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# Regions, Regionalism, and Regional Differences in Canada: Mapping Economic Opinions

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Variations across space in political behaviour and public opinion have special implications for politics. Most severely, territorial divisions are often accompanied by implicit or explicit threats of secession. Cleavages between groups that are separated by geography have threatened the sovereignty of countries in ways that non-territorial cleavages cannot. Seccessionist movements, however, are but the most severe manifestation of a more general phenomenon. Regional differences have implications for day-to-day politics. This is particularly true in countries like Canada where a single member plurality electoral system rewards regionally concentrated support at the expense of broad-diffuse support (Cairns 1968). In these systems, politicians who target regional interests are likely to be rewarded for their efforts in ways that politicians with non-contiguous bases of support are not.

Regional variations generate theoretical, conceptual, and methodological questions for political scientists. From the standpoint of social science theory, the main question is about the origins of these variations. What is it about the relationship between people and their environment that generates interregional variations in opinions and behaviour? The challenge here is to identify causal mechanisms. The focus on "region" and "context", however, raises clear level of analysis issues. Each individual belongs to many regions simultaneously. From a methodological standpoint, then, testing hypotheses about the variations between people in different regions requires empirical analyses that include variables measured at different levels of analysis. Some are measured at the individual-level, others at some higher level of analysis, and still others at yet higher levels. The methodological challenge is to integrate these variables into a single model of opinion or behaviour.

This paper addresses these challenges in the context of an analysis about the regional distribution of Canadians' opinions about government involvement in the economy. Opinions about government economic intervention are a cornerstone of left/right political disagreement. The questions that we consider are whether and why Canadians in different regions have different answers to the question about whether more things should be left to government rather than to business. There are many more issues, of course, on which Canadians are likely to be regionally divided. Indeed, we expect that the patterns of regional differences are likely to vary across issues. Even so, an analysis of opinions about government economic intervention allows us to test empirically two of our expectations about the contours of regional difference in Canada. The first expectation is that different causal mechanisms explain distinctiveness in different regions. And the second expectation is that different causal mechanisms operate at different levels of analysis. These hypotheses carry methodological implications for the study of regionalism, and they temper the pursuit for a single "Holy Grail" explanation of regional difference in Canada.

## I. Concepts and Theories: Region and Regionalism

There is widespread agreement among observers of politics in Canada that the country is divided in politically consequential ways along regional lines (Bell 1992, 146; Blake 1972; Brodie 1990; Careless 1969; Elkins & Simeon 1980; Henderson 2004; Ornstein, Stevenson & Williams 1980; Laselva 1996; Matthews 1983; Schwartz 1974; Simeon & Elkins 1974; Wilson 1974). There are regional differences in voting behaviour (Gibbins 1980; Gidengil et al. 1999), political culture (Simeon & Elkins 1974), economic performance (Brym 1986, 8; Cutler 2002,

350; Schwartz 1974, 11) and public opinion (Cutler 2007; Wilson 1974). There is little agreement, however, about what causes these regional divisions or, indeed, about where the lines of regional division should be drawn. This ambivalence certainly applies to citizens (Bell 1992, 142). In an open-ended question in the 1974 Canadian Election Study, 2562 citizens traced and assembled 700 unique combinations of regional divisions (Elkins & Simeon 1980, 5). There is somewhat greater consensus among political scientists. The most common approach treats the formal boundaries of provinces as the fault lines of regional political tectonics (for a discussion, see Cameron & Krikorian 2002, 333; Gibbins 1980, 8). Elkins & Simeon (1980, xi), for example, argue that in order "[to] rise much above folklore, regional differences must become institutionalized, to have an institutional focus. In Canada, the provincial governments provide such a center." Other political scientists adhere to this strategy, but with less confidence. Wilson (1974, 439-40) settles on provincial boundaries as proxies for the lines of regional division, but does so with a great deal of scepticism. Ornstein, Stevenson & Williams (1980, 9) treat each province as a region, except in Quebec where they split the province into French and non-French components. And while Schwartz (1974, 5) thinks mainly about provinces when writing about regions, she frequently follows the "…usage long accepted by geographers and economists…" by collapsing the ten provinces into five regions; in this case, Atlantic, Quebec, Ontario, the Prairies, and BC (Schwartz 1974, 6).

Many reject for theoretical (Brodie 1990) or practical reasons (Gidengil et al., 1999, fn.4) the use of province as a proxy for region. Indeed, the level of analysis can be shifted with equal facility up or down from the provincial-level. According to Brodie (1990, 16), "…the problem of equating provinces with regions is that it necessarily conceals the real and widespread manifestations of transprovincial spatial politics." Yet, even among those who subscribe to a transprovincial approach, there is little consensus about what these transprovincial units of analysis look like. In the so-called "5-region Canada" (Schwartz 1974, 5; Elkins & Simeon 1980, xi), there are two transprovincial regions, Atlantic Canada and the Prairies, and three provincial regions: Quebec, Ontario, and BC. Yet, some scholars treat BC and the Prairies together as "the West" (Godbout & Belanger 2002, 576), while others do not (Gibbins 1980, 8). And some treat Newfoundland (Gidengil et al. 1999, 247) and the Maritimes together as "Atlantic Canada"; Bell 1992, 146), while others do not (Hodgetts 1966, 10).

There are also regional differences that cut within provinces. Here too, however, there is little consensus about where to draw the lines of division. Blake (1972, 60) uses federal electoral districts; a natural choice, perhaps, for a study of vote choice. Culter (2007, 582) uses census tracts, postal forward sorting areas, and census subdivisions. And while Henderson (2004, 603) treats federal electoral districts as a baseline unit of analysis, she lumps districts together into "regions" based on their demographic composition, an approach that ostensibly raises the prospect that regional effects may not be territorially contiguous. In any case, all of these examples illustrate that regional differences may operate independently of formal political boundaries. Even so, a key problem, the level of analysis problem, is certainly not resolved by abandoning the use of province as a proxy for region.

Disagreements about regions reflect disagreements about the nature of "regionalism." For some, regionalism is a description. It describes regional differences on phenomena of interest, but it does not explain these differences (Elkins & Simeon 1980, xi; Gibbins 1980, 7; Wilson 1974, 444). From this perspective, a precise definition of "region" is unimportant. Simeon (1977, 293), for example, argues that "we must first recognize that in no sense is [regionalism] an explanatory variable: by itself it doesn't explain anything; nothing happens

because of regionalism. If we find differences of any sort among regions, it remains for us to find out why they exist; regionalism is not an answer." On this basis, Simeon (1977, 293) reasons that "…regions are simply containers, whose contents may or may not differ. And how we draw the boundaries around them depends entirely on what our purposes are: it is an a priori question, determined by theoretical needs or political purposes. We can have regions within provinces, or regions made up of groups of provinces, or regions cutting across provincial lines." Brym (1986, 2-3), similarly, begins his study of regionalism with the qualification that he did not "…want to spend much time defining 'region,' apart from noting the common and sensible view that the unit of analysis to which the term refers should depend on the purpose to which it is put. Sometimes we think of regions as groups of provinces, sometimes as provinces themselves, sometimes as parts of provinces." If regionalism is simply a description of inter-regional differences on some variable of interest, then the boundaries of a "region" may change from dependent variable to dependent variable.

But is regionalism merely a description, or is it, in fact, an explanation? The answer to this question, for some, depends on whether regional variations are attributed to "composition effects" or whether they are attributed to "contextual effects" (Gidengil et al. 1999, 249). A composition effect emerges when regions differ from one another on some dependent variable of interest because there happens to be within those regions different proportions of particular groups. If immigrants tend to express higher support for immigration, for example, and if one region has a higher proportion of immigrants than another region, then the average level of support for immigration may vary across these regions by virtue of a composition effect; in this case, the different "proportionalities" of immigrants (Elkins & Simeon 1979, 130). If white collar workers tend to differ from blue collar workers in their opinions about environmentalism, and if white collar and blue collar workers are respectively overrepresented in urban and rural areas by virtue of the kinds of employment that are available in these regions, then the different proportions of white and blue collar workers in these regions may open a regional cleavage on environmental issues. In both cases, however, the regional difference is attributable to different aggregations of individual-level characteristics. Indeed, the simplest definition of a composition effect is that it is an inter-regional difference that disappears when all relevant individual-level variables are taken into account. When it comes to composition effects, the regions may differ on average, but two individuals with the same individual-level characteristics would hold the same opinion, regardless of their region in which they lived. [1]

[1] This definition of a composition effect therefore includes "selection effects", the phenomena of people moving to a particular region because they happen to hold a specific value on a dependent variable of interest. If environmentalists tend to move to cities rather than rural areas because they chose to live around other environmentalists, then one might be tempted to argue that the composition effect is due to the different regional contexts. Likewise, if the people in a region tend toward blue-collar or white-collar work by virtue of the kind of employment which dominates in their locale, then one might conclude that the different distributions of white- and blue-collar workers is at least somewhat attributable to regional context. We do not disagree with this conclusion. We think that composition effects are often, if not typically, regional

A context effect, by contrast, emerges when a characteristic of a region shapes the opinion of the individuals within that region. According to Huckfeldt and Sprague (1983, 652), a context effect occurs when "individual behaviour tends to move in the direction of a surrounding population's social makeup, even when individual characteristics are taken into account." There is a myriad of ways in which contexts are theorized to shape the opinions of the individuals within them. People use their local environments as sources of information about the world (Cutler 2007, 578). Politically disinterested people in particular are thought to use what they observe in the local environment to make inferences about broader national contexts of which they know little. Contexts also shape social networks (Huckfeldt & Sprague 1987). People's social ties, especially the so-called "weak ties" which are especially important for the transmission of information about politics (Granovetter 1973; Huckfeldt 2001), are shaped powerfully by the geographic context in which a person resides. People tend to talk to people who are physically proximate. Finally, contexts exert influences via social-psychological mechanisms (Matthews 1983, 21-25; Schwartz 1974, 309). As Cutler (2007, 579) points out, "…people are attached to the places they inhabit; this identification defines a politically relevant group; and, all else being equal, they care more about fellow locals than those who live further away." Through each of these mechanisms, space itself, or, more precisely, "context," may exert an impact on the opinions of the individuals who occupy that space.

In sum, the key difference between composition-effects, on the one hand, and contextual-effects on the other, is that a composition-effect emerges when regions differ simply because of individual-level differences in the people who occupy the regions, and a context-effect emerges when individuals differ because of the regions that they happen to occupy. In other words, we can identify a composition effect when otherwise identical individuals in different regions would share the same opinion, and we can identify a contextual effect when two otherwise identical individuals in different regions would not share the same opinion. Both may ultimately be "regional effects," but, at the level of an individual's opinions, context- and composition-effects are very different.

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effects. But they are not contextual effects as we will define them. Even when people are in a region because of the regional context, it is still not the regional context which has shaped their opinion. In the case of selection effects, moving to a region because of a pre-existing opinion suggests quite clearly that the opinion is independent of the new context. Yet, even when people are in a particular line of work because they happen to live in a particular region, and even when that line of work generates specific opinions about particular issues, it is still the line of work, and not the context, which has created the opinion. That is, an individual with the same individual-level characteristics would hold the same opinion, regardless of context. Context effects, then, require that we "keep our eye on the dependent variable" (Elkins & Simeon 1979, 129); in a chain of causation, a composition effect may ultimately arise from a context effect that occurs earlier in the chain, and vice versa.

Using contextual variables as explanatory variables requires, first, that researchers confront the level-of-analysis problem (i.e., draw the lines of regional division), and it requires, second, that they outline a precise conceptualization of "regionalism." In terms of the former challenge, the widespread agnosticism about where to draw regional lines of division may well work when regionalism is used simply to describe any variation across space, but it does not work when a characteristic of space itself is used as an explanation for these variations (Elkins & Simeon 1979, 129). In the latter case, searching for explanations for regional differences after categorizing regions according to their differences on the dependent variable of interest will almost inevitably over-determine whatever other region-level differences are carted out as explanations. That is, drawing lines around regions on the basis of different values of some dependent variables means that the values of that dependent variable will correlate with the values of any other variable on which these regions differ. In order to use "region" as a persuasive explanation for anything, the definition of a region must be clearly grounded in a discussion of the region-level mechanisms that are theorized to exert an independent effect on the phenomena of interest. The concept of region should be built around the variables that are doing the explaining, rather than around the variables that are being explained. Any discussion of a context-effect therefore requires a clear delineation of region.

Yet, drawing regional categories around values of specific independent variables is not without its problems either. Matthews (1983, 13) argues, quite rightly we contend, that "…any discussion of regionalism…must rest on the assumption that regions do exist and can be defined and identified. Region is the most fundamental concept in any attempt at regional analysis." For some, regions are units of space which are delineated from one another by differences in the characteristics of people or geography (Cox 1969; Schwartz 1974; Vance 1968). This is a "region-as-difference" approach. According to Gibbins (1980, 6), for example, "…the delineation of a region implies some spatial organization of values or behaviour." From one perspective, it makes sense to divide physical space into regions on the basis of some difference in population or geography. After all, the main goal of regional analysis is typically to find some explanation for inter-regional variation, whether in voting behaviour, economic performance, public opinion, or some other phenomena. A clear drawback of this approach, however, is that regional boundaries are likely to change as the variables of interest change (Schwartz 1974, 4). The lines of regional division that we would draw if we were interested in economic performance may or may not align with the lines that we would draw if we were interested in immigration. The decision to draw lines of regional division around some variables rather than others is likely to bias the results in the direction of the variables around which the regional categories were drawn, and away form those variables on which the regions do not happen to differ, simply by virtue of the way that regional categories were drawn *apriori*. In effect, then, this approach requires that researchers construct their units of analysis around the variables that they think are important. Thus, people who think that different variables are important are likely to construct their regional categories in different ways. This raises the awkward prospect that different hypotheses would have to be tested against different evidence; that is, against region-level data derived from altogether different categorizations of regional boundaries.

In terms of defining regionalism, the theoretical distinction between composition and contextual effects means that many common conceptualizations of regionalism simply do not work in this case. As we have already seen, defining region as any difference between populations in different locales does not work because it does not allow for a distinction between composition effects, on the one hand, and contextual effects on the other. That is, we cannot

discern by observing a regional difference whether the difference is attributable to the individual-level characteristics of the people who occupy that region, or, rather, to genuine contextual effects. At the same time, however, some of the strategies for dealing with this problem do not work in our case either. For example, Elkins and Simeon (1979) raise the spectre of treating distinctive regional "cultures" as a "second-order" explanation. As they write :

> "When controls for social or demographic categories reduce to insignificance the intercollectivity differences on the dependent variable, the explanation should be termed a structural one. If, on the other hand, such controls reveal that people with similar structural positions diverge between collectivities on the dependent variable, then either there are structural variables which have not been examined (or have been inadequately measured or controlled), or there are cultural differences which account for the observed intergroup variation (1979, 136)."

From this perspective, direct regional effects are the inter-regional differences that are left over after individual-level effects are controlled. As Simeon and Elkins indicate, however, a potential drawback of this approach is that it does not allow us to separate the effects of context from the effects of omitted individual-level control variables (Simeon & Elkins 1979, 135). This drawback is particularly salient in our case because we are interested in identifying *specific* context-level explanatory variables, rather than discerning whether there are general contextual differences that persist beyond differences in the individual-level characteristics of the people in different areas.

In order to address these challenges, we adopt different approaches to the delineation of "regions" and to the definition of "regionalism." First, we define a region broadly as any spatial unit that surrounds an individual. Thus, we agree with the widely held notion that there are many different ways in which regions can be delineated (Schwartz 1974, 5; Simeon & Elkins 1974, 400-1). Yet, in our view, the multiplicity of potentially consequential regional categories is not license to choose any one of these over the others; rather, it is an invitation to examine multiple regional categories simultaneously. People belong at the same time to multiple regional categories; individual Canadians are nested within households, neighbourhoods, constituencies, cities, sub-provincial-regions, and provinces, among others. It makes little sense, we contend, to choose a single unit of analysis when existing statistical tools allow us to estimate models that include variables from multiple levels of analysis. Thus, regional boundaries should be drawn as concentric units that begin from smaller, more proximate units of analysis and move outwards to larger, less proximate units of analysis. Although there may be theoretical reasons for this approach,[2] the logic of beginning from smaller contexts and moving to larger ones is also about maximizing leverage in empirical analysis. Beginning from smaller regional categories is preferable because while it is possible to identify contextual effects of larger regional units from an analysis of smaller regional units, it is not possible to identify contextual effects of smaller regional units from an analysis of larger regional units. For example, we can discern from an analysis of, say, federal constituencies, whether or not these constituencies cluster together in meaningful ways in terms of provincial-level contextual effects. But we cannot determine from an analysis of provinces whether there are meaningful contextual effects that operate at the sub provincial-level.

In terms of regionalism, we also adopt a somewhat different approach than the convention of defining regionalism as any difference that appears across space (Simeon & Elkins

[2] The extent of psychological attachment to a group may lessen as the size of the group expands (Cutler 2007, 579).

1974, 399). Rather, we define regionalism as a psychological attachment to the people, institutions, and elites in a region that arises by virtue of physical proximity (Matthews 1983, 24-5; Schwartz 1974, 309). As Cutler (1997, 576) put it, "research on the influence of context on political attitudes … must attend to the possibility that citizens respond to … tangible local characteristics because they care more about the place where they live than elsewhere." Citizens, from this vantage point, are not just "egocentric" or "socio-tropic", they may also be "local-tropic" (Cutler 2007, 595). Combined with the multiplicity of regional categories to which each individual belongs, the social psychological definition of regionalism is an invitation to replace the proper names of regions with values of the contextual variables of interest. We are not looking, after all, to describe how regions differ on certain characteristics. We are interested instead in measuring the effect of specific regional characteristics on the opinions of the individuals within those regions about specific issues. A multi-level analysis without proper names not only fits better with our conceptualization of region and regionalism, but it also goes a long way toward the development of findings that can be generalized across space and time (Przeworski & Teune 1970).

## II. Hypotheses

A postulate of this paper is that economic insecurity begets greater support for a government role in the economy and reduces support for the prospect of leaving business and industry to their own devices. But economic insecurity is not only a personal sentiment; it may apply as well to people that an individual cares about. From the standpoint of individual-level and contextual-level effects, we expect to find, first, that personal economic insecurity is associated with heightened support for government economic intervention. To the extent that people are ego-centric, personal economic insecurity should increase support for government intervention vis-à-vis business freedom. Yet, independent of personal economic insecurity, we also expect to find, second, that people's support for government economic intervention is affected by the economic situation in their constituency and their province. To the extent that people are local-tropic, then, all things being equal, those in poor regions will support a greater role for the government than will those in wealthier regions.

To what extent, though, does the economic environment account for inter-regional variation in levels of support for government economic intervention? We expect that it accounts somewhat, but not entirely, for these variations. Inter-regional variations in opinions are likely to result from many factors, including differences in ethnic composition, education, religiosity and population density. We expect, further, that different variables may well account for the distinctiveness of different regions. That is, controlling for one variable may account for the distinctiveness of some regions, but not others. In this respect, then, the explanation for regional differences may vary across regions.

## III. Method and Data

The first part of the analysis looks at regional differences from the standpoint of attempting to identify, first, whether inter-provincial variations in economic opinions form clear

transprovincial regional clusters. Do Western provinces cluster together, for example? This part of the analysis examines, second, how controlling for individual-level and contextual-level variables affects interprovincial variation in economic opinions. In this case, the model introduces groups of control variables in separate stages in order to allow for the possibility that different variables account for the distinctive economic opinions of the people in different regions.

The second part of the analysis turns to multi-level analysis. Multilevel models allow us to include specific individual-level and contextual-level variables. This approach parcels out the individual-level composition effects from the aggregate-level contextual effects. It also isolates contextual effects at different levels of analysis. This means, first, that we can test the possibility that different contextual effects operate at different levels of analysis. People's opinions about whether their province is treated fairly, for example, may depend more on provincial-level contextual characteristics than on neighbourhood-contextual characteristics. But that does not mean that all issues will depend to the same extent on provincial rather than neighbourhood characteristics. Thus, contextual effects may operate at one level for one issue, and at another level for another issue.

This approach also means that we can test whether a single contextual effect operates at more than one level of analysis. For example, people may not only worry about the economic well-being of their neighbours, they may also worry about the economic well-being of the people in their province as well. Indeed, there is no evidence to indicate that people choose between the different regional identities that they hold. Rather, those who identify most strongly with more proximate regional units could well identify more strongly, rather than less strongly, with less proximate regional units. Thus, economic context is just one of many possible contextual effects that may operate simultaneously at more than one level of analysis.

The individual-level public opinion data are taken from the IPSOS 2008 exit survey, an opt-in web survey of 38 624 voters from among a standing web panel of over 200 000 members. Despite the drawbacks of opt-in web-surveys (Chang and Krosnick 2009), there are two advantages of this survey. First, the large number of cases allows us to examine subpopulations with a high degree of precision and reliability. Indeed, we can examine subpopulations in analyses which include multiple control variables without running into the "many-variable, small N" problem. Second, the survey records the federal electoral district and the province in which each respondent resides. Not only are there enough observations in the survey to allow us to make reliable inferences about public opinion at the constituency-level, we can also align the individual-level observations from the IPSOS panel with relevant data from Statistics Canada about constituency- and provincial-level contexts. Thus, in addition to a wide range of questions about vote choice, political perceptions, ideology, and social-demographic characteristics, these data allow us to estimate the effects of context-level variables of interest, particularly the level of unemployment in a region.

### A. Model Construction

One of the challenges in the study of contextual effects is to disentangle genuine context-effects from potentially consequential individual-level effects that have been omitted from the

analysis. This challenge can be illustrated by considering the issue of regional unemployment. By definition, people in regions with higher rates of unemployment are more likely, as individuals, to be unemployed than are people in regions with lower rates of unemployment. For this reason, the effect of regional unemployment, an ostensibly contextual variable, cannot on its own disentangle contextual effects from individual-level effects. The magnitude of the effect for regional unemployment would be an accumulation of any possible contextual effect along with any residual individual-level effect from a key omitted variable; in this case, personal unemployment. People in regions with higher unemployment rates are not only in a higher unemployment context, but they are also more likely to be themselves unemployed. Thus, disentangling contextual and individual-level effects requires that we examine the effect of regional unemployment levels while controlling for personal unemployment.

This challenge is compounded, however, by a less conspicuous problem. It is hard to disentangle "ego-centric" concerns with the economic performance of a region from the genuinely "socio-tropic" concerns about the regional economy. Are people concerned about regional unemployment because of the implications of the regional economy for their own economic prospects? Or are people concerned with the regional economy because they care about the well-being of the people who live around them? These questions get to the center of the debates about whether people are egocentric or sociotropic, and about whether regional effects stem from people using their local environments as information shortcuts (an contextual effect that we would not call "regionalism") rather than from a psychological attachment to the people who live around them (an effect that we would call "regionalism"). In order to disentangle these possibilities, the identification of regionalism requires a model that controls for a wider range of egocentric considerations; including personal unemployment, but also other egocentric considerations that could conceivably arise from regional economic contexts, such as the unemployment of a household wage-earner and the less tangible concerns about losing one's job. An apparent context effect would mask these egocentric considerations in an underspecified regression model. Thus, controlling for the effects of these variables strengthens inferences about the impact of regionalism on people's opinions about wealth redistribution.

For these reasons, we control for a host of individual-level sociodemographic variables, including gender, age, language, immigration status, visible minority, income, education, religiosity, rural-urban residence, and church attendance. And we also include three direct measures of personal economic insecurity, including personal unemployment, the unemployment of a household member, and degree of concern about losing one's job. Together, these variables control for a variety of individual-level characteristics which are likely to affect opinions about government intervention in the economy. The models also include two contextual variables. We include constituency-level and provincial-level unemployment rates in order to test directly the core hypothesis that people in economically depressed regions will express more support for government intervention than people in economically prosperous regions. Combined with the battery of individual-level controls, these contextual-level variables allow us to test directly whether the level of unemployment in a region has a direct effect on people's perceptions about government economic intervention vis-à-vis free-market individualism.

The analysis takes place in two stages. In the first part, the provincial-level contextual variables are excluded in order to include in the model dichotomous variables that represent each province. The purpose of this part of the analysis is twofold. First, we want to gauge the extent of the inter-provincial differences on the dependent variable of interest. And second, we want to

see how the introduction of different control variables affects the observed inter-provincial differences in levels of support for government economic intervention. Thus, we introduce the control variables in stages in order to discern how individual-controls affect the magnitude of the inter-provincial differences. This approach therefore mirrors the more traditional approaches to the study of regionalism in Canada (Gidengil et al. 1999).

The second part of the analysis, however, omits the provincial dummy variables from the analysis in order to gauge whether the provincial unemployment rate affects opinions about government intervention in the economy. As there is no variation within provinces in the provincial unemployment rate, the provincial dummy variables and provincial unemployment rates cannot be included in the same model. Even so, one of the advantages of mixed effects regression is that the magnitude of residual context-level effects are reflected by the coefficient of the random intercept for that level of analysis (Rabe-Hesketh & Skrondal 2008). Thus, any provincial-level differences which are not accounted for by the provincial-level unemployment will appear in the random-intercept for province. In other words, the random intercept allows us to discern whether there is provincial-level effects that remain after the provincial-level unemployment rate has been held constant.

## IV. Results

### A. Interprovincial Variation

The traditional approach to the study of regional culture in Canada posits that genuine cultural differences exist only to the extent that individual-level control variables cannot account for regional differences. This part of the analysis is built on this approach, with two exceptions. The first exception is that individual-level variables are introduced in stages. The purpose of this exception is to identify more precisely how specific individual-level controls affect the magnitude of inter-provincial differences. The second exception is that the last stage of the model introduces a context variable: the unemployment rate in each respondent's constituency. The purpose of this control is to identify whether this contextual effect can help explain the inter-regional differences in levels of support for government involvement in the economy. Overall, the order of the steps is pragmatic. We experimented with multiple different orderings of these steps, and the interpretation of the results turns out to be the same regardless of the order in which the control variables are entered into the model. The results of the analysis are displayed in Table 1.

Table 1 Here

There are four key findings. First, the results in Bloc 1 reveal that there are notable interprovincial differences in the level of support for government economic intervention. Ontario is the reference category, and leftward effects are reflected by negative coefficients. As we might have expected, Newfoundlanders and Quebecers are especially left-leaning in their economic outlooks. Respondents in Manitoba, Saskatchewan, Alberta, and, to a lesser extent, BC, are somewhat to the right. Even so, notice the absence of a distinctive regional pattern in Atlantic Canada. Respondents in Nova Scotia and New Brunswick are no more left-leaning than

respondents in Ontario. Nonetheless, the regional pattern in this analysis fits rather closely with the stereotypical ideological map of Canadian politics. Respondents in the provinces east of Ontario are to the left of the citizens in the provinces west of Ontario. But do these differences persist when individual-level differences between the people in these regions are held constant? The next three Blocs of the model address this question.

The second key finding in Table 1 is that the leftward effect of Quebec is undone entirely by the introduction of an individual-level control for language: English or French. The interpretation is straightforward. Quebecers are not more left-leaning than non-Quebecers, but French Canadians are more left-leaning than English Canadians, and there happens to be more French Canadians in Quebec than in other provinces. As a result, Quebec's distinctiveness in Bloc 1 of the model appears to be attributable to a composition effect; the higher proportion of French Canadians in the province. Indeed, in background analyses we added to the model an interaction term that multiplied language by Quebec. The results of that analysis suggest that there is no substantive interaction effect between these variables. In other words, French Canadians inside Quebec are no more left-leaning than French Canadians outside of Quebec, and English Canadians inside of Quebec are no more right-leaning than English Canadians inside of Quebec. Quebec's distinctiveness in Bloc 1 turns out to be a language effect, not a province effect.

The third key finding from Table 1 is that the introduction of socio-demographic controls has little effect on the magnitude and direction of inter-regional differences, except that these controls reverse the coefficient for Quebec and they alter somewhat the extent to which Manitoba fits with the other Western provinces. The inclusion of socio-demographic variables generates a number of expected findings. Women, for example, are more left-leaning than men. Immigrants and visible minorities are more left-leaning than native-born and non-minority Canadians. And Canadians with university degrees are more left-leaning than high school graduates. Even so, none of these effects mitigate the magnitude of regional differences. Notice from Table 1 that the inter-provincial differences from Bloc 2 more or less remain when the socio-demographic controls are introduced in Bloc 3. There is, however, one exception: urban-rural differences. Further analysis reveals that urban-rural region of residence single-handedly accounts for changing the effect for Quebec to a positive (rightward) coefficient, and for reducing the magnitude of the positive (rightward) coefficient for Manitoba. In effect, English Canadians in Montreal are more right-leaning than English Canadians in Toronto. And the citizens in medium-sized cities in Manitoba (i.e., Winnipeg) are less conservative in their economic outlooks than the citizens in medium-sized cities in Alberta (i.e., Edmonton and especially Calgary). Manitoba looks less western, and Quebec looks even less provincial, when urban-rural region of residence is added to the model.

The third significant finding in Table 1 is that the introduction of controls for personal economic insecurity has virtually no effect whatsoever on the direction or magnitude of interprovincial differences in economic opinions. To be sure, economic security affects opinions about government intervention. Citizens with higher incomes are more supportive of leaving business to their own devices, and they are less supportive of government economic intervention. Conversely, citizens who are worried about losing their job are more supportive of government involvement and less enthusiastic about the free-market. Notably, neither personal unemployment nor the unemployment of a household member has any effect on economic opinions, and this non-effect persists regardless of whether one or two of these variables are included in the model (i.e., it is not a matter of collinearity). Nonetheless, the main finding for

our purposes is that personal economic insecurity does nothing to explain interprovincial differences. Interprovincial differences in personal economic security do not account for interprovincial differences in opinions about government economic involvement.

Finally, the fourth significant finding is that the constituency unemployment rate has a substantial effect on opinions about wealth redistribution. The effect of the constituency unemployment rate is represented by the last variable in Step 5. Notably, this effect operates independently of the battery of measures that we include for personal economic security in Step 4. This suggests that the constituency unemployment rate exerts a direct effect on left/right opinions about the economy. Although the magnitude and significance of this effect will be tested in more detail later, notice how introducing constituency unemployment undoes Newfoundland's distinctiveness. This evidence suggests that if Newfoundlanders lived in areas with lower unemployment rates, they would not differ from Canadians in other regions in their opinions about government involvement in the economy. This is not to say that Newfoundlanders are different because they are worried about their own economic situation. Rather, the evidence suggests that Newfoundlanders are like other Canadians insofar as they are worried about the economic well-being of the people around them, and the people around Newfoundlanders happen to be less well-off than the people around Canadians in other regions.

Taken together, then, the inter-provincial differences that emerged in Bloc 1 turn out to mirror the stereotypical lines of division in Canada. Even so, the analysis cautions against attributing these differences to deep seeded latent differences between provinces and regions. Indeed, only Alberta and Saskatchewan turn out to be distinctive when the full battery of controls are introduced in Bloc 4. Moreover, the results also suggest that the search for a "Holy Grail" explanation for regional differences in Canada may turn out to be fruitless. In the above analysis, different factors explain the distinctiveness of different provinces. In the case of Quebec, language, rather than province, turns out to be the distinguishing characteristic. In the case of Manitoba, it is the proportion of the population in urban and rural areas that appears to set the province apart. And when it comes to Newfoundland, the economic context is especially important. Furthermore, we see no evidence of consistent regional effects: NS and NB do not fit with PEI and Newfoundland, and Manitoba and even BC do not hang as if by some latent residual cultural affiliation with Alberta and Saskatchewan.

At the same time, however, we do not see evidence of hard and fast provincialism. Newfoundland is not different from other provinces when economic context is taken into account, and Quebec is not different from other provinces when language is taken into account. Indeed, the only deviations when all the controls are introduced are the nearly identical coefficients for Alberta and Saskatchewan. This suggests the possibility of a trans-provincial regional unit, rather than two separate provincial units. On the whole, then, not only do the analyses indicate that different variables explain the variations of different regions, the analyses also suggest that consequential spatial unit may vary across space. It looks like a residual trans-provincial effect in Alberta and Saskatchewan, a residual sub-provincial effect in Quebec, and a composition effect in Manitoba and Newfoundland. No one unit of analysis, it seems, can even describe, let alone explain, the connection between ideology and geography in Canada.

## B. Economic Context

The need to consider multiple units of analysis simultaneously is reaffirmed by the results in Figures 1.A and 1.B. The results in these Figures are derived from the regression results in Appendix A. These Figures represent, respectively, the independent effects of one-percentage point increases in the constituency and provincial unemployment rates on the level of support for the right-wing position that the economy should be left to businesses rather than to government. The unemployment rates for the constituency (1.A) and provinces (1.B) are plotted along the x-axis in the Figures, and the probability of supporting a right-wing economic position are plotted along the y-axis. The lines in the graph represent the relationship between the contextual unemployment rates and right-wing economic positions, when all other individual-level variables are held constant at their mean levels. Notably, the individual-level variables include controls for each respondent's personal economic situation (income, unemployment, and the unemployment of a household wage earner), as well as controls for their feelings of personal economic insecurity (fear of losing one's job). Thus, the trends in Figure 1.A and 1.B represent the effects of contextual economic conditions independent of the effects of personal economic conditions. In the absence of a direct measure of the extent of a person's attachment to a particular area, the introduction of extensive individual-level controls serves to increase our confidence that the effects in Figures 1.A and 1.B are genuine context-effects which stem from the fact that individuals are attached to the people who live around them, and that they consider the economic well-being of these people, as well as their own economic well-being, when they formulate their opinions about the economy.

Figure 1.A and 1.B Here

The results in Figure 1.A and 1.B suggest that both constituency and provincial economic context exert direct effects on economic opinions. Certainly, constituency unemployment rates appear to matter more than provincial unemployment rates. In the first case, there is a wider distribution of constituency unemployment rates (min = .03, max = .264, sd = .026 for constituencies vs. min = .032, max = .132, sd = .017 for provinces). In the second case, the slope of the effect for constituency unemployment rate is steeper (-.78 vs. -.47). Moreoever, the magnitude of the effect at the constituency-level is significant statistically ($p < .001$), whereas the magnitude of the effect at the provincial level does not reach conventional levels of statistical significance ($p < .139$). Even so, it is worth noting that there are only 11 provincial regions in the analysis (including the North), and thus we should not expect a high level of statistical significance with such a small number of observations. Also, the direction and magnitude of the effects of constituency and provincial-level unemployment rates on economic opinions are similar. Indeed, these contextual effects are both quite similar to the effects of personal economic circumstance, notably the effects of household income and concerns about losing one's job. In short, people who are economically insecure, or who live around people who are economically less well-off, are less likely to support leaving the economy to businesses rather than to government.

These results provide further evidence of the need to consider multiple levels of analysis simultaneously when thinking about the relationship of geography and political opinions in Canada. It is not one level of analysis that matters, it is multiple levels. Some levels of analysis may be more significant for some issues and less significant for others. And some issues may be shaped by variables that arise at multiple levels of analysis. None of these facts can be taken into account unless multiple levels of analysis are considered simultaneously.

## V. Conclusion

Regional differences in opinions and behaviour are salient characteristics of Canadian politics. Political scientists have offered a myriad of explanations for these differences, explanations that draw on different theories, concepts, approaches, and evidence. The earliest approaches in Canada and elsewhere stressed the importance of geography itself (Innis 1930; Turner 1908; Vance 1968). More recent approaches emphasize the role of economic disparity (Brym 1986; Schwartz 1974), historical settlement patterns (Wiseman 2007), political institutions (Cairns 1977; Elkins & Simeon 1979; Gidengil et al. 1999), local elites (Clement 1978), social communication (Huckfeldt & Sprague 1987), and social-psychological attachments (Cutler 2002, 2007). To be sure, many accounts posit an interplay between these explanations (e.g., Cutler 2007, 579; Elkins & Simeon 1979, 135). And none claims to provide a comprehensive explanation for the full extent of regional differences in Canada. Even so, the theoretical, conceptual, methodological and empirical differences behind these different accounts makes it difficult to weave them together into a coherent explanation of regional politics in Canada.

This paper builds on these existing works in an effort to outline a conceptual and methodological roadmap for empirical analyses of regional differences in Canada. The analysis here examines only one issue: opinions about government involvement in the economy. In this respect, it is far less comprehensive than studies which examine regional differences on multiple issues simultaneously. Yet, the results uncovered here suggest that an overarching explanation for regional differences may not emerge from existing theories and concepts. To the contrary, different theoretical explanations are often associated with altogether different definitions of "region" and tested against variables measured at different levels of analysis. This makes it impossible to assess empirically the comparative merits of rival explanations, just as it rules out the prospect of integrating multiple explanations into a single coherent account.

We have proposed a strategy for overcoming this challenge. The first part of that strategy involves a clear definition of region. In Section I, we argued that a region should be defined as the physical space that surrounds an individual. Regional boundaries, from this perspective, should be drawn as quasi-concentric units emanating outward from the smallest possible to the largest possible level of analysis. The logic of this approach stems from a property of the level of analysis problem: it is always possible to study larger regional contexts from an analysis of smaller regional contexts, but it is not possible to study smaller regional contexts from an analysis of larger regional contexts. Thus, analyses should begin with individuals, and move from there through smaller contextual units of analysis (e.g., neighbourhoods) toward larger units of analysis (e.g., constituency, province, transprovincial region, country, etc.).

The second part of the strategy is to develop a clear definition of "regionalism;" a definition, certainly, which distinguishes regionalism from any difference in opinions or behaviour that emerges across space. Regionalism, from our perspective, is an explanation for regional differences, not a description of these differences. Indeed, we propose that regionalism should be taken to denote a "social-psychological" attachment to the people, places, and institutions that are within a shared geographic region. This attachment is "social" to the extent that people who live together tend to talk together (Huckfeldt & Sprague 1987). It is "psychological" insofar as people who live together tend to care about each other (Cutler 2002). Regionalism, in other words, is the variable that links individuals to characteristics of the context

that surrounds them. It is a cross between an individual-level effect and a context effect, but it is not a composition effect. For the standpoint of regionalism as a social-psychological variable, the impact of aggregate-level context effects are likely to vary depending on values of individual-level variables; notably, a person's commitment to, and knowledge of, the environment that surrounds them – or, in other words, their level of regionalism.

The third part of this strategy involves the use of multi-level analyses. It is imperative to examine simultaneously variables measured at multiple levels of analysis. Although there may be theoretical reasons to expect, for example, that province rather than neighbourhood is the key level of analysis, theoretical expectations do not justify an empirical approach which rules out in advance rival possibilities. Thus, the extent to which province is the key level of analysis is a question that should be tested empirically, rather than decided a priori. As different explanations for regional differences often propose that different levels of analysis matter, testing the comparative merits of these explanations, or, indeed, bringing them together into a single explanations requires an approach where multiple levels of analysis are examined at the same time.

Finally, the development of generalizable explanations requires that we replace the proper names of regions with the measures of the specific variables which are thought to explain regional differences. If provincial variations in economic performance are thought to account for, say, interprovincial differences in orientations toward the economy, then direct measures of provincial economic performance should replace the names of provinces as the variables in a regression model. The unexplained variance in a regression model—a portion of which is essentially what provincial dummy variables pick up—neither confirms nor rules out specific explanations for interprovincial differences. Thus, contextual-level explanations demand specific contextual-level variables, preferably with interaction terms to capture each individual's commitment and engagement to the context around them.

This paper has examined but one issue. But even such a narrow focus highlights the need to examine regional differences in Canada from a multiplicity of angles. No one variable, let alone explanation, turned out to account for the distinctive economic opinions of Canadians in different regions. The results of the analyses uncovered evidence of consequential units of analysis that cut within provincial boundaries (e.g., constituencies), and the analyses uncovered evidence of units of analysis that transcend provincial boundaries (i.e., Alberta and Saskwatchewan). The results also uncovered that what initially appeared to be a "Quebec-effect" turned out to be a "French effect," hardly a province-wide variable. Manitoba resembled initially the other prairie provinces, Alberta and Saskatchewan, but those similarities disappeared when the level of urban and rural populations were held constant. And Newfoundlanders were consistently more likely to support government intervention in the economy, but that effect disappeared when the rate of constituency unemployment was taken into consideration. In the final analysis, the lines of regional division on but one single issue were impossible to characterize with the same variables, the same level of analysis, or, indeed, the same explanation. The conceptual and methodological arguments in this paper, however, may well contribute to the development of theoretical explanations which are able to manage the complexity of regional differences in Canada.

Table 1: Inter-provincial variation in free-market support, with and without controls for composition and contextual effects

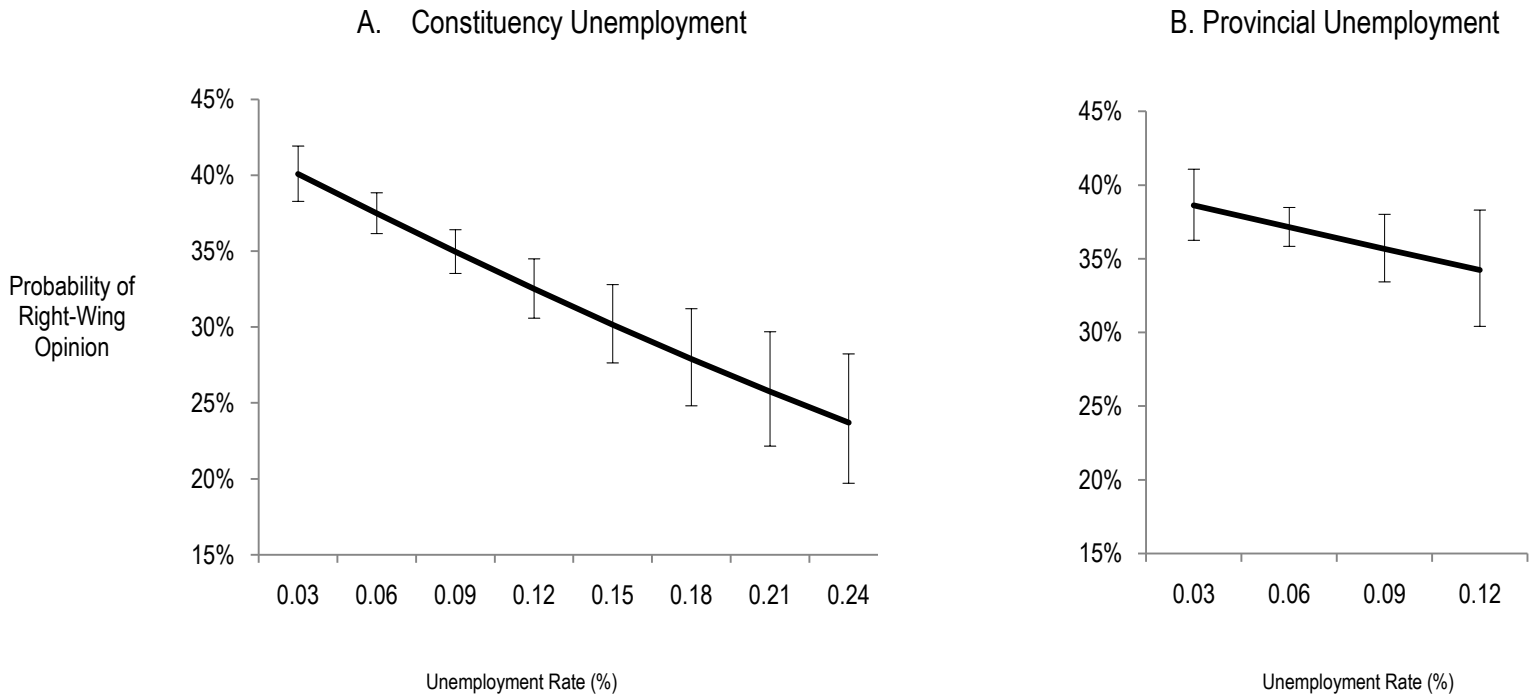
| | Bloc 1 | | | Bloc 2 | | | Bloc 3 | | | Bloc 4 | | | Bloc 5 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Province** | **Coef.** | **(SE)** | **P < z** | **Coef.** | **(SE)** | **P < z** | **Coef.** | **(SE)** | **P < z** | **Coef.** | **(SE)** | **P < z** | **Coef.** | **(SE)** | **P < z** |
| NL | **-.344** | **(.110)** | **.002** | **-.346** | **(.110)** | **.002** | **-.457** | **(.114)** | **.000** | **-.474** | **(.116)** | **.000** | -.073 | (.133) | .581 |
| PE | -.105 | (.164) | .521 | -.108 | (.164) | .511 | -.226 | (.168) | .178 | -.191 | (.169) | .259 | -.027 | (.172) | .874 |
| NS | **.143** | **(.058)** | **.014** | **.141** | **(.058)** | **.015** | .047 | (.060) | .440 | .060 | (.061) | .324 | **.151** | **(.063)** | **.017** |
| NB | -.032 | (.074) | .668 | -.008 | (.074) | .918 | -.113 | (.077) | .144 | -.110 | (.078) | .161 | -.009 | (.080) | .913 |
| QC | **-.148** | **(.031)** | **.000** | .083 | (.058) | .156 | **.168** | **(.061)** | **.006** | **.198** | **(.062)** | **.001** | **.214** | **(.062)** | **.001** |
| MB | **.254** | **(.054)** | **.000** | **.252** | **(.054)** | **.000** | .089 | (.059) | .129 | .077 | (.060) | .197 | .031 | (.060) | .608 |
| SK | **.404** | **(.064)** | **.000** | **.402** | **(.064)** | **.000** | **.305** | **(.068)** | **.000** | **.271** | **(.069)** | **.000** | **.238** | **(.069)** | **.001** |
| AB | **.455** | **(.040)** | **.000** | **.453** | **(.040)** | **.000** | **.309** | **(.045)** | **.000** | **.257** | **(.046)** | **.000** | **.184** | **(.048)** | **.000** |
| BC | **.115** | **(.036)** | **.001** | **.113** | **(.036)** | **.002** | **.084** | **(.037)** | **.024** | .068 | (.038) | .073 | .050 | (.038) | .190 |
| NO | .688 | (.486) | .157 | .686 | (.486) | .159 | .679 | (.492) | .168 | .648 | (.496) | .192 | .822 | (.499) | .099 |
| **Language** | | | | | | | | | | | | | | | |
| French | | | | **-.278** | **(.060)** | **.000** | **-.265** | **(.063)** | **.000** | **-.287** | **(.064)** | **.000** | **-.300** | **(.064)** | **.000** |
| **Social Demographic Variables** | | | | | | | | | | | | | | | |
| Female | | | | | | | **-.265** | **(.026)** | **.000** | **-.254** | **(.026)** | **.000** | **-.256** | **(.026)** | **.000** |
| Age | | | | | | | **.015** | **(.001)** | **.000** | **.013** | **(.001)** | **.000** | **.013** | **(.001)** | **.000** |
| Immigrant | | | | | | | **-.126** | **(.040)** | **.001** | **-.111** | **(.040)** | **.006** | **-.113** | **(.040)** | **.005** |
| Minority | | | | | | | **-.398** | **(.035)** | **.000** | **-.330** | **(.036)** | **.000** | **-.324** | **(.036)** | **.000** |
| *Marital Status* | | | | | | | | | | | | | | | |
| Married | | | | | | | **.266** | **(.036)** | **.000** | **.135** | **(.039)** | **.001** | **.126** | **(.039)** | **.001** |
| Common Law | | | | | | | **.112** | **(.046)** | **.014** | .013 | (.048) | .787 | .008 | (.048) | .874 |
| Widowed | | | | | | | **.200** | **(.075)** | **.007** | **.165** | **(.076)** | **.029** | **.151** | **(.076)** | **.047** |
| Divorced | | | | | | | **.119** | **(.052)** | **.021** | **.124** | **(.053)** | **.019** | **.114** | **(.053)** | **.031** |
| Separated | | | | | | | .127 | (.072) | .077 | **.149** | **(.073)** | **.042** | .139 | (.074) | .060 |
| *Occupation* | | | | | | | | | | | | | | | |
| None | | | | | | | **-.236** | **(.046)** | **.000** | **-.230** | **(.048)** | **.000** | **-.225** | **(.048)** | **.000** |
| Blue Collar | | | | | | | -.035 | (.067) | .600 | -.013 | (.068) | .845 | -.010 | (.069) | .884 |
| Technical | | | | | | | -.135 | (.070) | .054 | **-.153** | **(.071)** | **.030** | **-.162** | **(.071)** | **.023** |
| Professional | | | | | | | **-.122** | **(.044)** | **.005** | **-.189** | **(.044)** | **.000** | **-.180** | **(.044)** | **.000** |
| Managerial | | | | | | | .052 | (.052) | .320 | -.021 | (.053) | .690 | -.020 | (.053) | .709 |
| Self Employed | | | | | | | -.014 | (.073) | .843 | -.030 | (.074) | .683 | -.025 | (.074) | .733 |
| Other | | | | | | | **-.186** | **(.038)** | **.000** | **-.179** | **(.039)** | **.000** | **-.174** | **(.039)** | **.000** |
| *Education* | | | | | | | | | | | | | | | |
| Primary | | | | | | | -.086 | (.253) | .735 | .002 | (.262) | .993 | .017 | (.262) | .948 |
| Some High School | | | | | | | -.036 | (.061) | .557 | -.018 | (.062) | .773 | -.017 | (.063) | .784 |
| Some College | | | | | | | .071 | (.041) | .083 | .062 | (.042) | .138 | .063 | (.042) | .130 |
| Complete Collete | | | | | | | .029 | (.039) | .457 | -.002 | (.039) | .951 | -.005 | (.039) | .904 |
| Some University | | | | | | | .079 | (.047) | .090 | .023 | (.048) | .636 | .025 | (.048) | .608 |
| Undergrad Degree | | | | | | | **-.123** | **(.040)** | **.002** | **-.208** | **(.041)** | **.000** | **-.211** | **(.041)** | **.000** |
| Grad Degree | | | | | | | **-.407** | **(.053)** | **.000** | **-.535** | **(.054)** | **.000** | **-.533** | **(.054)** | **.000** |
| *Town Size* | | | | | | | | | | | | | | | |
| Under 1500 people | | | | | | | .112 | (.065) | .085 | **.132** | **(.066)** | **.045** | **.179** | **(.067)** | **.007** |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ‘ between 1.5k - 9.9k | | | | | | | .069 | (.040) | .084 | .074 | (.041) | .069 | **.088** | **(.041)** | **.032** |
| ‘ between 100k - < 500k | | | | | | | -.068 | (.039) | .077 | -.071 | (.039) | .069 | **-.086** | **(.039)** | **.029** |
| ‘ between 500k-<1000k | | | | | | | **.115** | **(.041)** | **.005** | **.095** | **(.041)** | **.022** | .078 | (.041) | .060 |
| ‘ 1000k + | | | | | | | **-.198** | **(.036)** | **.000** | **-.224** | **(.037)** | **.000** | **-.211** | **(.037)** | **.000** |
| *Church Attendance* | | | | | | | | | | | | | | | |
| Once a Year | | | | | | | **-.116** | **(.038)** | **.002** | **-.116** | **(.039)** | **.003** | **-.116** | **(.039)** | **.003** |
| A few times a year | | | | | | | **-.078** | **(.034)** | **.023** | **-.073** | **(.035)** | **.036** | -.066 | (.035) | .059 |
| Once a month | | | | | | | -.112 | (.075) | .135 | -.108 | (.077) | .160 | -.108 | (.077) | .161 |
| A few times a month | | | | | | | -.011 | (.052) | .827 | .000 | (.052) | .993 | .010 | (.053) | .845 |
| Once a Week | | | | | | | .022 | (.041) | .582 | .036 | (.041) | .379 | .043 | (.041) | .296 |
| More than once a week | | | | | | | **.220** | **(.060)** | **.000** | **.250** | **(.061)** | **.000** | **.249** | **(.061)** | **.000** |
| **Personal Economic Situation** | | | | | | | | | | | | | | | |
| Income | | | | | | | | | | **.018** | **(.002)** | **.000** | **.017** | **(.002)** | **.000** |
| Unemployment | | | | | | | | | | .000 | (.071) | .996 | -.009 | (.071) | .900 |
| HH Unemployment | | | | | | | | | | .008 | (.037) | .823 | .010 | (.037) | .792 |
| Job Worry | | | | | | | | | | **-.154** | **(.014)** | **.000** | **-.154** | **(.014)** | **.000** |
| **Constituency Economic Situation** | | | | | | | | | | | | | | | |
| Constituency Unemployment | | | | | | | | | | | | | **-3.777** | **(.624)** | **.000** |
| **Constant** | **-.570** | **(.019)** | **.000** | **-.568** | **(.019)** | **.000** | **-1.005** | **(.076)** | **.000** | **-.824** | **(.088)** | **.000** | **-.577** | **(.097)** | **.000** |
| **Pseudo R2** | | **.01** | | | **.01** | | | **.03** | | | **.04** | | | **.04** | |

Notes: (1) Reference Categories for Marital Status = Single, Occupation = Service, Education = High School, Urban-Rural = 10k/99k, Church attendance = Never.
(2) Missing Values Imputed via Multiple Imputation.
(3) Bolded at p < .05.
(4) N of Observations = 32 139.

Data Source: *Ipsos* 2008 and *Statistics Canada*

Figures 1.A and 1.B: The effects of constituency and provincial unemployment rates on the probability of holding a right-wing opinion about the economy




Notes: (1) Regression results in Appendix A.

Source: Ipsos 2008 & Statistics Canada

# Appendix A (Mixed Effects Logistic Regression)

| DV: R-W Econ Opinion =1 | Coef. | (SE) | P < z |
|---|---|---|---|
| **French** | **-.247** | **(.063)** | **.000** |
| **Female** | **-.257** | **(.026)** | **.000** |
| **Age** | **.013** | **(.001)** | **.000** |
| **Immigrant** | **-.115** | **(.040)** | **.004** |
| **Minority** | **-.324** | **(.036)** | **.000** |
| | | | |
| **Married** | **.125** | **(.039)** | **.001** |
| Common Law | .011 | (.048) | .814 |
| Widowed | .147 | (.076) | .053 |
| **Divorced** | **.116** | **(.053)** | **.029** |
| Separated | .137 | (.074) | .064 |
| | | | |
| **None** | **-.227** | **(.048)** | **.000** |
| Blue Collar | -.014 | (.069) | .834 |
| **Technical** | **-.161** | **(.071)** | **.024** |
| **Professional** | **-.181** | **(.045)** | **.000** |
| Managerial | -.021 | (.053) | .691 |
| Self Employed | -.029 | (.074) | .699 |
| **Other** | **-.176** | **(.039)** | **.000** |
| | | | |
| Primary | .021 | (.263) | .936 |
| Some High School | -.019 | (.063) | .758 |
| Some College | .063 | (.042) | .134 |
| Complete College | -.006 | (.040) | .885 |
| Some University | .029 | (.048) | .549 |
| **Undergrad Degree** | **-.210** | **(.041)** | **.000** |
| **Grad Degree** | **-.530** | **(.054)** | **.000** |
| | | | |
| **Under 1500** | **.179** | **(.067)** | **.008** |
| 1.5k - 9.9k | .076 | (.042) | .071 |
| 100k - < 500k | -.077 | (.043) | .075 |
| 500k-<1000k | .070 | (.045) | .120 |
| **1000k +** | **-.206** | **(.040)** | **.000** |
| | | | |
| **Once a Year** | **-.116** | **(.039)** | **.003** |
| A few times a year | -.068 | (.035) | .054 |
| Once a month | -.105 | (.077) | .171 |
| A few times a month | .010 | (.053) | .847 |
| Once a Week | .040 | (.042) | .337 |
| **More than once a week** | **.246** | **(.061)** | **.000** |
| | | | |
| **Income** | **.017** | **(.002)** | **.000** |
| HH Unemployment | .011 | (.037) | .766 |
| Unemployment | -.007 | (.072) | .917 |
| **Job Worry** | **-.155** | **(.014)** | **.000** |
| | | | |
| Provincial Unemployment | -2.107 | (1.423) | .139 |
| **Constituency Unemployment** | **-3.654** | **(.680)** | **.000** |
| **Constant** | **-.361** | **(.118)** | **.002** |

| Random-effects Parameters | Est. | (SE) | [95% Conf. Interval] | |
|---|---|---|---|---|
| province sd(_cons) | **.066** | **(.026)** | **.031** | **.141** |
| seat sd(_const) | **.115** | **(.021)** | **.081** | **.163** |

Notes: (1) Reference Categories for Marital Status = Single, Occupation = Service, Education = High School, Urban-Rural = 10k/99k, Church attendance = Never.
(2) Missing values imputed via multiple imputation.
(3) Bolded at p < .05.
(4) N. of Observations = 32 139.

Source: Ipsos 2008 & Statistics Canada

# Appendix B: Question Wording

**Economic Opinions**

Which comes closer to your view?

0 Government should do more to solve problems (53%)
1 Government is doing too many things that should be left to business (31%)
. Don't know/ Not sure (16%)

**French**

0 English
1 French
. Don't know/Refused

**Female**

0 Male
1 Female
. Not specified

**Age**

Years (18-93)

**Immigrant**

0 Born in Canada
1 Moved to Canada from another country
. Don't know/ Not specified

**Minority**

Please indicate if any of the following describe you.
0 Not mentioned
1 I am a visible minority

**Marital Status (Dummy Variables)**

1 Single
2 Married
3 Domestic Partnership
4 Widowed
5 Divorced
6 Separated
. Not specified

**Occupation (Dummy Variables)**

0. None

    a. Not Currently Employed
1. Blue Collar
    a. Blue Collar/Labourer
    b. Farming/Fishing
    c. Assembly Line Worker
    d. Construction Worker/Builder
    e. Farmer/Farm Worker
    f. Landscaper
    g. Repair person/Maintenance Worker
2. Technical
    a. Technical
3. Service
    a. Secretarial
    b. Sales
    c. Cook/Chef/Caterer
    d. Driver
    e. Sales/Marketing/Advertising
    f. Secretarial/Administrative Assistant/Clerk
    g. Waiter/Waitress
4. Professional
    a. Professional
    b. Accountant/Financial Professional
    c. Architect
    d. Educator/Trainer
    e. Engineer
    f. Professional Services-Health (doctor, nurse, etc.)
    g. Professional Services - Legal (attorney, paralegal, etc.)
    h. Professional Services – Other
    i. Research and Development
    j. Software Developer/Network Specialist
    k. Writer/Journalist
5. Managerial
    a. Executive/Managerial
    b. Management-executive/senior level
    c. Management - mid-level/supervisory
6. Self-Employed
    a. Self-employed/Owner
7. Other
    a. Other
    b. Artist/Designer/Actor/Musician
    c. Military
    d. Not specified

**Education (Dummy Variables)**

1 Primary School or less
2 Some High School
3 High School

4 Some Community College/CEGEP/Trade School
5 Community College/CEGEP/Trade School
6 Some University
7 University Undergraduate degree
8 University Graduate degree
. Not specified

**Townsize (Dummy Variables)**

6 1,000,000 plus
5 500,000-999,999
4 100,000-499,999
3 10,000- 99,999
2 1,500- 9,999
1 Under 1,499
. Not specified

**Church Attendance (Dummy Variables)**

Other than on special occasions, such as wedding, funerals or baptisms, how often did you attend religious services or meetings in the last 12 months?

7 More than once a week
6 Once a week
5 A few times a month
4 Once a month
3 A few times a year
2 At least once a year
1 Not at all
. Don't know/Refused

**Household Unemployment**

Have you or has someone in your household lost a job in the last year?

1 Yes
0 No
. Don't know/ Not specified

**Personal Unemployment**

0 Employed Full-time
0 Employed Part-time
0 Self-Employed
0 Homemaker
0 Student
0 Retired
1 Currently Unemployed

0 Other
. Not specified

**Job Worry**
I'm worried about losing my job?

4 Strongly agree
3 Somewhat agree
2 Somewhat disagree
1 Strongly disagree
. Don't know/ Not sure

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