from it (Pelletier & Guérin 1996).

As was the case with H_2 with respect to the CULT domain, H_3 will be considered verified if the variables in the ECOL domain correlate highly with specific electoral regions, and falsified if they do not. As was also the case with H_2, there will be the possibility of "strong verification" and "weak verification", contingent upon whether factor analysis returns a statistical factor that generally corresponds to the researcher's initial ECOL category or not.

H_4: These spatially-compact regions are also strongly characterised by their relationships to social variables.

In H_4, we test the relationship of the variables in the SOC I and SOC II datasets to the regions marked out by the results of our analysis for H_1 of the GEOG and POL domains. What we wish to know with regard to this hypothesis is whether elements related to safeguarding basic needs of survival or developing capacities to thrive independently influences the vote of Quebecers in particular regions.

We would expect that these would be important conditioning influences on the Quebec vote. We would expect this because the history of Quebec as a province recounts the drama of the *survivance*, when an economically downtrodden and socially excluded French-Quebecer majority bided its time, during the reign of ultramontane clerical elites and the long domination of Maurice Duplessis, surviving day-to-day, eking out basic needs in a farming and small business economy, until a point in time arrived when changes could be made. We would also expect this because Quebec's history equally recounts the *épanouissement* of the Quiet Revolution and the assertion of "French Power" both at the federal and provincial level, when the capacities of francophones had been built economically and socially to the point where the choices of the province's majority

population were expanded as they had never been before. We would further expect that regionalism would be a big part of the story: historically, the *survivance* was a rural phenomenon, whereas the *épanouissement* of the Quiet Revolution and its aftermath foretold the development of the francophone ring suburbs around the Isle of Montreal. Thus, based upon the historic importance of "surviving" and "thriving" in Quebec's history, we might well expect that measures of basic needs and of capacities to act would tell us a lot about regional voting patterns in the present day.

The evaluation of H_4 proceeds largely as was the case with H_2 and H_3. We would consider H_4 verified if the variables in the SOC I and SOC II domains correlate highly with specific electoral regions, and falsified if they do not. As was also the case previously, there will be the possibility of "strong verification" and "weak verification", contingent upon whether factor analysis returns a statistical factor that generally corresponds to the researcher's initial SOC I and SOC II categories or not.

We may add another caveat at this point. Since we have two separate "social" domains, it is possible that H_4 might be verified for one of the initially-constructed domains and falsified for another of the initially-constructed domains.

<u>H_5: These spatially-compact regions are also strongly characterised by their relationships to economic variables.</u>

In H_5, we test the relationship of the variables in the ECON dataset to the regions marked out by the results of our analysis for H_1 of the GEOG and POL domains. What we wish to know with regard to this hypothesis is whether elements related to the acquisition of economic benefits influence the vote of Quebecers in particular regions.

The variables in ECON are more direct measures of economic benefit; typical econometric models of voter behaviour posit the gaining of such benefits as the only reasonably applied test of political rationality (cf. Howe 1998 for an example of this approach with respect to Quebec). James Buchanan and Gordon Tullock 1965 [1962] provide the best-known defence of this approach in political science; they argue that constitutional traditions are built upon reconciling the gains of as many economic players as possible, creating a "calculus of consent" between the individual players. If this is the case, then the variables in the ECON dataset will be quite important to our understanding of Quebec's electoral geography, particularly given that the constitutional traditions of Quebec and Canada are precisely what is at issue at present.

As we have discussed previously, attitudes about one's role in the economy, both presently and in the foreseeable future, do seem to play a role in decisions about Quebec elections and the possibility of the accession to sovereignty of the province. In addition, whatever results are uncovered by our analysis of the economic domain relative to electoral regions, we would expect that our findings would greatly influence the debate over Quebec sovereignty. Those on the federalist side of Quebec's political spectrum, furthermore, have long claimed the economic infeasability of the sovereigntist project (cf. Côte & Johnston 1995, Lo & Texeira 1998, McCallum & Green 1991, Young 1995), whereas sovereigntists have claimed conversely that a Quebec free of constraint by the federal government and its policies would function normally, or might even be economically stronger if anything (cf. Cyrenne 1995, Gendron & Desjardins 1995, Laliberté 1995, Lamonde & Renaud 1995, Polèse & Lefebvre 1995). The effect of economic issue orientation on voting, taken in that context, will most certainly be of

interest to us. The evaluation of H_5 proceeds as was the case with H_2-H_4. We would consider H_5 verified if the variables in the ECON domain correlates highly with specific electoral regions, and falsified if they do not. As was the case previously, there will be the possibility of "strong verification" and "weak verification", contingent upon whether factor analysis returns a statistical factor that generally corresponds to the researcher's initial ECON categories or not.

H_6: The relationships specified in H_2-H_5 may be understood better through as processes involving complex interactions between variables.

We complete our enquiries with H_6, a hypothesis that revisits questions we have already sought to address in H_2 through H_5, but which does so in a more finely-grained manner. We are, as was pointed out in the earlier section of this chapter dealing with the specification of our research questions, looking for causal mechanisms relating the provincial political parties to electoral regions, so that we may better understand the "why?" as well as the "how?" behind the electoral regions this research uncovers in the province of Quebec.

Causality, as the philosopher of science well knows, involves both necessary conditions and sufficient conditions for a result to obtain. The statement $x \wedge y \wedge z \subset r$ ("If x and y and z, then r") represents a particular causal relationship in symbolic logic. If we take this statement as a given, the additional statement that $\sim x \subset \sim r$ ("If not x, then not r") suggests that even if y and z happen, r cannot happen unless x also happens: x is a ***necessary condition*** for the result r. Another possible statement, that $x \subset r$ ("If x, then r"), suggests that even if y and z happen, the only thing that truly matters in terms of whether r happens is whether x happens: x is a ***sufficient condition*** for the result r.

The variables in our research database constitute our windows into conditions which exist in the province of Quebec. In some cases, these variables will, in themselves, be sufficiently explanatory for the phenomena we wish to investigate. In others, however, the variables will not in themselves sufficiently explain these phenomena, and we will only be able to understand their impact by means of methods that place them as part of an interactive process that explains the phenomena. In other words, occasionally variables will be necessary to an explanation of phenomena, but not in themselves sufficient to explain the phenomena; if that is the case, we will need to relate them in some fashion to other variables which are also necessary for our explanations.

This is the task set for us by H_6: to broaden whatever we may find in the more static enquiries into H_2-H_5 with more dynamic explanations; whereas H_2-H_5 test "simple cause and effect", H_6 tests cause and effect in a more complex way, placing variables in contexts and relating them as necessary but not sufficient parts of a broader process.

A number of statistical "interaction methods" could be used to evaluate these sorts of indirect causative processes. In this dissertation, we will make use of ***canonical analysis*** and ***path analysis***, both techniques that build upon the logic of multiple linear regression. The former will establish the relationships of the various domains in our model to one another, and the latter will establish an ordered chain of causality, as a principal method of evaluating indirect causative effects of variables. In addition, the analytic methods of Charles Castonguay (1999) with respect to the complex causative interactions of variables affecting linguistic ***assimilation and acculturation*** will help us judge how patterns of linguistic transfers and acquisitions of linguistic competences are

related to voting patterns. Finally, the analytic technique known as ***economic base analysis*** (Isard 1998), integrated with our earlier factorial ecology approach in order to make it a true "interaction method" technique, will be useful in understanding complex relationships between key economic indicators and regions.

We would need to evaluate H_6 with respect to each of the hypotheses H_2-H_5. If it should be the case that "interaction methods" demonstrate relationships do exist in one, some or all of the areas tested by H_2-H_5, albeit of a more indirect than direct character, then this verifies H_6 with respect to one, some or all of the hypotheses H_2-H_5. It may also be the case that the "interaction methods" do not shed any additional light upon one, some or all of the areas tested by H_2-H_5, in which case, H_6 would be falsified with respect to one, some or all of the hypotheses H_2-H_5.

V. STATISTICAL ANALYSIS: WHAT METHODS CAN WE USE TO UNDERSTAND THE 1998 ELECTION?

We may now proceed to the analysis section of this dissertation, where we will employ the methods described in the previous chapter to address the hypotheses laid out in that chapter. There will be three component parts to this chapter: in the first part, we will describe general issues that were addressed in the creation of our operational research database; in the second part, having described the resolution of these issues, we will employ a number of direct tests for geographic and statistical relationships shown by our research data; in the third part, we will move a little further in, and employ more indirect tests and exploratory techniques with respect to our data.

The Database

We must begin our analysis by first laying out how the database as described in the preceding chapter was created in concrete terms. In other words, we must describe the operational implementation of these domains in our statistical and analytical model.

The 216 x 125 Matrix

We will begin with a description of the two domains that represent our model's data "space", GEOG and STAT. GEOG consists of the 125 Quebec provincial ridings as they existed on the date of the 30 November 1998 election. STAT consists of 216 variables that can help us define political regions, which are further subdivided into the remaining six domains CULT, ECOL, SOC I, SOC II and ECON. Taken together, these

two dimensions constitute our ***full data matrix***, a matrix of the dimensions 216 x 125. The variables in STAT will be tested to see if their contents demonstrate patterns of concentration according to the cases in GEOG. If they do demonstrate concentration, then GEOG will define the geographic limits of that concentration within the boundaries of certain ridings or groups of ridings. If they do not demonstrate concentration, then the contents of this variable of STAT will indicate that the phenomenon represented by the variable is dispersed and not contained within only certain ridings or groups of ridings.

To put this another way, if some pattern relates to our cases, it is a pattern of geographic concentration. If the pattern relates only to our variables, it is not a pattern of geographic concentration in certain ridings but rather of dispersion of the elements represented statistically by the variables across all the ridings.

The 125 provincial ridings of Quebec are areally defined by Quebec's Electoral Law in one of two fashions: as concatenations of a certain number of the province's municipality or census subdivision units, which is usually the case for the province's exurban ridings; or, with reference to linear features, such as urban streets, water features such as rivers or lakes, electrical power lines, railroad lines, and so on, which serve as boundaries for the riding. In Appendix C, the names of the 125 provincial ridings are reproduced for the reader.

The STAT domain will be composed of 216 variables representing various presumed elements of Quebec electoral regionalism. In the course of general analysis of the research database, a correlation analysis of the variables will be performed in order to determine whether some of the variables in STAT intercorrelate with others to the point where they are somewhat superfluous. We will use this correlation analysis to delete 114

such superfluous variables from datasets other than the POL dataset we use to test our hypotheses, to create a ***reduced variable matrix*** of 102 variables. This matrix will be useful to us in certain statistical applications, such as canonical analysis, which would be easier to perform given the minimisation of redundancy in our variables set.

Overlay Coverages

For evident reasons, all variables in the research database need to have values for each of the 125 ridings, in order to ensure that each of these variables represents a geographic dimension according to the political boundaries recognised by the province electorally. However, where some variables are concerned, it is necessary to perform operations using a geographic information systems (GIS) software, ArcView 3.2, or in a spreadsheet program such as Microsoft Excel, in order to construct values for each of the 125 ridings that are properly representative of this "geographic dimension".

GIS applications pertaining to the 125 ridings make use of a "riding coverage", showing the spatial extents of the ridings. Since most of Quebec's ridings are amalgams of municipalities or census subdivision units, the riding coverage itself could largely be constructed by means of ArcView 3.2's "Union Features" operation, which makes one spatial unit out of several independent units. Through the University of Ottawa's Map Library, and owing to the availability of such data under Canada's Data Liberation Initiative, a geographic information file containing the spatial extents of municipalities and census subdivisions in Quebec was available for use in the construction of the riding coverage (Statistics Canada 1996). In some instances, involving ridings in Quebec's main census metropolitan areas of Montreal, Quebec City, Hull-Gatineau and

Sherbrooke, linear features from street network files for CMAs were the basis of riding boundaries. Using the features provided in these street network files for the four CMAs, it is possible to construct the remainder of the ridings for use in GIS operations.

In the construction of some of the STAT variables, interactive techniques relating these files to point, line or polygon data are employed. The riding coverage is used with a number of geographic files containing information to be coded into variables in the database; by use of the "overlay" mapping technique (cf. Ian McHarg's 1968 planning treatise Design With Nature for one of the first significant applications of this technique, years before the development of modern GIS systems) geographic information can be attributed to each of the specific ridings cartographically through the use of "overlay coverages".

Table 44 identifies the different overlay coverages created for this dissertation project. It will be noted that the expertise of statisticians and GIS technologists employed

Overlay Coverage Source Materials	**Domains Involved**	**Purpose of Operation**
Government of Quebec *Ministère de l'Environnement*	Air Resources / Site Particulate Measures	Attribution of site particulate measures to ridings, via spatial interpolation from site-point data.
AVHRR Land Cover	Land Cover	Attribution of land use patterns to ridings.
Statistics Canada 1991 Census Files	Religion	Attribution of religious preferences to riding populations.
Statistics Canada 1996 ECOMAP Environmental Coverage	Ecological Health / Biodiversity	Attribution of species-related patterns to ridings.

Table 44.
Overlay Coverages Used in the Research Project for the Purposes of Variable Construction

by the Government of Quebec's *Ministère de l'Environnement* ("Ministry of the Environment") and the Government of Canada played a considerable role in the availability and utility of the overlay coverages used in this project; to a great extent, this expertise is relied upon for the worthiness of the results.

In the special case of the air resources data, a technique of spatial interpolation was used to create riding-level data out of site-specific measurement data. A coverage composed of the geographic centres of each of the municipalities where air quality measurements were made – created through the use of an ArcView script which finds the centre of polygon objects – was used to approximate the location of air measurement sites. Then, the same script was used to locate the centres of the 125 ridings. Finally, the distances from the municipal site centres to the 125 riding centres were calculated – through the use of another script that finds distances between point objects. These distances were used to distance-weight each of the site measurements for the 125 ridings. The value for air quality variables, then, was in each case the sum of site readings, where each reading was divided by the distance from the site centre where the contaminant was detected to a given riding centre. The equation for this is shown below:

$$\sum_{1}^{S} (M_S / D_{SR})$$

where: S is the number of air measurement sites;
M_S are the measurements for particular air contaminants taken at the site centres S; and,
D_{SR} are the distances from the site centres S to the riding centres R.

This equation estimates the likelihood that a riding is affected by those air contaminants measured at a particular site. If we assume that ridings more distant from a given site are less likely to be affected by contaminants that are being measured as present at the site, then this interpolation method should give a rough indication of which ridings are affected by said contaminants.

In Appendix D, the site data that was interpolated according to the equation shown above is presented. It will be noted that municipalities where air particulate site measurements took place were mostly located in the southern part of Quebec. Thus, the results obtained may be somewhat less than accurate for northern ridings. However, this lack of accuracy is due to the paucity of information available from northern Quebec, and is not due to any unreliability of the technique used.

Scaling of Variables

Variables in the database generally are scaled to respect proportionality with respect to population, area or distance, so that there can be a common basis for comparing across ridings. The vast majority of our variables are scaled with respect to a total population; in other words, they are presented as percentages, so differences in riding populations will not distort the relationships represented by the variables. To take an example, where the variables representing the Voting Results By Party are concerned, we frequently want to know what percentage of the vote candidates received rather than the raw vote count, in order to compare adequately across ridings of different electoral populations. A method of areal scaling used in this dissertation involves ordinal ranking by area. This is used for certain of the Land Cover variables, in order to rank categories

of land use according to their importance in the land cover makeup of each of the ridings. The scaling technique used here is simple: the land use covering the most area in the riding is ranked first, then the land use covering the next most area in the riding is ranked second, and so on. As far as distance scaling is concerned, the operation done to produce the air quality variables, as it was described above, involves a clear example of how distance is used as a metric to gauge the effects of air pollution on the various ridings.

Some variables in the database do not particularly need to be scaled. When variables are meant to represent raw population (as is the case with the POP variable) or raw areas (as is the case with the Land Resources/Site Contamination variables and certain of the Land Cover variables), they will suffice and will not require transformation via a scaling technique.

The most complicated method of proportional scaling used in variable construction for this dissertation involves health variables related to Mortality, Morbidity and Integrity in the SOC I and SOC II domains. Quebec provides this data at the spatial level of the "social health regions" (*régions sociosanitaires*) defined by the province (Pageau *et al.* 1997). These social health regions are similar in size to the administrative regions used by the province, which we have already encountered in previous chapters. This means that they are larger than electoral ridings, and thus a method needed to be found to properly attribute values to each riding, to apportion a representative value to each of the 125 ridings.

The Mortality, Morbidity and Integrity variables in the SOC I and SOC II domains, which track rates of death, serious illness and general health problems, are scaled relative to the health infrastructure of the province of Quebec. Specifically, this is

done by dividing the values in the variables by the number of beds and places available in Quebec's health care service facilities (short-term and long-term care hospitals, youth centres and rehabilitation centres), plus the overall number of local community service centres, in the riding. The result of this equation yields a ratio that relates states of poor health (death, serious illness, health problems) with the facilities available to combat that poor health (beds and places in hospitals and centres, community service centres). The full equation used to calculate these variables is shown below:

$$V_H /[(BP_{CH} + BP_{CHSLD} + BP_{CJ} + BP_{CR} + CLSC) + 1]$$

where: V_H is the health variable needing to be coded for each of the 125 ridings;
BP_{CH}, BP_{CHSLD}, BP_{CJ}, BP_{CR} are the number of beds and places provided by the various Quebec health care facilities that provide services involving beds or places in the ridings;
CLSC is the number of local community service centres found in the ridings.

The increment of 1 in this equation is necessary for those ridings where none of the health care services measured by the scaling variables were in fact present in the riding; this ensures that the equation will always produce a value and does not entail dividing by zero.

Normality of Variable Distribution

The 216 variables in the full data matrix were analysed with the goal in mind of considering the normality of their distribution. This is often done before using variables

in a factor analysis, though it is not required:

> As long as PCA and FA [principal components analysis and factor analysis] are used descriptively as convenient ways to summarise the relationships in a large set of observed variables, assumptions regarding the distributions of variables are not in force. If variables are normally distributed, the solution is enhanced. To the extent that normality fails, the solution is degraded but may still be worthwhile (Tabachnik & Fidell 1989: 603).

The purpose of this section of the dissertation is to assess in what sense a lack of normality in some variables of the database affects results in factor analysis. In general, we will make the case here that lack of normality not only should not be compensated for by the use of variable transformation techniques, but our factor analysis would misrepresent the geographic realities of the province's ridings were such techniques to be employed.

As the above quote suggests, we will be using principal components analysis purely in order to summarise relationships over our large set of observed variables. In Table 45, some of the standard scores representing "outlier" cases for selected of the database variables are presented. These representative examples were selected through an appraisal of the skewness and kurtosis values for the variables in question, as

Riding	Variable	Skewness of Variable	Kurtosis of Variable	Standard Score for Riding
Ungava	HCREE	11.18	125.00	11.09
Ungava	WATER	10.84	119.64	10.97
Ungava	TUNDRANK	-10.15	106.98	-10.66
Abitibi-Est	GERLEDM2	10.02	104.96	10.61
Viau	NO3	3.03	13.90	6.38
Sauvé	PERCPROB	4.39	18.65	5.46

Table 45.
Selected Case Examples of Abnormality in the 216 x 125 Data Matrix

normality among single variables is typically properly judged by these two measures (Tabachnik & Fidell 1989: 603). What we find is that, for our purposes, skewness and kurtosis do not address more compelling statistical concerns about the variables in the database.

The first three of the variables shown in Table 45, the variables HCREE (percentage speaking the Cree language), WATER (area in square meters of water coverage) and TUNDRANK (ordinal ranking of tundra as a land cover type) are all tremendously associated with one riding far more than the other 124. That riding, the northern riding of Ungava, posts a standard score of ten standard deviations from the mean in terms of all three of these variables. However, a transformation of these variables would accomplish nothing. The reason for this is that Ungava is legitimately distinct in terms of these variables from the other ridings, and any factor representing one or more of these variables should present Ungava as scoring tremendously high on them. In other words, the abnormality of Ungava with respect to these variables is something we want our factor analysis to model, not something we want to weed out of our analysis. The point of the factor analysis is to isolate statistically those areas that are distinct regions. Thus, transformation of these variables would attempt to render Ungava less distinct than the variables clearly show it to be as a riding. It would be the variable transformations which would be misleading, not the original variables.

Similarly, with respect to the variable GERLEDM2 (area in square meters of industrial waste concentration), there is in fact an overwhelming amount of industrial waste concentration in the riding of Abitibi-Est comparative to the remainder of the ridings, as demonstrated by its placement ten standard deviations from the mean for this

variable. Again, since the point of our factor analysis is to isolate statistically those areas that are distinct regions, we want Abitibi-Est to be shown to be the outlier it in fact is with respect to industrial waste burial in land. Transformation of this variable would obscure the relationship we wish to show.

By contrast, the last two of the examples in Table 45 show what is for this research project a more serious concern about the reliability of variables related to the normality of distributions.

Somewhat high – though not as high – values for skewness and kurtosis lead us to check out variables such as the NO3 and PERCPROB variables. In the case of NO3 (nitrate particles per cubic meter of air), the riding of Viau is more than six standard deviations beyond the variable mean. In contradistinction to the cases we have thus far presented, Viau is a problematic case for this variable. Since the NO3 variable was scaled according to distance from centroid points representing emissions measurement sites, Viau riding, which contains the centroid for Montreal, will have abnormal values for the air quality variables. In point of fact, Viau has abnormal values across many of the air quality variables for this reason. Overall, the interpretability of the air quality variables is not tremendously compromised, owing to the fact that each emission site is one of several used in calculations used for each riding. However, understanding the abnormality problem here would give us cause to possibly reject inclusion of one of the ridings containing a centroid point used in distance scaling in a factor summarising the air quality variables.

A similar problem obtains with health care variables, for which a scaling technique was also employed. In the case of PERCPROB (perceived health care

problems), the riding of Sauvé is more than five standard deviations beyond the variable mean. The reason for this is that this is one of seven ridings that contain no health care facilities: the ridings of Anjou, Blainville, Gouin, Jeanne-Mance, Masson, Montmorency and Sauvé. The calculation of the health care variables presumes the existence of health care facilities within the riding; these variables represent the ratio of the number of reported health care problems to the number of health care facilities in the riding, plus 1. Obviously, ridings where no health care facilities are available will be outliers. Again, overall, the interpretability of the health care variables is not tremendously compromised, in this instance owing to the fact that where a riding does in fact have health care facilities, the ratio measure provides a reasonably decent portrait of health care services in the province. However, understanding the abnormality problem here would give us cause to possibly reject inclusion of one of these seven ridings with no health care facilities in a factor summarising the health care variables.

Tests for Relationships

Having thus described certain important features of our 216 x 125 data matrix, we may now proceed to an exposition of specific tests for relationships between the geography coded as the cases of the GEOG domain and the data coded in the variables of the STAT domain. There are two principal tests used to evaluate the hypotheses H_1 through H_5, the ***locality weight*** test and the ***factor analysis*** test. We will deal with each in turn. In addition, ***spatial autocorrelation*** will be used along the way to confirm the spatial compactness of the regions marked out by locality weights and factor analysis.

Locality Weights

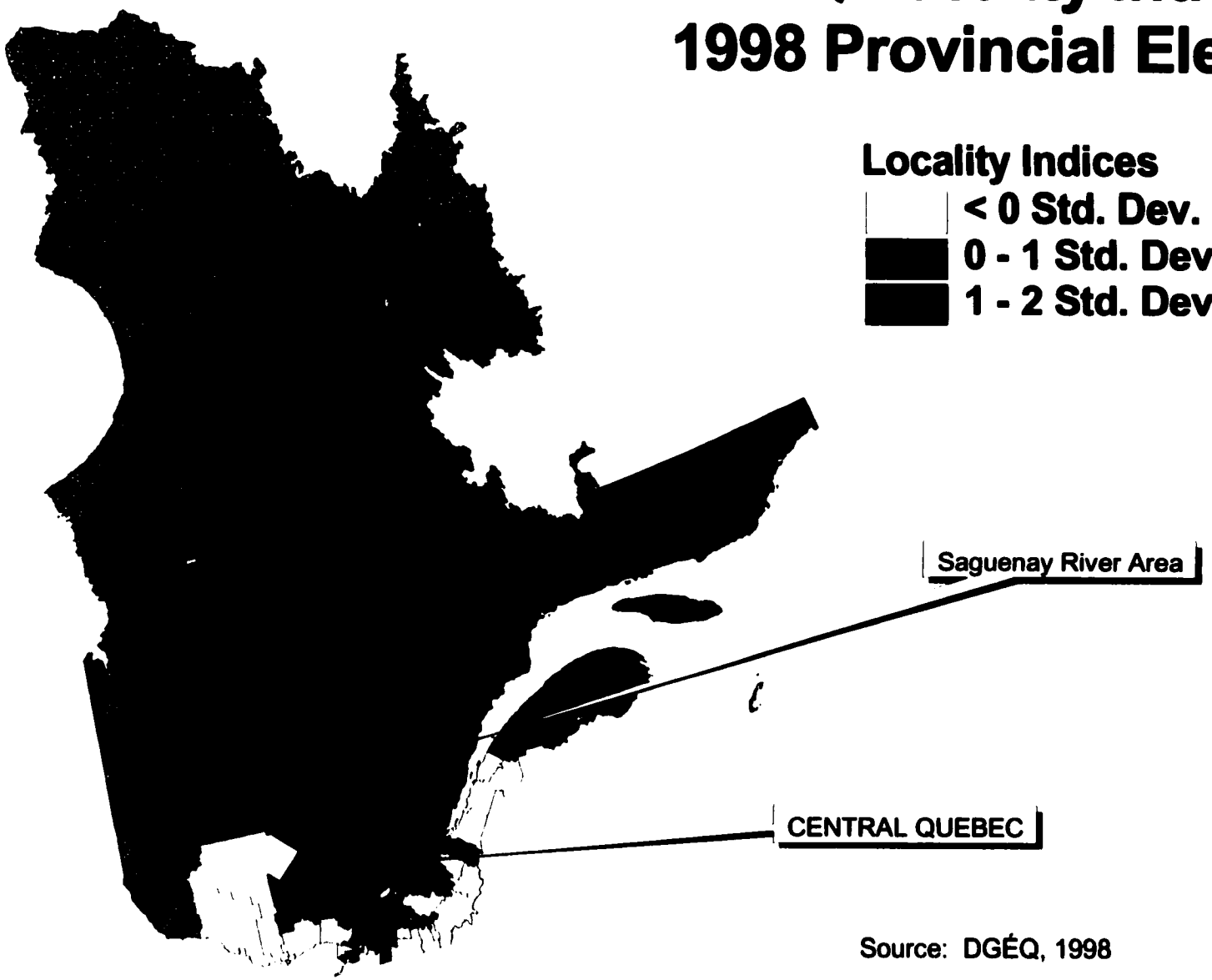
Using the method of calculation of locality weights already presented in the preceding chapter, Microsoft Excel files were prepared to calculate locality weights for the winning candidates in each of the 125 provincial ridings. Standard deviations representing the distribution of locality weight data were then applied to make maps indicating the strength of Quebec's three main political parties in the ridings.

Figures 14 through 21 represent the results of this analysis. In Figures 14 and 15, maps representing the entirety of the province of Quebec are shown with the associated values for the locality index measure (the ratio of percentage vote of a candidate for a party in a given riding to the percentage vote received by the party province-wide, with no scaling for population). In Figures 16 and 17, the values for the locality weight measure (the locality index multiplied by a term representing the raw number of voters for the candidate in the riding, to scale the locality index for population) are shown.

On both of the maps showing results for the PQ, it can easily be seen that support for the PQ is centred in "CENTRAL QUEBEC", with the key subregion of support in the north-central part of the province around the Saguenay River. Each of the PQ maps shows these areas labeled for easy identification; on both maps, the Saguenay River area is darkest blue, indicating that this is the heartland of support for the PQ.

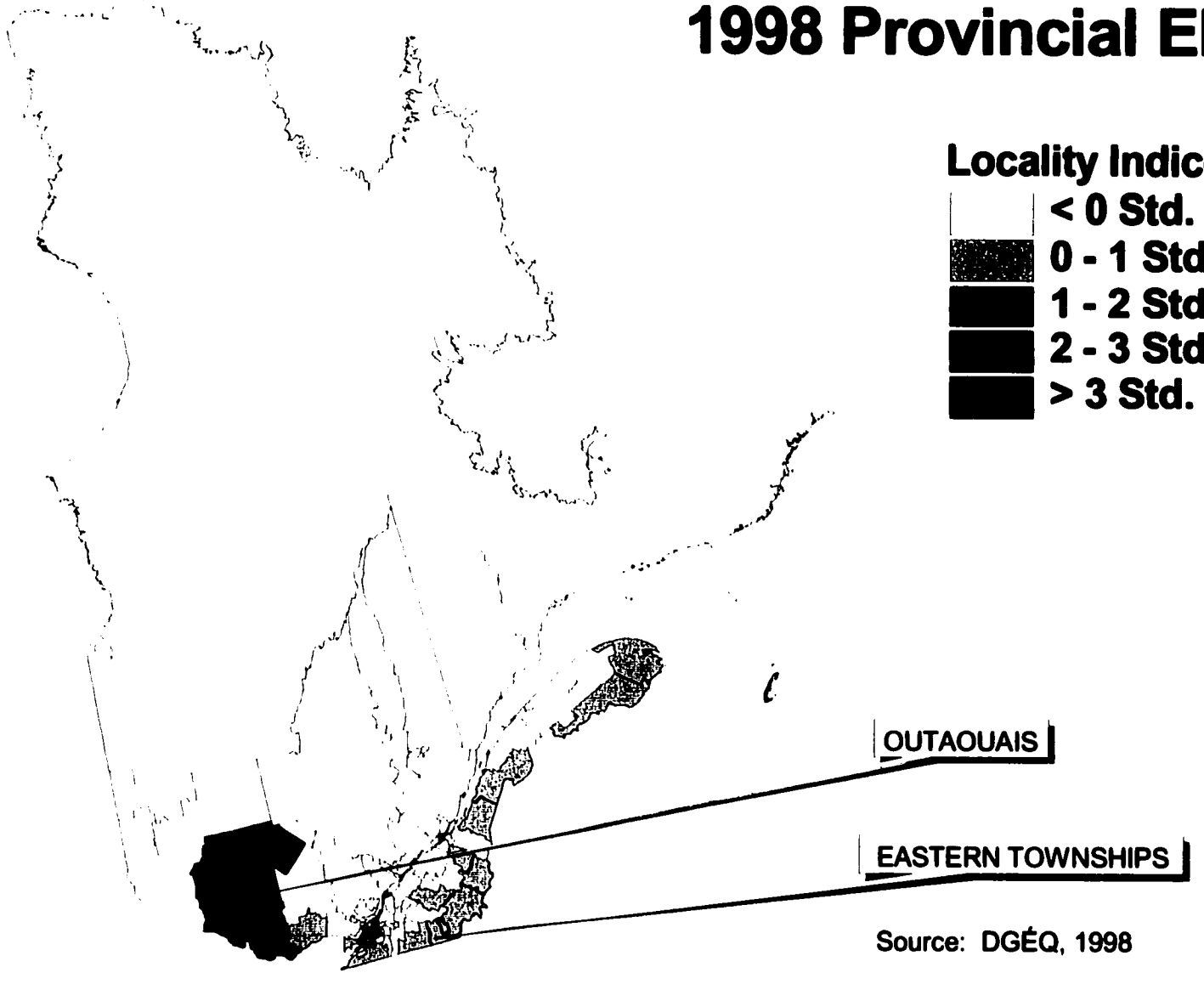
On both of the maps showing results for the PLQ, it can easily be seen that support for the PLQ is centered along the border with Ontario in the "OUTAOUAIS" region, and along the border with the United States in the "EASTERN TOWNSHIPS" region. Both of these regions are identified on the PLQ maps as well for easy identification. The Outaouais is identified in a fairly dark red, indicating that it is a

Figure 14:
PQ Locality Index, 1998 Provincial Election



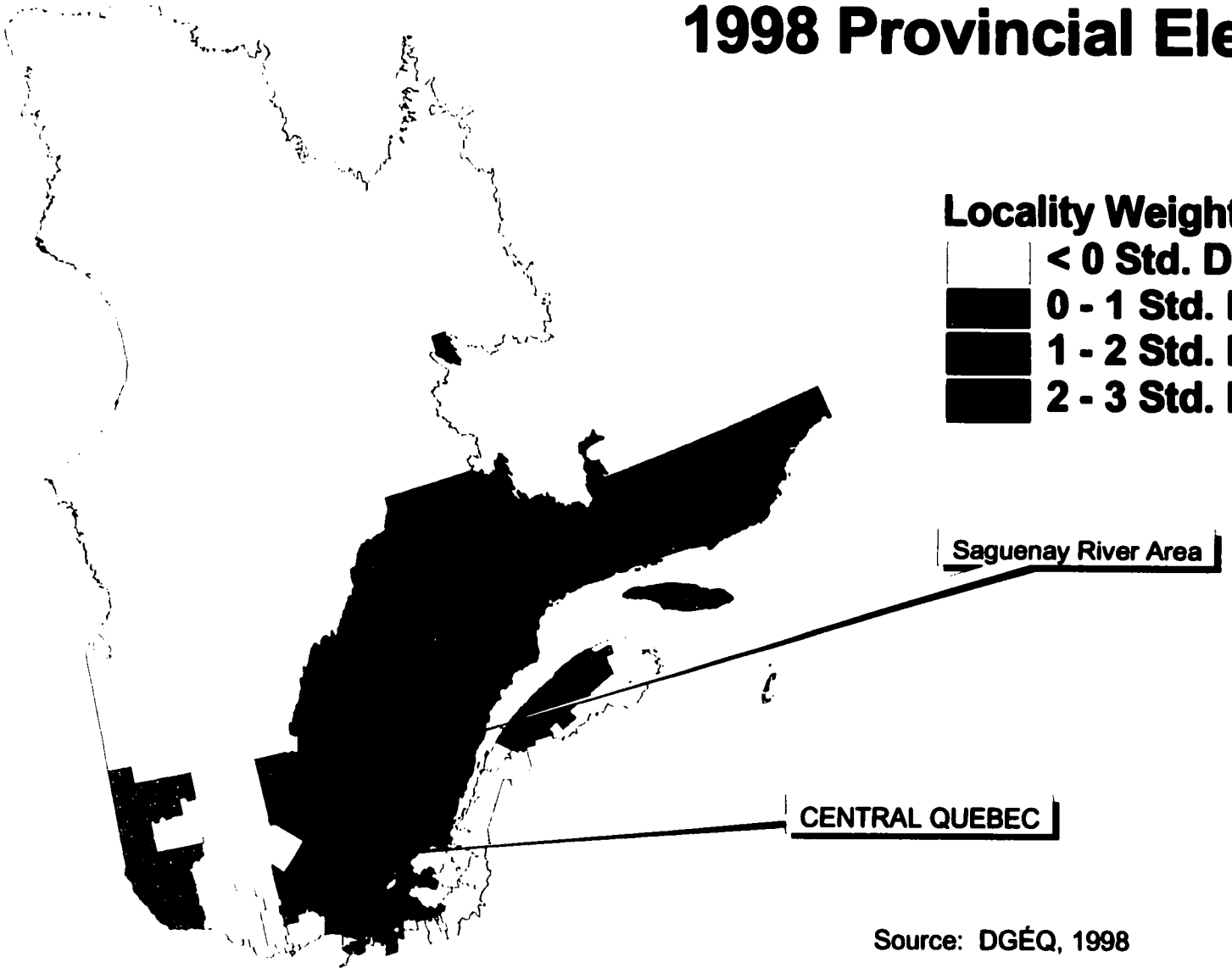
Source: DGÉQ, 1998

Figure 15:
PLQ Locality Index, 1998 Provincial Election



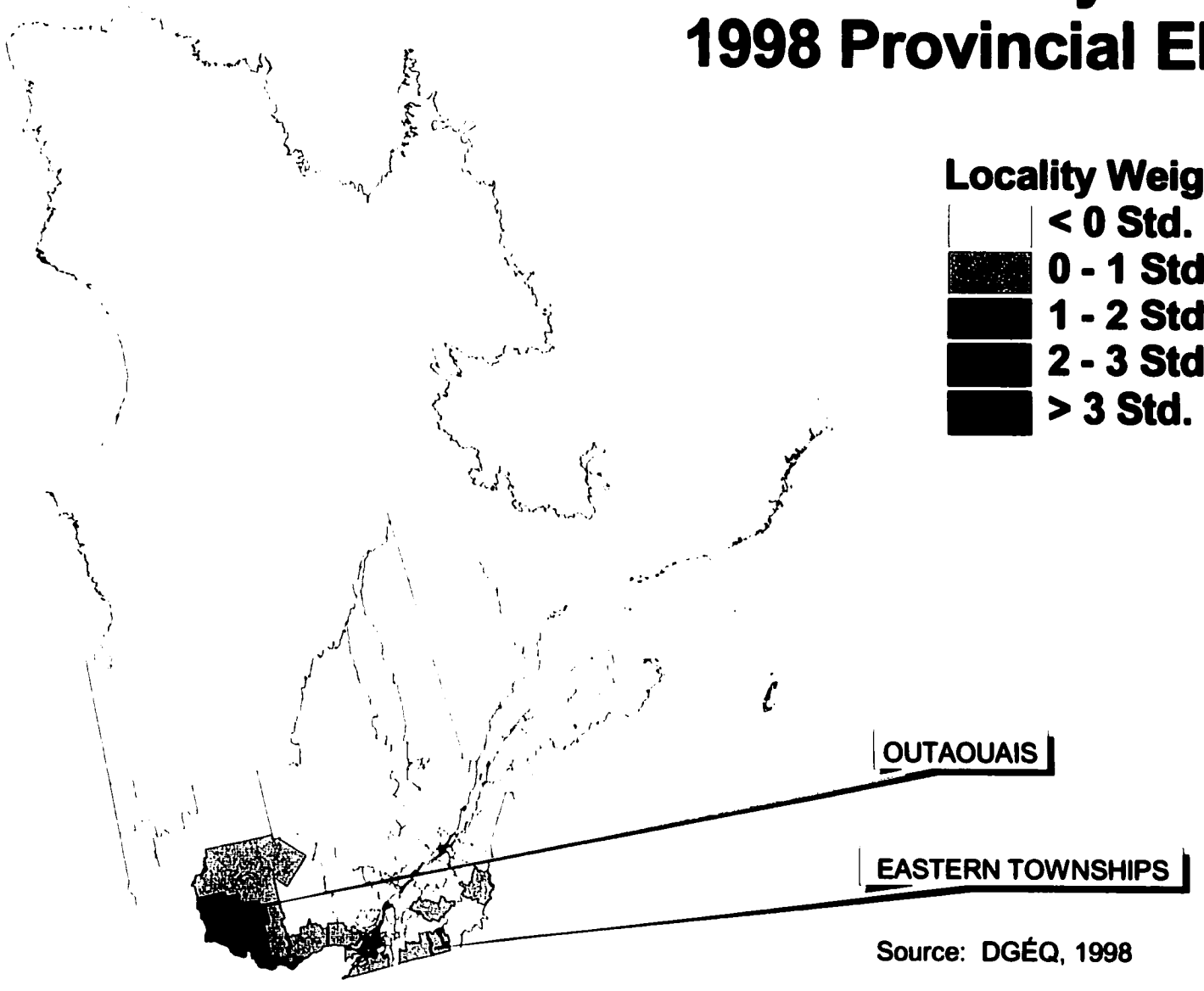
Source: DGÉQ, 1998

Figure 16:
PQ Locality Weight, 1998 Provincial Election



Source: DGÉQ, 1998

Figure 17:
PLQ Locality Weight, 1998 Provincial Election



Source: DGÉQ, 1998

stronghold for the provincial Liberals; the Eastern Townships are identified in a lighter red, indicating that the Liberals predominate here, but are challenged by other parties to a greater extent.

Figures 18 through 21 show the results of the same analyses for the Montreal CMA. Figures 18 and 19 show the locality indexes for the PQ and PLQ, respectively, whereas Figures 20 and 21 show the locality weights.

On the maps showing results for the PQ, it can easily be seen that support for the PQ is centred in the "RING SUBURBS" around the two urbanised islands, the Isle of Montreal and the Isle of Jesus. This area is identified for the reader on both of the PQ maps. On the maps showing results for the PLQ, it can easily be seen that support for the PLQ is concentrated on the "WEST ISLAND" portion of the Isle of Montreal. This area is identified for the reader on both of the PLQ maps. In addition, on the PLQ maps, some areas adjacent to Montreal's West Island that also demonstrate a disproportionately high level of support for the PLQ are also identified for the reader. These include the municipalities and proximate environs of Longueuil, Saint-Léonard and Vaudreuil, as well as a number of the southern *Rive-Sud* suburbs and the Chomedey neighbourhood in Laval.

Within-riding analysis identifies certain regions where the riding level pattern shown in Figures 14-21 does not capture the significant variation within ridings. Figures 22-25 presents the results of this analysis at the lower municipal spatial scale.[4]

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[4] Some municipalities were not reported by the *Directeur Général des Élections du Québec* as having their own polling stations. In order to represent these municipalities in Figures 22-25, it was necessary to estimate their voting levels at polling stations in other municipalities. This estimation was done by means of adding up voting totals for contiguous municipalities and dividing by the number of contiguous municipalities.

Figure 18: PQ Locality Index, Montreal CMA

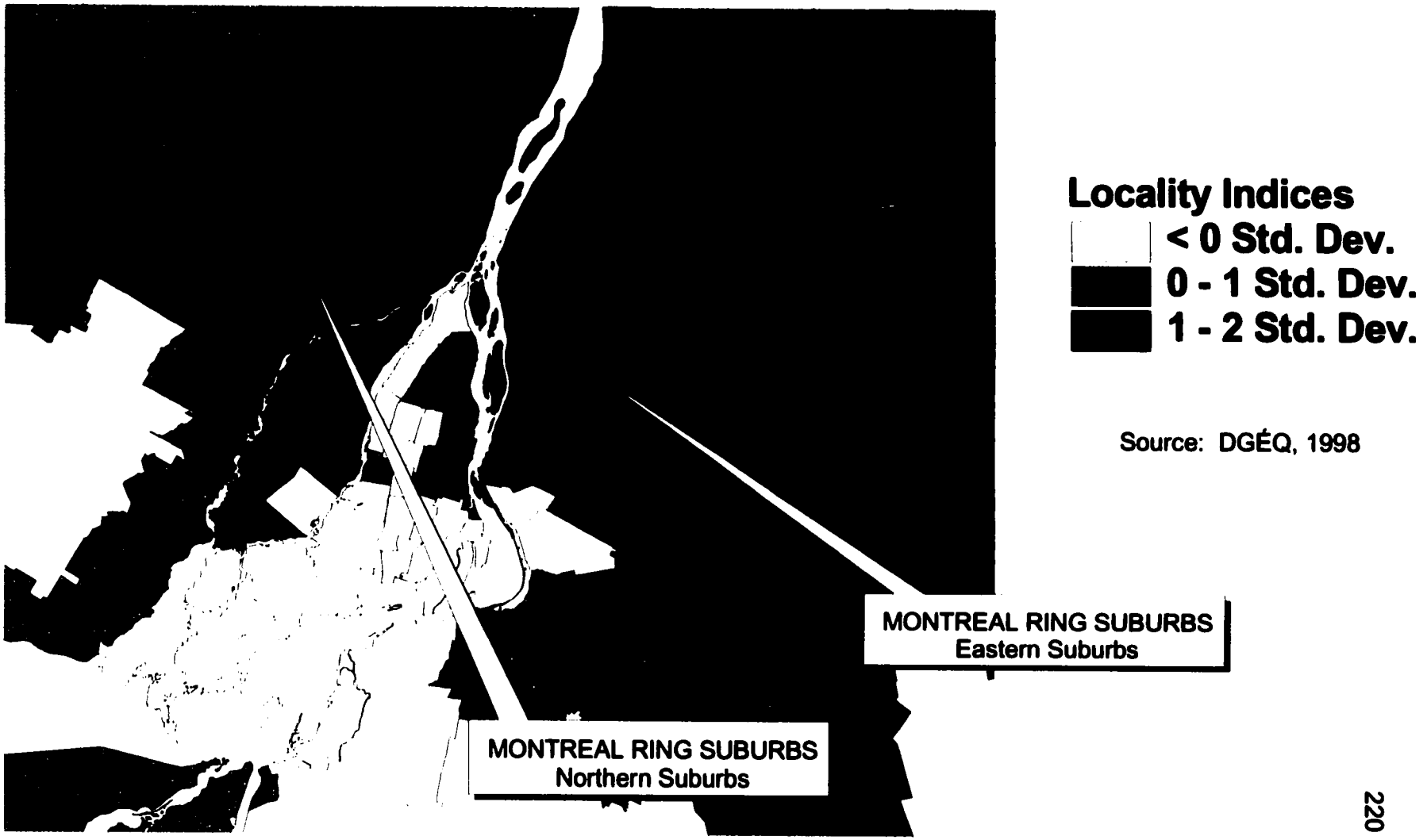


Figure 19: PLQ Locality Index, Montreal CMA

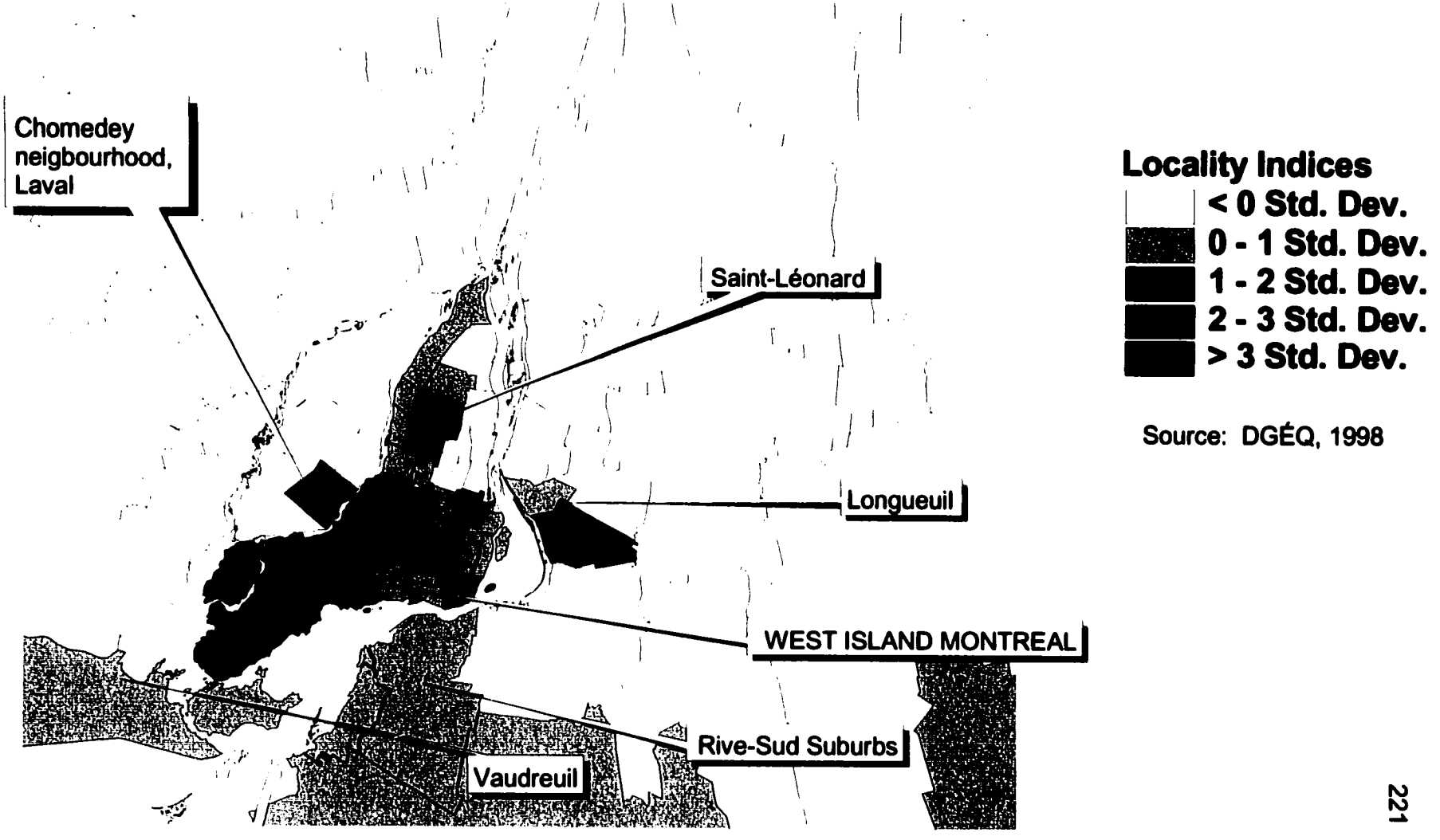


Figure 20: PQ Locality Weight, Montreal CMA

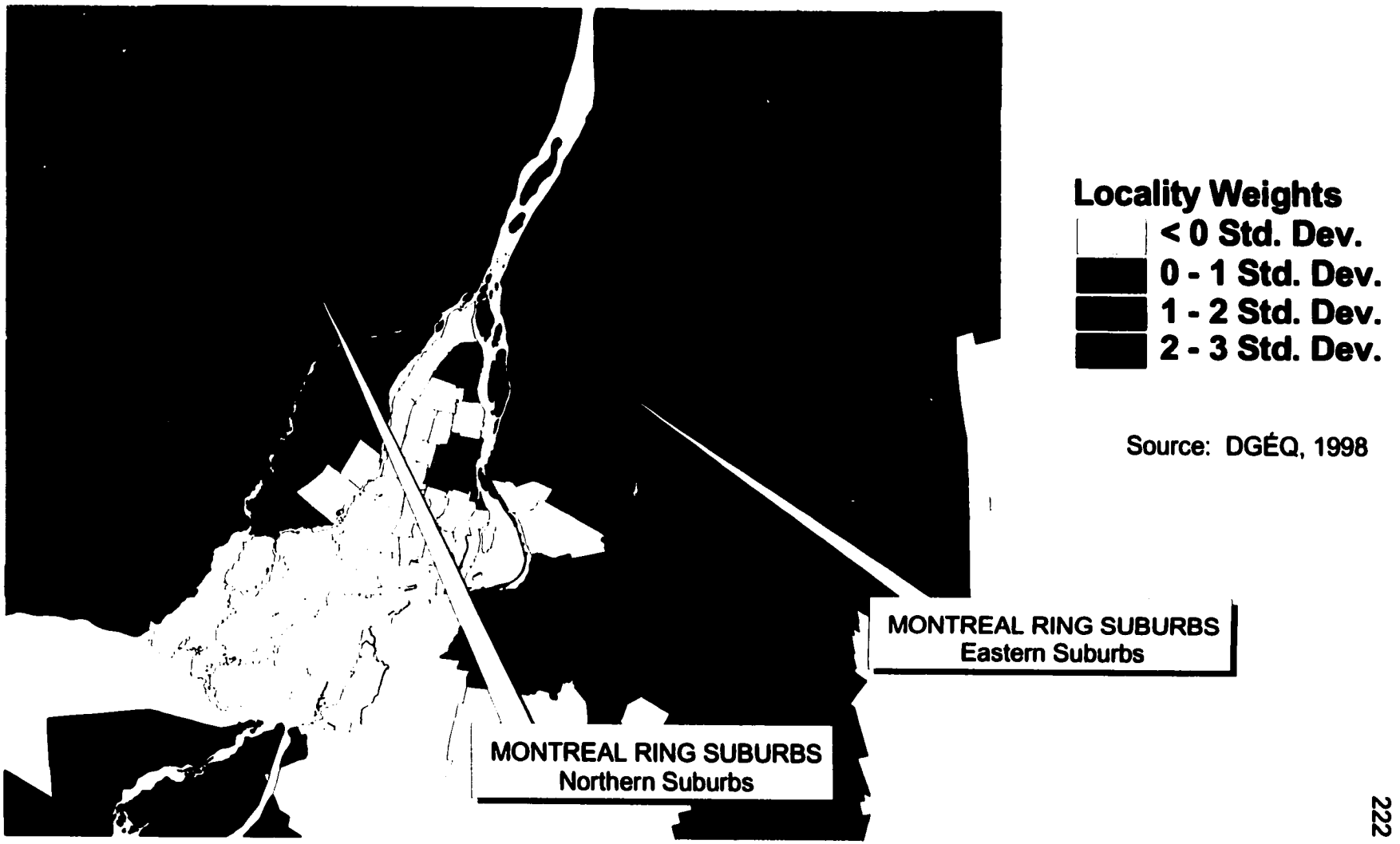
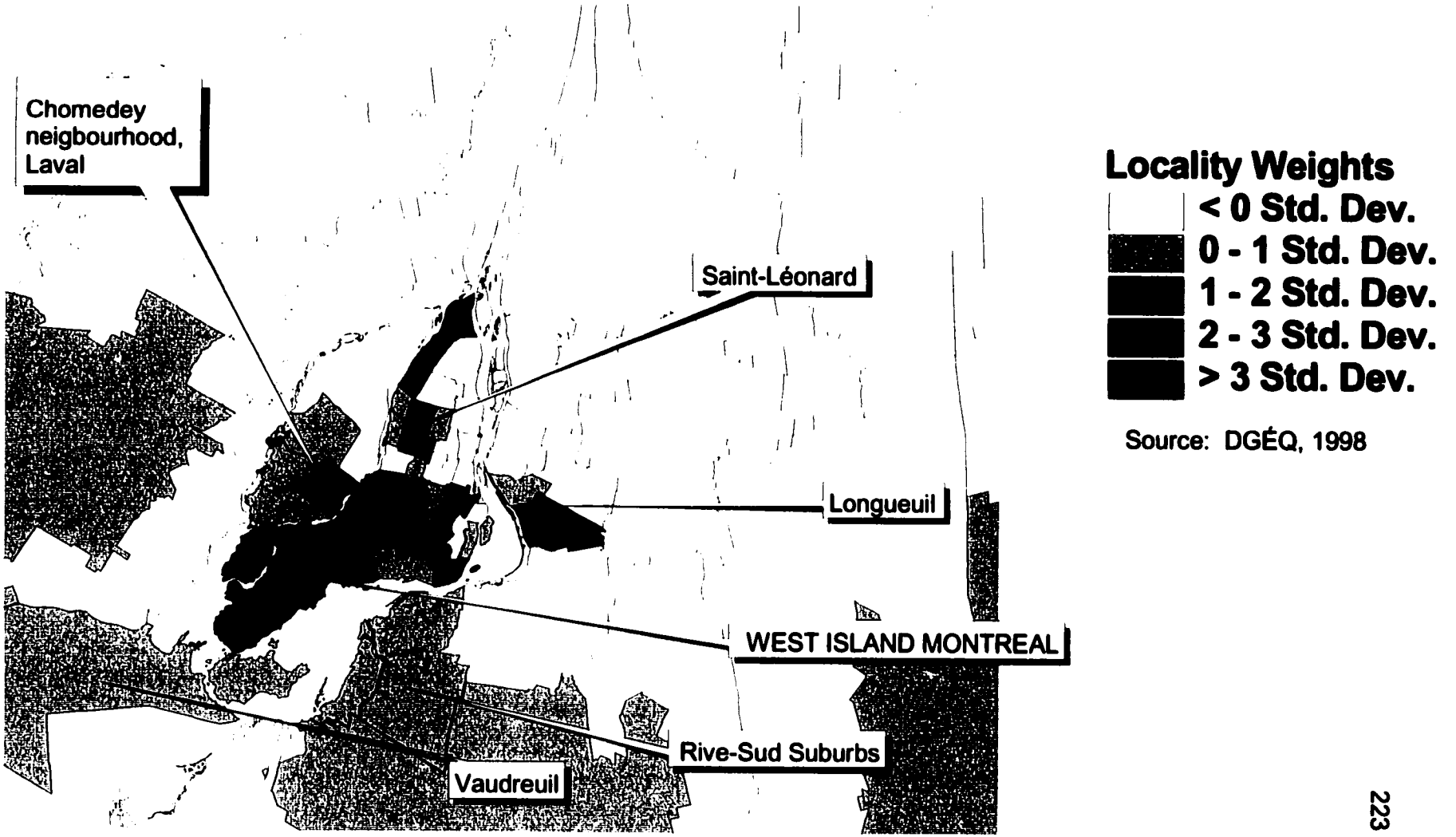


Figure 21: PLQ Locality Weight, Montreal CMA



In Figure 22, locality indices and locality weights are presented by municipality for the electoral region of the Outaouais. What we immediately notice in these municipal level maps is that the eastern part of this electoral region clearly demonstrates a higher level of support for the PQ, whereas the western part is much more warmly receptive to the PLQ. In no place is the PQ a dominant force in the Outaouais; however, these maps clearly delineate a territory in the far eastern part of the region where voters support the party at a level a good deal higher than they do province-wide.

In Figure 23, the electoral region of the Eastern Townships is presented in similar fashion. We notice that there is a rough north/south split in the vote by municipality for this region. The ridings with the greatest anglophone presence (Brome-Missisquoi, Orford, Saint-François and Mégantic-Compton) are all located in the southern part of the region, along the border with the United States; the strong association of anglophone voters with the Liberal Party provides a fairly clear explanation of the tilt in the vote towards the PLQ in this part of the region. Likewise, ridings with a very small anglophone community (such as Richmond or Johnson) tend to be found in the north of the region, and the strong association of francophone voters with the PQ is enough to explain the preferences of that part of the region.

Unlike the Outaouais, where support for the various parties is found to be spatially concentrated in distinctly identifiable locations within the region, party support patterns in the Eastern Townships group in distinct locations, but these locations overlap a great deal in central locations in the region where francophones have penetrated "anglophone territory" and vice-versa. The maps in Figure 23 confirm what we already saw in some graphs of polling data presented at an earlier point in this dissertation; many

Figure 22: Locality Measures, Outaouais

Source: DGÉQ, 1998

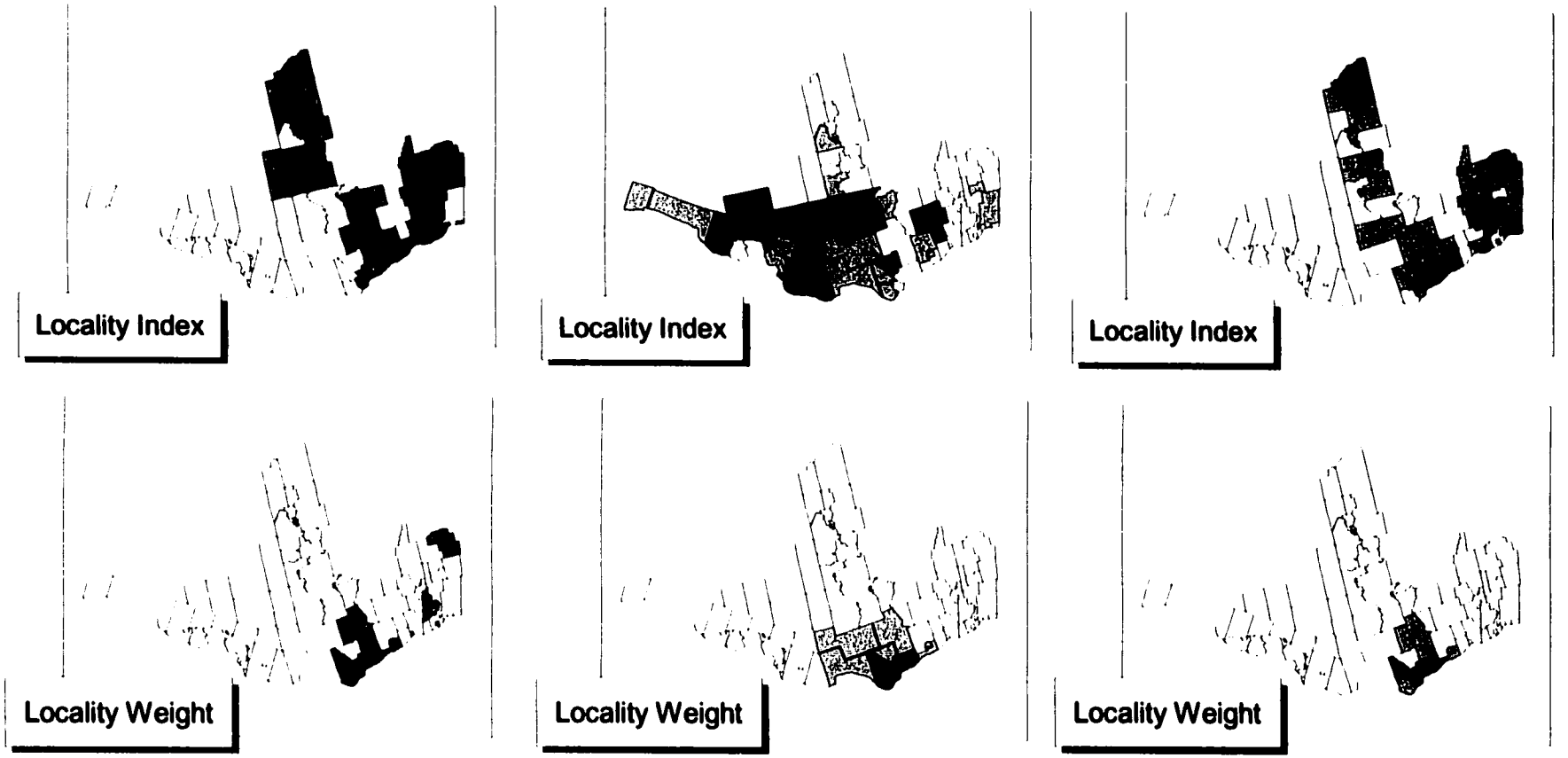
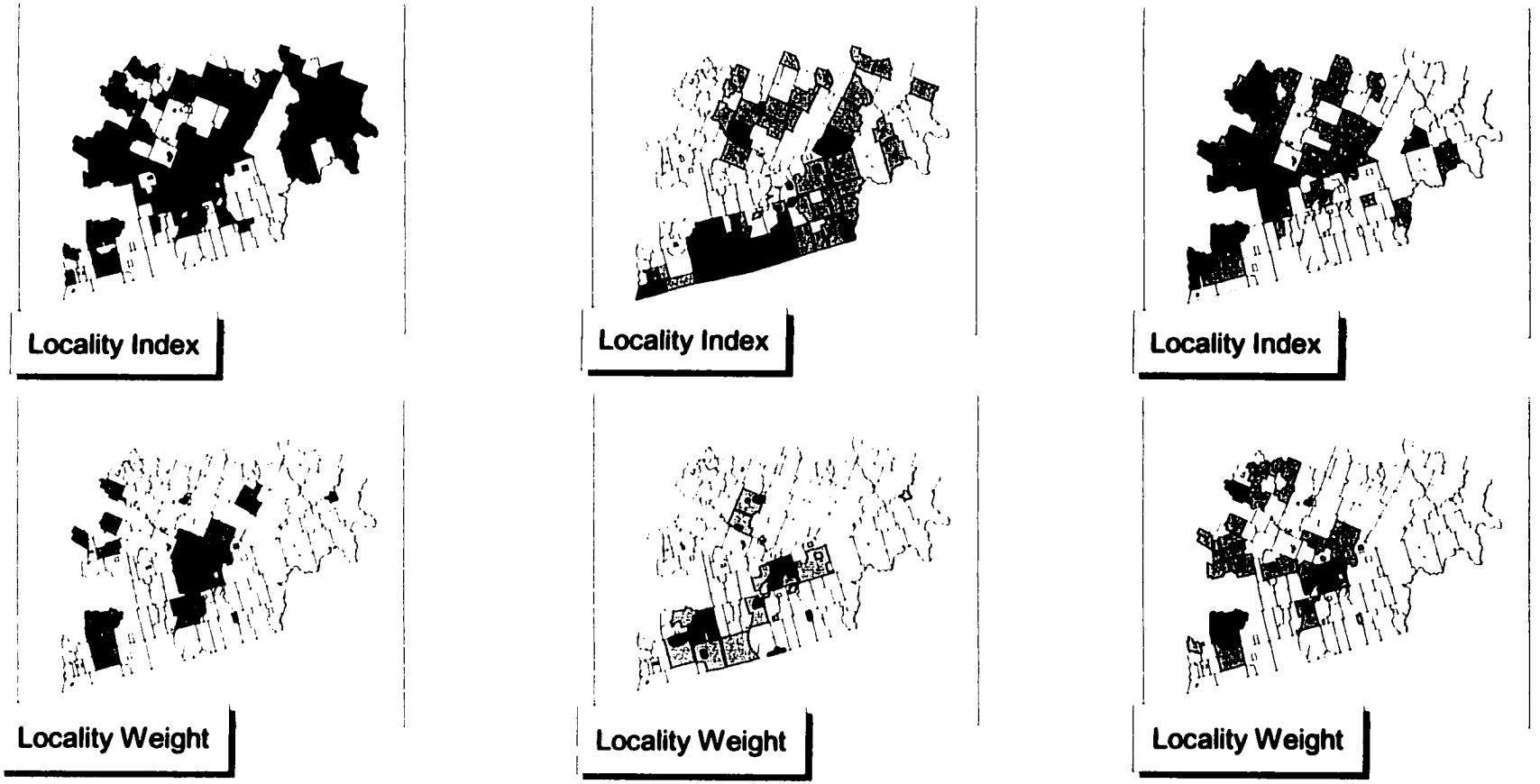


Figure 23: Locality Measures, Eastern Townships

Source: DGÉQ, 1998



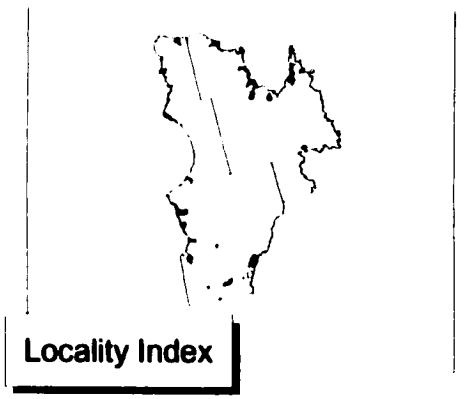
péquistes and Liberals inhabit the same space in the Eastern Townships. In many locations in the Eastern Townships, sovereigntists and federalists wage a war of words over the status of the province; nevertheless, this difference of opinion over sovereignty has not prevented members of these diametrically opposed camps from working out a way to live with one another.

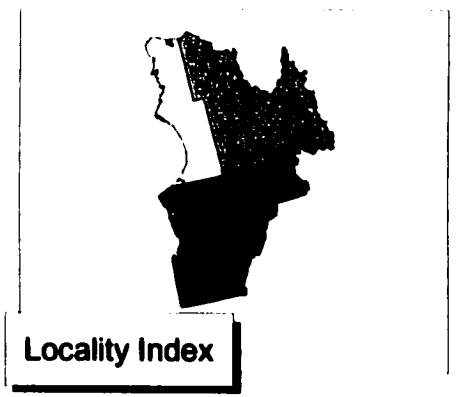
In terms of the typology of Ladis Kristof, the Eastern Townships is a "frontier" region, a heterogenous region where diverse populations co-exist. One might be tempted to also call the Outaouais a frontier region on the basis of these maps. However, we do wish to distinguish between the *mélange* of different voter preferences one often finds in an average Eastern Townships town and the more discretely delineated centres for the various parties we find in the Outaouais. The Outaouais itself is, at the regional level, a clearly "bordered" PLQ region; the dominance of the Liberals in the Outaouais generally is unquestioned. However, looking at a subregional level, we see an additional "bordering" between a PLQ zone in the west and a PQ zone in the east. Kristof has not coined a term for this sort of place in his work; we will use the word "milieu" to describe such a place where Kristofian "borders" are found within "borders". Thus, our revised typology now provides a classification for homogeneous regions ("bordered" regions), heterogenous regions ("frontier" regions) and homogeneous regions with demographically much smaller but homogeneous subregions within it ("milieu" regions).

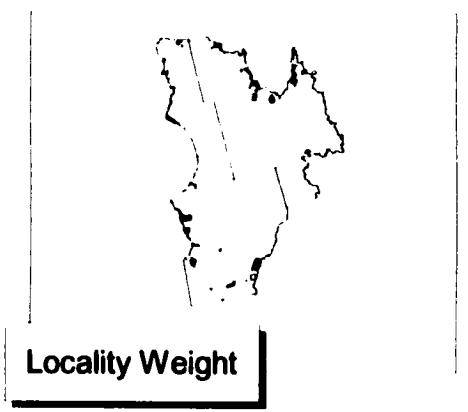
In Figures 24 and 25, within-riding variation for the riding of Ungava is presented. At the riding level, statistically, nothing appears particularly noteworthy about this riding, where the PQ and PLQ candidates ran a very close campaign in 1998. At the level of municipalities, we can see that there is considerable variation in this riding,

Figure 24: Locality Measures, Ungava Riding

Source: DGÉQ, 1998







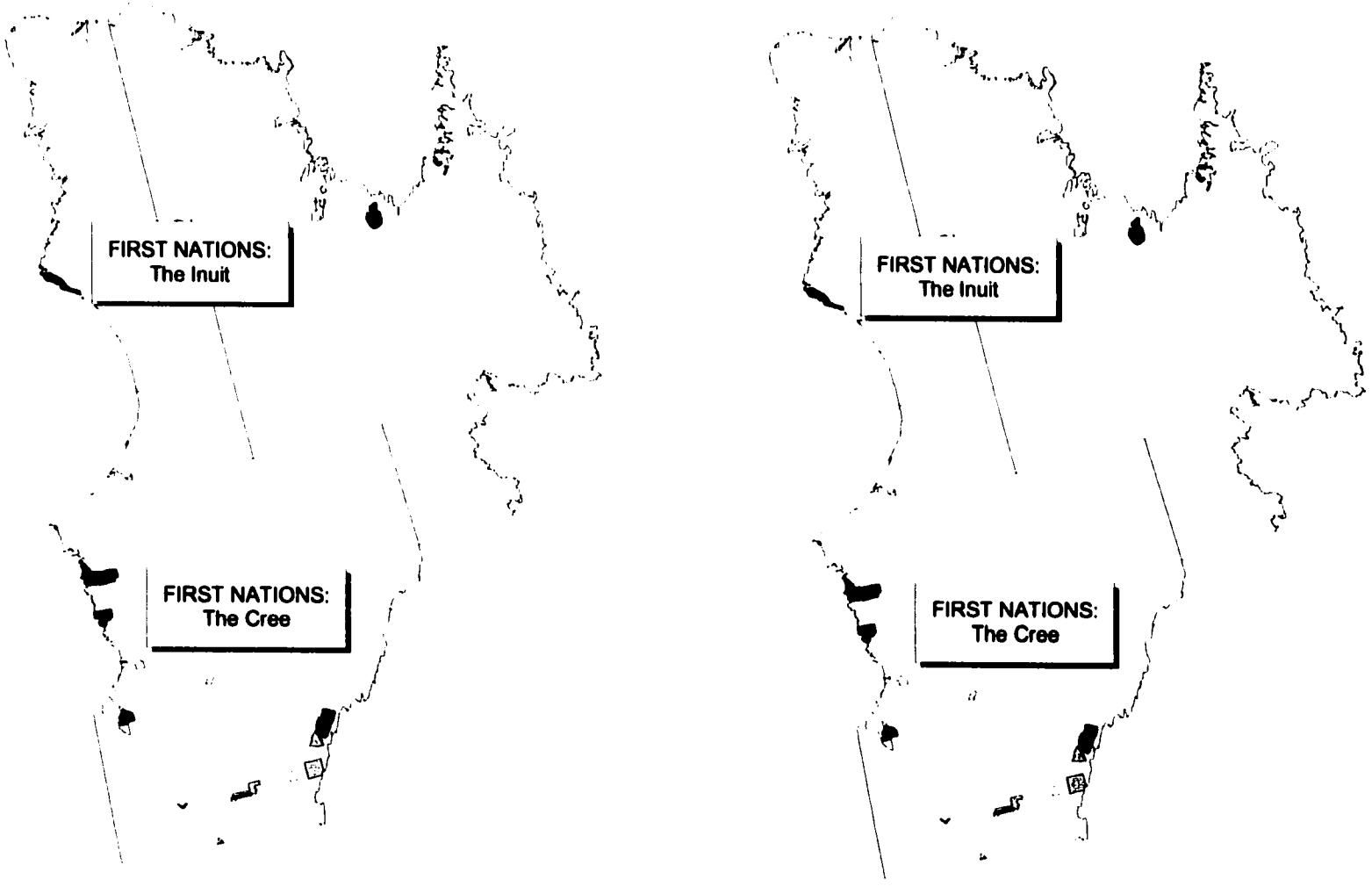
PQ Locality Measures
- < 0 Std. Dev.
- 0 - 1 Std. Dev.
- 1 - 2 Std. Dev.
- 2 - 3 Std. Dev.
- > 3 Std. Dev.

PLQ Locality Measures
- < 0 Std. Dev.
- 0 - 1 Std. Dev.
- 1 - 2 Std. Dev.
- 2 - 3 Std. Dev.
- > 3 Std. Dev.

ADQ Locality Measures
- < 0 Std. Dev.
- 0 - 1 Std. Dev.
- 1 - 2 Std. Dev.
- 2 - 3 Std. Dev.
- > 3 Std. Dev.

Figure 25: PLQ Locality Measures, Ungava Riding

Source: DGÉQ, 1998



which can generally be explained by the divergence in aboriginal and non-aboriginal voting patterns. In Figure 24, the maps representing the PQ and ADQ show that these parties are supported mostly by voters in the southern part of the riding, the part of the riding where francophone Quebecer voters predominate numerically. The locality weights maps show this somewhat better than the locality index maps, as the sparsely-populated but areally huge northern unorganised territory of Rivière-Koksoak did support the PQ and ADQ. Outside of this odd example, however, the observation remains that support for the PQ and ADQ is a southern phenomenon in this riding.

Support for the PLQ is not visible on the maps shown in Figure 24; this is not because such support is non-existent in this riding, but rather because the largest number of PLQ centres in this riding are aboriginal reserves and villages, which are areally quite small. In Figure 25, the PLQ maps from Figure 24 are blown up to a larger size to facilitate viewing the centres for PLQ voters in Ungava riding. On this map, we can see quite well the large number of small aboriginal settlements which strongly supported the Liberals in the 1998 election. These settlements represent two particular first nations, the Inuit in the far north of the riding, and the Cree in the central-south part of the riding. On the map, these particular nations are identified both individually, and by the more generic term "FIRST NATIONS". We will take "FIRST NATIONS" to be the sixth identifiable electoral region in Quebec, though admittedly this region consists of a large number of aboriginal reserve enclaves and perhaps for that reason should not be considered a coherent region. Despite this fact, First Nations communities, as we have already demonstrated in Tables 11 through 21, are identifiably distinct in their voting patterns from the remainder of the province. Furthermore, the residents of these disparate

settlements identify with each other as members of First Nations first and foremost, rather than with, or only secondarily to, Quebec or Canada; certainly, this recommends consideration of the First Nations together as a region for our purposes here.

In summary, we may, on the basis of our enquiry into the distribution of locality indices and locality weights, conclude that there are five spatially-compact regions in the province of Quebec defined by party loyalties. These are "CENTRAL QUEBEC", the "MONTREAL RING SUBURBS", "WEST ISLAND MONTREAL", the "OUTAOUAIS", and the "EASTERN TOWNSHIPS". In addition, we can identify a sixth, more spatially-disparate electoral region, the "FIRST NATIONS" region, which is concentrated only when we study patterns in the vote at the municipal or sub-riding level.

Factor Analysis

Using the technique of factorial ecology (Berry & Horton 1970; Shevky & Bell 1972 [1955]) through principal components analysis (PCA), it was possible to condense the initial 216 variables in the research database into a smaller number of variables or "factors" representing combinations of intercorrelating variables. In this section, we will consider the methodology by which factor analysis was conducted in this project, discuss some possible challenges to this methodology and rebut these challenges, and ultimately, present the results of our analysis.

Methodological Considerations

The "fundamental theorem" of all factor analysis (Thurstone 1947) is expressed

by the following equation:

$$R_{mxm} - I_{mxm} + H^2{}_{mxm} = F_{mxp}F^*{}_{pxm}$$

where: R_{mxm} is the correlation matrix between variables;
I_{mxm} is the identity matrix (the diagonal of the correlation matrix indicating the self-correlation of variables);
$H^2{}_{mxm}$ is the matrix of communalities (indicating extent of multicollinearity between each variable and all other variables) which replaces the diagonal elements of I_{mxm};
F_{mxp} is the matrix of the factor loadings; and,
$F^*{}_{pxm}$ is the matrix transpose of the factor loadings.

This can be shortened in the case of PCA to the following equation, as PCA posits initially that communalities are equal to 1, thus rendering R_{mxm} equivalent to the expression ($R_{mxm} - I_{mxm} + H^2{}_{mxm}$):

$$R_{mxm} = F_{mxp}F^*{}_{pxm}$$

Principal components analysis differs from other forms of factor analysis in that it does not take explicit consideration of measurable multicollinearity in its calculation of factors, but rather begins from the assumption that there is perfect multicollinearity between each variable with respect to all others; it then scales back from that assumption in a canonical, iterative process called "convergence". In this process of convergence, the variables are arranged such that they are grouped into "orthogonal" or mutually-exclusive factors. The factor loadings are then used to predict the original correlation matrix values (including the assumed communalities of 1 along the diagonal of the matrix). After this, the arrangement is changed incrementally to see if the changes result in a better prediction of the correlation matrix. When no better arrangement is possible, PCA is concluded and the factors are considered finalised.

Other forms of factor analysis give consideration to multicollinearity by subtracting out communalities from the correlation matrix – where some variables are entirely redundant and explained by other variables in the data matrix, the terms on the left hand of the fundamental theorem equation cancel each other out, leaving matrices composed of some elements equaling 0. This makes it impossible to invert such matrices, as division by zero yields an undefined quantity, and matrix inversion is the analogous operation in matrix algebra to division where non-matrix or scalar terms are concerned. Matrix inversions, however, would be necessary to evaluate the fundamental theorem equation. Therefore, in order to come up with some results for the factor analysis, the correlation matrix, or the R_{mxm} matrix, would need to have a small constant added to it in order for a division by zero error to be avoided. The addition of such a constant will throw off the overall calculations by a very minute amount; however, if this constant is small enough, the factor analysis will nevertheless yield results which are so close to entirely accurate as to make no odds.

The statistical software Statistica 6.0 uses this procedure in its factor analysis module. The module catches potential division by zero errors that may arise during matrix inversion and alerts its user to the fact that this procedure is used in order to compensate. The documentation for the software explains how the module deals with this problem:

> Computationally, in order to perform a factor analysis, Statistica needs to invert the correlation matrix. If, in this correlation matrix, there are variables that are 100% redundant, then the inverse of the matrix cannot be computed. For example, if a variable is the sum of two other variables selected for the analysis, then the correlation matrix of those variables cannot be inverted, and the factor analysis can basically not be performed. In practice, this happens when you are attempting to factor analyse a set of

> highly intercorrelated variables, as it, for example, sometimes occurs in correlational research with questionnaires. The Factor Analysis module will detect matrix ill-conditioning and issue a respective warning. Then Statistica will artificially lower all correlations in the correlation matrix by adding a small constant to the diagonal of the matrix, and then restandardising it. This procedure will usually yield a matrix that can now be inverted and thus factor-analysed; moreover, the factor patterns should not be affected by this procedure. However, note that the resulting estimates are not exact (StatSoft 1998).

Given the above, there is no reason to doubt that it is proper to perform a factor analysis on the entire 216 x 125 data matrix; no problem of matrix ill-conditioning exists to deter us from this course of action. This criticism may be rejected confidently.

Since we are using PCA as a method of summarising variable relationships, we will also not be troubled by problems that might arise from the lack of normality of variables in the dataset. As we saw in a previous section, not only is it acceptable that some of our variables not be normally distributed, but in fact it is desirable to represent that lack of normality in the factor analysis. This criticism may also be rejected confidently.

A final criticism which might be offered with respect to our factor analysis methodology is one which specifies that the "rule of thumb" in factor analysis generally is that one must have a certain ratio of number of cases to number of variables that favours the cases by a certain proportion. A typical suggestion is that there be five cases in the database one proposes to factor analyse for every one variable. This 5:1 ratio is in fact a pretty good "rule of thumb" in situations where one is estimating values for the correlation matrix R_{mxm} from cases that are a sample of a larger population. However, the 125 ridings which serve as cases in our research database are not samples of the riding population – they are the entirety of the riding population. This means that the "rule of

thumb" does not apply, as our "estimates" will be exact due to our knowledge of the entire population's characteristics:

> Correlation coefficients tend to be less reliable when *estimated from small samples*. Therefore, it is important that sample size be large enough that correlations are reliably *estimated*. Comrey ... gives as a guide sample sizes of 50 as very poor, 100 as poor, 200 as fair, 300 as good, 500 as very good, and 1000 as excellent. Others suggest that a sample size of 100 to 200 is good enough for most purposes, particularly when factors are strong and distinct and number of variables is not too large. As a general rule of thumb, it is comforting to have at least five cases for each observed variable (Tabachnick & Fidell 1989: 603; emphases that of the author).

A later edition of the above-cited text makes the case for an absolute requirement of number of cases, and sets the figure for the number of cases required in a factor analysis at around 300. The reasoning for this absolute requirement is the same, and the authors of the text in fact use the same wording to justify this requirement that they had used seven years previously to justify their 5:1 ratio of cases to variables:

> Comrey and Lee (1992) give as a guide *sample* sizes of 50 as very poor, 100 as poor, 200 as fair, 300 as good, 500 as very good, and 1000 as excellent. As a general rule of thumb, it is comforting to have at least 300 cases for analysis (Tabachnick & Fidell 1996: 640; emphases that of the author).

Again, the advice given here is excellent advice when one is actually dealing with a sample of the population; these cutoffs for sample size are generally observed, most notably by pollsters, who usually sample somewhere from 1000 to 1500 people in order to reduce their margin of error to as little as possible while still interviewing as few people as possible. The advice is not particularly worthwhile, however, when one is dealing directly with the population; in such an instance, the "estimation" of the

correlation matrix is not an estimation at all, and thus these considerations are not relevant. Thus, this criticism may be rejected confidently.

Analysis of 216 x 125 Data Matrix

The results of PCA on the 216 variables in the research database are contained in Appendix E. Statistica 6.0's Factor Analysis module selects factors according to what is called the "Kaiser eigenvalue-1" criterion (Kaiser 1960). This criterion requires that a measure of independent explanatory power for a factor, called an eigenvalue, be above the value 1. The sum of eigenvalues is always equal to the number of variables being factor analysed, so a good way of thinking of the eigenvalue-1 criterion is that a factor meeting the criterion independently explains the contribution of at least one variable in the data matrix. Since the point of factor analysis is to make "supervariables" out of more than one variable, this is a rather liberal criterion.

It is in our interest to winnow down the 29 factors to include only those factors with some explanatory power relative to the original variables of the research database. Towards that end, a visual inspection of the scree plot (Cattell 1966) of eigenvalues was undertaken. The scree plot revealed a considerable drop in explanatory power of factors after around ten factors. When only those factors which could explain the variance in at least 3 of the variables in the data matrix, given the intercorrelation of variables in the dataset which leads to a certain interdependency of factors, were selected, this yielded 13 factors, roughly the same number of factors as suggested by the scree plot. The scree plot and this variables explained-3 rule together suggest that, of the 29 factors meeting the eigenvalue-1 criterion, our attentions should be focused on around ten factors. The

findings will be presented for all 13 factors meeting the variables explained-3 rule, to ensure that all important factors have been covered in this analysis.

Number	Name	Variables Explained	Proportion of Database Overall Variance Explained
1	Federalism [+ direction] Sovereigntism [- direction]	26.60	12.32%
2	Health Problems [+ direction]	24.77	11.47%
3	Older Individuals [+ direction] Young Families [- direction]	21.25	9.84%
4	The Aboriginal North [- direction]	14.19	6.57%
5	Single, No Kids [+ direction] Married With Children [- direction]	20.65	9.56%
6	Cultural Communities I: The Northwest Island [+ direction]	12.24	5.67%
7	The Educated Elite [- direction]	10.15	4.70%
8	Biodiversity [+ direction] Ecological Health [- direction]	10.78	5.00%
10	Atlantic Seafarers [- direction]	5.11	2.37%
11	Cultural Communities II: Mediterranean Communities [+ direction]	4.55	2.11%
12	Middle Aged [- direction]	3.56	1.55%
14	Cultural Communities III: South Asian Communities [+ direction]	4.10	1.90%
21	Retail Sales [+ direction] Farming [- direction]	4.07	1.88%

Table 46.
Factors from Principal Components Analysis of the 216 x 125 Data Matrix

The first factor returned from factor analysis, which we will call Component 1, is the factor most associated with variables from the POL dataset. This factor explains by itself roughly 12.32% of the variance in the 216 variables of the matrix; it is a factor clearly interpretable as reflecting the basic "federalist/sovereigntist" dynamic in Quebec. The variables loading highly on this factor in a positive direction represent the pro-

federalist dynamic, whereas the variables loading highly on this factor in a negative direction represent the sovereigntist dynamic. Tables 47 and 48 itemise the variables loading highly on this factor, at two levels: the .7 factor loading level, indicating strong

Level	Factor Loadings	Variable Name	Variable Domain and Description
.7	.98	HOMEENG	CULT: Percentage with home language of English
	.97	FIRSTENG	CULT: Percentage with first language of English
	.95	MENG	CULT: Percentage with mother tongue of English
	.84	PLQ	POL: Percentage vote for Parti libéral du Québec
	.83	KNOWENG	CULT: Percentage knowing English
	.83	PEEP	POL: Percentage vote for Parti égalité / Equality Party
	.79	LOCWEIGH	POL: Locality weight
	.78	WINNER	POL: Percentage vote for winning party
	.71	PROT	CULT: Percentage of Protestant religion
	.70	MUSLIM	CULT: Percentage of Muslim religion
.5	.67	HINDU	CULT: Percentage of Hindu religion
	.65	VISMIN	SOC II: Percentage visible minorities
	.63	IMMIG	SOC II: Percentage immigrants
	.63	UNIV	SOC II: Percentage with university education
	.63	GROSRENT	ECON: Average gross rent paid
	.63	INSREST	ECON: Percentage employed in insurance and real estate
	.62	JEWISH	CULT: Percentage of Jewish religion
	.62	MOTH	CULT: Percentage with mother tongue other than official
	.62	VALUEDW	ECON: Average value of dwellings
	.61	SIKH	CULT: Percentage of Sikh religion
	.60	OTHREL	CULT: Percentage of other religious preference
	.59	BUSSERV	ECON: Percentage employed in business services
	.58	GROSMTG	ECON: Average gross mortgage paid
	.58	UJEWISH	CULT: Percentage of unique Jewish ethnicity
	.57	WHOLE	ECON: Percentage employed in wholesale trade
	.56	MANAGE	ECON: Percentage in management occupations
	.56	NOREL	CULT: Percentage of no religious preference
	.54	PROFEDUC	SOC II: Percentage with professional education
	.54	UCHIN	CULT: Percentage of unique Chinese ethnicity
	.54	HOMEOTH	CULT: Percentage with home language other than official

Table 47.
Factor Loadings on Component 1 ("Federalist/Sovereigntist")
"Federalist" Direction

Level	Factor Loadings	Variable Name	Variable Domain and Description
.7	-.97	FIRSTFRE	CULT: Percentage with first language of French
	-.94	HOMEFRE	CULT: Percentage with home language of French
	-.91	MFRE	CULT: Percentage with mother tongue of French
	-.90	KNOWFRE	CULT: Percentage knowing French
	-.79	PQ	POL: Percentage vote for Parti québécois
	-.71	CATH	CULT: Percentage of Catholic religion
.5	-.60	TRADES	SOC II: Percentage with trades education
	-.55	ADQ	POL: Percentage vote for Action démocratique du Québec
	-.53	TRADING	ECON: Percentage in trading occupations

Table 48.
Factor Loadings on Component 1 ("Federalist/Sovereigntist")
"Sovereigntist" Direction

association with the factor, and the .5 factor loading level, indicating moderate association with the factor.

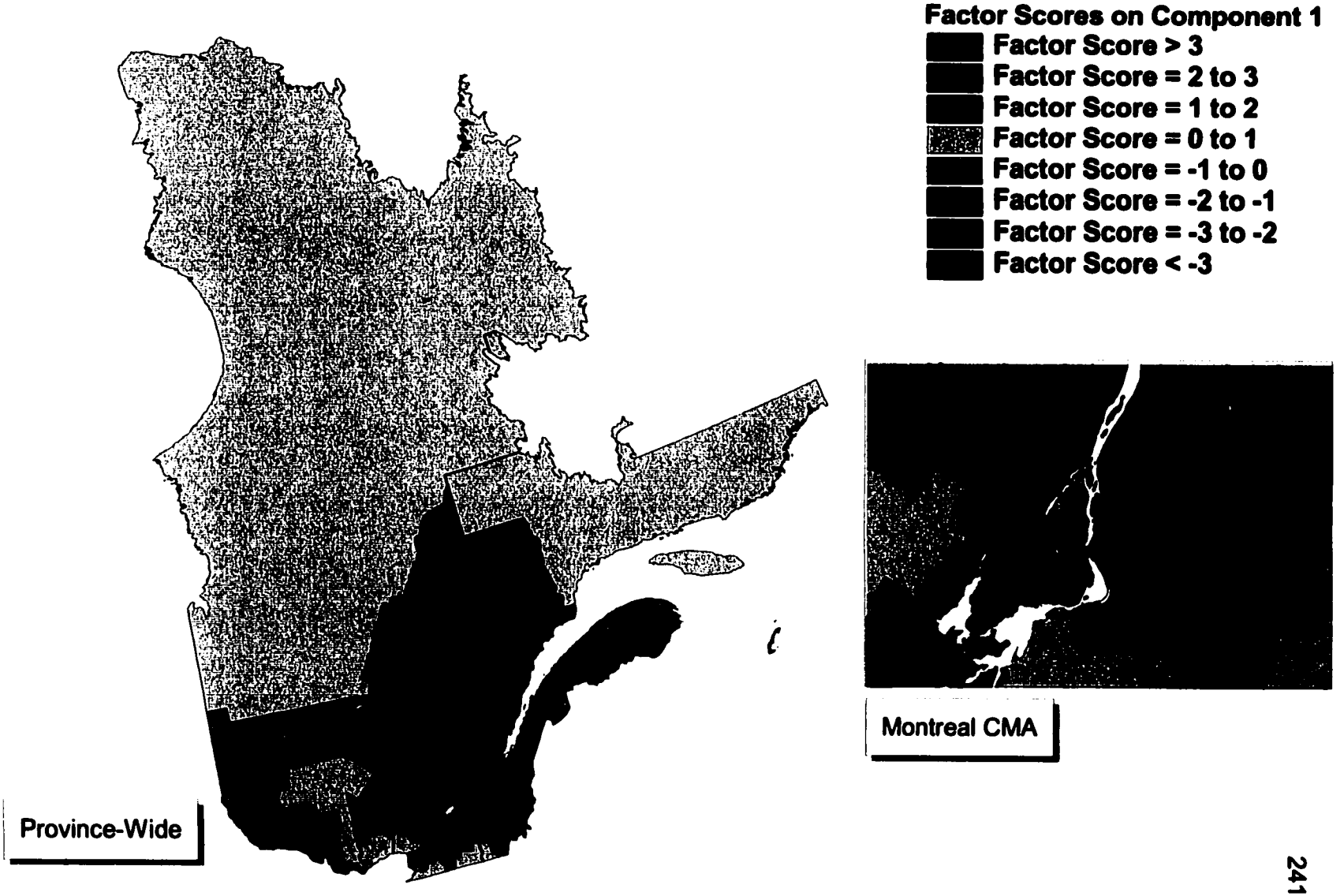
The primary variables constituting Component 1 are from the POL and CULT datasets. On the "federalist" side of the component, the PLQ and the Equality Party strongly define the component, whereas on the "sovereigntist" side the "hard sovereigntist" PQ strongly defines the component and the "soft sovereigntist" ADQ is more moderately associated with the component. Elements of the language and religion subdomains in the CULT dataset are also strongly definitive of the component. All four measures of language usage are strongly associated with the component; English measures strongly define the "federalist" side of the component, whereas French measures equally strongly define the "sovereigntist" side. Where religion is concerned, on the "federalist" side, Protestants and Muslims strongly define the component, and Hindus, Jews, Sikhs, those of other religions and those of no religious preference are moderately associated with the component, whereas on the "sovereigntist" side, Catholics strongly define the component.

To a lesser but noticeable extent, variables in the SOC II and ECON datasets also load highly on the component on the "federalist" side. This side of the component comprises both indicator variables that are associated with a university-educated or professionally-educated, affluent, property-owning business elite and indicator variables that have historically been associated with people excluded from the mainstream of Quebec society, such as visible minorities and immigrants. The main variables from these datasets loading on the "sovereigntist" side of the component reflect the predominance of small businesses and artisanry in the parts of the province more oriented towards sovereigntism.

Figure 26 shows how loadings on this factor are distributed spatially. It should be immediately noticed that mapping this factor shows a pattern quite similar to many other maps already shown in this dissertation. The six basic regions we have thus far described are all represented. "CENTRAL QUEBEC" and the "MONTREAL RING SUBURBS" load negatively on the factor *en bloc*, and "WEST ISLAND MONTREAL", the "OUTAOUAIS" and the "EASTERN TOWNSHIPS" all load positively on the factor *en bloc*. Additionally, the two northern ridings of Ungava and Duplessis, with their large number of "FIRST NATIONS" communities load positively on the factor.

The 13 factors which meet the variables explained-3 criterion do not exhibit the expected pattern of variable grouping according to membership in the original CULT, ECOL, SOC I, SOC II and ECON datasets that were fed into the analysis. We often find instead that variables often regroup into factors that load highly with important subsets of our original datasets; for example, Component 1 contains variables representing all the major political parties (PQ, PLQ, ADQ) and measures of dominance of a political party

Figure 26: Factor Scores on Federalist/Sovereigntist Component (Component 1)



(WINNER, LOCWEIGH) as well as all the variables relating to English and French language use (FIRSTENG, FIRSTFRE, HOMEENG, HOMEFRE, MENG, MFRE, KNOWENG, KNOWFRE). We may, of course, describe Component 1 as a highly political and cultural factor, since it reproduces so many important variables from POL and CULT. However, we may not say that our expectation that factors would group into discrete "political", "cultural", "ecological", "social" and "economic" factors was met. Indeed, the "federalist/sovereigntist" factor which in fact emerged from factor analysis cuts widely across the artificial divide between these categories, as it culls variables from POL and CULT, and to a lesser but important extent, SOC II and ECON.

Not surprisingly, Component 1, defined as it is by all of the major parties in Quebec, is the component that explains the 1998 vote the best of all the factors produced by the factor analysis. Table 49 shows the correlations of each of the factors meeting the variables explained-3 criterion and the major parties in the 1998 election. Component 1 is quite evidently the only factor that has a great deal of explanatory power over the electoral fortunes of the three major Quebec parties. However, some other of the components have a moderate amount of explanatory power and deserve some acknowledgement.

Component 3 represents the distinction between areas that have a large population of older individuals, represented by the positive direction of the factor, and areas that have a large number of young families – families headed by people in their late thirties and early forties and including younger children – represented by the negative direction. The PLQ loads positively on the factor at roughly .25, whereas the PQ and ADQ load negatively on the factor at –.22 and -.18, respectively. There is a moderate tendency,

thus, for the PLQ to do well in areas with a large population of older individuals and for the PQ and ADQ to do well in areas where there are a large number of young families.

Number	Factor	ADQ	PLQ	PQ
1	Federalism [+ direction] Sovereigntism [- direction]	-0.55022	0.843853	-0.79459
2	Health Problems [+ direction]	0.075849	-0.05372	0.02407
3	Older Individuals [+ direction] Young Families [- direction]	-0.18199	0.249069	-0.21736
4	The Aboriginal North [- direction]	0.003781	0.013823	-0.03016
5	Single, No Kids [+ direction] Married With Children [- direction]	-0.1347	-0.05855	0.069186
6	Cultural Communities I: The Northwest Island [+ direction]	0.06672	0.167745	-0.25514
7	The Educated Elite [- direction]	0.037501	0.042834	-0.05702
8	Biodiversity [+ direction] Ecological Health [- direction]	0.202502	0.056615	-0.12937
10	Atlantic Seafarers [- direction]	0.231694	.000046	-0.10603
11	Cultural Communities II: Mediterranean Communities [+ direction]	-0.08137	0.116725	-0.08384
12	Middle Aged [- direction]	0.09032	-0.00363	-0.04045
14	Cultural Communities III: South Asian Communities [+ direction]	-0.02324	-0.00244	0.008704
21	Retail Sales [+ direction] Farming [- direction]	0.124223	-0.07259	0.036396

Table 49.
Loadings of the Three Major Party Variables on the Factors Meeting the Variables Explained-3 Criterion

Component 5 represents the division between areas where residents are more likely to be single with no children, represented by the positive direction of the factor, and areas where residents are more likely to be married with children, represented by the negative direction. The ADQ loads negatively on this factor at -.13, indicating a weak tendency to do better in areas where people are married and have children.

Component 8 represents the division between areas where there is greater diversity of animal and plant species, or "biodiversity", represented by the positive

direction of the factor, and areas where there is a greater protection of existing species from being at risk, which we are calling for the purposes of this study "ecological health", represented by the negative direction. The fact that a factor emerges which represents biodiversity in one direction and ecological health in the other direction is itself interesting: the two conditions are not by definition mutually exclusive, although for theoretical reasons we might expect places with high biodiversity to not have high ecological health, and vice-versa. The reason for this is that human beings are attracted to areas with high biodiversity. If many other forms of life can live in an area, it is more likely that this area is suitable for humans; consequently, human activity may threaten these other forms of life, and the result would then be species loss, and thus, lack of ecological health. Conversely, if few other forms of life can live in an area, it is less likely that humans will settle the area; consequently, human activity will be less likely to threaten these other forms of life, and the result would then be species retention. For these reasons, we would expect to see quite often an opposition between biodiverse/ecologically unhealthy areas and non-biodiverse/ecologically healthy areas; we do in fact see this in the province of Quebec. The PQ loads negatively on the factor at -.13, indicating that it is a party associated with areas that are more likely to be remote from the human ecumene in the province, areas which are not biodiverse but are ecologically healthy. The ADQ loads positively on the factor at .20, indicating that it is a party more associated with areas that are within the main part of the human ecumene in the province, areas which are biodiverse but also are losing species and are thus ecologically unhealthy.

Component 10 represents in its negative direction areas on Quebec's Atlantic coastline, an area defined strongly by the fishing culture as well as, at this point in time, regionalised unemployment and income disparity. In short, the areas defined by this factor constitute the economic periphery of the province. If we accept that this is the case, then we would expect, following the theories of Peter J. Taylor, that the areas defined by this factor would seek to support the party that would win the election, to maximise its influence. This thesis is confirmed, though weakly, by the negative loading of the PQ, the victorious party, at -.11, and by the stronger positive loading of the ADQ, a party remote from a chance for power in 1998 and thus unlikely to attract support if Taylor's "oscillation" theory is correct, at .23.

Finally, Component 21 represents in its positive direction areas where people are involved in the retail trade sector of the economy, and in its negative direction areas where people participate in farming and primary sector activities. The ADQ loads positively on the factor, indicating that it is a party more likely to be associated with the interests of retailing establishments and perhaps small business in general.

There are some interesting relationships involving Quebec's smaller parties that also merit our attentions here, so long as we are clear that the discovery of linear relationships between voting patterns for small parties does not constitute a discovery of their strong performance at the polls generally. When we refer to "centres" of support for these parties in the following brief analysis, let it be understood that we mean relative centres of support. Obviously, since these are minor parties, we are not making the claim that there existed anywhere in Quebec centres of support for these parties in absolute terms.

Component 1, the "federalist/sovereigntist" component, as we have already noted, is strongly associated in its "federalist" direction with the Equality Party, at a loading of .83. This is not a surprising finding, as the defense of the Canadian federalist status quo was and remains the *raison d'être* of the Equality Party.

Component 5, the "single, no kids/married with children" component is strongly associated in its "single, no kids" direction with the *Parti de la démocratie socialiste*, a left-wing party once associated with the federal New Democratic Party and led by the former FLQ leader Paul Rose. Ridings scoring high on this factor tend to be located in central city districts in Montreal, Quebec City and Hull-Gatineau. That a socialist party would find the largest number of its votes in central cities, where one tends to find a great many social pathologies at work, is certainly not surprising.

Component 6 represents in its positive direction areas on the northwest part of the Isle of Montreal characterised by a high settlement of romance-language speaking ethnic groups (Italians, Hispanics and Haitians), and also by high values for measures of air pollution.[5] This component is strongly associated with three small provincial parties, the pro-marijuana legalisation party *Bloc-Pôt*, the middle-class *Parti innovateur du Québec* and the *Parti communiste du Québec*, one of Quebec's two self-declared communist parties. The associations of these three parties with the factor can be generally accounted for by the fact that these parties chose to contest elections in ridings disproportionately located on the northern part of the Isle of Montreal.

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[5] The highness of values for these variables is somewhat misleading, as the centroid for Montreal used in the calculation of values for the air pollution variables is located quite close to the ridings scoring highly on this factor. However, even if the extent to which air pollution is a consideration for these ridings is exaggerated somewhat, our findings nevertheless confirm that air pollution is a problem for these ridings, moreso than others in the province.

Finally, Component 14 represents in its positive direction areas which are more likely to be settled by a population of South Asian origin; specifically, these would be areas settled by those of Southeast Asian origin, or by those from the Indian subcontinent. The *Parti marxist-léniniste du Québec*, the other of Quebec's self-declared communist parties, and one more along the Maoist/peasant model, is strongly associated with this factor. This association can also be mostly explained by the choice made by the party to contest elections in certain places and not others, though perhaps the choice to contest elections in places disproportionately populated by those of South Asian background has something to do with the fact that the Maoist/peasant brand of communist theory is preferred in highly rural South Asia.

Spatial Autocorrelation

Spatial autocorrelation statistics test a spatial database – in other words, a database in which the cases are geographic entities – for the degree of spatial dependence exhibited by a variable. Spatial dependence, simply put, exists when the values of variables intensify or de-intensify according to where they exist in space. Spatial autocorrelation test statistics, to put this another way, test variables for the regionalised nature of their value.

Mike Sawada (1998) summarises the importance of spatial autocorrelation test statistics as follows:

> There are a number of different definitions of spatial autocorrelation. Upton and Fingleton (1985) define spatial autocorrelation as a property that mapped data possess whenever it exhibits an organized pattern. However, this definition is subjective because the exhibition of an 'organized pattern' can mean many things. The authors say that spatial autocorrelation exists whenever there is systematic spatial variation in

> values across a map, or patterns in the values recorded at locations with the locations given. If high values at one locality are associated with high values at neighboring localities the spatial autocorrelation is positive and when high values and low values alternate between adjacent localities the spatial autocorrelation is negative (e.g., a checkerboard). Thus, Upton and Fingleton (1985) say that it is more useful to define spatial autocorrelation by means of understanding lack of spatial autocorrelation. That is, if there is no connection between the variables (X_i, X_j) at any pair of regions (i, j) in the study area, then the data exhibits a lack of spatial autocorrelation. In other words, a lack of spatial autocorrelation should be found in a mapped pattern that does significantly deviate from a map where each value X_i was assigned randomly with equal probability to each (i,j) location on the map. Thus, notes Griffith (1991) and Goodchild (1987), spatial autocorrelation deals simultaneously with both location and attribute information. In order to determine if the values in a mapped pattern deviates significantly from a pattern in which the values are assigned randomly requires some sort of index of comparison (Sawada 1998).

The test statistic we will be using in this section of the dissertation is the statistic known as Moran's *I*. The equation for this statistic, devised by P. A. P. Moran (1950), is as follows:

$$I = \frac{\sum_i \sum_j w_{ij} z_i z_j \Big/ \sum_i \sum_j w_{ij}}{\sum_i z_i^2 \Big/ n}$$

where: w_{ij} is the contiguity matrix; a matrix that relates each geographic case to all the other cases: for each combination of cases, i and j, the value of a matrix cell is set to equal 1 if the cases being related to one another represent contiguous areas, and to equal 0 if they do not;

z_i and z_j are the attribute data points for a particular variable, for geographic cases i and j; and

n represents the number of geographic cases being studied.

The value of *I* is near +1 whenever there is spatial concentration in a database of geographic cases, near −1 whenever there is an even spatial distribution of those cases, and near 0 when there is a random or uneven spatial distribution of those cases:

> [Moran's *I*] is analogous to the conventional correlation coefficient because its numerator is a product moment term (Sokal and Oden, 1978). And like a correlation coefficient the values of Moran's I range from +1 meaning strong positive spatial autocorrelation, to 0 meaning a random pattern to -1 indicating strong negative spatial autocorrelation (Sawada 1998).

General Findings for Quebec

The Moran's *I* statistic for the three main parties in Quebec is presented in Table 50. Our findings confirm what we could generally tell from our maps, that spatial concentration of support for the PLQ and PQ in the province of Quebec is high, and moderately high in the case of the ADQ.

Party	Moran's *I*
PLQ	+0.615
PQ	+0.584
ADQ	+0.316

Table 50.
Values of Moran's *I* for the Major Quebec Provincial Parties, Province-Wide
all calculated values for *I* are significant at $p \leq .05$

The values presented for Moran's *I* in the above table were calculated via the use of a contiguity matrix. In this context, a contiguity matrix is a matrix that relates each geographic case to all the other cases; for each combination of cases, the value of a matrix cell is set to equal 1 if the cases being related to one another represent contiguous areas, and to equal 0 if they do not. The cells in the diagonal of this matrix, representing

the spatial relationship of a case to itself – in other words, representing the spatial relationship of a particular area to itself – is also set to 0. Calculating Moran's *I* on a set of geographic cases by means of such a contiguity matrix is but one of many ways a value for this statistic may be calculated. It was selected largely because it was technically an easier method to implement, and because closer inspection of regional scales using the statistic would likely resolve any distortions in the statistic resulting only from scale.

If we consider Moran's *I*, in its range from 0 to +1, as being analogous to an index of concentration which ranges from "0% concentrated" to "100% concentrated", then the results in Table 50 indicate a situation where the vote for the PLQ stayed in PLQ-dominated space 61.5% of the time, and the vote for the PQ stayed in PQ-dominated space 58.4% of the time. Conversely, the PLQ vote penetrated into other spaces 38.5% of the time, and the PQ vote penetrated into other spaces 41.6% of the time. This statistically confirms what is, of course, a fairly obvious fact to us already, namely, that both parties are parties with a regionalised appeal, and that the PLQ is slightly more a party of regionalised appeal. The extent of the spreading out of the ADQ vote is also clear to us from this interpretation of the Moran's *I* statistic. The vote for the ADQ stayed in "ADQ-friendly" space only 31.6% of the time, and penetrated into other spaces 68.4% of the time. This created a situation where the *adéquiste* vote was minimally concentrated enough to gain the party one seat, but sufficiently unconcentrated to deny them any more than this.

In the Kristof paradigm, we have clearly established that the province of Quebec, in terms of its provincial party vote, is quite evidently a "bordered" region. At the

pan-provincial level at least, the high values for Moran's *I* for the two main parties confirm this. Regional scale spatial autocorrelation tests, however, allow us to further investigate this pattern, to see if we may find anomalies in this generally "bordered" pattern.

Findings for the Outaouais

The Moran's *I* statistic for the municipalities of the Outaouais region is presented in Table 51. Our findings for this region, contrary to our findings for the province as a whole, indicate a more clustered pattern for the PQ than for the PLQ.

Party	Moran's *I*
PLQ	+0.513
PQ	+0.556
ADQ	+0.338

Table 51.
Values of Moran's *I* for the Major Quebec Provincial Parties in the Outaouais Region
all calculated values for *I* are significant at $p \leq .05$

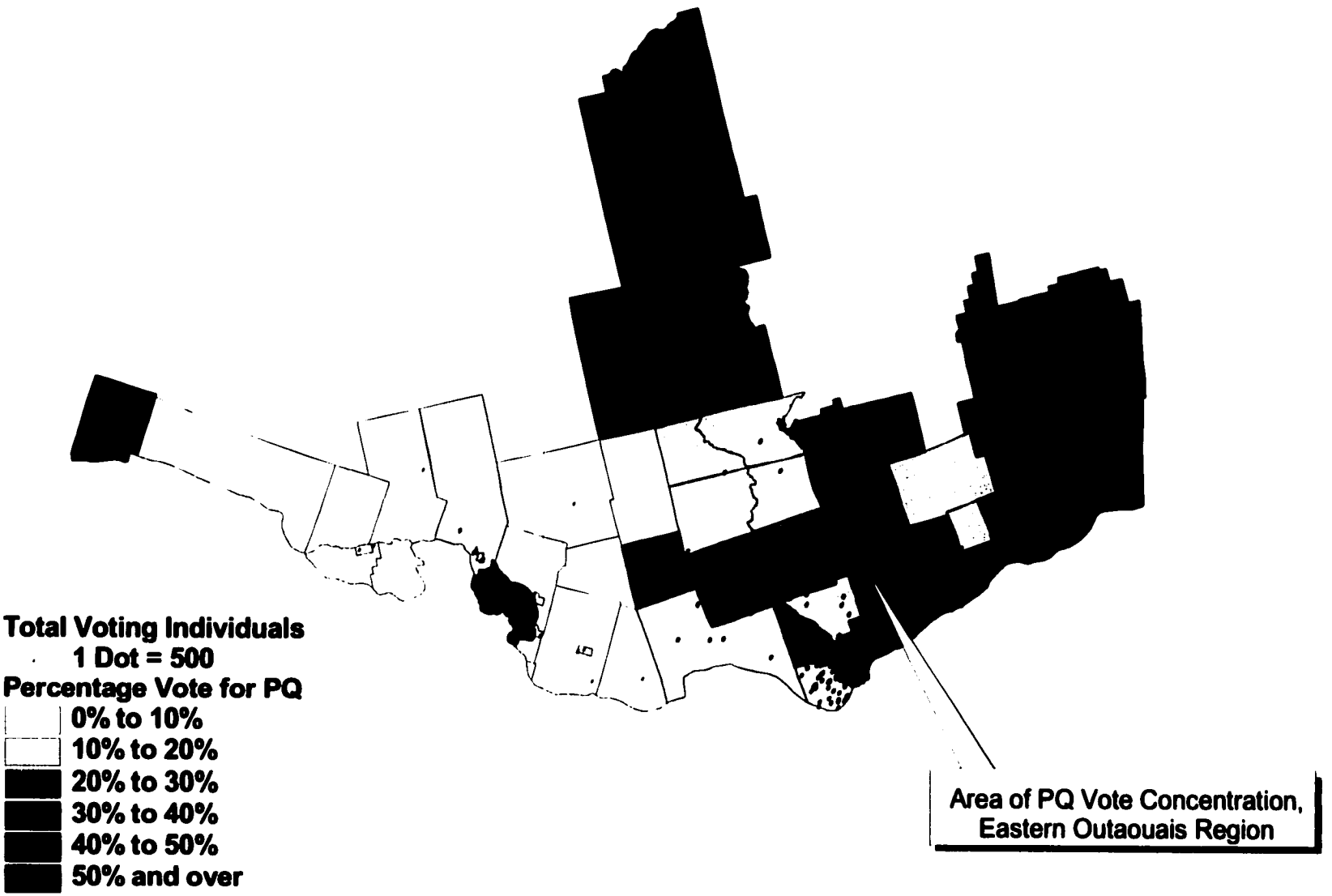
Using the same interpretation as presented above with respect to the voting patterns in the entire province, we can provide similar figures for the Outaouais to those we provided for the province as a whole. We see that the Outaouais PLQ vote stayed in PLQ-dominated space 51.3% of the time, and penetrated other spaces within the region 48.7% of the time; in other words, there is a clear area of dominance – the western part of the region – but PLQ strengths also extend out of that part of the region. The Outaouais PQ vote stayed in PQ-dominated space 55.6% of the time, and penetrated other spaces within the region 44.4% of the time. Again, this means there is a clear area in which the

PQ predominate – the eastern part of the region. To some extent PQ strengths also extend out of that part of the region, though this is less the case where the PQ is concerned; it is more often the case that PQ strength is confined to its spatial centres in the region. In the Outaouais as in the entirety of the province, votes for the *adéquistes* are weakly concentrated; the ADQ vote stayed in "ADQ-friendly" space 33.8% of the time and penetrated other space 66.2% of the time.

We might be tempted to declare on the basis of Moran's *I* that the spatial pattern found in the Outaouais is not greatly different from that found province-wide. In both the province as a whole and in the Outaouais, we find clear concentrations of support for the two main parties. In Quebec, the PLQ's support clusters somewhat more than the PQ's; in the Outaouais, the PQ's support clusters somewhat more than the PLQ's. Outside of this reversed ordering, the values for Moran's *I* are broadly similar in the two cases, and the upshot is that support for both of these parties is clustered, both in Quebec and in the Outaouais. However, one important difference separates these cases. At the level of the entire province, the popular vote support for the two main parties is roughly equal; in the Outaouais, the popular vote for the PLQ is clearly higher. Indeed, if we looked only at the results at the riding level, we would believe that the Outaouais is solidly Liberal red and that talk of the Outaouais as being divided into a PLQ zone and a PQ zone is misguided.

Figure 27 illustrates why we miss that the Eastern Outaouais is a centre for the PQ – the electorate in the part of the region dominated by the PQ is quite small. Though PQ pluralities and majorities are turned out for the PQ in a clearly delineated set of municipalities in this eastern part of the region, and *péquistes* thus have clear effective

Figure 27: The Eastern Outaouais: A Large PQ Concentration, A Small PQ Vote



electoral control over the territory, the fact that the electorate in this subregion is so small obscures this fact at higher scales. This is what separates this example from our previous pan-Quebec "bordered" example; we do have homogeneous regions defined in this example, as in the pan-Quebec example, but in the Outaouais these regions are demographically much smaller. We are thus dealing in this case with an archetypal example of this concept we added earlier to the Kristof typology, a "milieu".

Findings for the Eastern Townships

Moving on to the Eastern Townships region, we see a very different pattern, as there is considerable mixing of the PQ and PLQ electorate spatially. Table 52 shows the results of the Moran's *I* statistic for Eastern Township municipalities.

Party	Moran's *I*
PLQ	+0.271
PQ	+0.232
ADQ	+0.389

Table 52.
Values of Moran's *I* for the Major Quebec Provincial Parties in the Eastern Townships Region
all calculated values for *I* are significant at $p \leq .05$

Though our maps of the Eastern Townships reveal that there are areas of concentration for the two main parties – and the value of Moran's *I* is positive here, so we can confirm that there is some concentration – the low values for *I* for the two main parties suggest there is considerable spatial overlap between the "PQ-Eastern Townships" and the "PLQ-Eastern Townships". If we apply the interpretation we have used thus far, we will note that the Eastern Township PLQ vote stayed in PLQ-dominated space 27.1%

of the time and penetrated other spaces within the region 72.9% of the time, while the Eastern Township PQ vote stayed in PQ-dominated space 23.2% of the time and penetrated other spaces within the region 76.8% of the time. This suggests that truly most of the region is dominated by neither party. At the riding level, we know that the PLQ tends to do slightly better than the PQ in Eastern Township ridings. At the subriding level, we find no real contradiction to the riding level observation. Unlike the Outaouais, the Eastern Townships exhibits no strong pattern of the clustering of a minority party electorate. The Eastern Townships, in the Kristof paradigm, is a clear "frontier" area, where diverse populations share the same space.

Exploration of Relationships

Now that we have tested our relationships utilising more direct methods, we may consider methods that address our research variables in a more exploratory fashion. These methods have as their objective the uncovering of indirect relationships between variables in the POL dataset and variables in others of the various datasets in the research database. The methods we will use towards that end are: canonical analysis, path analysis, an analysis of assimilation and acculturation patterns based upon the work of the mathematician Charles Castonguay, and economic base analysis.

Canonical Analysis

Canonical analysis as a statistical technique is broadly analogous to another more familiar and well-used statistical technique, that of multiple linear regression. Multiple linear regression is a technique which seeks to explain the variance in a particular

variable of interest, the "dependent" variable (or "DV") by means of the variances in several other variables, the "independent" variables (or "IVs"). The technique produces a measure analogous to the correlation coefficient *r* called "multiple r" and symbolised as *R*. The value of *R* ranges from 0 to 1 and indicates whether there is an overall linear relationship between the DV on the one hand and the various IVs on the other.

Canonical analysis is a broadly similar technique, in that it has as its goal the understanding of linear relationships between sets of variables. In the case of canonical analysis, however, two groups of variables each containing more than one variable may be related to each other:

> The easiest way to understand canonical correlation is to think of multiple regression. In regression, there are several variables on one side of the equation and a single variable on the other side. The several variables are combined into a predicted value to produce, across all subjects, the highest correlation between the predicted value and the single variable. The combination of variables can be thought of as a dimension among the many variables that predicts the single variable.
>
> In canonical correlation, the same thing happens except that there are several variables on both sides of the equation. Sets of variables on each side are combined to produce, for each side, a predicted value that has the highest correlation with the predicted value on the other side. The combination of variables on each side can be thought of as a dimension that relates the variables on one side to the variables on the other (Tabachnick & Fidell 1996: 195).

Such a technique is ideal for the comparison of our various datasets to one another. Canonical analysis provides us with the ability to see how much one of our datasets of interests truly helps us to understand another. Since our main research objective is to relate elements in the POL dataset to elements of other datasets, canonical analysis can serve us as a valuable exploratory tool.

As with multiple linear regression, canonical analysis provides a version of the statistic *R*, called "canonical *R*", which represents the linearity of relationship between variables in one group and variables in another group. Canonical analysis differs from multiple linear regression, however, in that the technique does not require us to distinguish one DV from several IVs. Instead, either group of variables may be considered by the technique as the "dependent" or "independent" group.

The fundamental equation for a canonical correlation matrix (Tabachnick & Fidell 1996: 200) is as follows:

$$r^{**} = \mathbf{r}^{**}_{xx}{}^{-1}\mathbf{r}^{**}_{yy}{}^{-1}\mathbf{r}^{**}_{xy}\mathbf{r}^{**}_{yx}$$

where: r^{**} is the canonical correlation matrix; and,
$\mathbf{r}^{**}$ is the correlation matrix between two sets of variables, where these sets are symbolised as *x* or *y*.

This equation multiplies the matrix inversion of correlations within the sets of variables to correlations between the sets. The resulting matrix allows one to gauge how well variables in the first set predict the second one or vice-versa. Note that the set with more variables will be explained less by this procedure. For example, if set *x* has 14 variables and set *y* has 19 variables, the resulting matrix r^{*} will be of the dimensions 14 x 14. This means that some of the explanatory power the analysis provides for set *y* would be lost.

Eigenvalues are calculated for the matrix r^{*} in order to create a factor structure for the relationship between the two sets of variables. The eigenvalues for each of the factors or "roots" derived from the r^{*} matrix are then used to calculate canonical *R* values that represent the linear relationship of each root to the variables in both variable sets. A

"multiple" canonical *R* may be calculated by weighting those specific to each root, much as each independent variable is beta-weighted in multiple linear regression.

Canonical analysis can provide a measure of the amount of variance explained by every root within a set, referred to as "variance extracted" from the set (Tabachnick & Fidell 1996: 205). This variance extracted is provided by the equation:

$$ve = \sum_{k} \frac{a^2_k}{k}$$

where: *ve* is the variance extracted by every root within the given set;
a^2_k is the squared factor loading for every variable in the set; and,
k is the number of variables in the set.

It can also indicate to what extent variables in one set are redundant in explaining variance in the other set, by means of multiplying "variance extracted" by the eigenvalue for each root and summing them over each set. This figure is called the "redundancy" for the set.

Obviously it is to our advantage to reduce redundancy in canonical analysis if we are to represent relationships parsimoniously; as with multiple linear regression, a good canonical analysis model is one in which only the variables with some amount of independent explanatory power are retained. For this reason, our reduced variable matrix of 102 variables provides a better basis upon which to build canonical correlations. In Appendix F, the variables retained in the reduced variable matrix are listed according to the dataset to which they belong. In the following canonical analysis, the dataset groupings shown in Appendix F are the ones which are being tested.

The first order of business we would like to address with our canonical analysis is whether our POL dataset can be linearly related to the other datasets in the database

(CULT, ECOL, SOC I, SOC II and ECON) as initially designed by this researcher. The results of canonical correlations for these datasets are presented in Table 53.

Dataset, Number of Variables Represented in Analysis	Multiple Canonical *R*	Variance Extracted from this Dataset	Variance Extracted from POL	Redundancy of Variables in this Dataset, given POL	Redundancy of Variables in POL, given this Dataset
CULT (19)	.97	80.6%	100.0%	44.6%	52.0%
ECOL (18)	.84	82.4%	100.0%	28.2%	28.0%
SOC I (21)	.95	80.2%	100.0%	38.0%	43.4%
SOC II (10)	.91	100.0%	80.9%	26.4%	28.4%
ECON (20)	.88	80.0%	100.0%	36.6%	43.0%

Table 53.
Canonical Analysis of Datasets Relative to the POL Dataset
all values for *R* significant at $p \leq .05$; Number of Variables for the POL dataset is 14

We find that high values for multiple canonical *R* are achieved for all the sets of variables representing the domains of CULT, ECOL, SOC I, SOC II and ECON relative to the set of variables representing the POL domain. The variance extracted from each dataset is at least 80%, which indicates that the multiple canonical *R* represented in our findings quite accurately portrays the real relationship between these domains. In the case of ECOL and SOC II, it is striking that the results reflect very little redundancy in either direction of analysis. ECOL can be used to predict POL, with only 28.2% redundancy of ECOL variables in this prediction; likewise, POL can be used to predict ECOL, with only 28.0% redundancy of POL variables in this prediction. SOC II can be used to predict POL, with only 26.4% redundancy of SOC II variables in this prediction; likewise, POL can be used to predict SOC II, with only 28.4% redundancy of POL variables in this prediction. In other words, little needs to be done for the ECOL and

SOC II models to make them parsimonious representations of the relationships between domains.

In the cases of CULT, SOC I and ECON, the redundancy of variables is a bit higher. The models for the SOC I and ECON domains could stand to be made a good deal more parsimonious, and we can do further canonical analyses to build more parsimonious models where these domains are concerned. In the case of the CULT domain, we can also design parsimonious models with respect to some variables, but some variables intercorrelate with the POL variables to such an extent that we must recognise redundancy may not be stricken from the model.

In Table 54, we can see that a canonical analysis involving the two large Quebec party votes on the one hand and measures of the language spoken most often by respondents to the 1996 Census on the other reveals an extremely high multiple canonical *R* of .87 for the interrelation of these variables alone. If we interpret variance explained by the model by means of R^2, then 75.1% of the time, when we know which of the two largest parties a voter voted for, then we know what language that voter prefers to speak

Canonical *R* = .87		
	Variables from POL Dataset	**Variables from CULT Dataset**
Variance Extracted	100.0%	87.6%
Redundancy of Variables in Dataset Given Variables in Other Dataset	71.2%	56.0%
Variables Included	PLQ	FIRSTENG
	PQ	FIRSTFRE
		FIRSTNEI

Table 54.
Canonical Analysis of Two Large Quebec Parties and First Language Preference
value of *R* significant at $p \leq .05$

above the others.[6]

Redundancies are quite high in this model, and necessarily so. So intercorrelated are these variables that redundancies can only be reduced as far as 63.9% for POL given the CULT variables and 42.3% for CULT given the POL variables if we recombine the variables in different combinations and run the canonical analysis again.

A more useful, parsimonious canonical analysis can be designed for variables in CULT relating to religion. Tables 55, 56 and 57 show the results of canonical analysis in three particular scenarios. In Table 55, the three major parties are tested against all the religion variables. In Table 56, we eliminate the variables representing Catholicism and Protestantism, which intercorrelate very strongly with the PQ and PLQ, respectively, in order to reduce redundancy. In Table 57, we eliminate all religious variables except those referring to the Eastern Orthodox and Jewish religious communities. These religious preferences, most often found in the Greek-Quebecer and Jewish-Quebecer ethnic communities known for their opposition to sovereignty, are, as one might expect, quite predictive of the vote. This last model, including only these two religious variables, is more parsimonious, as the redundancy of the model has been reduced a great deal. However, functionally, the table that tells us the most is probably Table 56, which establishes the importance of religion in the construction of the Quebec provincial vote,

[6] It should be noted here that the variance explained going the other way, using the language variables to predict political choice, would be 65.7%. This is because the overall variance explained by the model is 75.1%, and the variance extracted from the language variables is not 100%, as was the case with the political variables, but rather 87.6%. Multiplying this 87.6% by 75.1% - which yields 65.7% - allows us to arrive at the true variance explained going in this direction.

Canonical R = .81		
	Variables from POL Dataset	**Variables from CULT Dataset**
Variance Extracted	100.0%	61.6%
Redundancy of Variables in Dataset Given Variables in Other Dataset	50.2%	33.1%
Variables Included	ADQ	BUDD
	PLQ	CATH
	PQ	EASTORTH
		HINDU
		JEWISH
		MUSLIM
		NOREL
		OTHREL
		PROT
		SIKH

Table 55.
Canonical Analysis of Major Quebec Parties and Religion, Full Version
value of R significant at $p \leq .05$

Canonical R = .77		
	Variables from POL Dataset	**Variables from CULT Dataset**
Variance Extracted	100.0%	66.3%
Redundancy of Variables in Dataset Given Variables in Other Dataset	44.0%	32.1%
Variables Included	ADQ	BUDD
	PLQ	EASTORTH
	PQ	HINDU
		JEWISH
		MUSLIM
		NOREL
		OTHREL
		SIKH

Table 56.
Canonical Analysis of Major Quebec Parties and Religion, Smaller Religious Communities
value of R significant at $p \leq .05$

Canonical R = .63		
	Variables from POL Dataset	**Variables from CULT Dataset**
Variance Extracted	75.6%	100.0%
Redundancy of Variables in Dataset Given Variables in Other Dataset	29.2%	26.5%
Variables Included	ADQ	EASTORTH
	PLQ	JEWISH
	PQ	

Table 57.
Canonical Analysis of Major Quebec Parties and Religion, Religious Preferences of the Greek and Jewish Ethnic Communities
value of R significant at $p \leq .05$

not only along the familiar Catholic-Protestant axis, but generally with respect to much smaller religious communities.

Religion is an extremely potent predictor of the vote. When all religions are considered, multiple canonical R is .80, and the variance explained by the model is 65.3%. When we eliminate Catholicism and Protestantism as clearly intercorrelating variables from the model, multiple canonical R only drops three points to .77, explaining 58.7% of the variance, indicating that the vote for the three major parties can still be well predicted from the remaining smaller religious communities. Redundancies do not drop tremendously after this change, however, so we are motivated to pare down the model even further. Using only Eastern Orthodox and Jewish religious preference as a predictor, we find that multiple canonical R has only been reduced to .63; the model thus explains 39.3% of the variance.

Moving on to the ECOL dataset, we can see that there is a fairly strong canonical correlation of the political variables with variables representing the characteristics of

biodiversity and ecological health. The most parsimonious model is presented as Table 58. In Table 58, we can see that a model including five parties, the PQ, the ADQ, the *Parti égalité* / Equality Party (PEEP), the *Parti de la loi naturelle du Québec* (PLNQ), and the *Parti communiste du Québec* (PCQ), establishes a multiple canonical *R* of .58, for a variance explained by the model of 33.1%.

Canonical *R* = .56		
	Variables from POL Dataset	**Variables from ECOL Dataset**
Variance Extracted	100.0%	94.8%
Redundancy of Variables in Dataset Given Variables in Other Dataset	15.4%	17.1%
Variables Included	ADQ	BIRDSPEC
	PCQ	ENPLSPEC
	PEEP	MAMSPEC
	PLNQ	RAPLSPEC
	PQ	RPAMSPEC
		TREESPEC
		ECOHEAL

Table 58.
Canonical Analysis of Five Quebec Parties and Biodiversity/Ecological Health Measures
value of *R* significant at $p \leq .05$

The variance extracted figures establish that the interpretability of this analysis can go both ways – 100% of the variance is extracted from the POL variables and almost that, 94.8%, is extracted from the ECOL variables. The redundancy for both sets given the other is very low, around 15% for both sets, indicating an extremely parsimonious model. Biodiversity and ecological health, to summarise, predict somewhere in the neighbourhood of a third of the variance in the vote with regard to these five parties. The PQ and PLNQ find a good deal of their support in ecologically healthy locations but

not biodiverse, whereas the PEEP and the PCQ find their support in biodiverse areas, areas chosen by humans, in part because these areas are conducive to biological life generally, which, by virtue of human impacts on the local species, are not ecologically healthy. ADQ support is spread out across both kinds of areas.

In Table 59, results for canonical analysis on political variables with respect to variables measuring air pollution is shown. This analysis was done on a data matrix eliminating the extreme outlying case of Viau riding.

Canonical *R* = .69		
	Variables from POL Dataset	**Variables from ECOL Dataset**
Variance Extracted	80.3%	100.0%
Redundancy of Variables in Dataset Given Variables in Other Dataset	15.6%	23.5%
Variables Included	BP	CD
	PCQ	MN
	PDS	NO3
	PMLQ	SO4
	PQ	

Table 59.
Canonical Analysis of Five Quebec Parties and Air Site Particulate Measures
value of *R* significant at $p \leq .05$

Air pollution variables relating to industrial procedures (SO4) or the combustion of fossil fuels (CD, MN, NO3) disproportionately affect central Montreal; consequently, variables representing political parties which do well in central Montreal, such as the three leftist parties (the PCQ, PMLQ and PDS) and the *Bloc-Pôt* point as marker variables to increased air pollution. The PQ, by contrast, tends to do better in more bucolic territories where air pollution from these sources is considerably muted; thus, PQ

voting serves well the cause of identifying places where these pathogens are not to be found in the air. Overall, 48.1% of the variance is explained by the model.

In the SOC I dataset, interesting canonical relationships are found with respect to marital and family status. In Table 60, these relationships are presented for the reader.

Canonical *R* = .71		
	Variables from POL Dataset	**Variables from SOC I Dataset**
Variance Extracted	84.7%	100.0%
Redundancy of Variables in Dataset Given Variables in Other Dataset	20.4%	25.1%
Variables Included	ADQ	DIVORCE
	PCQ	FAMILY3
	PDS	SINGLE
	PMLQ	WIDOWED
	PQ	

Table 60.
Canonical Analysis of Five Quebec Parties and Marital/Family Status
value of *R* significant at $p \leq .05$

The SOC I variables in this analysis represent stages in the life cycle; the variables representing the three left-wing parties (PCQ, PMLQ and PDS) are good marker variables for the presence of single, divorced and widowed individuals in a riding, whereas the PQ and ADQ serve as good marker variables for the presence of small families. The variance explained by this model is 49.9%.

In Table 61 we look at SOC I variables having to do with poverty-related exclusion. Our model for this has a multiple canonical *R* of .67, which explains 44.3% of the variance. In this particular canonical analysis, that same amount of variance is explained in both directions. In the case of this analysis, the ADQ vote is negatively

related with all three measures of poverty, while the PLQ and PDS votes are positively related to the measures of "shelter poverty", a widely-accepted term for the situation that obtains when a person spends 30% or more of their income on shelter.

Canonical *R* = .67		
	Variables from POL Dataset	**Variables from SOC I Dataset**
Variance Extracted	100.0%	100.0%
Redundancy of Variables in Dataset Given Variables in Other Dataset	17.2%	27.2%
Variables Included	ADQ	UNEMP
	PDS	SHPOVREN
	PLQ	SHPOVMTG

Table 61.
Canonical Analysis of Three Quebec Parties and Poverty-Related Exclusion
value of *R* significant at $p \leq .05$

Looking now at the ECON dataset, we can see that results for the three major parties can be predicted fairly well with reference to the business services, government services and communications sectors of the economy. This jibes with most of the analyses of the "economic viability" of Quebec sovereignty, which point to these three particular industries as the most important to understand if one wishes to gauge this "viability". In Table 62, we can see that these variables representing employment in these three economic sectors account for a multiple canonical *R* of .65, which accounts for 42.1% of the variance. Again, this model predicts the relationship equally well in both directions.

Canonical R = .65		
	Variables from POL Dataset	**Variables from ECON Dataset**
Variance Extracted	100.0%	100.0%
Redundancy of Variables in Dataset Given Variables in Other Dataset	27.9%	12.4%
Variables Included	ADQ	BUSSERV
	PLQ	COMM
	PQ	GOVSERV

Table 62.
Canonical Analysis of Major Quebec Parties and Economic Sectors
value of R significant at $p \leq .05$

In Table 63, a similar analysis on occupational types is provided for the reader. Management occupations, trading occupations and primary sector (that is, farm-related) occupations predict the vote for the three major parties with a similar amount of accuracy. The multiple canonical R in this case is .63, and the variance explained in both directions by the model is 40.0%.

Canonical R = .65		
	Variables from POL Dataset	**Variables from ECON Dataset**
Variance Extracted	100.0%	100.0%
Redundancy of Variables in Dataset Given Variables in Other Dataset	27.8%	22.3%
Variables Included	ADQ	MANAGE
	PLQ	TRADING
	PQ	PRIME

Table 63.
Canonical Analysis of Major Quebec Parties and Occupation Types
value of R significant at $p \leq .05$

At this point, it would be interesting to use canonical analysis to look more closely at some of the factors in our earlier factor analysis that did not turn up much in the way of a clear connection to political behaviour, to see if in fact there is some intelligible connection. Factors 2 (Health Problems), 7 (The Educated Elite), 11 (Cultural Communities II: Mediterranean Communities) and 12 (Middle Aged) were such factors; it is the variables in these factors that our exploratory technique of canonical analysis should seek to further address.

For Factor 2 (Health Problems) we find that a number of diseases mostly associated with central city areas, such as AIDS, giardiasis, gonorrhea, hepatitis B and tuberculosis, do help to explain the vote to a great degree. So too do diseases which tend to be found in rural areas, such as scarlet fever and whooping cough. In Table 64, we can see that these diseases provide a multiple canonical *R* of .64, which accounts for 40.7% of the variance in the model. The PQ and ADQ votes tend not to be associated with places

Canonical *R* = .64		
	Variables from POL Dataset	**Variables from SOC I Dataset**
Variance Extracted	100.0%	80.2%
Redundancy of Variables in Dataset Given Variables in Other Dataset	19.0%	7.0%
Variables Included	ADQ	AIDS
	PCQ	GIARDIA
	PDS	GONORRH
	PLQ	HEPB
	PMLQ	SCARLET
	PQ	TUBERC
		WHOOP

Table 64.
Canonical Analysis of Six Quebec Parties and Major Diseases
value of *R* significant at $p \leq .05$

where the central city diseases predominate, and are more associated with the rural diseases, as these two parties predominate in smaller population centres; the PLQ and the small parties of the left (PCQ, PMLQ and PDS), by contrast, are typically more associated with the places where the central city diseases predominate, and are unassociated with places where the rural diseases predominate. Whereas it would not be correct on the basis of this analysis to say that the predominance of these diseases causes voting for a particular provincial party, it is probably not too great a leap to assume, for example, that the defeat of sexually-transmitted diseases, usually a greater concern in central city areas, might be a more important objective for the Liberals and the small parties of the Left, whereas the defeat of possibly fatal childhood illnesses might be a more important objective for the PQ and ADQ.

Factor 7 (The Educated Elite) was unrelated to our voting variables largely because variables pertaining to education also coded highly on other factors that emerged from factor analysis. In fact, it is reasonably easy to establish the existence of a relationship between education and the vote. In Table 65, we present a parsimonious model to establish this fact with respect to the three major Quebec parties. The multiple canonical *R* for the model is .66, and this explains 44.0% of the variance in the model. The PLQ tends to be associated fairly strongly with places where professional educational attainment is common, whereas the PQ and the ADQ are more associated with places where trades school educational attainment is more common, or with places where people do not complete a high school education.

Canonical *R* = .66		
	Variables from POL Dataset	**Variables from SOC II Dataset**
Variance Extracted	100.0%	100.0%
Redundancy of Variables in Dataset Given Variables in Other Dataset	33.3%	29.8%
Variables Included	ADQ	PROFEDUC
	PLQ	TRADES
	PQ	NOHGSCHL

Table 65.
Canonical Analysis of Major Quebec Parties and Educational Attainment Variables
value of *R* significant at $p \leq .05$

For Factor 11 (Cultural Communities II: Mediterranean Communities), we find that variables representing members of the Greek-speaking and Arabic-speaking communities in the province, most notably amongst the latter, the Lebanese-Quebecer community, are quite well related to voting variables for the three major parties. A multiple canonical *R* of .61 is attained by the model for these variables, shown in Table 66. This value for *R* means the model explains 37.3% of the variance in the variable sets.

Canonical *R* = .61		
	Variables from POL Dataset	**Variables from SOC II Dataset**
Variance Extracted	100.0%	100.0%
Redundancy of Variables in Dataset Given Variables in Other Dataset	27.4%	20.3%
Variables Included	ADQ	HARABIC
	PLQ	HGREEK
	PQ	ULEB

Table 66.
Canonical Analysis of Major Quebec Parties and "Mediterranean Communities"
value of *R* significant at $p \leq .05$

For Factor 12 (Middle Aged), it is reasonably easy to establish that variables representing members of the generation in their forties around the time of the 1998 election (technically, at the time of the 1996 Census) are fairly strongly predictive of the vote for the three major Quebec parties. Table 67 shows the result of this canonical analysis. The multiple canonical *R* for the analysis is .60, which explains 36.3% of the variance. Places more populated by men in the 40-49 age range show a marked preference for the PQ and ADQ, whereas places populated by women in the 40-44 age range show a muted tendency to support the PQ and ADQ, and places populated by women in the 45-49 age range show a moderate tendency to support the PLQ.

Canonical *R* = .60		
	Variables from POL Dataset	**Variables from SOC I Dataset**
Variance Extracted	100.0%	80.2%
Redundancy of Variables in Dataset Given Variables in Other Dataset	25.5%	13.1%
Variables Included	ADQ	F40_44
	PLQ	F45_49
	PQ	M40_44
		M45_49

Table 67.
Canonical Analysis of Major Quebec Parties and Persons in their Forties
value of *R* significant at $p \leq .05$

Path Analysis

The previous canonical analyses do an excellent job of confirming relationships between particular variables in our various domains, and via the most parsimonious models possible. However, canonical analysis cannot give us insight into whether these

relationships are static or dynamic. In other words, from canonical analysis we know only that particular variable domains or subdomains are related to one another; what we do not know is if there is any temporal ordering or "cause and effect" to those relationships. This is something that can be much better offered by a technique called path analysis.

Path analysis is part of a more generalised form of statistical analysis called structural equation modeling (Heinen 1993; Loehlin 1998; Pedhazur 1982: chapter 15; Tabachnick & Fidell 1996: chapter 14). The point of path analysis is to suggest a causal ordering to relationships between variables; though this analysis cannot absolutely confirm cause and effect, it can help us to reject less likely scenarios of cause and effect and provides statistical support for those scenarios more likely to model cause and effect.

Path analysis is an analogous technique to multiple linear regression; indeed, more than that, path analysis is at its core essentially a set of multiple linear regressions. Structural equation modeling computer programs use a matrix regression technique, referred to as the "Bentler-Weeks regression" technique, after the two psychologists who popularised it (Bentler & Weeks 1980; Tabachnick & Fidell 1996: 721). The fundamental equation for path analysis is the Bentler-Weeks matricised regression equation, which is represented as follows:

$$\eta = B\eta + \gamma\xi$$

where, if q is the number of variables held to be dependent variables (DVs) and r is the number of variables held to be independent variables (IVs):

η is a q x 1 vector of DVs;

B is a q x q matrix of regression coefficients among DVs;

γ is a q x r matrix of regression coefficients among DVs and IVs, and ξ is an r x 1 vector of IVs.

In essence, the Bentler-Weeks regression matrices run a number of multiple linear regressions done simultaneously, with some variables set as dependent variables and some set as independent variables. Furthermore, a variable that is independent with respect to one multiple linear regression can simultaneously be set as dependent with respect to another multiple linear regression in the same path analysis model.

It is the dependency of a variable that gives path analysis its power to suggest causal scenarios. A dependent variable is the predicted variable in a multiple linear regression; the independent variables form the basis of the prediction of values for the dependent variable. The assumption underlying path analysis is that a "causal arrow" connecting variables is more likely to flow in the direction of a well-predicted dependent variable. In other words, if A and B predict C better than B and C predict values in A, then our "causal arrow" is more likely to flow towards C from A and B than towards A from B and C.

It must be reiterated that path analysis does not statistically prove that one interpretation of causal connections must be correct over another one. All the method really does is help us sift out less promising scenarios and make better cases for more promising ones. Once the best scenario is identified, a "path diagram" showing relationships between variables connected by "causal arrows" of varying strengths in terms of variance explained may be created. The head of each "causal arrow" ends at a variable that is taken to be a dependent variable with respect to all variables on the other end of the arrow, which are taken to be the independent variables for one of the many regressions in the Bentler-Weeks regression process.

In order to gauge whether a particular model provides a "good fit" to a particular theorised relationship between a group of variables, a chi-square (χ^2) goodness of fit test is applied. In this test, the correlation coefficients (R) for each linear regression performed – that is, for each "path" in the "path diagram" – are added up with respect to each variable pair in the model. These coefficients are compared with the correlation coefficients in a standard correlation matrix by means of the chi-square test. If the value of χ^2 is less than the critical value for $p = .05$ or $p = .01$, this means that there is not significant variation between the predictions of the model for the intervariable correlations and the actual values of those intervariable correlations – thus, the model is a "good fit" to the actual relationships.

In this research, the value of path analysis is that it can help us see more dynamic relationships between variables, particularly between variables representing the provincial vote and variables that seem to necessarily imply these dynamic relations. There are two places where this kind of analysis could reasonably be used to uncover such relationships; the first involves demographic variables and the second involves the variable ECOHEAL, representing "ecological health" or the resistance to the loss of species exhibited by an area.

Demography

The demographic division in the Quebecois electorate seen in the preceding canonical analysis is identifiable in path analysis as well. As we see in Figure 28, regions with larger concentrations of small families (families with 3 or 4 members, represented by the variables FAMILY3 and FAMILY4), and with larger concentrations of men and

women in the 40-44 age range (M40_44 and F40_44) or boys and girls in the 15-19 age range (M15_19 and F15_19), tend most strongly towards the PQ. This demographic path model predicts around 41% of the overall variance of PQ voting[7]. This reflects that these narrow age ranges and very specific family sizes are reasonably effective at epitomising an important process in PQ voting.

Given that age statistics for the 1996 Census reflect the ages they would have been in the year 1995, people in the older of these two age ranges would have been born from 1951-1955 and would have turned 18 from 1969-1973, around the time of the October Crisis and the founding of the PQ. This generation grew up during the Quiet Revolution and became politically active at a time when the eternal verities of Quebec politics were suddenly being questioned and francophones across the province were uniting for political change and linguistic rights. People in the younger of the two age ranges would have been born from 1976-1980 and would have turned 18 from 1994-1998, 1998. This generation was the first to be born into a Quebec where the sovereigntist PQ had never been an odd sight on the political scene, and indeed where it came to be perceived as one of the everyday political parties in the province; the generation was coming of age around the time of the study election described by this dissertation, a time when a referendum vote nearly took Quebec out of the Canadian confederation and two successive PQ governments were elected.

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[7] A previous draft of this dissertation used "adjusted R^2", or the squared multiple correlation coefficient adjusted to reflect degrees of freedom, to present the variance explained by each path in the path analysis diagram. This was an error, as adjusted R^2 is appropriately used with respect to regressions on samples of populations. Since the entirety of the population is being analysed here, simple R^2 rather than adjusted R^2 is appropriate and is used to represent the results.

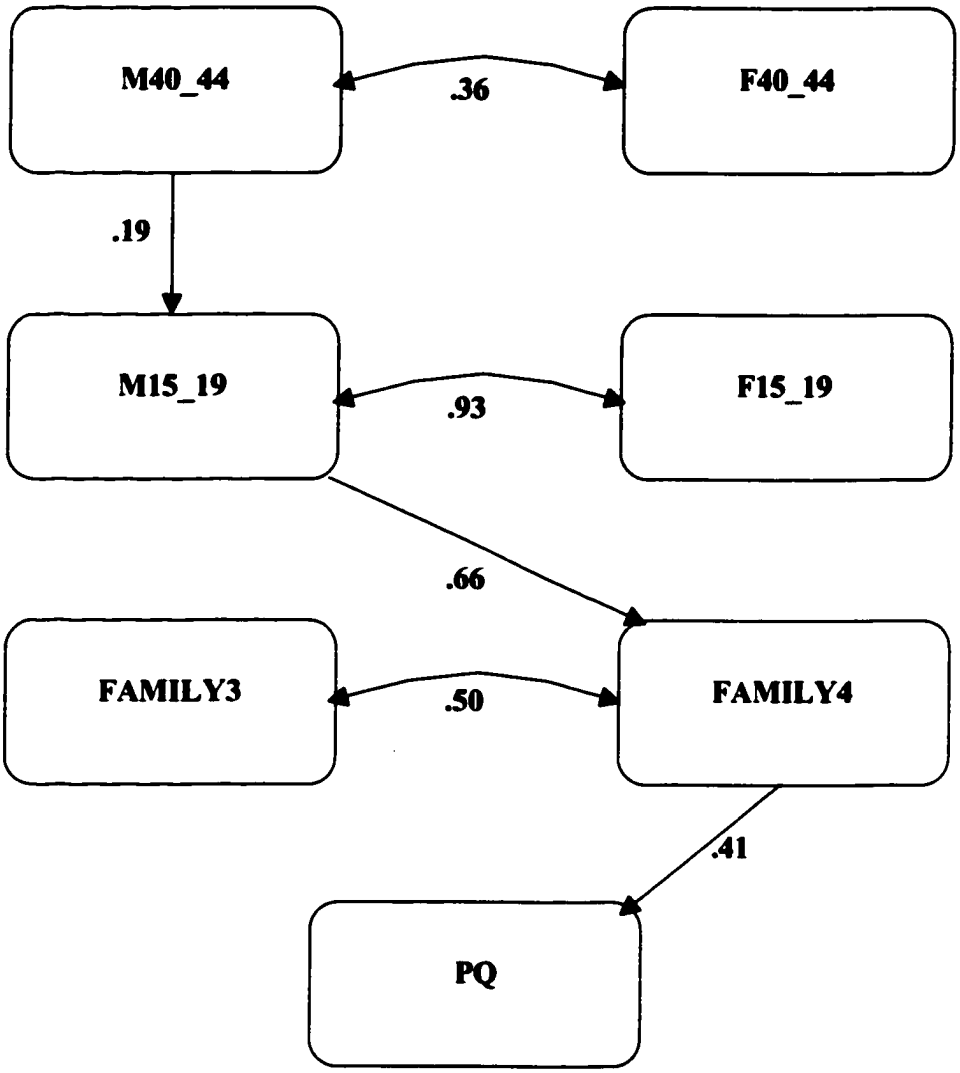


Figure 28.
PQ "Demography" Path Model
$\chi^2 = 8.52$; predicted demonstrates non-significant variation from actual at $p \leq .001$

The relationship of these two age groups is important – those who are in the first of these generations more than likely sired or bore those in the second of the generations. Those

in the 40-44 age range would not be unlikely to have children in the 15-19 age range. The path model reflects the causal direction we would expect, of course. Parents temporally precede their children.

The curved lines going in both directions that are shown in Figure 28 indicate colinear relationships between variables. When variables are colinear to the extent that drawing extra paths from these variables to other variables they affect would be superfluous, it is better not to draw the extra paths, which unnecessarily inflate the value of χ^2. Not surprisingly, there is a great deal of intercorrelation between variables representing men and women at the same 40-44 age range, boys and girls at the same 15-19 age range, and the midrange family sizes of 3 and 4.

The model is a good fit, as the value of χ^2 indicates that the predictions for the original correlation matrix of the model are close enough to the actual values of that matrix. The chi-square test indicates non-significant variation from the original correlation matrix at the .001 level, which indicates the predicted values for the correlation matrix have more than a 99.9% chance of being correctly fitted to the actual values.

Ecological Health

Path analysis also helps us gain some perspective on the relationship of voting to the ecological health measure variable used in this study (ECOHEAL). Figure 29 shows a path diagram relating voting levels for the PQ to ecological health. In this example, the "causal arrows" flow from the party voting measure towards the ecological health measure. The particular variables through which one passes on the way from the PQ

variable to the ECOHEAL variable help us to theorise what sort of relationship is involved between these variables. The interpretation of this relationship, evidently, should not be that PQ voting "causes" ecological health. Rather, as the variables involved in this path diagram indicate, we should infer that PQ voting is associated with specific sorts of *genres de vie* in the more rural regions of the province, regions which are more ecologically healthy because these *genres de vie* involve less intensive land uses and less intensive patterns of human interaction with the landscape.

The first interaction we see in this model is between PQ voting and trades school education, represented by the variable TRADES. Those living in areas that vote for the PQ appear to value trades school programs, most likely because these programs relate well to the rural and small town environment in which PQ voters live. Trades school educations are most useful for artisanry and small business applications; those who get their education in trades schools are best suited either to skilled labour or to occupations involving, not unsurprisingly, trade. The path continues for this reason onwards to the variable TRADING, which represents those working in occupations involving trading.

Those involved in artisanry and small business economic pursuits tend to locate not in the cutthroat, big business world of the major cities, but in more bucolic environments outside the city. The variables MIXRANK (riding ranking of mixed forest land cover), DECRANK (riding ranking of deciduous forest land cover) and CONRANK (riding ranking of coniferous forest land cover) represent this sort of environment. We can see from the paths that those pursuing trading occupations are very attracted to mixed forest areas, which tend to be the location for suburban and larger exurban settlements,

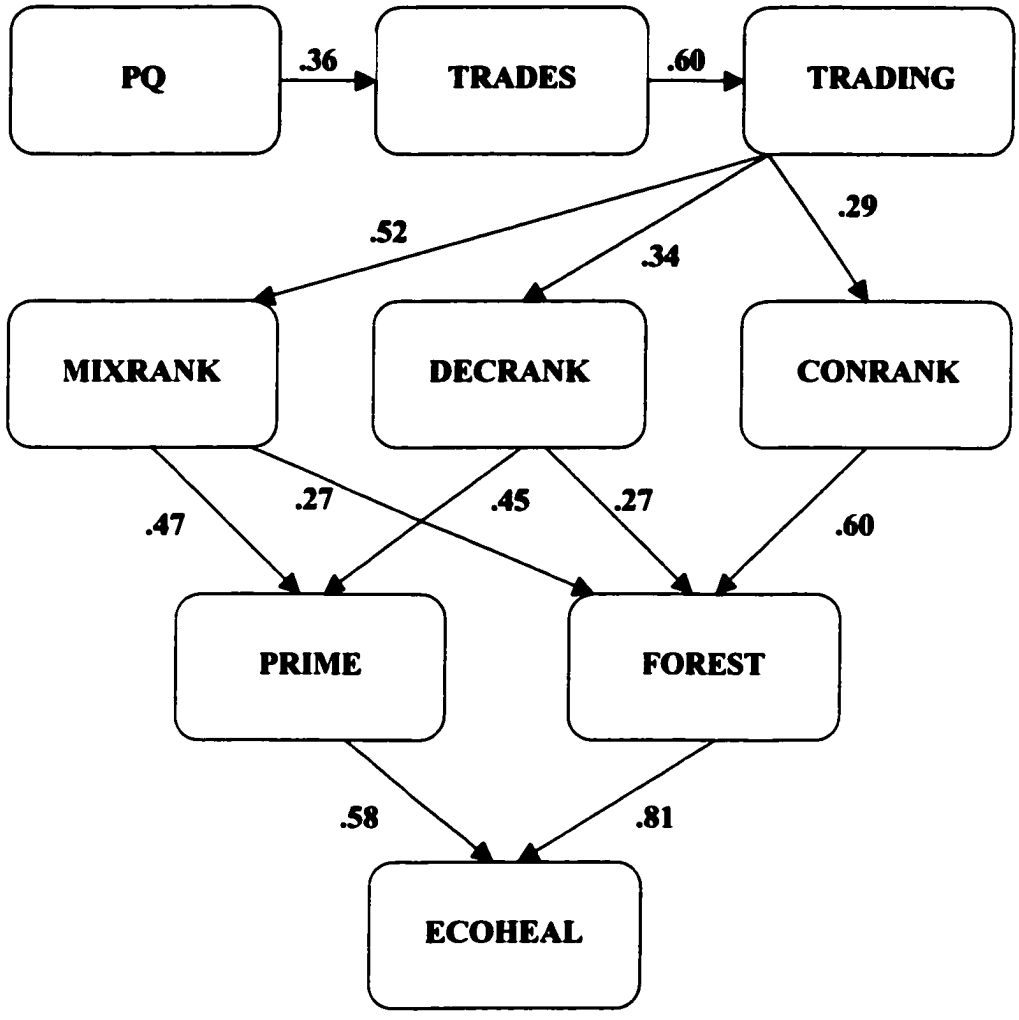


Figure 29.
PQ "Ecological Health" Path Model
χ^2 = 19.70; predicted demonstrates non-significant variation from actual at $p \leq .001$

somewhat attracted to deciduous forest environments, which have fewer urbanised areas, and somewhat less attracted to coniferous forest environments, which have still fewer urbanised areas. The mixed forest and deciduous forest areas are also areas where people are more likely to be involved in primary sector economic activities (as represented by

the variable PRIME). In other words, farming is more prevalent in these areas. All three of these kinds of forest area, mixed, deciduous and coniferous, attract the attentions of the forestry industry, and hence are places where people tend to be employed in the forestry sector (as represented by the variable FOREST).

Though agricultural and forestry land uses can be destructive to native species in particular ecosystems, these land uses comparatively are much less threatening to local species populations than those which prevail in Quebec's industrialised southern tier. For this reason, PRIME and FOREST relate positively to our ecological health measure ECOHEAL.

This ecological health path model predicts around 81% of the variance of the ECOHEAL variable. The interpretation of this strong result is not, as we have already pointed out, that PQ voting causes ecological health 81% of the time. It is, rather, that there is a process relating the PQ vote to ecological health, and understanding the temporal order to this process – in other words, the direction of the paths in the model – can give us a great deal of explanatory power where the relationship between these two variables is concerned.

The sociologist Anne Trépanier (2001)[8], citing the earlier work of Jacques Bouchard (1978: 63-84) holds that an essential element which has historically defined *les Québécois* as a people are what Bouchard described as their *racine terrienne* ("earth-bound roots"). These roots are best shown in the value they accord to simplicity (*la simplicité*), to manual craft (*habilité manuelle*), and to love of nature and wide-open

[8] Anne Trépanier's book, an analysis of discourse related to the 1995 sovereignty referendum vote, is entirely centered theoretically around the categories in Jacques Bouchard's work, which are resummarised in an appendix to her book to which the author of this dissertation would refer his reader as evidence of the central importance Mr. Bouchard's ideas had as constellating concepts for her discourse analysis.

spaces (*l'amour de la nature*). The fact that variables relating to these elements are part of a path model which predicts a good deal of the variance for a key environmental variable leading from the variable PQ, which is a fairly representative variable for being, culturally, a *Québécois* seems a fair confirmation of the theories of Trépanier and Bouchard, respectively.

Assimilation/Acculturation Analysis

No analysis of Quebec politics would be complete without an intensive look at linguistic issues and in particular at the issue that sparked the rise of sovereigntism in the first place – the fear of creeping linguistic assimilation of the francophone population by an anglophone culture based both within and outside the province. In this portion of the dissertation, we use variations of Charles Castonguay's indicators of ***language shift***. These measures gauge the difference between the percentage of people who were raised to speak a certain language – who have that language as a "mother tongue" according to the 1996 Census – and the percentage of people who speak a language other than that language in everyday life. Appendix G summarises the variables created for the purposes of this analysis, which were constructed via operations on selected of the "Language" variables from the CULT dataset.

Language Shift: Assimilation and Adoption

Charles Castonguay advocates the use of a language shift measure that compares mother tongue speakers of a language to those speaking the language at home:

> [*L*]*anguage shift*, refers to a person's adopting a principal home language which is different from that person's mother

> tongue. As a consequence, such a person's children will often have the new home language as their mother tongue (Castonguay 1999b: 42; emphases in the original).

In the following analysis, we will use this particular operational definition for language shift in what we will term our "home language statistics". However, we will also relate a measure of the language preferred in everyday life, or "first language", to mother tongue identification, and we will distinguish these measures by means of calling them "first language statistics".

Castonguay describes his methodological approach in the following fashion:

> For a given language, *net language shift* equals that language's total home language count minus its total mother tongue count. When positive, the language is gaining through assimilation. When negative, it is losing (Castonguay 1999b: 42).

In the following analysis, we will refer to negative net language shift by the term ***linguistic assimilation*** proper, and to positive net language shift by the term ***language adoption***. In other words, when languages are losing speakers, we will term this the assimilation of a language community; when languages are gaining speakers, we will term this the adoption of a language by other communities.

The procedure we will use to calculate net language shift thus involves a subtraction of percentages reflecting "mother tongue" identifications from percentages reflecting everyday language use (in the original Castonguay approach, this means "home language", but we will also use "first language" to show this). Note that in Castonguay's approach, language shift is measured in terms of raw numbers of persons. We deviate from this in our approach; we will be measuring language shift in terms of percentages, so that meaningful comparisons can be made across ridings of differing populations.

We can design test variables to reflect both net language shift as well as test variables that only gauge linguistic assimilation or language adoption. For the test variables we construct to measure assimilation alone, negative values must be removed and replaced with 0 from the original net language shift variable; for the test variables meant to measure language adoption alone, these negative values will be retained and instead positive values must be removed from the original net language shift variable and replaced with 0.

Table 68 shows correlations of the provincial political parties with the linguistic assimilation and language adoption measures. Taken together, these elements decompose Castonguay's "net language shift". In each row of the table, the two figures are shown for each party-language combination; the figure shown in the top part of each cell is the correlation on assimilation away from a given language and the figure shown in the bottom part of each cell is the correlation on adoption of that same language.

The table shows that the assimilation of the French-language mother tongue population is most pronounced in ridings where the Equality Party does well, and is fairly pronounced in ridings where the Liberals are the predominant party. Likewise, the adoption of English as a home language is very strongly pronounced in ridings where the PLQ and the Equality Party do well. These two parties, both of which are warmly supportive of the Canadian policy of official bilingualism, are associated with clear assimilation losses for the French language.

	ADQ	BP	PCQ	PDS	PEEP	PIQ	PLQ	PMLQ	PQ
Linguistic Assimilation of English; Adoption of English Language (Home)	**.27** **-.49**	**-.21** .08	**-.29** **.30**	-.01 -.02	**-.26** **.70**	**-.28** **.19**	**-.37** **.85**	-.10 .08	**.33** **-.82**
Linguistic Assimilation of French; Adoption of French Language (Home)	**-.26** .06	-.06 **.45**	-.05 **.67**	-.05 **.36**	**.75** -.15	-.06 **.55**	**.38** **.20**	.04 .14	**-.37** **-.24**
Linguistic Assimilation of Other; Adoption of Other Language (Home)	**-.44** -.01	**.20** -.03	**.46** .11	.07 **.26**	**.50** -.03	**.32** -.03	**.77** -.06	.08 .24	**-.75** .06
Linguistic Assimilation of English; Adoption of English Language (First)	.13 **-.44**	.16 .15	**-.25** **.48**	-.11 .05	**-.21** **.46**	**-.23** **.21**	**-.27** **.74**	-.09 .17	**.28** **-.71**
Linguistic Assimilation of French; Adoption of French Language (First)	-.13 **-.31**	-.04 **.37**	-.05 **.71**	-.07 **.21**	-.04 **.19**	-.04 **.47**	.00 **.57**	-.05 .18	.07 **-.58**
Linguistic Assimilation of Other	**-.40**	**.28**	**.60**	.10	**.37**	**.36**	**.71**	.16	**-.69**

Table 68.

Correlations (*r*) of Language Shift Variables (Linguistic Assimilation, Language Adoption) with Quebec Political Parties

(bold represents the correlation is significant at the $p \leq .05$ level, parties with no significant correlations eliminated from table; signs changed for interpretability)

Figure 30 shows the locations in Quebec where there is at present an assimilation of the mother tongue French-language population. The locations where there is the greatest assimilation are fairly unsurprising: West Island Montreal and Pontiac riding in the Outaouais are the primary assimilative locations, and are firmly located in the main "federalist" regions we have thus far identified.

In ridings other than the ones identified on this map, the PLQ is associated not with assimilation of French but in fact with its adoption. This is not true for the Equality Party, which tends to do well in ridings assimilative of French and poorly in ridings adopting of French.

Table 68 also shows that assimilation of the English-language mother tongue population is most pronounced in ridings where the PQ and ADQ predominate. This assimilative effect relative to English is not coupled with a language adoption effect relative to French. Indeed, in the case of the PQ, as the vote for the party goes up across the ridings, the likelihood of non-French linguistic groups adopting French goes down. The negative correlation for the PQ with French language adoption in fact intensifies if ridings with zero language adoption (in other words, ridings where there is actually assimilation away from French) are casewise deleted. In the ridings where there actually is adoption of French, as the vote percentages for the PQ go up, the percentage language adoption goes down.

Figure 31 shows the locations in Quebec where there is an assimilation of the mother tongue English-language population. These locations are somewhat more surprising. There are a number of ridings in the eastern Montreal ring suburbs that register highly as well as a number of ridings in the Mauricie area of Central Quebec.

Figure 30: Assimilation of the French Language Mother Tongue Population

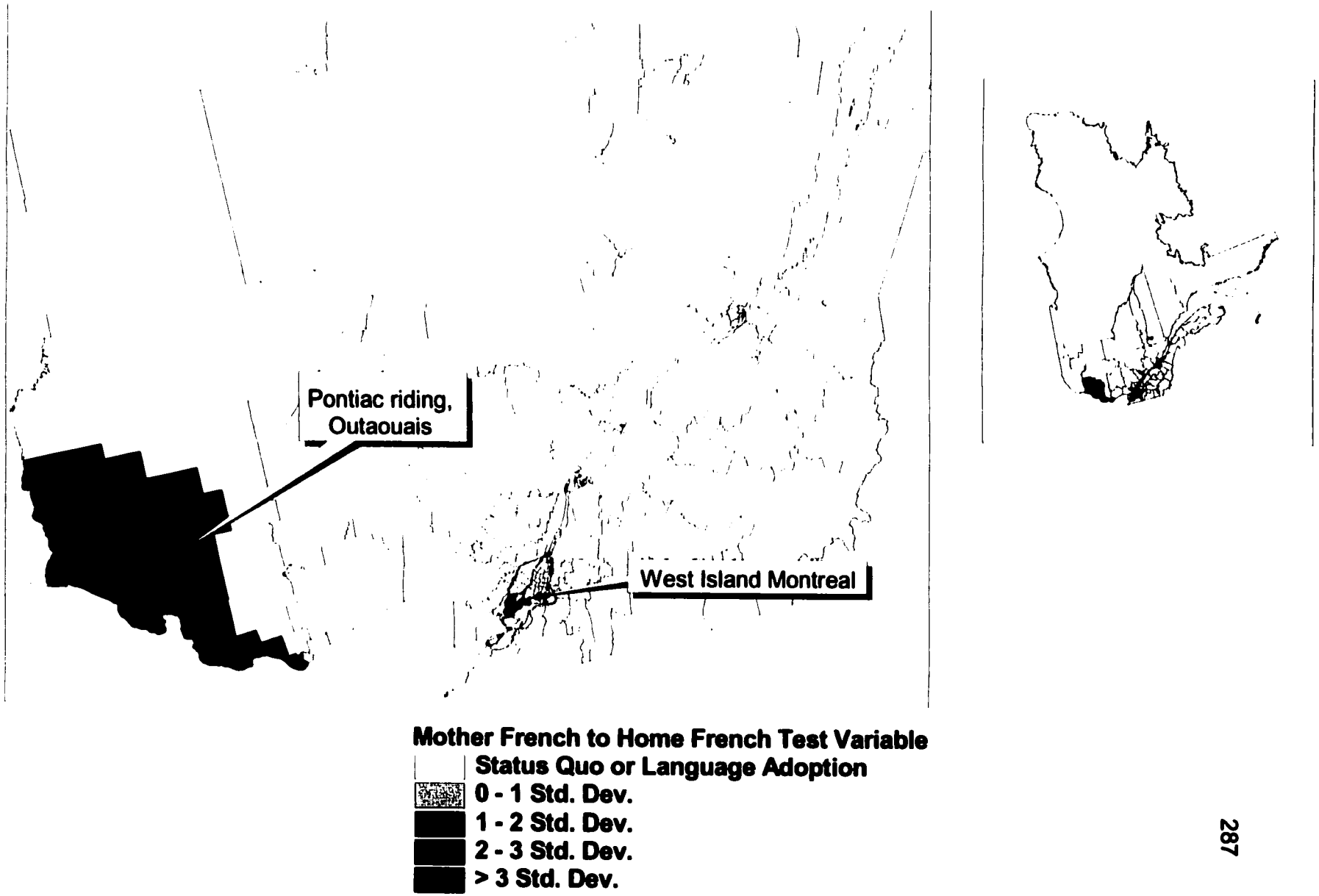
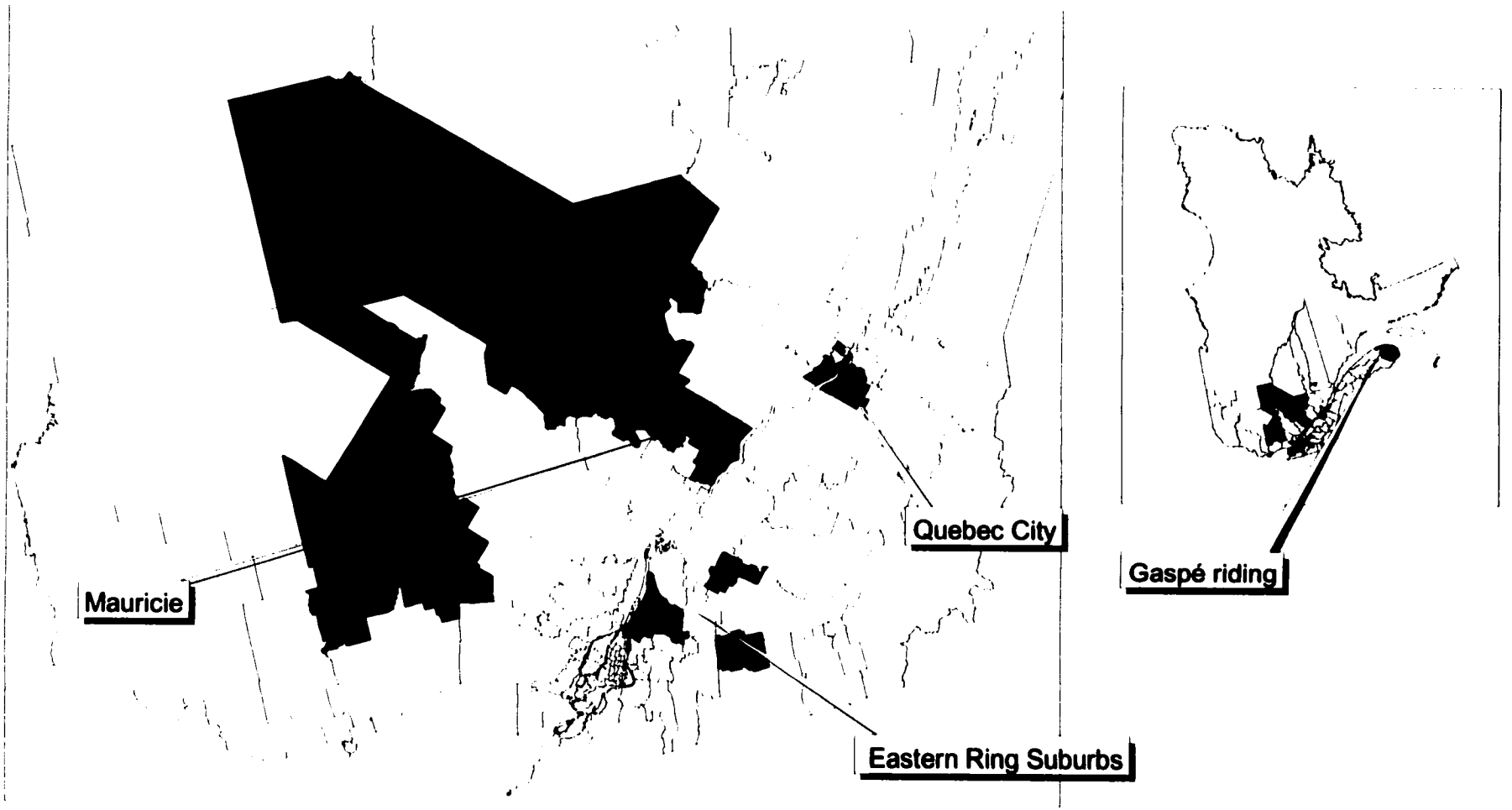


Figure 31: Assimilation of the English Language Mother Tongue Population



Most surprising, however, is the appearance of a pair of Quebec City ridings on this map. Quebec City has historically had a small but prominent English-speaking community; from the indications of this map, that community is being assimilated away from English. The final surprise on this map is the Gaspé riding. The Gaspé peninsula as well is home to a small but well-known English-speaking community, and according to our findings, that community is also being assimilated away from English. The areas in which these latter two assimilations are taking place were marginally *péquiste* electorally in 1998, but have histories of association with the PLQ.

Parties associated with Montreal's "Northwest Island", such as the *Bloc-Pôt*, the PCQ and the PIQ, generally show high correlations for adoption of English, adoption of French and assimilation of non-official languages of Canada. This is because the "Northwest Island" is both a centre for immigration and a location for a number of Montreal's ethnic communities of long standing, and many of the particular "Latin" linguistic communities living in this part of Montreal (speakers of Italian and Spanish, to name the most prominent examples) have historically chosen to learn both English, largely for economic reasons, and French, due to the similarity of that language with their mother tongues. In Figures 32 and 33, rates of language adoption for English and French, respectively, are mapped. We can see that the "Northwest Island" is the only area that appears on both of these maps.

In Figure 32, we see that, in addition to the "Northwest Island", the West Island, Chomedey riding in Laval, Pontiac riding in the Outaouais and Ungava riding in Quebec's far north are associated with adoption of English. Each of these areas outside

Figure 32: Adoption of English by Other Linguistic Communities

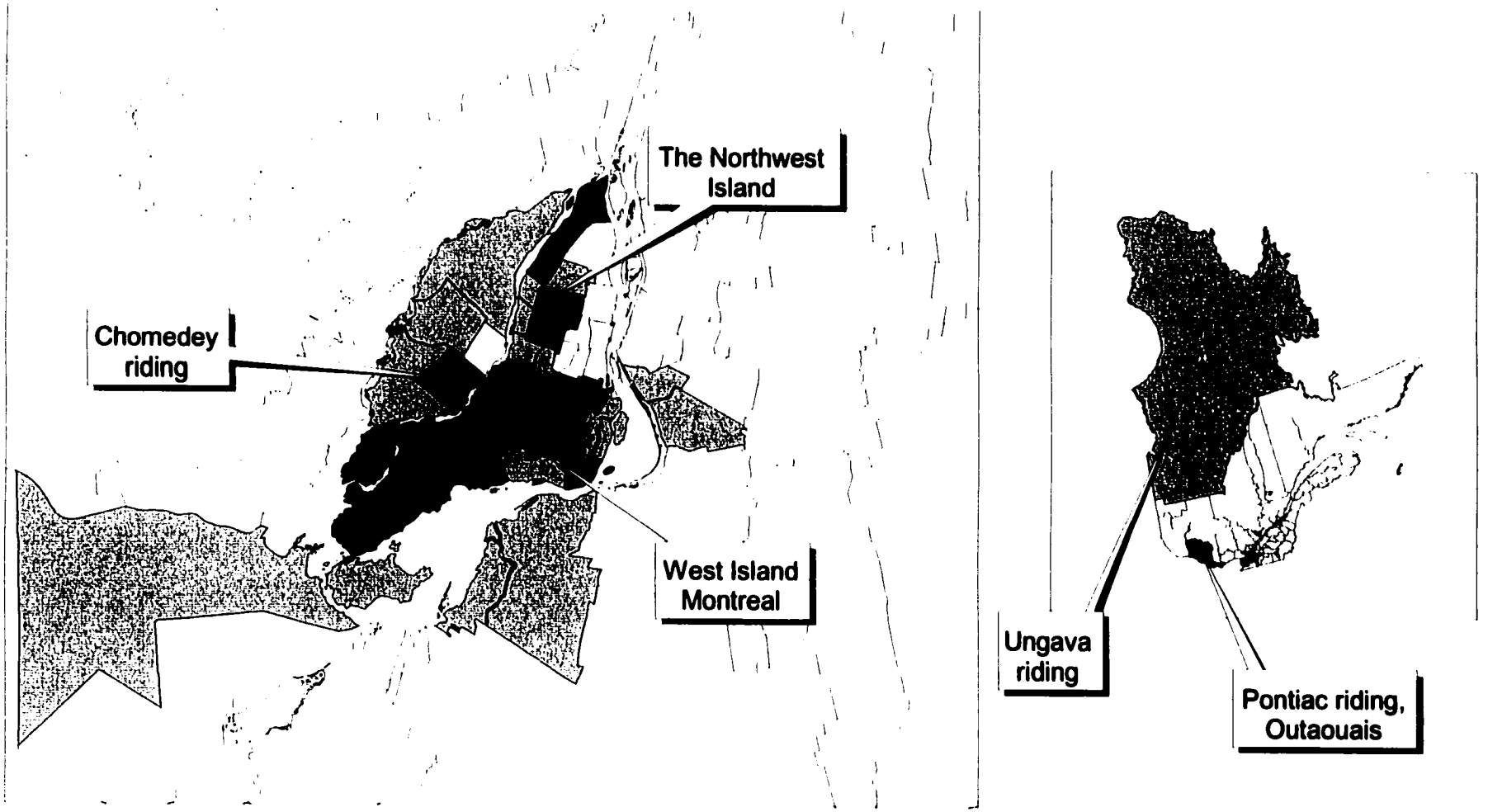
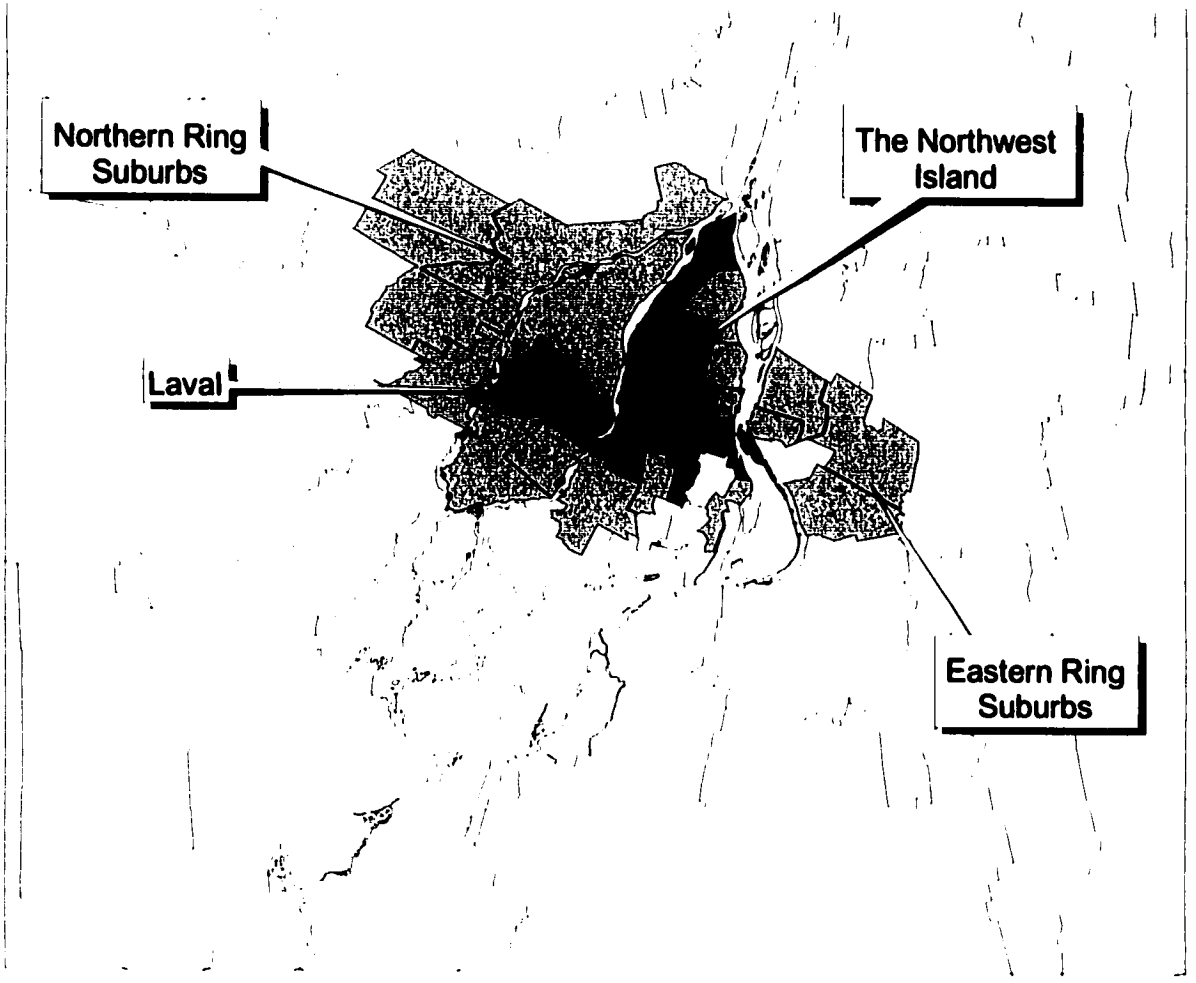
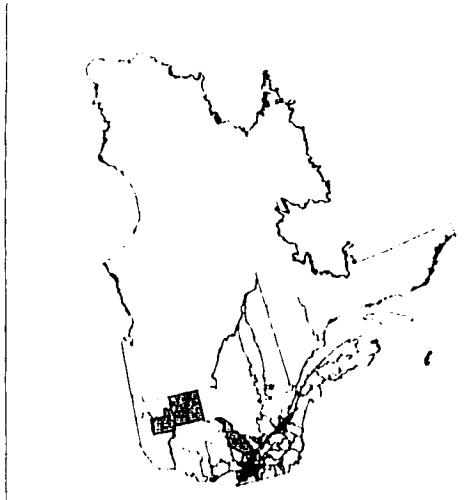


Figure 33: Adoption of French by Other Linguistic Communities





Mother French to Home French Test Variable

- Status Quo or Assimilation
- 0 - 1 Std. Dev.
- 1 - 2 Std. Dev.
- 2 - 3 Std. Dev.
- > 3 Std. Dev.

the "Northwest Island" are strongly pro-federalist and pro-PLQ in orientation – or, in the case of Ungava, have strongly pro-federalist and pro-PLQ enclaves.

In Figure 33, we see that there are few areas besides the "Northwest Island" where French is adopted; Laval and some of the suburbs east of the Isle of Montreal are associated with the adoption of the French language. The "Northwest Island" is pro-PLQ, Laval is marginally pro-PQ, and the eastern suburbs are pro-PQ – so there is no clear trend towards sovereignty over all the areas where French is adopted.

Language adoption trends among various linguistic minority groups in Quebec, whether those adoptions are of English or French, tend mostly to correlate with strength for the PLQ. In Table 69, we can see that most of the linguistic minority groups large enough or spatially concentrated enough to merit inclusion in our database correlate highly with both the adoption of English and the adoption of French, and also correlate highly with support for the PLQ.

Language	English Adoption		French Adoption		PLQ Voting Levels
	Home	First	Home	First	
Arabic	**.46**	**.39**	**.64**	**.69**	**.52**
Chinese	**.30**	**.25**	**.37**	**.54**	**.46**
Cree	.14	**.70**	.04	.07	-.01
Greek	**.32**	**.33**	**.42**	**.48**	**.34**
Inuktitut	.14	**.70**	.04	.07	-.01
Italian	**.86**	**.55**	**.72**	**.62**	**.41**
Spanish	**.73**	**.55**	**.82**	**.80**	**.51**
Vietnamese	**.39**	**.40**	**.65**	**.67**	**.37**

Table 69.
Correlations (*r*) of Non-Official Language Communities Variables with Language Adoption Variables and with Voting Levels for the PLQ
(bold represents the correlation is significant at the $p \leq .05$ level)

The sole exception to this trend are speakers of Cree and Inuktitut, this latter being the language of the Inuit people. Since both the Cree and the Inuit mostly live in the massive Ungava riding, and demographically are outweighed by francophone Quebecer voters in the southern part of that riding, there is no correlation at the riding level with the PLQ, though there is considerable association with that party at the subriding level, so we know that this result is somewhat misleading. More interesting are the results shown in Table 69 for language adoption among the Cree and the Inuit. Speakers of both Cree and Inuktitut tend not to adopt either English or French as home languages, but both adopt English rather than French as a preferred "first" language for everyday public business.

Learning Another Language: Acculturation

In addition to the linguistic assimilation and language adoption test variables described above, we can also create test variables to judge how much persons of a particular mother tongue are knowledgeable of other languages. The census also contains measures of conversational knowledge of French or English as well as non-official languages of Canada. A relation of knowledge of particular languages to mother tongue identifications gauges the extent to which people are acculturated to other linguistic communities: in other words, it will show us how much people move beyond their own linguistic ranks to learn the language of others. These measures are ratio measures of the percentage knowing a particular language to the percentage mother tongue identification, and will be considered our ***linguistic acculturation*** measures.

In Table 70, correlations relating the ratio between knowledge of a given language and mother tongue identification with another to the percentage vote for Quebec's provincial parties are presented. The areas where the PLQ and the Equality Party did well were also zones where speakers of French clearly make an effort to learn English; acculturation runs from French to English. In areas where the PQ and the ADQ did well, speakers of English clearly make an effort to learn French; acculturation runs from English to French.

	ADQ	BP	PCQ	PDS	PEEP	PIQ	PLQ	PMLQ	PQ
Acculturation of Mother French to Knowing English	**-.49**	.04	**.24**	.01	**.81**	.03	**.78**	.15	**-.75**
Acculturation of Mother Other to Knowing English	.12	-.14	**-.26**	-.10	**-.18**	**-.23**	**-.24**	.16	**.25**
Acculturation of Mother English to Knowing French	**.40**	-.13	**-.25**	-.04	**-.29**	**-.20**	**-.49**	**-.20**	**.43**
Acculturation of Mother Other to Knowing French	.12	-.11	**-.19**	-.07	-.16	-.17	**-.21**	-.16	**.22**

Table 70.
Correlations (*r*) of Linguistic Acculturation Variables with Quebec Political Parties
(bold represents the correlation is significant at the $p \leq .05$ level, parties with no significant correlations eliminated from table)

Amongst populations with a non-official mother tongue identification, acculturation towards both English and French occurs in PQ areas, whereas the non-

official language mother tongue population tends to be able to live in its own language in the PLQ areas.

Once again, we see confirmation that the areas where the PLQ and the Equality Party do well, the areas where one might expect to see the population embrace bilingualism, the two official languages of Canada do not compete on an equal footing. It is speakers of French who bend in the direction of learning English, not vice-versa. English-language communities in PQ and ADQ areas do bend in the direction of learning French, but considerably less so.

Economic Base Analysis

The last form of interaction analysis to which we turn in this dissertation is economic base analysis (EBA). EBA provides information on the extent to which certain sectors of employment are concentrated in a particular region or location. This information can help us to understand the extent to which such regions specialise or produce specific kinds of products "for export", and it can also help us gauge the extent to which particular sectors of employment agglomerate or produce in a setting where many are employed in that sector and thus benefiting from sectoral "economies of scale" in that region.

We use two measures of the economic base of the 125 provincial ridings in our analysis here. The first of these gauges the level of sectoral specialisation/production for export in the ridings. The second gauges the level of sectoral agglomeration/economy of scale in the ridings. The first measure we will call the location quotient (LQ), and is

measured in the following way:

$$LQ = \frac{Sectoral\ Employment_{RIDING}}{Sectoral\ Employment_{PROVINCE}} \Big/ \frac{Total\ Employment_{RIDING}}{Total\ Employment_{PROVINCE}}$$

A location quotient of 1 indicates that the riding has a proportion of employment in a given sector that is equivalent to the proportion of employment in that sector which prevails province-wide. If the province-wide proportions are taken to be a normal or "basic" amount of employment in the sector that needs to exist to support the province's economic structure, then location quotients of 1 or higher indicate that the riding has achieved the "basic" proportion of employment in the sector. A location quotient higher than 1 indicates the riding has a greater proportion of employment in the sector. A location quotient lower than 1 indicates the riding has a lesser proportion of employment in that sector than that which prevails province-wide. This means that the riding has not achieved a "basic" level of employment in that sector.

The second measure we use here scales the location quotient measure so that it reflects the raw number of jobs above or below what is considered "basic" per riding. This measure we will call the "by-jobs" measure (BJ) to distinguish it from the location quotient measure. The "by-jobs" measure is calculated in the following way:

$$BJ = \left(\left(\frac{Sectoral\ Employment_{RIDING}}{Total\ Employment_{RIDING}}\right) - \left(\frac{Sectoral\ Employment_{PROVINCE}}{Total\ Employment_{PROVINCE}}\right)\right) * Total\ Employment_{RIDING}$$

The term within the parentheses represents the difference between a ratio of sectoral to total employment within the riding and a ratio of sectoral to total employment province-wide. If there is a greater proportion of employment within a certain sector in the riding than there is province-wide, the term within the parentheses will be positive and represent the percentage by which the riding exceeds the province in employment in that sector. If there is a lesser proportion of employment within a certain sector in the riding than there is province-wide, then the term will be negative and represent the percentage by which the province exceeds the riding in employment in that sector. Multiplying the term within the parentheses by total employment for the riding yields the raw number of jobs by which the riding exceeds "basic" employment in the sector.

Each of these kinds of statistics has been done for each of the 18 recognised sectors of employment represented in our research database. The new variables to represent the LQ and BJ EBA statistics for each sector are listed in Appendix H. After creating these test variables, we can produce correlation analyses to relate the variables to Quebec's political parties. Tables 71 and 72 present the findings from these correlation analyses, for the LQ and BJ economic base measures, respectively. We can see that, according to both of these measures, the PLQ is associated with ridings that have their principal economic bases in Insurance/Real Estate, Business Services and Wholesale Trade, whereas the PQ-oriented ridings have their principal economic bases in Construction, Forestry and Retail Trade. The ADQ is associated with the Agriculture, Construction and Retail Trade sectors.

Location Quotient (Sector Measured)	ADQ	PLQ	PQ	AVINC
Accommodations, Food and Beverages	-.05	-.14	.17	**-.39**
Agriculture	**.21**	**-.18**	.16	**-.35**
Business Services	**-.33**	**.48**	**-.48**	**.60**
Communications	.04	-.16	.16	**.33**
Construction	**.37**	**-.48**	**.45**	**-.18**
Educational Services	**-.29**	.14	-.08	**.41**
Finance	.08	.02	-.06	**.43**
Fishing	**-.21**	.00	.11	-.09
Forestry	-.01	**-.23**	**.29**	**-.29**
Government Services	-.01	-.06	.06	**.21**
Health Services	-.10	-.03	.06	.06
Insurance and Real Estate	**-.34**	**.55**	**-.53**	**.56**
Manufacturing	.12	.05	-.09	**-.37**
Mining, Oil and Gas	-.02	-.12	.17	-.02
Other Services	**-.23**	.14	-.14	.01
Retail	**.35**	**-.34**	**.28**	**-.27**
Transportation	.14	-.09	.08	.10
Wholesale	-.04	**.40**	**-.45**	**.40**

Table 71.
Correlations (*r*) of Economic Base Location Quotients (LQs) with Quebec Political Parties
(bold represents the correlation is significant at the $p \leq .05$ level, AVINC provided for comparison)

The main story is one that is familiar to readers of recent works of economic analysis on the feasability of Quebec sovereignty: the sectors of Business Services, Insurance/Real Estate and Wholesale Trade are evidently the most lucrative, as the correlations with our average income measure, AVINC, indicates. Each of these sectors are located disproportionately in areas highly supportive of the PLQ. In Figure 34, we map the "by-jobs" measure for Business Services, the sector most associated with high income and second-most associated with the PLQ. Business Services employment is overwhelmingly located in West Island Montreal, with more minor locations of concentration in the eastern ring suburbs, Laval and the Outaouais.

By-Jobs Measure (Sector Measured)	ADQ	PLQ	PQ	AVINC
Accommodations, Food and Beverages	-.07	-.12	.14	**-.43**
Agriculture	**.20**	**-.21**	**.20**	**-.40**
Business Services	**-.37**	**.51**	**-.49**	**.61**
Communications	.06	**-.19**	**.19**	**.33**
Construction	**.41**	**-.51**	**.47**	**-.18**
Educational Services	**-.31**	.17	-.11	**.40**
Finance	.12	-.01	-.03	**.44**
Fishing	**-.19**	-.03	.14	-.11
Forestry	-.01	**-.24**	**.31**	**-.32**
Government Services	.03	-.07	.06	.17
Health Services	-.10	-.03	.06	.05
Insurance and Real Estate	**-.37**	**.58**	**-.55**	**.57**
Manufacturing	.11	.04	-.06	**-.38**
Mining, Oil and Gas	-.02	-.13	**.18**	-.05
Other Services	**-.26**	.15	-.14	-.01
Retail	**.35**	**-.35**	**.30**	**-.29**
Transportation	.14	-.07	.06	.14
Wholesale	-.07	**.39**	**-.42**	**.40**

Table 72.
Correlations (*r*) of Economic Base Location "By-Jobs" Measures (BJs) with Quebec Political Parties
(bold represents the correlation is significant at the $p \leq .05$ level, AVINC provided for comparison)

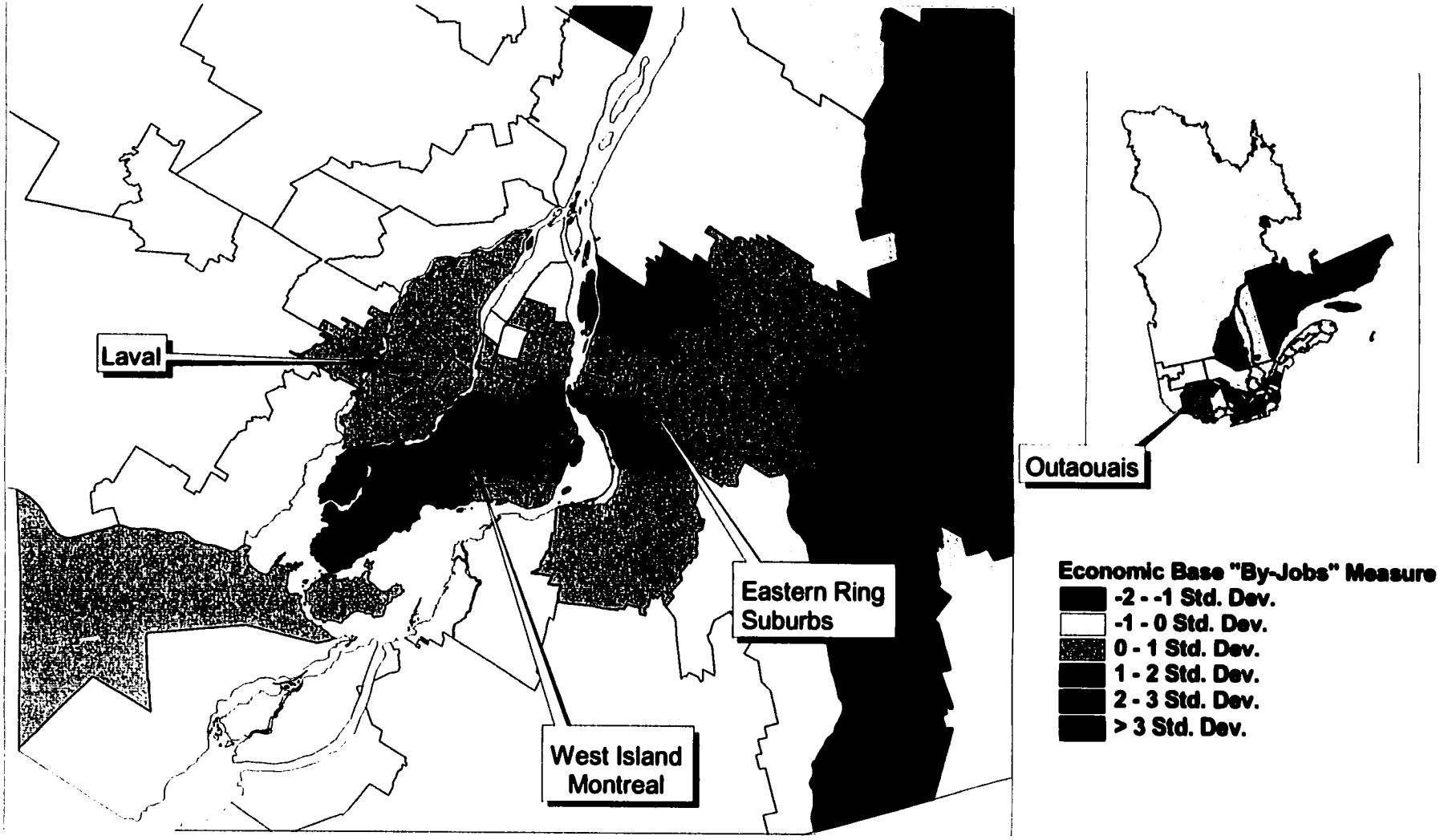
The economists Côté & Johnston (1995) argue that firms and head offices in Business Services, Insurance/Real Estate and Wholesale Trade, which locate mostly in the West Island Montreal area, as well as Government Services, which exerts an important regional hold upon the economy of the Outaouais, would be the first to flee a sovereign Quebec, and that the results of this exodus would be devastating to the Quebec economy. If we can suppose that sectors already disproportionately located in ridings dominated by the federalist PLQ would find Quebec sovereignty unpalatable, then our analysis indeed confirms that economic shocks resulting from relocations outside Quebec of firms and head offices in these sectors are likely given Quebec's accession to sovereignty.

However, there is also news provided by this analysis that is more heartening for the PQ. The first bit of encouraging information is that there are some economic bases in PQ-oriented ridings that are not detected by location quotients, but become evident by means of the "by-jobs" measures. The three economic bases identified by the "by-jobs" measure are Agriculture, Communications and Forestry. The "by-jobs" measure helps us to identify the possible economic strengths of an independent Quebec where the location quotients did not due to its focus on the importance of economies of scale. It is as much the fact that, in terms of raw numbers, large numbers of people work in these industries as that these industries are concentrated spatially which makes an impact.

Agriculture and Forestry are primary sectors of the economy; as such, they deal directly with the produce of the earth itself. Neither of these two sectors are particularly lucrative, as evidenced by the average income statistics in Tables 71 and 72. Communications, on the other hand, is a "high-tech" industrial sector that is reasonably strongly and positively related with average income.

The communications sector represents the sole economic base associated with the PQ-oriented ridings that seems to have some potential to be the bedrock foundation of the economy of an independent Quebec. The argument of Côté and Johnston rests upon the assumption that lucrative tertiary industry firms, with links to a global economy enabling them to be highly mobile, will naturally pick up and relocate out of a fear of the instability which is presumed to accompany a change of Quebec's political status. This assumption seems to be out of place with a finding that PQ-oriented ridings have an economic base in the communications industry, that industry which is the archetypical industry for having "links to a global economy". The high-tech infrastructure of the

Figure 34: "By-Jobs" Economic Base Measure: Business Services



"information superhighway" is not built with the goal in mind of being isolated from the world. The fact that it is the PQ-oriented ridings, rather than the PLQ-oriented ridings, which have attracted or retained communications firms suggests that such firms would probably not leave should Quebec become independent; the fact that communications is a fairly lucrative sector suggests that Quebec would have at least one advantage economically in the context of accession to sovereignty.

Figure 35 maps the "by-jobs" measure for the Communications sector. We can see that employment in this sector is primarily found in the francophone and *péquiste* eastern Montreal ring suburbs. Whenever we are dealing with high values for the "by-jobs" measure, we are dealing with the potential for an economic multiplier. Those earning money in the communications sector contribute, presumably, to the economies of these eastern suburbs of Montreal; the more people employed by the sector, the more we would expect the multiplier effect to benefit the local economies of these suburbs.

Another important resource for an independent Quebec might potentially be the Finance sector. Though there is no clear relationship between this sector and the main political parties as shown in Tables 71 and 72, Finance sector employment is highly concentrated in heavily francophone parts of the province. The main reason there is no association of the variable representing the Finance sector with the PQ is that PQ-oriented ridings are only some of the ridings where there is a concentration of Finance sector employment. As we can see from Figure 36, some familiar *péquiste* ridings in the eastern and, to a lesser extent, northern ring suburbs are places where Finance sector employment is found in abundance. However, Quebec City is clearly the major hub for the Finance sector in the province; the entire Quebec City CMA has a clear connection to

the Finance sector. Quebec City is generally an area where the PQ and PLQ competed neck-and-neck, the concentration of Finance sector employment in this area cannot be represented as being associated with the strength of one or the other party. However, if we were to evaluate things linguistically, it certainly counts as a potential strength for francophone Quebec that there is this concentration in the Finance sector in Quebec City. Firms in the finance sector, already deeply rooted in a very francophone part of the province, might well stay in the event of Quebec's accession to sovereignty.

Dependence on government services employment in the Outaouais has already been stressed in this dissertation; Figure 37 shows which ridings might be affected by this dependence. The Outaouais figures, as expected, fairly prominently on this map as a representative of the impact of federal government employment; the Quebec City area figures equally prominently as a representative of the impact of the provincial government. More interesting, however, are the concentrations in the eastern ring suburbs and in northern Quebec. The concentration in the eastern ring suburbs very likely represents employees of the provincial government, and the concentration in northern Quebec likely represents employees of the federal government as well as of the provincial government who deal with the large aboriginal nations located in this part of the province. Our data does not establish this firmly, but one can probably infer this with confidence from the histories of these regions presented earlier in this dissertation.

Of these regions, the largest hit to the economy that could emerge as the result of the federal government's withdrawal from the local labour market clearly would affect the Outaouais. There might be a small shock to northern Quebec's economy as a result

Figure 35: "By-Jobs" Economic Base Measure: Communications

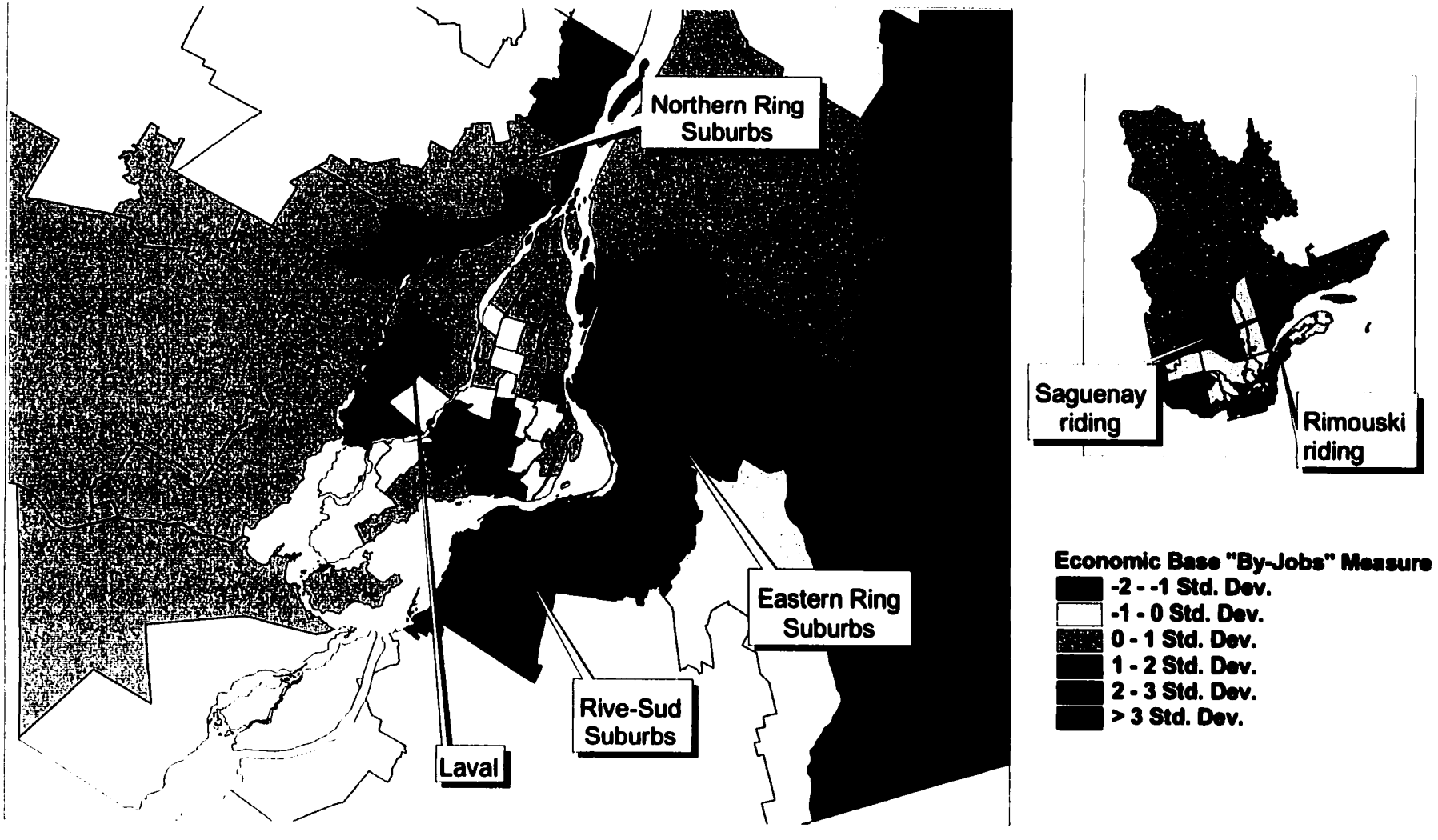
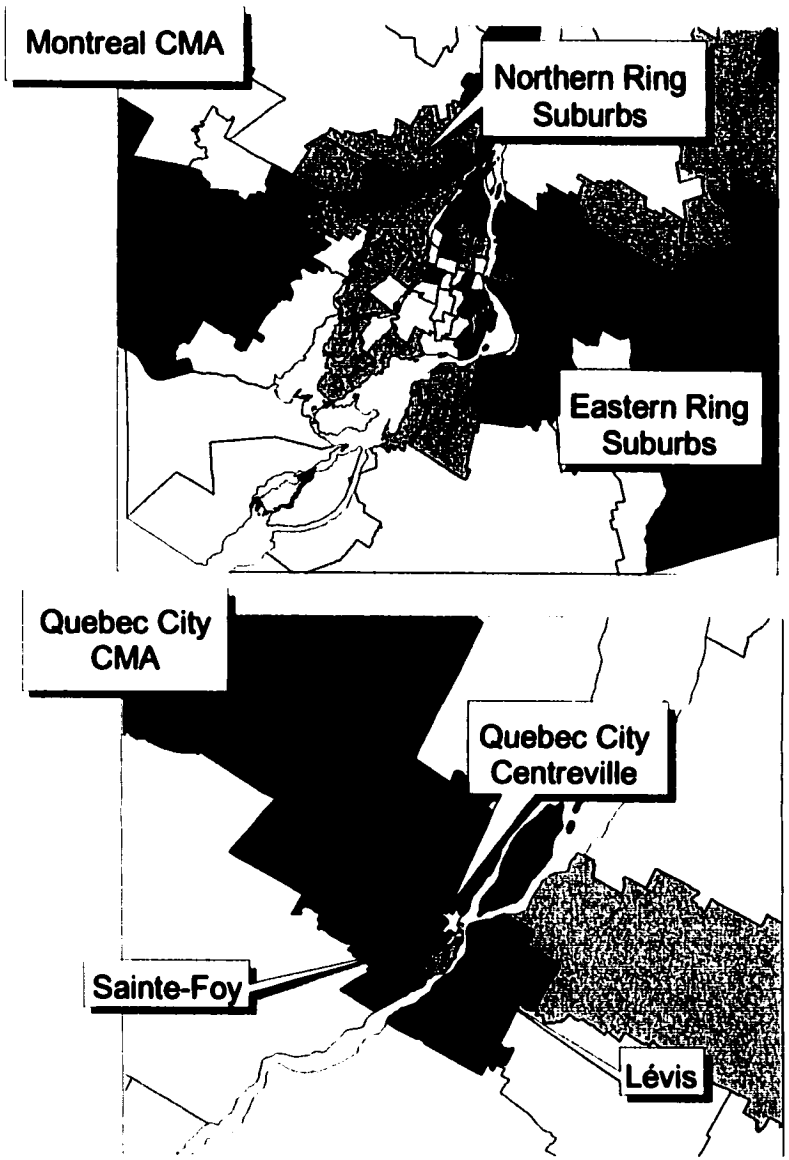


Figure 36: "By-Jobs" Economic Base Measure: Finance

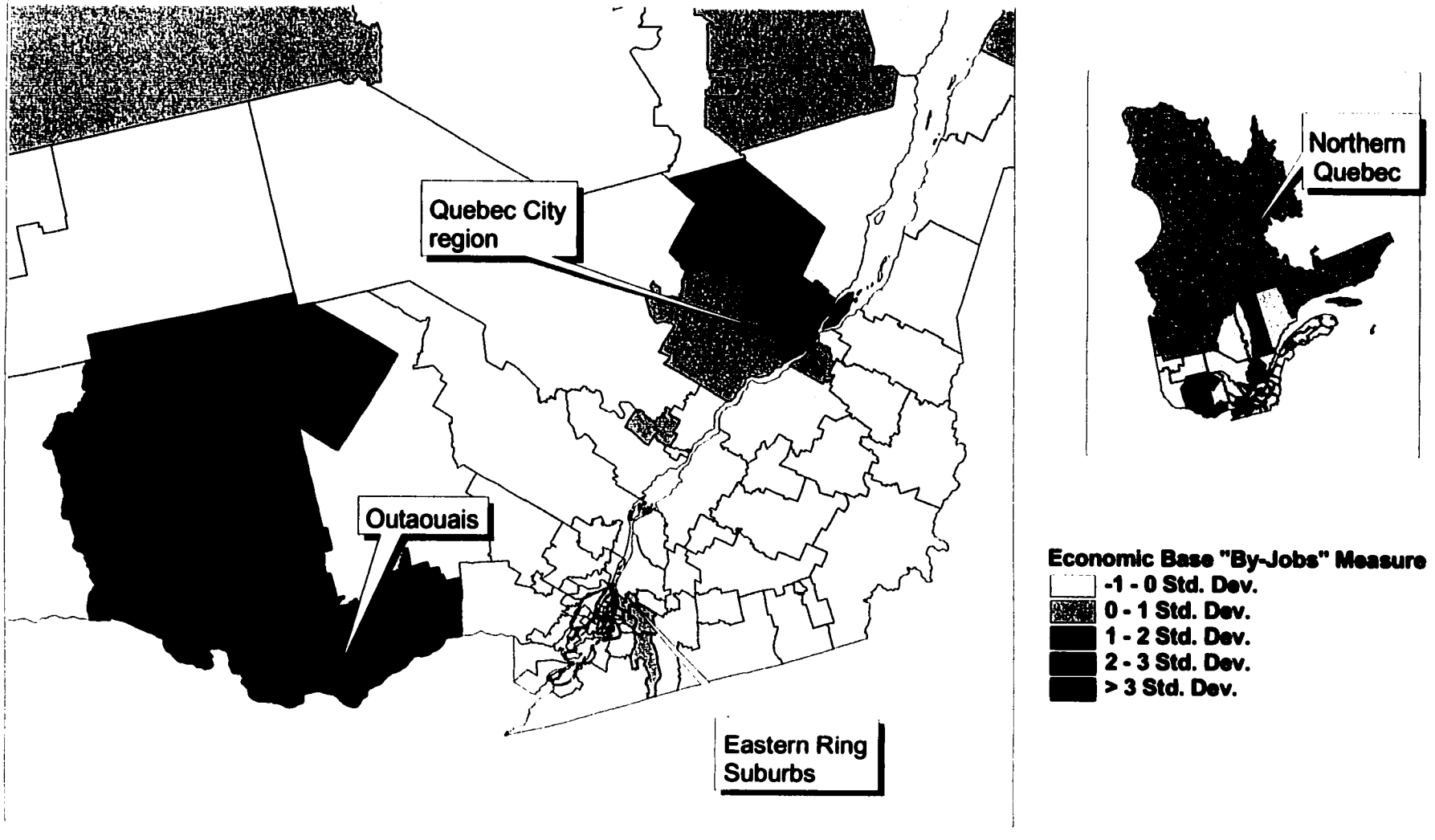


Economic Base "By-Jobs" Measure
- -2 - -1 Std. Dev.
- -1 - 0 Std. Dev.
- 0 - 1 Std. Dev.
- 1 - 2 Std. Dev.
- 2 - 3 Std. Dev.
- > 3 Std. Dev.

of federal withdrawal there, but it is more likely that the province could compensate by replacing those federal employees with provincial ones.

In general, Quebec's economic scenario after a possible secession from Canada, on the basis of this analysis, has an potential upside with respect to the Communications and Finance sectors, and a fairly clear downside with respect to Business Services and Government Services. In the event of secession, if we may presume a general exodus of firms and skilled labour in areas warmly supportive of federalism, then there will be shocks to the Quebec economy in the Business Services and Government Services sectors. Such a conclusion is not a new one, of course. However, there does seem to be a reason to believe that an independent Quebec has certain economic strengths, particularly in Communications and Finance, which would allow it to ride out these shocks.

Figure 37: "By-Jobs" Economic Base Measure: Government Services



VI. RESULTS: HOW ARE THE METHODS APPLIED TO THE 1998 ELECTION?

The analyses of the research database now concluded, we may at this point evaluate the hypotheses for this research project.

Hypothesis One

The first research hypothesis, H_1, was stated as follows:

> H_1: There are spatially-compact regions which represent concentration of support for one of the provincial political parties, as defined by the locality weight statistic.

This hypothesis has been **verified**. Both locality indices and locality weights show a distinct concentration of support for the two largest parties in Quebec, the PQ and the PLQ, and smaller political parties in the province do play a role in defining electoral regions as well, most notably the Equality Party, which is generally strong in areas in which the PLQ is also strong, and the small parties of the left (PCQ, PMLQ and PDS) which demonstrate strength in central city areas.

We also find that there is a high amount of clustering of support for the PQ and the PLQ in the Outaouais, and for the PLQ in Ungava riding.

Spatial autocorrelation testing confirms the fact that support for the PQ and the PLQ is tremendously clustered in the province. Spatial autocorrelation also confirms the existence of clustering patterns for the PQ and the PLQ in the Outaouais.

Anomalies do exist with respect to this hypothesis. For example, support for the ADQ is spatially concentrated, but rather weakly compared to the PQ and PLQ. Furthermore, the Eastern Townships municipalities demonstrate a much weaker degree of

spatial concentration for the PQ and PLQ than one finds at the pan-Quebec level. Nevertheless, the hypothesis is for the most part, and with respect to the most important political actors, verified.

Hypothesis Two

The second research hypothesis, H_2, was stated as follows:

> H_2: These spatially-compact regions are also strongly characterised by their relationships to cultural variables.

This hypothesis is **weakly verified**. The variables in the CULT dataset, as demonstrated in the canonical analysis in Table 53, bear a tremendously strong relationship to the variables in the POL dataset that represent voting behaviour. The fact that this is the case is sufficient for us to declare the hypothesis verified. However, no uniquely "cultural" factor emerged from our factor analysis; variables from the CULT dataset mixed with other variables outside CULT in the components produced by principal components analysis. Since it was an assumption of the research model that a factor would emerge representing each of the dimensions of the "rational actor model", helping to verify that this model is appropriately used to structure the variables in the research database, we cannot say that this hypothesis was strongly verified, which we would have been able to say had a uniquely "cultural" factor emerged. The hypothesis is somewhat more strongly verified with respect to Component 1 in our factor analysis, "Federalism/Sovereigntism", which loaded much more highly on CULT variables than on variables from other datasets; nevertheless, representative varibles from SOC II and ECON also figured prominently in defining this factor.

Hypothesis Three

The third research hypothesis, H_3, was stated as follows:

> H_3: These spatially-compact regions are also strongly characterised by their relationships to ecological variables.

This hypothesis is **weakly verified.** The variables in the ECOL dataset, as demonstrated in the canonical analysis in Table 53, bear a very strong relationship to those in the POL dataset. Thus, we may consider the hypothesis verified. Again, however, our expectation that a unique factor would emerge from factor analysis comprising all "ecological" variables was disappointed; variables from ECOL mixed with other variables in the factors. This hypothesis is somewhat more strongly verified with respect to the factor that did emerge called "Biodiversity/Ecological Health", which did have a fairly unique constitution in terms of ecological variables, and this isolated ecological factor provided our analysis with a great deal of explanatory power. Nevertheless, we cannot claim that the structure given to the factors produced in factor analysis is the same as we expected it to be at the beginning; thus, we must claim a caveat to the verification of this hypothesis.

Hypothesis Four

The fourth research hypothesis, H_4, was stated as follows:

> H_4: These spatially-compact regions are also strongly characterised by their relationships to social variables.

This hypothesis is **weakly verified with respect to both domains** to which it refers, SOC I and SOC II, in our research database. The variables in these datasets, as demonstrated in the canonical analysis in Table 53, bear a tremendously strong

relationship to those in the POL dataset. Thus, we may consider the hypothesis verified. Our expectation that a unique factor, or a pair of unique factors representing the two aspects of "social" represented by SOC I and SOC II in the original datasets, would emerge from factor analysis was disappointed. Health care variables did code together in one factor, "Health Problems", and this factor was an important one in our analysis for which the variables came uniquely from the two social datasets. Nevertheless, our expectations for the structure of the components coming from principal components analysis were clearly not confirmed, so we must attach a caveat to the verification of this hypothesis as well.

Hypothesis Five

The fifth research hypothesis, H_5, was stated as follows:

> H_5: These spatially-compact regions are also strongly characterised by their relationships to economic variables.

This hypothesis is **weakly verified**. The variables in the ECON dataset, as illustrated in the canonical analysis in Table 53, bear a very strong relationship to the variables in the POL dataset. Thus, we may consider the hypothesis verified. However, again, we were disappointed in our expectation that a unique "economic" factor would emerge from factor analysis. Indeed, most of the important economic variables ended up loading highly on our first component from principal components analysis, the "Federalism/Sovereigntism" component, along with many variables from CULT and SOC II, while others loaded highly on other factors that were amalgams with variables from other datasets.

Hypothesis Six

The sixth research hypothesis, H_6, was stated as follows:

> H_6: The relationships specified in H_2-H_5 may be understood better through as processes involving complex interactions between variables.

This hypothesis has been **verified.** Though factor analysis did not establish overall relationships between the CULT, ECOL, SOC I, SOC II and ECON datasets on the one hand and the POL dataset on the other, we were able to successfully use canonical analysis to do so. Canonical analysis both established overall relationships between these domains and more specific explanations for relationships between variables in subsets of these domains that revealed more complex interactions than could be modeled at the level of an entire domain.

Path analysis showed, furthermore, that temporal ordering of the interactions between variables do add to our understanding of processes at work in electoral regions where the PQ predominates. In particular, the "ecological health" path model presented in this dissertation demonstrates - in quantitative terms to be sure, but demonstrates nevertheless how PQ voting is related to a regional *genre de vie*, which, in turn, is related to regional ecological health.

Assimilation/acculturation analysis showed that regions favouring the PLQ and the Equality Party, though one might expect such regions to favour bilingualism given the fact that these two parties are supportive of the Canadian policy of official bilingualism, in fact are sites for the assimilation of French-language mother tongue populations and the adoption of English as an everyday language. Furthermore, people in these regions do not generally even learn to speak conversational French.

Finally, economic base analysis showed that there are particular regions associated both with the political parties and with an economic base in a particular industry or set of industries. The economic makeup of these regions can help us understand the relative strengths of federalist-leaning Quebec and sovereigntist-leaning Quebec, and give us a glimpse of what impacts the accession to sovereignty of Quebec might have economically upon its residents. We conclude that, if we could assume that firms and skilled workers in federalist areas would leave the province in the event of Quebec sovereignty, there would indeed be important shocks to specific sectors such as Business Services and Government Services. However, economic base analysis also leads us to conclude that regions in PQ-oriented Quebec or in French-speaking Quebec generally have some important economic strengths which might allow it to resist these shocks.

VII. SUMMARY AND CONCLUSION

The present chapter is divided into three parts, and each has as its object the discussion of importance of the work undertaken as part of this dissertation project. The first part summarises the major findings of this dissertation project. The second part explains how some of these findings challenged the researcher's expectations and led him to questions he had previously not considered as part of his initial research design. The third part suggests lines for future research on this or related topics by geographers and social scientists.

Summary of Major Findings

The major findings of this dissertation research project are as follows:

- It is possible to use a database model – organised along the general principles articulated in the "factorial ecology" and "human ecology" literatures, and structured to clarify relationships relating to space, actors and rationales of action – to identify six political regions in the province of Quebec. These regions are highly distinct from one another in terms of voting behaviours as well as in terms of cultural, ecological, social and economic characteristics.

- The use of principal components analysis to provide a statistical basis for the identification of political regions, with emergent factors being orthogonally rotated to ensure that the distinctness of the regions is optimised by the method, is a relatively new practice in political geography. This dissertation, by implementing such a model, gives statistical weight to the description of regional realities which otherwise would lack a quantitative dimension and would depend for their articulation solely upon qualitative (perhaps even anecdotal) evidence.

- Through canonical correlation analysis, we can confirm with far greater confidence the relevance of quality of life indicator models to political geography. Indicator models such as those employed by the United Nations Commission for Sustainable Development, as well as an increasingly large number of public and civic organisations, can be the basis for a clearer understanding of Quebec politics. The organisation of our statistical database variables into ecological, social and economic variable domains does assist us

in better understanding voting choice in the 1998 Quebec provincial election.

- Methods used in this dissertation, such as assimilation/acculturation analysis, economic base analysis and path analysis, flesh out our knowledge of more complex interactions between variables in the statistical database and voter choice. Path analysis is a particularly useful tool in this respect, as it has as its object the uncovering not merely of a static relationship, but a dynamic process which involves several variables considered jointly rather than in isolation from one another. Sometimes, relationships between particular variables and voters involve many links. We would fail to understand these relationships outside of the causal or associative chains in which they are embedded. By using such methods, this dissertation breaks important new ground.

Development of Research

In the course of this research, some interesting new questions emerged. These included the following:

- It was hypothesised that the emerging factors from the principal component analysis, those factors that would define operationally the political regions of the province, would reveal a particular latent organisation of Quebec as a regionalised political system. This organiseation was hypothesised to fall along the general lines of the quality of life domain model implicit in the research design for the project. In other words, in our results there were expected to be "ecological", "social", "economic" and "cultural" factors. This result was not obtained. The fact that such a result was not obtained was not itself a large surprise, as a certain amount of variation from expectations in such a large database project is more than likely. What was interesting about the results that were obtained, however, is that the overarching and clearly greater importance of the federalist/sovereigntist dichotomy in Quebec's regional political system was emphatically illustrated.

- Though this dissertation does show the regional importance of ecological, social, economic and cultural influences on voting behaviours, what comes through clearly is the much greater impact Quebec's *question nationale* has on defining voter preference and the voting choices of particular regions. Quebec's political regions are confirmed by this research to be best defined by their positions on federalism and sovereignty. However, this dissertation does confirm the relevance of the ecological, social, economic and cultural domains to the definition of political regions. An interesting question we can perhaps pose here is what a Quebec where the constitutional question resolved might look like. Is it possible that the expected ecological, social, economic and cultural regions might emerge in that context? Perhaps if Quebec at some

point does accede to sovereignty it may be possible for research to follow up on this question.

- It is interesting that Quebec has neither a significant ecologist party of the type prevalent in many industrialised nations nor a significant socialist or social democratic party of the type which have long existed in most industrialised nations (though the *Parti Québécois* has long been identified with social democratic policies, albeit in somewhat of a muted fashion). Our statistical results shed some light on why this is, of course, in that the federalism/sovereigntism dichotomy is shown to be of far greater salience in explaining political regionalism in Quebec. Still, much remains in question about this matter. Quebec's neighbours in North America do have some interesting developments where ecologist and socialist parties are concerned; though not the forces they are in Europe and East Asia, such parties exist and have some impact. The rest of Canada has its socialist New Democratic Party, and the vote for British Columbia's ecologist Green Party rose dramatically in the election of 2001. In the presidential election of 2000 in the United States, the Green Party's Ralph Nader attracted the votes not only of ecologists but of socialists, social democrats and a wide variety of other disaffected voters. Quebec lies outside of these developments, and this fact is somewhat curious.

- An investigation into Quebec's political history explains a good bit of its antipathy to socialism, given Quebecers' greater attraction to "social Catholicism" and the philosophy of Meunier, Marcel and Maritain and the "English" character of the federal New Democratic Party. Additionally, the vast availability of raw materials and resources in the province can at least partially explain the lack of a foothold that has yet been accorded to ecologism as a movement. Nevertheless, though we understand more about how ecological and social impacts affect regional voting in Quebec, it is clear far more needs to be investigated. Are Quebecers really concerned less with the usual issues that motivate support for these kind of parties, or are Quebecers' existing ecological and social concerns absorbed into the debate over sovereignty. Or are these concerns merely dormant and will they thus emerge later?

- The general lack of salience of variables relating to health care or disease morbidity and mortality where regionalised voting behaviour is concerned is quite surprising, given the importance many Quebecers would attribute to the provincial health care system. Why are health care variables not associated with any of the major parties? Will there perhaps be an opening to some future party to take up concerns for health care issues, given this situation?

Further Research

There are two principal ways in which this dissertation can serve to launch other research efforts. These are as follows:

- First, the research design employed in this dissertation may also be applied for the most part to other places in the world. Both the space-actor-rationale paradigm introduced in this research design and the quality of life indicator component to this research design can be utilised generally in political geography, as they are not Quebec-specific and may be appropriately applied to other locations. It would be interesting to compare and contrast our findings for Quebec to other locations. Certainly the overarching importance of the federalism/sovereigntism divide in Quebec would not characterise regional political systems in other locations; as for what would be of more importance, at this point we may only speculate. It would be most interesting to employ the basic research design for this dissertation in order to determine the number and spatial extent of political regions in the whole of Canada.

- Second, the "factorial ecology"/"human ecology" approach used in this dissertation's research design, though it is widely utilised in urban and regional geography, is underutilised in electoral and political geography specifically. Principal components analysis provides an extremely potent methodology for distinguishing between distinct regions. Future researchers in political geography should embrace the power of this methodology, as it probably has more to tell us about particular locations, both within Quebec and elsewhere in the world.

- Third, the process-oriented methods used in this dissertation may also be applied both to other places in the world and, indeed, in greater detail to the province of Quebec. Many statistical methods establish relationships between "causal" variables and "caused" variables without ever explaining the mechanisms by which these variables affect other variables. Future research which models these mechanisms in some political geographic context is absolutely essential if political geography is to grow as a discipline.

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Appendix A
Regional Classification of Ridings, 1970-1998

Regions Corresponding to Quebec "Administrative Regions" Boundaries

1. Abitibi-Témiscamingue
2. Bas-Saint-Laurent
3. Capitale nationale
4. Centre-du-Québec
5. Chaudière-Appalaches
6. Côte-Nord
7. Estrie
8. Gaspésie/Îles-de-la-Madeleine
9. Lanaudière
10. Laurentides
11. Laval
12. Mauricie
13. Montérégie
14. Montréal-Centre
15. Montréal-Ville-Marie
16. Outaouais
17. Saguenay/Lac-Saint-Jean/Nord-du-Québec

Riding Name	Code	29 Apr 1970	29 Oct 1973	15 Nov 1976	20 May 1980	13 Apr 1981	2 Dec 1985	25 Sep 1989	26 Oct 1992	12 Sep 1994	30 Oct 1995	30 Nov 1998
Abitibi-Est	1	RC	PLQ	PQ	oui	PQ	PLQ	PLQ	no	PQ	oui	PQ
Abitibi-Ouest	1	RC	PLQ	PQ	non	PQ	PQ	PQ	no	PQ	oui	PQ
Acadie	15	X	PLQ	PLQ	non	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
Ahuntsic	15	PLQ	X	X	X	X	X	X	X	X	X	X
Anjou	15	X	PLQ	PQ	non	PQ	PQ	PLQ	yes	PQ	non	PLQ
Argenteuil	10	PLQ	PLQ	PLQ	non	PLQ	PLQ	PLQ	no	PLQ	non	PLQ
Arthabaska	4	PLQ	PLQ	PQ	non	PQ	PLQ	PQ	no	PQ	oui	PQ
Bagot	13	UN	X	X	X	X	X	X	X	X	X	X
Beauce	5	RC	X	X	X	X	X	X	X	X	X	X
Beauce-Nord	5	X	PLQ	PQ	non	PQ	PLQ	PLQ	no	PLQ	non	PLQ
Beauce-Sud	5	X	OTH	OTH	non	PLQ	PLQ	PLQ	no	PLQ	non	PLQ
Beauharnois	13	PLQ	PLQ	PQ	non	PQ	PLQ	X	X	X	X	X
Beauharnois-Huntingdon	13	X	X	X	X	X	X	PLQ	no	PLQ	non	PLQ
Bellechasse	5	UN	PLQ	UN	non	PQ	PLQ	PLQ	no	PQ	non	PQ
Berthier	9	UN	PLQ	PQ	non	PLQ	PLQ	PLQ	no	PQ	oui	PQ
Bertrand (version 1)	13	X	X	X	X	PQ	PQ	PQ	X	X	X	X
Bertrand (version 2)	10	X	X	X	X	X	X	X	X	PLQ	oui	PQ
Blainville	10	X	X	X	X	X	X	X	X	PQ	oui	PQ
Bonaventure	8	PLQ	PLQ	PLQ	non	PLQ	PLQ	PLQ	yes	PQ	non	PLQ
Borduas	13	X	X	X	X	X	X	X	X	PQ	oui	PQ
Bourassa	14	PLQ	PLQ	PQ	non	PQ	PLQ	PLQ	yes	PLQ	non	PLQ
Bourget	14	PQ	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ

Riding Name	Code	29 Apr 1970	29 Oct 1973	15 Nov 1976	20 May 1980	13 Apr 1981	2 Dec 1985	25 Sep 1989	26 Oct 1992	12 Sep 1994	30 Oct 1995	30 Nov 1998
Brome	7	PLQ	X	X	X	X	X	X	X	X	X	X
Brome-Missisquoi	7	X	PLQ	UN	non	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
Chambly	13	PLQ	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Champlain	12	PLQ	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Chapleau	16	X	X	X	X	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
Charlesbourg	3	X	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Charlevoix	3	PLQ	PLQ	PLQ	non	PLQ	PLQ	PLQ	no	PQ	oui	PQ
Châteauguay	13	PLQ	PLQ	PQ	non	PQ	PLQ	PLQ	no	PLQ	non	PLQ
Chauveau	3	PLQ	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Chicoutimi	17	UN	PQ	PQ	oui	PQ	PQ	PQ	no	PQ	oui	PQ
Chomedey	11	X	X	X	X	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
Chutes-de-la-Chaudière	5	X	X	X	X	X	X	PQ	no	PQ	oui	PQ
Compton	7	PLQ	X	X	X	X	X	X	X	X	X	X
Crémazie	15	X	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	non	PQ
D'Arcy-McGee	15	PLQ	PLQ	PLQ	non	PLQ	PLQ	PÉ/EP	yes	PLQ	non	PLQ
Deux-Montagnes	10	PLQ	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Dorchester	5	RC	X	X	X	X	X	X	X	X	X	X
Dorion	14	PLQ	PLQ	PQ	non	PQ	PLQ	PLQ	no	X	X	X
Drummond	4	PLQ	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Dubuc	17	UN	PLQ	PQ	oui	PQ	PQ	PQ	no	PQ	oui	PQ
Duplessis	6	PLQ	PLQ	PQ	oui	PQ	PQ	PQ	no	PQ	oui	PQ
Fabre	11	PLQ	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Frontenac	5	RC	PLQ	PQ	non	PQ	PLQ	PLQ	no	PLQ	oui	PQ
Gaspé	8	X	PLQ	UN	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Gaspé-Nord	8	UN	X	X	X	X	X	X	X	X	X	X
Gaspé-Sud	8	PLQ	X	X	X	X	X	X	X	X	X	X
Gatineau	16	PLQ	PLQ	PLQ	non	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
Gouin	14	PQ	PLQ	PQ	non	PQ	PQ	PQ	no	PQ	oui	PQ
Groulx	10	X	X	X	X	PQ	PLQ	PLQ	no	PQ	oui	PQ
Hochelaga-Maisonneuve	14	X	X	X	X	X	X	PQ	no	PQ	oui	PQ
Hull	16	PLQ	PLQ	PQ	non	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
Huntingdon	13	PLQ	PLQ	UN	non	PLQ	PLQ	X	X	X	X	X
Iberville	13	UN	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Îles-de-la-Madeleine	8	PLQ	PLQ	PQ	non	PQ	PLQ	PLQ	no	PLQ	oui	PQ
Jacques-Cartier	15	PLQ	PLQ	PLQ	non	PLQ	PLQ	PÉ/EP	yes	PLQ	non	PLQ
Jeanne-Mance	15	PLQ	PLQ	PQ	non	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
Jean-Talon	3	PLQ	PLQ	PLQ	non	PLQ	PLQ	PLQ	no	PLQ	non	PLQ
Johnson	7	X	PLQ	UN	non	PQ	PQ	PQ	no	PQ	oui	PQ
Joliette	9	PLQ	X	X	X	PQ	PQ	PQ	no	PQ	oui	PQ
Joliette-Montcalm	9	X	PLQ	PQ	non	X	X	X	X	X	X	X
Jonquière	17	PLQ	PLQ	PQ	oui	PQ	PQ	PQ	no	PQ	oui	PQ
Kamouraska	2	PLQ	X	X	X	X	X	X	X	X	X	X
Kamouraska-Témiscouata	2	X	PLQ	PQ	non	PQ	PLQ	PLQ	no	PLQ	oui	PLQ
La Peltrie	3	X	X	X	X	PQ	PLQ	PLQ	no	PQ	oui	PQ

Riding Name	Code	29 Apr 1970	29 Oct 1973	15 Nov 1976	20 May 1980	13 Apr 1981	2 Dec 1985	25 Sep 1989	26 Oct 1992	12 Sep 1994	30 Oct 1995	30 Nov 1998
La Pinière	13	X	X	X	X	X	X	PLQ	yes	PLQ	non	PLQ
La Prairie	13	X	PLQ	PQ	non	PLQ	PLQ	PQ	no	PQ	oui	PQ
Labelle	10	UN	X	X	X	PQ	PLQ	PQ	no	PQ	oui	PQ
Lac-Saint-Jean	17	PLQ	PLQ	PQ	oui	PQ	PQ	PQ	no	PQ	oui	PQ
LaFontaine	14	PQ	PQ	PQ	non	PQ	PLQ	PLQ	yes	PLQ	non	PLQ
Laporte	13	X	PLQ	PQ	non	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
L'Assomption	9	PLQ	PLQ	PQ	oui	PQ	PLQ	PQ	no	PQ	oui	PQ
Laurentides-Labelle	10	X	PLQ	PQ	non	X	X	X	X	X	X	X
Laurier	14	PLQ	PLQ	PLQ	non	PLQ	PLQ	PLQ	yes	X	X	X
Laurier-Dorion	14	X	X	X	X	X	X	X	X	PLQ	non	PLQ
Laval	11	PLQ	PLQ	PLQ	non	X	X	X	X	X	X	X
Laval-des-Rapides	11	X	X	X	X	PQ	PLQ	PLQ	no	PQ	oui	PQ
Laviolette	12	PLQ	PLQ	PQ	non	PQ	PQ	PQ	no	PQ	oui	PQ
Lévis	5	RC	PLQ	PQ	non	PQ	PQ	PQ	no	PQ	oui	PQ
Limoilou	3	PLQ	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PLQ
L'Islet	12	PLQ	X	X	X	X	X	X	X	X	X	X
Lotbinière	5	RC	PLQ	UN	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Louis-Hébert	3	PLQ	PLQ	PQ	oui	PQ	PLQ	PLQ	no	PQ	oui	PQ
Maisonneuve	14	PQ	PQ	PQ	oui	PQ	PQ	X	X	X	X	X
Marguerite-Bourgeoys	15	PLQ	PLQ	PLQ	non	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
Marguerite-D'Youville	13	X	X	X	X	X	X	X	no	PQ	oui	PQ
Marie-Victorin	13	X	X	X	X	PQ	PQ	PQ	no	PQ	oui	PQ
Marquette	15	X	X	X	X	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
Maskinongé	12	UN	PLQ	PLQ	non	PLQ	PLQ	PLQ	no	PQ	oui	PQ
Masson	9	X	X	X	X	X	X	PQ	no	PQ	oui	PQ
Matane	8	PLQ	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Matapédia	2	PLQ	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Mégantic	5	RC	X	X	X	X	X	X	X	X	X	X
Mégantic-Compton	7	X	PLQ	UN	non	PLQ	PLQ	PLQ	no	PLQ	non	PLQ
Mercier	14	PLQ	PLQ	PQ	non	PQ	PQ	PQ	no	PQ	oui	PQ
Mille-Îles	11	X	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Missisquoi	7	UN	X	X	X	X	X	X	X	X	X	X
Montcalm	9	UN	X	X	X	X	X	X	X	X	X	X
Montmagny	5	UN	X	X	X	X	X	X	X	X	X	X
Montmagny-L'Islet	5	X	PLQ	PLQ	non	PQ	PLQ	PLQ	no	PLQ	non	PLQ
Montmorency	3	PLQ	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Mont-Royal	15	X	PLQ	PLQ	non	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
Napierville-La Prairie	13	PLQ	X	X	X	X	X	X	X	X	X	X
Nelligan	15	X	X	X	X	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
Nicolet	4	UN	X	X	X	PQ	PLQ	X	X	X	X	X
Nicolet-Yamaska	4	X	PLQ	UN	non	X	X	PLQ	no	PQ	oui	PQ
Notre-Dame-de-Grâce	15	PLQ	PLQ	PLQ	non	PLQ	PLQ	PÉ/EP	yes	PLQ	non	PLQ

Riding Name	Code	29 Apr 1970	29 Oct 1973	15 Nov 1976	20 May 1980	13 Apr 1981	2 Dec 1985	25 Sep 1989	26 Oct 1992	12 Sep 1994	30 Oct 1995	30 Nov 1998
Olier	14	PLQ	X	X	X	X	X	X	X	X	X	X
Orford	7	X	PLQ	PLQ	non	PLQ	PLQ	PLQ	no	PLQ	non	PLQ
Outremont	14	PLQ	PLQ	PLQ	non	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
Papineau	16	PLQ	PLQ	PQ	non	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
Pointe-aux-Trembles	14	X	X	X	X	X	X	PQ	no	PQ	oui	PQ
Pointe-Claire	15	X	PLQ	UN	non	X	X	X	X	X	X	X
Pontiac	16	PLQ	X	X	X	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
Pontiac-Témiscamingue	16	X	PLQ	PLQ	non	X	X	X	X	X	X	X
Portneuf	3	RC	PLQ	PLQ	non	PLQ	PLQ	PLQ	no	PQ	oui	PQ
Prévost	9	X	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Richelieu	13	PLQ	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Richmond	7	RC	PLQ	UN	non	PLQ	PLQ	PLQ	no	PLQ	oui	PLQ
Rimouski	2	PLQ	PLQ	PQ	oui	PQ	PLQ	PLQ	no	PQ	oui	PQ
Rivière-du-Loup	2	PLQ	PLQ	PQ	non	PQ	PLQ	PLQ	no	ADQ	oui	ADQ
Robert-Baldwin	15	PLQ	PLQ	PLQ	non	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
Roberval	17	PLQ	PLQ	PLQ	oui	PQ	PQ	PLQ	no	PQ	oui	PQ
Rosemont	14	X	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Rousseau	9	X	X	X	X	PQ	PLQ	PLQ	no	PQ	oui	PQ
Rouville	13	PLQ	X	X	X	X	X	X	X	X	X	X
Rouyn-Noranda	1	RC	OTH	RC	non	X	X	X	X	X	X	X
Rouyn-Noranda-Témiscamingue	1	X	X	X	X	PQ	PLQ	PQ	no	PQ	oui	PQ
Saguenay	6	PQ	PQ	PQ	oui	PQ	PLQ	PLQ	no	PQ	oui	PQ
Sainte-Anne	14	PLQ	PLQ	PQ	non	PLQ	PLQ	PLQ	yes	X	X	X
Sainte-Marie	14	PQ	PLQ	PQ	oui	PQ	PLQ	X	X	X	X	X
Sainte-Marie-Saint-Jacques	14	X	X	X	X	X	X	PQ	no	PQ	oui	PQ
Saint-François	7	X	PLQ	PQ	non	PQ	PLQ	PLQ	no	PLQ	oui	PLQ
Saint-Henri	14	PLQ	PLQ	PLQ	non	PLQ	PLQ	PLQ	no	X	X	X
Saint-Henri-Sainte-Anne	14	X	X	X	X	X	X	X	X	PLQ	non	PLQ
Saint-Hyacinthe	13	PLQ	PLQ	UN	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Saint-Jacques	14	PQ	PQ	PQ	oui	PQ	PQ	X	X	X	X	X
Saint-Jean	13	PLQ	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Saint-Laurent	15	PLQ	PLQ	PLQ	non	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
Saint-Louis	14	PLQ	PLQ	PLQ	non	PLQ	PLQ	PLQ	yes	X	X	X
Saint-Maurice	12	UN	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Saint-Sauveur	3	RC	X	X	X	X	X	X	X	X	X	X
Salaberry-Soulanges	13	X	X	X	X	X	X	PLQ	no	PQ	oui	PQ
Sauvé	15	X	PQ	PQ	non	PQ	PLQ	PLQ	yes	PLQ	non	PLQ
Shefford	13	UN	PLQ	PLQ	non	PQ	PQ	PQ	no	PLQ	oui	PLQ
Sherbrooke	7	PLQ	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PLQ
Stanstead	7	PLQ	X	X	X	X	X	X	X	X	X	X
Taillon	13	PLQ	PLQ	PQ	oui	PQ	PQ	PQ	no	PQ	oui	PQ
Taschereau	3	X	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Témiscamingue	1	PLQ	X	X	X	X	X	X	X	X	X	X
Témiscouata	2	UN	X	X	X	X	X	X	X	X	X	X
Terrebonne	9	PLQ	PLQ	PQ	non	PQ	PQ	PQ	no	PQ	oui	PQ

Riding Name	Code	29 Apr 1970	29 Oct 1973	15 Nov 1976	20 May 1980	13 Apr 1981	2 Dec 1985	25 Sep 1989	26 Oct 1992	12 Sep 1994	30 Oct 1995	30 Nov 1998
Trois-Rivières	13	PLQ	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Ungava	17	X	X	X	X	PQ	PQ	PQ	no	PQ	non	PQ
Vachon	13	X	X	X	X	PQ	PLQ	PLQ	no	PQ	oui	PQ
Vanier	3	X	PLQ	PQ	non	PQ	PLQ	PLQ	no	PQ	oui	PQ
Vaudreuil	15	X	X	X	X	X	X	PLQ	yes	PLQ	non	PLQ
Vaudreuil-Soulanges	13	PLQ	PLQ	PQ	non	PLQ	PLQ	X	X	X	X	X
Verchères	13	PLQ	PLQ	PQ	non	PQ	PQ	PQ	no	PQ	oui	PQ
Verdun	14	PLQ	PLQ	PLQ	non	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
Viau	14	X	PLQ	PQ	non	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
Viger	15	X	X	X	X	PLQ	PLQ	PLQ	yes	PLQ	non	PLQ
Vimont	11	X	X	X	X	PQ	PLQ	PLQ	no	PQ	oui	PQ
Westmount	14	PLQ	PLQ	PLQ	non	PLQ	PLQ	PÉ/EP	yes	X	X	X
Westmount-Saint-Louis	14	X	X	X	X	X	X	X	X	PLQ	non	PLQ
Wolfe	5	UN	X	X	X	X	X	X	X	X	X	X
Yamaska	4	PLQ	X	X	X	X	X	X	X	X	X	X

Appendix B
Data Dictionary for the STAT Domain

POL

Voting Results By Party — Source: *Directeur-Général des Élections du Québec*, 1998

ADQ	1998 percentage vote for *Action démocratique du Québec*
BP	1998 percentage vote for *Bloc-Pôt*
INDSD	1998 percentage vote for "*Indépéndant*" and "*Sans désignation*" candidates
PCQ	1998 percentage vote for *Parti communiste du Québec*
PDS	1998 percentage vote for *Parti de la démocratie socialiste*
PEEP	1998 percentage vote for *Parti égalité* / Equality Party
PIQ	1998 percentage vote for *Parti innovateur du Québec*
PLNQ	1998 percentage vote for *Parti de la loi naturelle du Québec*
PLQ	1998 percentage vote for *Parti libéral du Québec*
PMLQ	1998 percentage vote for *Parti marxiste-léniniste du Québec*
PQ	1998 percentage vote for *Parti Québécois*
WINNER	1998 percentage vote for the winning party in the riding

Locality Measures — Source: *Directeur-Général des Élections du Québec*, 1998

LOCIND	1998 locality index for winning candidate in the riding (ratio of percentage vote for candidate in riding to percentage vote for candidate's party province-wide)
LOCWEIGH	1998 locality weight for winning candidate in the riding (locality index multiplied by raw number of votes for winning candidate in riding)

CULT

Language — Source: 1996 Canadian Census

FIRSTENG	Percentage of persons with language preferred is English
FIRSTFRE	Percentage of persons with language preferred is French
FIRSTNEI	Percentage of persons with language preferred is neither English nor French
HARABIC	Percentage of persons with home language of Arabic
HCHIN	Percentage of persons with home language of Chinese
HCREE	Percentage of persons with home language of Cree
HGREEK	Percentage of persons with home language of Greek
HINUK	Percentage of persons with home language of Inuktitut
HITAL	Percentage of persons with home language of Italian
HMONTNAS	Percentage of persons with home language of Montagnais/Naskapi
HSPAN	Percentage of persons with home language of Spanish
HVIET	Percentage of persons with home language of Vietnamese
HOMEENG	Percentage of persons with home language of English
HOMEFRE	Percentage of persons with home language of French

HOMEOTH	Percentage of persons with home language of other than English or French
KNOWENG	Percentage of persons with conversational knowledge of English
KNOWFRE	Percentage of persons with conversational knowledge of French
KNOWNEI	Percentage of persons with conversational knowledge of neither English nor French
MENG	Percentage of persons with "mother tongue" of English
MFRE	Percentage of persons with "mother tongue" of French
MOTH	Percentage of persons with "mother tongue" of other than English or French

Ethnicity — Source: 1996 Canadian Census

UACAD	Percentage of persons with unique Acadian ethnicity
UCHIN	Percentage of persons with unique Chinese ethnicity
UHAIT	Percentage of persons with unique Haitian ethnicity
UITAL	Percentage of persons with unique Italian ethnicity
UJEWISH	Percentage of persons with unique Jewish ethnicity
ULEB	Percentage of persons with unique Lebanese ethnicity
UMETIS	Percentage of persons with unique Métis ethnicity
UPORT	Percentage of persons with unique Portuguese ethnicity
UQUEB	Percentage of persons with unique Québécois ethnicity
UVIET	Percentage of persons with unique Vietnamese ethnicity

Aboriginal Status — Source: 1996 Canadian Census

ABORIG	Percentage of persons with aboriginal status

Religion — Source: 1991 Canadian Census

BUDD	Percentage of persons practising Buddhism
CATH	Percentage of persons practising Catholicism
EASTORTH	Percentage of persons practising Eastern Orthodoxy
HINDU	Percentage of persons practising Hinduism
JEWISH	Percentage of persons practising Judaism
MUSLIM	Percentage of persons practising Islam
NOREL	Percentage of persons practising no religion
OTHREL	Percentage of persons practising other religions
PROT	Percentage of persons practising Protestantism
SIKH	Percentage of persons practising Sikh religion

ECOL

Air Resources / Site Particulate Measures — Source: Quebec *Ministère de l'Environnement*

AS	Arsenic particles in the air per cubic meter, 1991-1994
BENZ	Benzoapyrene hydrocarbon particles in the air per cubic meter, 1984-1994
CD	Cadmium particles in the air per cubic meter, 1991-1994
LARPART	Percentage of air particles over 10 micrograms, 1991-1994

MN	Manganese particles in the air per cubic meter, 1991-1994
NO3	Nitrate particles in the air per cubic meter, 1991-1994
SMALPART	Air particles under 10 micrograms per cubic meter, 1991-1994
SO4	Sulfate particles in the air per cubic meter, 1991-1994

Land Resources / Site Contamination — Source: Quebec *Ministère de l'Environnement*

GERLEDM2	Industrial waste concentration over surface area, in square meters
GERLEDM3	Industrial waste concentation in terms of volume, in cubic meters
GERSOL	Soil contamination, in cubic meters

Land Cover / Water Cover — Source: AVHRR Satellite Land Cover Data, United States National Oceanic and Atmospheric Administration, 1993

AGCROP	Agricultural cropland area in square meters
AGRANK	Agricultural cropland area ranked according to prominence with respect to other land cover types in the riding
BARREN	Barren land area in square meters
BARRANK	Barren land area ranked according to prominence with respect to other land cover types in the riding
CONFOR	Coniferous forest area in square meters
CONRANK	Coniferous forest area ranked according to prominence with respect to other land cover types in the riding
DECFOR	Deciduous forest area in square meters
DECRANK	Deciduous forest area ranked according to prominence with respect to other land cover types in the riding
MIXFOR	Mixed forest area in square meters
MIXRANK	Mixed forest area ranked according to prominence with respect to other land cover types in the riding
TRANSFOR	Transformation zone forest area in square meters
TRANRANK	Transformation zone forest area ranked according to prominence with respect to other land cover types in the riding
TUNDRA	Tundra area in square meters
TUNDRANK	Tundra area ranked according to prominence with respect to other land cover types in the riding
URBAN	Urban built-up area in square meters
URBRANK	Urban built-up area ranked according to prominence with respect to other land cover types in the riding
WATER	Water area in square meters
WATRANK	Water area ranked according to prominence with respect to other land cover types in the riding

Biodiversity — Source: ECOMAP database, Environment Canada, 1999

BIRDSPEC	Terrestrial bird species by ecological area
ENPLSPEC	Endemic plant species by ecological area
MAMSPEC	Mammalian species by ecological area
RAPLSPEC	Rare plant species by ecological area
RPAMSPEC	Reptile/amphibian species by ecological area
TREESPEC	Tree species by ecological area

Ecological Health — Source: ECOMAP database, Environment Canada, 1999

ECOHEAL	Species at risk by ecological area according to COSEWIC (Committee on the Status of Endangered Wildlife in Canada) divided by the total number of species in the area

SOC I

Population Demographics — Source: 1996 Canadian Census

DIVORCE	Percentage of persons who are divorced
F0_4	Percentage of persons female from 0 to 4 years old
F5_9	Percentage of persons female from 5 to 9 years old
F10_14	Percentage of persons female from 10 to 14 years old
F15_19	Percentage of persons female from 15 to 19 years old
F20_24	Percentage of persons female from 20 to 24 years old
F25_29	Percentage of persons female from 25 to 29 years old
F30_34	Percentage of persons female from 30 to 34 years old
F35_39	Percentage of persons female from 35 to 39 years old
F40_44	Percentage of persons female from 40 to 44 years old
F45_49	Percentage of persons female from 45 to 49 years old
F50_54	Percentage of persons female from 50 to 54 years old
F55_59	Percentage of persons female from 55 to 59 years old
F60_64	Percentage of persons female from 60 to 64 years old
F65_69	Percentage of persons female from 65 to 69 years old
F70_74	Percentage of persons female from 70 to 74 years old
F75_79	Percentage of persons female from 75 to 79 years old
F80_84	Percentage of persons female from 80 to 84 years old
F85_	Percentage of persons female 85 years old and older
FAMILY2	Percentage of families with two members
FAMILY3	Percentage of families with three members
FAMILY4	Percentage of families with four members
FAMILY5_	Percentage of families with five or more members
M0_4	Percentage of persons male from 0 to 4 years old
M5_9	Percentage of persons male from 5 to 9 years old
M10_14	Percentage of persons male from 10 to 14 years old
M15_19	Percentage of persons male from 15 to 19 years old
M20_24	Percentage of persons male from 20 to 24 years old
M25_29	Percentage of persons male from 25 to 29 years old

M30_34	Percentage of persons male from 30 to 34 years old
M35_39	Percentage of persons male from 35 to 39 years old
M40_44	Percentage of persons male from 40 to 44 years old
M45_49	Percentage of persons male from 45 to 49 years old
M50_54	Percentage of persons male from 50 to 54 years old
M55_59	Percentage of persons male from 55 to 59 years old
M60_64	Percentage of persons male from 60 to 64 years old
M65_69	Percentage of persons male from 65 to 69 years old
M70_74	Percentage of persons male from 70 to 74 years old
M75_79	Percentage of persons male from 75 to 79 years old
M80_84	Percentage of persons male from 80 to 84 years old
M85_	Percentage of persons male 85 years old and older
MARRIED	Percentage of persons who are married
POP	Total population of the riding
SEPARATE	Percentage of persons who are separated
SINGLE	Percentage of persons who are single
WIDOWED	Percentage of persons who are widowed

Morbidity

Source: Pageau et al. 1997; *Ministère de la Santé et des Services sociaux*

AIDS	Incidence of AIDS per 100,000 persons, 1994
BREAST	Incidence of breast cancer per 100,000 persons, 1990-1992
CAMPYLO	Incidence of campylobacterium per 100,000 persons, 1994
CHLAMYD	Incidence of chlamydia per 100,000 persons, 1994
COLRECT	Incidence of colon/rectal cancer per 100,000 persons, 1990-1992
GIARDIA	Incidence of giardiase per 100,000 persons, 1994
GONORRH	Incidence of gonorrhea per 100,000 persons, 1994
HEPB	Carriers of hepatitis B per 100,000 persons, 1994
LUNG	Incidence of lung cancer per 100,000 persons, 1990-1992
PROSTATE	Incidence of prostate cancer per 100,000 persons, 1990-1992
SALMON	Incidence of salmonella per 100,000 persons, 1994
SCARLET	Incidence of scarlet fever per 100,000 persons, 1994
TUBERC	Incidence of tuberculosis per 100,000 persons, 1994
WHOOP	Incidence of whooping cough per 100,000 persons, 1994

Mortality

Source: Pageau et al. 1997; *Ministère de la Santé et des Services sociaux*

CIRCDEAD	Percentage rate of death by causes relating to the circulatory system
NATDEAD	Percentage rate of death by natural causes
RESPDEAD	Percentage rate of death by causes relating to the respiratory system
TRAUDEAD	Percentage rate of death by causes relating to trauma
TUMDEAD	Percentage rate of death by causes relating to tumours

Poverty-Related Exclusion — Source: 1996 Canadian Census

INCDIFF	Difference between average income spread amongst those employed only and average income spread over the entire riding population, in dollars
SHPOVMTG	Percentage of persons spending 30% of their disposable income on a mortgage
SHPOVREN	Percentage of persons spending 30% of their disposable income on rent
UNEMP	Percentage of persons unemployed

SOC II

Access to Health Care — Source: *Ministère de la Santé et des Services sociaux*, 2001

BPCH	Beds or places in *Centres hospitaliers* (hospital centres)
BPCHSLD	Beds or places in *Centres d'hebergement de soins de longue durée* (long-term care centres)
BPCJ	Beds or places in *Centres de jeunesse* (youth centres)
BPCR	Beds or places in *Centres de réadaption* (rehabilitation centres)
CH	*Centres hospitaliers* (hospital centres)
CHSLD	*Centres d'hebergement de soins de longue durée* (long-term care centres)
CLSC	*Centres locales de services communautaires* (local community service centres)
CJ	*Centres de jeunesse* (youth centres)
CR	*Centres de réadaption* (rehabilitation centres)

Physical Integrity — Source: Pageau et al. 1997; *Ministère de la Santé et des Services sociaux*

CIRCPROB	Circulatory problems reported, 1993-1995
DIGPROB	Digestive problems reported, 1993-1995
GNURPROB	Genital/urinary problems reported, 1993-1995
RESPPROB	Respiratory problems reported, 1993-1995
TRAUPROB	Traumas reported, 1993-1995
TUMPROB	Tumours reported, 1993-1995

Educational Attainment — Source: 1996 Canadian Census

HIGHSCHL	Percentage of persons having completed high school
NOHGSCHL	Percentage of persons not having completed high school
PROFEDUC	Percentage of persons with bachelor's degree or higher
TRADES	Percentage of persons with trades certificate or diploma
UNIV	Percentage of persons with some university education

Group-Related Exclusion — Source: 1996 Canadian Census

IMMIG	Percentage of persons resident in Canada not of Canadian origin
VISMIN	Percentage of persons of visible minority status

ECON

Income — Source: 1996 Canadian Census

AVINC	Average income for persons living in the riding

Property Values — Source: 1996 Canadian Census

GROSMTG	Average amount spent on a mortgage
GROSREN	Average amount spent on rent
VALUEDW	Average value of dwellings located in the riding

Sectors of Employment — Source: 1996 Canadian Census

ACFOBEV	Percentage of persons employed in accommodations, food and beverages sector
AGRIC	Percentage of persons employed in agricultural sector
BUSSERV	Percentage of persons employed in business services sector
COMM	Percentage of persons employed in communications sector
CONST	Percentage of persons employed in construction sector
EDUSERV	Percentage of persons employed in educational services sector
FINANCE	Percentage of persons employed in financial sector
FISH	Percentage of persons employed in fisheries sector
FOREST	Percentage of persons employed in forestry sector
GOVSERV	Percentage of persons employed in government services sector
HEALSERV	Percentage of persons employed in health services sector
INSREST	Percentage of persons employed in insurance and real estate sector
MANUF	Percentage of persons employed in manufacturing sector
MINING	Percentage of persons employed in mining sector
OTHER	Percentage of persons employed in other service sectors
RETAIL	Percentage of persons employed in retail trade sector
TRANS	Percentage of persons employed in transportation sector
WHOLE	Percentage of persons employed in wholesale trade sector

Types of Employment — Source: 1996 Canadian Census

AESTH	Percentage of persons in aesthetic occupations
BUSFIN	Percentage of persons in business and finance occupations
HEAL	Percentage of persons in health care occupations
HUMAN	Percentage of persons in human services occupations
MANAGE	Percentage of persons in management occupations
PRIME	Percentage of persons in primary sector occupations
SCI	Percentage of persons in scientific occupations
SECOND	Percentage of persons in secondary sector occupations
SELL	Percentage of persons in sales occupations
TRADING	Percentage of persons in trading occupations

Appendix C
Data Dictionary for the GEOG Domain

1. Abitibi-Est
2. Abitibi-Ouest
3. Acadie
4. Anjou
5. Argenteuil
6. Arthabaska
7. Beauce-Nord
8. Beauce-Sud
9. Beauharnois-Huntingdon
10. Bellechasse
11. Berthier
12. Bertrand
13. Blainville
14. Bonaventure
15. Borduas
16. Bourassa
17. Bourget
18. Brome-Missisquoi
19. Chambly
20. Champlain
21. Chapleau
22. Charlesbourg
23. Charlevoix
24. Châteauguay
25. Chauveau
26. Chicoutimi
27. Chomedey
28. Chutes-de-la-Chaudière
29. Crémazie
30. D'Arcy McGee
31. Deux-Montagnes
32. Drummond
33. Dubuc
34. Duplessis
35. Fabre
36. Frontenac
37. Gaspé
38. Gatineau
39. Gouin
40. Groulx
41. Hochelaga-Maisonneuve
42. Hull

43. Iberville
44. Îles-de-la-Madeleine
45. Jacques-Cartier
46. Jean-Talon
47. Jeanne-Mance
48. Johnson
49. Joliette
50. Jonquière
51. Kamouraska-Témiscouata
52. La Peltrie
53. La Pinière
54. La Prairie
55. Labelle
56. Lac-Saint-Jean
57. LaFontaine
58. Laporte
59. L'Assomption
60. Laurier-Dorion
61. Laval-des-Rapides
62. Laviolette
63. Lévis
64. Limoilou
65. Lotbinière
66. Louis-Hébert
67. Marguerite-Bourgeoys
68. Marguerite-D'Youville
69. Marie-Victorin
70. Marquette
71. Maskinongé
72. Masson
73. Matane
74. Matapédia
75. Mégantic-Compton
76. Mercier
77. Mille-Îles
78. Montmagny-L'Islet
79. Montmorency
80. Mont-Royal
81. Nelligan
82. Nicolet-Yamaska
83. Notre-Dame-de-Grâce
84. Orford
85. Outremont
86. Papineau
87. Pointe-aux-Trembles
88. Pontiac

89. Portneuf
90. Prévost
91. Richelieu
92. Richmond
93. Rimouski
94. Rivière-du-Loup
95. Robert-Baldwin
96. Roberval
97. Rosemont
98. Rousseau
99. Rouyn-Noranda-Témiscamingue
100. Saguenay
101. Sainte-Marie-Saint-Jacques
102. Saint-François
103. Saint-Henri-Sainte-Anne
104. Saint-Hyacinthe
105. Saint-Jean
106. Saint-Laurent
107. Saint-Maurice
108. Salaberry-Soulanges
109. Sauvé
110. Shefford
111. Sherbrooke
112. Taillon
113. Taschereau
114. Terrebonne
115. Trois-Rivières
116. Ungava
117. Vachon
118. Vanier
119. Vaudreuil
120. Verchères
121. Verdun
122. Viau
123. Viger
124. Vimont
125. Westmount-Saint-Louis

Appendix D
Quebec Air Particulate Data from the *Ministère de l'Environnement*

Small Particles (SMALPART)

Murdochville	12 μ g/m^3	Included
Saint-Rémi	14	Included
Brossard	19	Included
Sorel-Tracy	21	Included
Québec	21	Included
Jonquière	22	Included
Montréal	25 *	Averaged
Trois-Rivières	25	Included
Shawinigan	26	Included
Témiscaming	28	Included
Montréal	30 *	Averaged
*	27.5	Included

Indicator of: Bronchitis, cardiovascular disorders, increased susceptibility to infectious diseases, diminution of respiratory functions, aggravation of asthma; affects constitution of aging population; leads to reduced visibility in the local atmosphere.

Emission process: 47.9% industrial procedures (30.6% mineral extraction, 16.8% sawmills, 11.8% petrochemical, 11% pulp and paper, 10.9% aluminium, 18.9% other industries); combustion 38.7%; transport 12.1%; incineration 1.3%.

Time period: 1991-1994 averaged data (24 hour measurements).

Assumptions: Small particles do not necessarily fall quickly from place of emission, and can thus be a more airborne threat, measurable at sites far from the original place of emission.

Large Particles as Percentage of Total Particles (LARPART)

Saint-Rémi	25 % of total	Included
Témiscaming	40	Included
Trois-Rivières	40	Included
Brossard	41	Included
Montréal	42 *	Averaged
Shawinigan	43	Included
Sorel-Tracy	47	Included
Jonquière	48	Included
Murdochville	49	Included
Montréal	51 *	Averaged
Québec	51	Included
*	46.5	Included

Indicator of: Bronchitis, cardiovascular disorders, increased susceptibility to infectious diseases, diminution of respiratory functions, aggravation of asthma; affects constitution of aging population; leads to reduced visibility in the local atmosphere.

Emission process: 47.9% industrial procedures (30.6% mineral extraction, 16.8% sawmills, 11.8% petrochemical, 11% pulp and paper, 10.9% aluminium, 18.9% other industries); combustion 38.7%; transport 12.1%; incineration 1.3%.

Time period: 1991-1994 averaged data (24 hour measurements).

Assumptions: Larger particles tend to fall quickly from place of emission, and thus are likely to be emitted from places close to the site of measurement.

Sulfates (SO_4)

Sept-Îles	1 μ g/m^3	Included
Saint-Simon	1	Included
Longueuil	1.25	Included
Sorel-Tracy	1.5	Included
Baie-Comeau	1.5	Included
Notre-Dame-du-Rosaire	1.5	Included
Chicoutimi	1.75	Included
Laval	1.75	Included
Saint-Rémi	2	Included
Rouyn-Noranda	2.25	Included
Murdochville	2.25	Included
Brossard	2.5	Included
Québec	2.5	Included
Sherbrooke	2.75	Included
Montréal	2.75	Included
Jonquière	2.75	Included
Trois-Rivières	2.75	Included
Shawinigan	4.5	Included
Témiscaming	7.25	Included

Indicator of: Respiration and cardiovascular disorders; reduction of visibility in the atmosphere; acidification of ecosystems.

Emission process: Causally associated with precursory SO_2 emissions. SO_2 emissions come from: 72.2% industrial procedures (71.1% copper extraction, 16.6% aluminium, 12.2% other industries); 18.0% combustion; 9.8% transport-related; 0.1% incineration.

Time period: 1991-1994 averaged data (24 hour measurements)

Assumptions: In Quebec, emissions over the prescribed norms of SO_2 are somewhat rare. The SO_4 reactions are more measurable as lasting effects.

Nitrates (NO_3)

Murdochville	0.05 μ g/m^3	Included
Rouyn-Noranda	0.05	Included
Saint-Simon	0.05	Included
Notre-Dame-du-Rosaire	0.05	Included
Baie-Comeau	0.1	Included
Jonquière	0.15	Included
Témiscaming	0.15	Included
Sept-Îles	0.2	Included
Sorel-Tracy	0.2	Included
Saint-Rémi	0.25	Included
Longueuil	0.25	Included
Shawinigan	0.25	Included
Chicoutimi	0.25	Included
Laval	0.3	Included
Sherbrooke	0.4	Included
Québec	0.5	Included
Trois-Rivières	0.55	Included
Brossard	0.75	Included
Montréal	1	Included

Indicator of: Respiration and cardiovascular disorders; reduction of visibility in the atmosphere; acidification of ecosystems.

Emission process: Causally associated with precursory NO_X emissions. NO_X emissions come from: 79.7% transport-related (28.1% gas-powered cars, 27.3% diesel-powered trucks; 22.3% other transport, 22.3% other diesel-powered cars); 17.1% combustion; 2.9% industrial processes; 0.2% incineration.

Time period: 1991-1994 averaged data (24 hour measurements).

Assumptions: In Quebec, emissions over the prescribed norms of NO_X are non-existent at any of the sites. The NO_X reactions are more measurable as lasting effects.

Hydrocarbons/Benzoapyrene (BENZ)

Bécancour	0.07 ng/m^3 *	Averaged
Bécancour	0.13 *	Averaged
Montréal	0.2 **	Averaged
Montréal	0.2 **	Averaged
Cap-de-la-Madeleine	0.2	Included
Québec	0.26	Included
Sept-Îles	0.4	Included
Montréal	0.41 **	Averaged
Beauharnois	0.58	Included
Montréal	0.81 **	Averaged
Chicoutimi	1.1	Included
Baie-Comeau	1.4	Included
Shawinigan	2.1 ***	Averaged
Shawinigan	2.4 ***	Averaged
Alma	2.5	Included
Jonquière	2.5	Included
*	0.1	Included
**	0.405	Included
***	2.25	Included

Indicator of: Increased risks of lung cancer.

Emission process: Electrolysis in aluminum production; combustion engines; burning of wood.

Time period: 1984-1994 averaged data.

Assumptions: Proxy indicator for hydrocarbons in general; small values indicate non-urban aluminium producing areas, mid-range values involve concentration of urban uses including combustion engines and wood burning, larger values involve aluminium refining centres in urban areas.

Arsenic (As)

Québec	2.5 ng/m^3	Included
Laval	2.5	Included
Jonquière	2.5	Included
Sorel-Tracy	2.5	Included
Murdochville	50	Included
Rouyn-Noranda	75	Included

Cadmium (Cd)

Québec	1 ng/m^3	Included
Laval	1	Included
Jonquière	1	Included
Sorel-Tracy	1	Included
Murdochville	5	Included
Rouyn-Noranda	10	Included

Manganese (Mn)

Saint-Rémi	10 ng/m^3	Included
Laval	15	Included
Québec	20	Included
Montréal	25	Included
Sorel-Tracy	30	Included

Indicators of: Arsenic - Increased likelihood of lung cancer, neurological problems, gastro-intestinal problems, liver problems.
Cadmium - Lower animals collect the metal in their systems; increased likelihood of kidney problems and lung cancer in humans.
Manganese - Can affect the lungs or central nervous system; increased likelihood of bronchitis.

Emission process: Arsenic - Mostly emitted from copper and zinc foundries.
Cadmium - Mostly emitted via combustion of fossil fuels; also emitted from copper and zinc foundries.
Manganese - Mostly emitted via combustion of fossil fuels; also emitted from copper and zinc foundries.

Time period: 1991-1994 averaged data (24 hour measurements).

Assumptions: Copper and zinc foundries affect all three, but fossil fuels only the latter two - arsenic may thus serve as a control measure to hold combustion-related causation constant.

REJECTED INDICATORS

Hydrogenated sulfur (H_2S)

Reason: Only measured at two stations throughout Quebec, negligible for the most part over ten-year period (excepting only 1990).

Lead (Pb)

Reason: Only measured at two stations throughout Quebec, negligible in any case due to massive ten-year drop in levels.

Ozone (O_3)

Reason: Only measured because of its effects on other contaminants; not related to a anthropogenic causatio, though of course related to anthropogenic depletion.

Volatile Organic Compounds (COV)

Reason: Only measured at five sites in three cities, and the Hydrocarbons measure is partially a proxy for this measure due to the similar genesis of these compounds from the use of cars. [Note: the hydrocarbons measure is also affected by aluminium processing.]

Appendix E
Factor Analysis of 216 x 125 Data Matrix

Rules of Representation of Factor Analysis Data:

1. The Factors Themselves
   This factor analysis process will permit factors for selection where eigenvalues for the factors are greater than 1 and there are at least 3 variables explained in the database by the factor. The eigenvalue-1 created 29 factors from the 216 variables in the research database, and of these, 13 met the variables explained-3 standard.

2. Major Political Parties
   The three major Quebec political parties are represented without respect to the specific value of their factor loadings, in the interest of full disclosure of how these parties relate to each factor.

3. Minor Political Parties
   The remaining Quebec politicall parties are represented with respect to a minimum loading of .3 on the factor. There will be three divisions of the data: those parties with loadings of at least .7 on the factor, those with loadings of at least .5 on the factor, and those with loadings over .3 on the factor.

4. Variables or Characteristics (STAT)
   Other characteristic variables in the STAT domain are represented with respect to a minimum loading of .5 on the factor. There will be two divisions of the data: those variables with loadings of at least .7 on the factor and those with loadings of at least .5 on the factor.

5. Cases or Ridings (GEOG)
   The ridings constituting the GEOG domain are represented with respect to a minimum score of 1 on the factor. There will be two divisions of the data: those ridings scoring higher than 2, and those scoring higher than 1. Where no ridings meet these standards, the factor will be designated as a general factor.

Component 1:
Federalism (+) / Sovereigntism (-)

Major Political Parties

0.84	PLQ
-0.55	ADQ
-0.79	PQ

Minor Political Parties

r = .7 standard

0.83	PEEP

Characteristics: Federalism

r = .7 standard

0.98	HOMEENG
0.97	FIRSTENG
0.95	MENG
0.84	PLQ
0.83	KNOWENG
0.83	PEEP
0.79	LOCWEIGH
0.79	WINNER
0.71	PROT
0.70	MUSLIM

r = .5 standard

0.67	HINDU
0.65	VISMIN
0.63	IMMIG
0.63	UNIV
0.63	GROSRENT
0.63	INSREST
0.62	JEWISH
0.62	MOTH
0.62	VALUEDW
0.61	SIKH
0.60	OTHREL
0.59	BUSSERV
0.58	GROSMTG
0.58	UJEWISH
0.57	WHOLE
0.56	MANAGE
0.56	NOREL
0.54	PROFEDUC
0.54	UCHIN
0.54	HOMEOTH

Characteristics: Sovereigntism

r = -.7 standard

-0.97	FIRSTFRE
-0.94	HOMEFRE
-0.91	MFRE
-0.90	KNOWFRE
-0.79	PQ
-0.71	CATH

r = -.5 standard

-0.60	TRADES
-0.55	ADQ
-0.53	TRADING

Ridings: Federalism

z = 2 standard

3.844534430	D'Arcy-McGee
3.694216589	Jacques-Cartier
3.409042676	Robert-Baldwin
3.036174871	Notre-Dame-de-Grâce
2.969490022	Nelligan
2.902102224	Westmount-Saint-Louis
2.455627946	Pontiac
2.396694677	Mont-Royal

z = 1 standard

1.996188745	Marguerite-Bourgeoys
1.991523945	Saint-Laurent
1.360413787	Marquette
1.302062281	Chomedey
1.164034618	Jeanne-Mance
1.132835768	La Pinière
1.008871831	Vaudreuil

Ridings: Sovereigntism

general factor

Component 2
Health Problems (+)

Major Political Parties

0.08	ADQ
0.02	PQ
-0.05	PLQ

Minor Political Parties
none

Characteristics
r = .7 standard

1.00	DIGPROB
1.00	TUMDEAD
0.99	CIRCDEAD
0.99	GNURPROB
0.99	COLRECT
0.99	LUNG
0.99	BREAST
0.99	TUMPROB
0.99	RESPDEAD
0.99	PROSTATE
0.99	NATDEAD
0.99	RESPROB
0.99	TRAUPROB
0.99	CIRCPROB
0.99	CHLAMYD
0.99	PERCPROB
0.98	TRAUDEAD
0.95	SALMON
0.93	CAMPYLO
0.89	SCARLET
0.88	GIARDIA
0.87	WHOOP
0.80	GONORRH
0.78	HEPB
0.75	TUBERC
0.73	AIDS

Ridings

z = 2 standard

5.236447954	Montmorency
5.099498570	Blainville
5.097459488	Masson
4.784183243	Sauve
2.261841467	Anjou
2.201227749	Gouin
2.176132315	Jeanne-Mance

Component 3

Older Individuals (+) / Young Families (-)

Major Political Parties

0.25	PLQ
-0.18	ADQ
-0.22	PQ

Minor Political Parties

none

Characteristics: Older Individuals

r = .7 standard

0.94	M70_74
0.93	F70_74
0.92	F65_69
0.92	WIDOWED
0.91	M75_79
0.90	F75_79
0.87	F60_64
0.85	M65_69
0.85	F80_84
0.84	M80_84
0.78	F85_
0.73	F55_59
0.72	M60_64
0.72	M85_

r = .5 standard

0.68	FAMILY2

Characteristics: Young Families

r = -.7 standard

-0.78	F35_39
-0.72	M0_4
-0.71	F0_4
-0.71	M35_39
-0.71	F30_34

r = -.5 standard

-0.69	F5_9
-0.69	M5_9
-0.64	FAMILY4
-0.55	M10_14
-0.54	M40_44
-0.54	F10_14
-0.50	POP

Ridings: Older Individuals

z = 2 standard

2.960106333	Jean-Talon
2.884716467	D'Arcy-McGee
2.039581207	Limoilou

z = 1 standard

1.870635542	Bourget
1.633384759	Bourassa
1.630713042	Acadie
1.535615445	Viger
1.456787330	Trois-Rivières
1.436503086	Louis-Hebert
1.391177238	Taschereau
1.363226652	Sauvé
1.348111553	Rosemont
1.291683952	Frontenac
1.218685859	Crémazie
1.181843602	Saint-Maurice
1.089508458	Bellechasse
1.036807754	Rivière-du-Loup

Ridings: Young Families

z = -2 standard

-2.048743638	Terrebonne

z = -1 standard

-1.958462326	La Prairie
-1.874938444	Chapleau
-1.833097736	Chutes-de-la-Chaudière
-1.768098249	La Peltrie
-1.750770475	Vachon
-1.700471514	Chauveau
-1.668413911	Masson
-1.494163744	Verchères
-1.487956676	Marguerite-D'Youville
-1.480279504	Blainville
-1.473120123	Mercier
-1.454340842	Groulx
-1.353277402	Chambly
-1.277221188	Vimont
-1.254987791	Fabre
-1.190196223	Ungava
-1.189602993	Deux-Montagnes
-1.187377166	L'Assomption
-1.175639921	Nelligan
-1.135588882	Vaudreuil
-1.118714443	LaFontaine
-1.031228745	La Pinière

Component 4
The Aboriginal North (-)

Major Political Parties

0.01	PLQ
0.00	ADQ
-0.03	PQ

Minor Political Parties
none

Characteristics
r = -.7 standard

-0.98	BARREN
-0.98	TUNDRA
-0.98	HINUK
-0.98	HCREE
-0.98	TRANSFOR
-0.98	WATER
-0.94	ABORIG
-0.82	CONFOR
-0.72	CJ

z = -2 standard

-10.918265599 Ungava

Component 5

Single, No Kids (+) / Married With Children (-)

Major Political Parties

0.07	PQ
-0.06	PLQ
-0.13	ADQ

Minor Political Parties

r = .7 standard

0.69	PDS

r = .3 standard

0.43	PMLQ
0.37	PCQ
0.37	BP

Characteristics: Single, No Kids

r = .7 standard

0.88	M25_29
0.88	SINGLE
0.86	AESTH
0.82	F25_29
0.81	OTHER
0.76	M30_34
0.73	NOREL
0.73	SHPOVMTG
0.71	SHPOVREN

r = .5 standard

0.69	PDS
0.67	F20_24
0.65	SEPARATE
0.60	M20_24
0.56	UPORT
0.50	OTHREL

Characteristics: Married With Children

r = -.7 standard

-0.87	MARRIED
-0.70	FAMILY4

r = -.5 standard

-0.69	M10_14
-0.69	F10_14
-0.68	M15_19
-0.65	F15_19
-0.58	HIGHSCHL
-0.57	FAMILY5_
-0.54	F5_9
-0.54	M5_9
-0.51	FAMILY3

Ridings: Single, No Kids

z = 2 standard

5.450394035	Mercier
5.034164964	Sainte-Marie-Saint-Jacques
3.164915659	Taschereau
2.776688386	Gouin
2.564550240	Westmount-Saint-Louis
2.400037615	Hochelaga-Maisonneuve

z = 1 standard

1.943706890	Outremont
1.620330477	Hull
1.573320144	Laurier-Dorion
1.273488879	Rosemont
1.051249097	Louis-Hebert
1.004832767	Verdun

Ridings: Married With Children

z = -1 standard

-1.299429302	La Pinière
-1.217889150	Frontenac
-1.044610184	Robert-Baldwin
-1.004120692	D'Arcy-McGee

Component 6

Cultural Communities I: The Northwest Island (+)

Major Political Parties

0.17	PLQ
0.07	ADQ
-0.26	PQ

Minor Political Parties

r = .7 standard

0.76	PIQ

r = .5 standard

0.63	BP
0.51	PCQ

Characteristics

r = .7 standard

0.87	NO3
0.83	SMALPART
0.82	MN
0.81	LARPART
0.80	UHAIT
0.76	PIQ
0.76	SO4

r = .5 standard

0.67	HITAL
0.67	HSPAN
0.63	BP
0.62	UITAL
0.51	PCQ

Ridings

z = 2 standard

8.203857446	Viau
2.465809430	Bourassa
2.430356135	La Pinière
2.400183122	Jeanne-Mance

z = 1 standard

1.631150566	LaFontaine
1.617371671	Viger
1.579579340	Sauvé
1.419455528	Trois-Rivières
1.361892170	Crémazie
1.355135962	Taillon
1.027615050	Rosemont

Component 7

The Educated Elite (-)

Major Political Parties

0.04	PLQ
0.04	ADQ
-0.06	PQ

Minor Political Parties
none

Characteristics
r = -.7 standard

-0.77	HEAL
-0.71	HUMAN

r = -.5 standard

-0.69	HEALSERV
-0.68	EDUSERV
-0.65	F45_49
-0.63	AVINC
-0.63	SCI
-0.61	PROFEDUC
-0.54	F40_44
-0.54	MANAGE
-0.50	UNIV

Ridings
z = -2 standard

-4.565093425	Jean-Talon
-2.643324353	La Peltrie
-2.528189106	Outremont
-2.017321921	Marguerite-D'Youville

z = -1 standard

-1.727863037	Sherbrooke
-1.642870799	Louis-Hébert
-1.582164030	Rimouski
-1.463051399	La Pinière
-1.403792629	Charlesbourg
-1.374057137	Crémazie
-1.279384782	Chicoutimi
-1.237411004	L'Assomption
-1.232469163	Montmorency
-1.220582307	Notre-Dame-de-Grâce
-1.192884223	Borduas
-1.160416789	Chutes-de-la-Chaudière
-1.101592694	Laporte
-1.095888337	Gatineau
-1.063411423	Taillon
-1.027228901	Saint-François

Component 8
Biodiversity (+) / Ecological Health (-)

Major Political Parties

0.20	ADQ
0.06	PLQ
-0.13	PQ

Minor Political Parties
none

Characteristics: Biodiversity
r = .7 standard

0.78	RAPLSPEC
0.76	CONRANK
0.75	TREESPEC
0.72	RPAMSPEC

r = .5 standard

0.63	ENPLSPEC
0.63	BIRDSPEC

Characteristics: Ecological Health
r = -.7 standard

-0.78	FOREST
-0.76	ECOHEAL

r = -.5 standard

-0.67	MIXFOR
-0.65	UMETIS
-0.50	INCDIFF
-0.50	UNEMP

Ridings: Biodiversity
z = 1 standard

1.343840710	Lévis
1.322381192	Shefford
1.286060423	Chutes-de-la-Chaudière
1.284455766	Iberville
1.236214117	Drummond
1.110775729	Limoilou
1.061906568	La Prairie
1.036739796	Salaberry-Soulanges
1.000207326	Saint-Jean

Ridings: Ecological Health
z = -2 standard

-3.696718190	Roberval
-2.813219448	Labelle
-2.759903471	Abitibi-Ouest
-2.621570626	Gatineau
-2.537263864	Lac-Saint-Jean
-2.379471315	Dubuc
-2.185354388	Saguenay

Component 10
Atlantic Seafarers (-)

Major Political Parties

0.23	ADQ
0.00	PLQ
-0.11	PQ

Minor Political Parties
none

Characteristics
r = -.7 standard

-0.87	UACAD
-0.86	FISH

r = -.5 standard

-0.64	INCDIFF
-0.56	UNEMP

Ridings
z = -2 standard

-9.483156066	Îles-de-la-Madeleine
-2.980168480	Bonaventure
-2.496192854	Gaspé

z = -1 standard

-1.349094240	Matane

Component 11
Cultural Communities II: Mediterranean Communities (+)

Major Political Parties

0.12	PLQ
-0.08	ADQ
-0.08	PQ

Minor Political Parties
none

Characteristics
r = .7 standard

0.81	ULEB
0.78	HARABIC
0.77	EASTORTH

r = .5 standard

0.68	HGREEK

Ridings
z = 2 standard

8.055036100	Acadie
4.243698795	Chomedey
2.688034997	Laurier-Dorion
2.584767048	Saint-Laurent

Component 12
Middle Aged (-)

Major Political Parties

0.09	ADQ
0.00	PLQ
-0.04	PQ

Minor Political Parties
none

Characteristics
r = -.7 standard

-0.77	M55_59

r = -.5 standard

-0.64	M50_54
-0.52	F50_54

Ridings

z = -2 standard

-4.380525284	La Pinière
-3.352417247	Bertrand
-3.056885143	Westmount-Saint-Louis
-2.257606013	Charlesbourg
-2.168456735	Labelle

z = -1 standard

-1.772401013	Marguerite-D'Youville
-1.604416479	Anjou
-1.366776416	Sainte-Marie-Saint-Jacques
-1.304880256	Berthier
-1.126569127	Richelieu
-1.116232257	Jeanne-Mance
-1.089467781	Marie-Victorin
-1.060352481	Charlevoix
-1.033748756	Gatineau

Component 14

Cultural Communities III: South Asian Communities (+)

Major Political Parties

0.01	PQ
0.00	PLQ
-0.02	ADQ

Minor Political Parties

0.52	PMLQ

Characteristics

r = .7 standard

0.72	UVIET
0.71	HVIET

r = .5 standard

0.58	BUDD
0.58	HINDU
0.52	PMLQ

Ridings

z = 2 standard

6.722378486	Mont-Royal
3.753347274	Laurier-Dorion
3.521981593	La Pinière
2.560114588	Gouin
2.097941539	Saint-Laurent

z = 1 standard

1.550282380	Bourget
1.428933986	Montmorency
1.396594260	Saint-Henri-Sainte-Anne

Component 21

Retail Sales (+) / Farming (-)

Major Political Parties

0.12	ADQ
0.04	PQ
-0.07	PLQ

Minor Political Parties

none

Characteristics: Retail Sales

r = .7 standard

0.89	SELL

r = .5 standard

0.62	RETAIL
0.50	ACFOBEV

Characteristics: Farming

r = -.5 standard

-0.55	AGRIC

Ridings: Retail Sales

z = 2 standard

2.544626073	Bertrand
2.270304036	Chomedey

z = 1 standard

1.945169464	Charlevoix
1.875143800	Limoilou
1.704532038	Labelle
1.462616359	Chapleau
1.414323527	Marguerite-Bourgeoys
1.394946214	Chauveau
1.366652523	Robert-Baldwin
1.357476646	Taschereau
1.344120743	Hochelaga-Maisonneuve
1.247997737	D'Arcy-McGee
1.235015099	Prévost
1.197907417	Vanier
1.178783350	Rivière-du-Loup
1.128284914	Marquette
1.085694687	Charlesbourg

Ridings: Farming

z = -2 standard

-2.988911163	Lotbinière
-2.342910848	Bellechasse
-2.340416920	Nicolet-Yamaska
-2.332386858	Beauharnois-Huntingdon
-2.262240056	Mégantic-Compton
-2.228825276	Jean-Talon
-2.194336623	Richmond
-2.108299837	Johnson
-2.087875098	Outremont
-2.029142293	Westmount-Saint-Louis

z = -1 standard

-1.432621150	Beauce-Nord
-1.357384252	Mercier
-1.247031754	Kamouraska-Témiscouata
-1.127575353	Montmagny-L'Islet
-1.051923143	Beauce-Sud

Appendix F
The Reduced Variable Matrix

POL (all variables retained, regardless of multicollinearity with other variables)
Voting Results By Party

ADQ
BP
INDSD
PCQ
PDS
PEEP
PIQ
PLNQ
PLQ
PMLQ
PQ
WINNER

Locality Measures

LOCIND
LOCWEIGH

CULT
Language

FIRSTFRE
FIRSTNEI
HARABIC
HGREEK
HMONTNAS
HSPAN

Ethnicity

UACAD
UCHIN
UITAL
UJEWISH
UMETIS
UPORT
UQUEB

Aboriginal Status

ABORIG

Religion

CATH
NOREL
OTHREL
PROT
SIKH

ECOL

Air Resources / Site Particulate Measures

AS
BENZ
LARPART

Land Resources / Site Contamination

GERLEDM2
GERSOL

Land Cover / Water Cover

CONFOR
DECFOR
URBAN
AGRANK
DECRANK
MIXRANK
URBRANK
WATRANK

Biodiversity

BIRDSPEC
ENPLSPEC
MAMSPEC
TREESPEC

Ecological Health

ECOHEAL

SOC I

Population Demographics

F0_4
F5_9
F10_14
F20_24
F25_29
F30_34
F35_39
F40_44

F45_49
F55_59
F65_69
F70_74
F85_
FAMILY3
M40_44
M50_54
MARRIED
POP

Morbidity

AIDS

Mortality

NATDEAD

Poverty-Related Exclusion

UNEMP

SOC II

Access to Health Care

BPCH
BPCHSLD
BPCJ
BPCR
CH
CHSLD
CLSC
CR

Educational Attainment

UNIV

Group-Related Exclusion

VISMIN

ECON

Income

AVINC

Property Values

VALUEDW
GROSMTG

Sectors of Employment

ACFOBEV
AGRIC
BUSSERV
COMM
CONST
FINANCE
GOVSERV
MINING
OTHER
RETAIL
TRANS
WHOLE

Types of Employment

AESTH
HEAL
HUMAN
SELL
SECOND

Appendix G
Variables Created for Assimilation/Acculturation Analysis

All data used for this analysis is from the 1996 Canadian Census.

Net Language Shift Measures

HEME	Difference between percentage of persons of home language of English and percentage of persons of mother tongue of English
HFMF	Difference between percentage of persons of home language of French and percentage of persons of mother tongue of French
HOMO	Difference between percentage of persons of home language other than English or French and percentage of persons of mother tongue of other than English or French
FEME	Difference between percentage of persons of first language of English and percentage of persons of mother tongue of English
FFMF	Difference between percentage of persons of first language of French and percentage of persons of mother tongue of French
FNMO	Difference between percentage of persons of first language neither English nor French and percentage of persons of mother tongue of other than English or French

Linguistic Assimilation Measures

HEMEAS	Absolute value of negative values of HEME, or assimilation away from English home language use by an English mother tongue population.
HFMFAS	Absolute value of negative values of HFMF, or assimilation away from French home language use by a French mother tongue population.
HOMOAS	Absolute value of negative values of HOMO, or assimilation away from non-official home language use by a non-official mother tongue population.
FEMEAS	Absolute value of negative values of FEME, or assimilation away from English first language use by an English mother tongue population.
FFMFAS	Absolute value of negative values of FFMF, or assimilation away from French first language use by a French mother tongue population.
FNMOAS	Absolute value of negative values of FNMO, or assimilation away from use of neither official language by a non-official mother tongue population.

Language Adoption Measures

HEMEAD	Positive values of HEME, or adoption of the English language by other linguistic communities for use in the home
HFMFAD	Positive values of HFMF, or adoption of the French language by other linguistic communities for use in the home
HOMOAD	Positive values of HOMO, or adoption of non-official languages by other linguistic communities for use in the home
FEMEAD	Positive values of FEME, or adoption of the English language by other linguistic communities for preferred everyday use
FFMFAD	Positive values of FFMF, or adoption of the French language by other linguistic communities for preferred everyday use

Linguistic Acculturation Measures

KE2MF	Ratio of percentage of persons knowing English to those of French mother tongue
KE2MO	Ratio of percentage of persons knowing English to those of other mother tongue than English or French
KF2ME	Ratio of percentage of persons knowing French to those of English mother tongue
KF2MO	Ratio of percentage of persons knowing French to those of other mother tongue than English or French

Appendix H
Variables Created for Economic Base Analysis

Location Quotient Economic Base Measures (LQs)

LQACFOBV	Location Quotient for Accommodations, Food and Beverages
LQAGRIC	Location Quotient for Agriculture
LQBUSSRV	Location Quotient for Business Services
LQCOMM	Location Quotient for Communications
LQCONST	Location Quotient for Construction
LQEDUSRV	Location Quotient for Educational Services
LQFIN	Location Quotient for Finance
LQFISH	Location Quotient for Fisheries
LQFOREST	Location Quotient for Forestry
LQGOVSRV	Location Quotient for Government Services
LQHEASRV	Location Quotient for Health Services
LQINSRST	Location Quotient for Insurance and Real Estate
LQMANUF	Location Quotient for Manufacturing
LQMINING	Location Quotient for Mining
LQOTHER	Location Quotient for Other Services
LQRET	Location Quotient for Retail Trade
LQTRANS	Location Quotient for Transportation
LQWHOLE	Location Quotient for Wholesale Trade

"By Jobs" Economic Base Measures (BJs)

BJACFOBV	"By Jobs" Measure for Accommodations, Food and Beverages
BJAGRIC	"By Jobs" Measure for Agriculture
BJBUSSRV	"By Jobs" Measure for Business Services
BJCOMM	"By Jobs" Measure for Communications
BJCONST	"By Jobs" Measure for Construction
BJEDUSRV	"By Jobs" Measure for Educational Services
BJFIN	"By Jobs" Measure for Finance
BJFISH	"By Jobs" Measure for Fisheries
BJFOREST	"By Jobs" Measure for Forestry
BJGOVSRV	"By Jobs" Measure for Government Services
BJHEASRV	"By Jobs" Measure for Health Services
BJINSRST	"By Jobs" Measure for Insurance and Real Estate
BJMANUF	"By Jobs" Measure for Manufacturing
BJMINING	"By Jobs" Measure for Mining
BJOTHER	"By Jobs" Measure for Other Services
BJRET	"By Jobs" Measure for Retail Trade
BJTRANS	"By Jobs" Measure for Transportation
BJWHOLE	"By Jobs" Measure for Wholesale Trade

VITA

Zachary Klaas was born in Bellflower, CA, USA on 24 December 1965. He was raised in Ames, IA, USA, and graduated from Iowa State University in Ames with a Bachelor of Arts in History and Political Science in May, 1990. He moved to New Orleans, LA, USA in June 1990, and enrolled in the University of New Orleans, from which he subsequently received a Bachelor of Arts in Philosophy in May, 1992 and a Master's in Urban and Regional Planning in December, 1997. He moved to Ottawa, Ontario, Canada in late 1997, and began the Ph.D. program in Geography at the University of Ottawa the following September. In 1999, he married Janine Jean, and in 2001 the two of them welcomed the arrival of their first child, Colin Engler Klaas.

His focus while studying in Ottawa has been in political, economic, social, cultural and environmental geography. He also retains his interests in the field of Geographic Information Systems, which he has used now in both his master's and doctoral work. In 2002, he was hired as a sessional lecturer at both the University of Ottawa and Carleton University, both in the city of Ottawa. He has taught the courses Society and Environment and Restructuring Urban and Regional Systems at the University of Ottawa, and Economic Geography at Carleton University. He has since been rehired to teach Economic Geography again at Carleton University for the Winter 2003 semester.