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Measuring "Correct Voting" Using Comparative Manifestos Project Data

R. MICHAEL MCGREGOR

ABSTRACT *The extent to which citizens vote in accordance with their own principles and priorities has been proposed as an important measure of a democracy's health. This article introduces a new method of evaluating the ability of individuals to vote for the political party with policy positions closest to their own – to vote "correctly". Following Lau and Redlawsk (1997), a "correct vote" is defined as the vote choice individuals would make under conditions of perfect information. In other words, a vote is "correct" if it is cast for the party that a voter should vote for, based upon a fully informed comparison of his or her policy positions with those of the parties contesting an election. Voters' policy preferences are estimated here using election study data, and the positions of parties are derived through data from the Comparative Manifestos Project. For illustrative purposes, this new method is applied to the 2004 Canadian federal election. Correct voting rates are calculated by comparing voter and party positions in seven dimensions of political competition, accounting for the relative importance of each dimension. While this study's data are exclusively Canadian, the approach introduced is applicable to other settings.*

> *The best argument against democracy is a five-minute conversation with the average voter.*
>
> ~ *Winston Churchill*

Although voter turnout rates in most industrialized nations are trending downwards, and citizens are increasingly turning to alternative forms of political participation (Nevitte, 1996; Norris, 1999), the process of deciding who will govern through the act of voting remains of significant import. Elections provide one of the few opportunities voters have to exert some influence over the governing of their societies, but are they taking full advantage of this opportunity? Churchill's lament suggests that they may not be, and his sentiment has long been echoed by political scientists (see Berelson, 1952, Campbell *et al.*, 1960). The unfortunate fact of the matter is that many voters fail to meet the standards that democratic theory asks of them. Citizens are expected not only to participate, but also to be interested in and attentive to politics. Yet interest and attention are insufficient. These attributes do

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not necessarily translate into a knowledgeable electorate, which many, such as Rousseau (see Wraight, 2008) and Mill (1862), see as vital to the health of a democracy. Without knowledge (which may or may not have attentiveness and interest as precursors) the ability of individuals to identify the candidate that best reflects their views and interests is severely diminished.

If voters are unable to identify this candidate, a major argument in favour of democracy is undercut. Plato's "guardianship", a theoretical competitor to democracy, supposes that ordinary people are unable to recognize and defend their own interests, and every voter that casts a ballot for a candidate or party without understanding the outcomes associated with his or her decision lends support to this position. If a large share of the electorate behaves in this manner, the well-being and even the legitimacy of a democracy could be damaged. If voters are unable to identify the party that best reflects their own opinions, the party elected to govern and the composition of legislatures are unlikely[1] to accurately reflect the wishes of the electorate. Put another way, democracy suffers when individuals vote "incorrectly".

This article introduces a new method of evaluating the ability of individuals to identify the political party with policy positions closest to their own – to vote "correctly". Knowledge is not the key variable here. Rather, the question is whether individuals are capable of identifying and voting for the party that best reflects their own self-reported preferences and interests. Following Lau and Redlawsk (1997), a "correct vote" is defined as the vote choice individuals would make under conditions of perfect information. In other words, a vote is "correct" if it is cast for the party that a voter *should* vote for, based upon a fully informed comparison of his or her policy positions to those of the parties contesting an election.

In contrast to most of the established literature on correct voting, this article focuses exclusively upon a comparison of the issue positions of individuals to those of political candidates. Existing methods of measuring correct voting rates often consider variables such as one's party identification or opinions regarding the incumbent party (see Lau & Redlawsk, 1997, 2006; Lau et al., 2008a, 2008b). While evaluations of parties and politicians may influence vote choice, and parties and politicians are important parts of the political process, it is the outputs of that process – policy outcomes – that have a direct, tangible impact upon the citizenry. Furthermore, just as it is possible for individuals to vote incorrectly, it is possible for individuals to have an inaccurate understanding of government performance or to identify with the party that does not represent their best interest (see Frank, 2004). Accordingly, correct voting rates are calculated here on the basis of a comparison of policy only. For illustrative purposes, this new method is applied to the 2004 Canadian federal election. Individual policy preferences, estimated using Canadian Election Study (CES) data, are compared to the positions of parties, derived from data from the Comparative Manifestos Project (CMP), in seven dimensions of political competition. While the study's data are exclusively Canadian, this new method is applicable to other settings.

Correct Voting

While one might understandably be hesitant to use terms such as "correct" or "incorrect" when evaluating the quality of vote choices, there is no doubt that correct voting is seen by many as desirable. There are any number of reasons why individuals choose to vote the way that they do, and few people leaving a voting booth would claim to have made an "incorrect" decision. Indeed, in one sense of the term, anyone who puts a checkmark next to the name of the person that he or she intended to vote for has voted "correctly". Yet the definition of a correct vote adopted here does suggest that some vote choices are simply *better* than others. If one accepts the assertion that the ability of citizens to identify the party that best reflects their views is an important measure of the quality of a democracy, as Lau and Redlawsk (1997) suggest, then a vote choice can have either positive or negative implications for a democracy's legitimacy. Similarly, if one accepts that the delegation of authority from voters to politicians is successful when the welfare of the voter is enhanced (as determined subjectively by voters themselves) (Lupia & McCubbins, 1998), and the idea that democracy succeeds when the actions of government reflect the wishes of the citizenry (Dahl, 1967), then the entire electoral process is validated when citizens make correct decisions.

Lau and Redlawsk (1997) were the first to explore the concept, and did so through experimentation with fictional elections and analysis of National Election Study (NES) data. In the latter case the authors introduced a "normative naïve" approach to determining if individual votes are cast correctly. The approach is naïve because it recognizes that voters' information gathering processes likely are imperfect, and normative because the policy positions of candidates are determined subjectively by "experts" (this is discussed in greater detail below). Correct voting rates were eventually estimated at roughly 75% for presidential elections from 1972 to 1988. More recent work has explored the impact of social networks on correct voting (see Ryan, 2011; Sokhey and McClurg, 2011), correct voting and direct democracy (Hobolt, 2007; Nai, 2010) and factors that have an influence over one's likelihood of voting correctly (Lau et al., 2008a; Walgrave et al., 2009).

The only work to explore the concept of correct voting in Canada is a comparative study by Lau et al. (2008b). The authors use data from the Comparative Study of Electoral Systems to evaluate correct voting in 32 countries. Due to data limitations, the authors rely upon party feeling thermometers, self-placement on a left–right scale and retrospective economic evaluations when determining whether votes are correct (in other words, policy opinions are not considered). They eventually arrive at a correct voting rate of over 70% for the 2004 Canadian federal election. Also worth mention is the "Vote Compass" project, which, while sponsored by the Canadian Broadcasting Corporation (2011), was designed and managed by a group of academics. The Vote Compass asks participants their opinions on a variety of policy issues and was designed to show users their locations in a two-dimensional ideological space vis-à-vis each of the major political parties (party positions were estimated by the academics overseeing the project). Since the eventual vote choices of

respondents are unknown, however, Vote Compass data cannot be used to explore correct voting rates.[2] This article represents, therefore, the first study of correct voting exclusive to Canada.

Employing Canadian data to illustrate this new method of evaluating correct voting is appropriate for several reasons. To begin with, it expands the correct voting literature in a non-American context. Lau and Redlawsk (1997, 2006) have primarily focused upon the United States, with its two-party presidential system. In contrast, Canada has a multi-party parliamentary system, and a significant regional party in the form of the Bloc Quebecois. A detailed exploration of Canadian data thus provides insight into how correct voting may be evaluated in other settings with similar electoral or party systems. Focusing upon Canada also illustrates the flexibility of this new method of operationalizing correct voting, and demonstrates the importance of taking country specific factors into account when exploring this concept. Because of the existence of the Bloc (a separatist party which only runs candidates in Quebec), voters from outside that province must be evaluated independently from Quebecers, and the important issue of Quebec nationalism must be taken into account. Canadian data thus are well suited to this study.

In addition to being the first work on the subject of correct voting to consider the Canadian case in detail, this article is unique in that it focuses exclusively upon policy positions. The fundamental premise of all studies on correct voting is the same (objective facts about candidates are compared to the subjective opinions of voters), and an important part of such analyses is the determination of which kind of factors should be used in this comparison. In their initial work, Lau and Redlawsk (1997) consider the issue positions of parties and individuals, but they also factor respondents' party identification and ratings of the incumbent government's performance and candidate social group linkages,[3] and, with some modifications, this approach has been largely adopted in later work on the topic (see Lau & Redlawsk, 2006; Lau et al., 2008a).

It is argued here, however, that correct voting should be evaluated on the basis of a comparison of the policy positions of individuals to those of parties. The arguments noted above from Plato (that voters should understand the potential outcomes associated with their vote decision), Dahl (that the actions of government should reflect the wishes of the citizenry) and Lupia and McCubbins (that a democracy benefits when the welfare of the voter is enhanced) all imply that vote decisions should be made on the basis of the impact that government decisions, or policies, have upon the citizenry. Evaluations of incumbent performance only provide information on the (past) policy stances of one party, and focusing upon evaluations of leaders and social group linkages provides dubious insight into the policy outcomes that would result from the election of various parties or politicians. Being part of, or identifying with a group associated with a particular party, for example, does not mean that one's interests are best served by supporting that party.

Moreover, if one recognizes that it is possible to vote incorrectly, it must also be recognized that it is possible to identify incorrectly with a party, or to develop an incorrect understanding of the performance of an incumbent government. Simply having an attachment to a party, for instance, does not necessarily imply that the

party shares a person's values and beliefs. While we know that heuristics like party identification have the potential to help individuals make good vote choices (Lupia & McCubbins, 1998), it is also possible that such sources of information may omit facts or provide untruths, potentially leading voters astray. "Low information rationality" (Popkin, 1991), or relying heavily upon such cues, may thus sometimes lead one to vote incorrectly. Additionally, since party identification, evaluations of government performance and sociodemographic characteristics (or group status) are known to have a strong relationship with vote choice (see Blais et al., 2002), including them in the calculation of correct voting rates has the effect of biasing estimates upwards.[4] Accordingly, correct voting rates are calculated here using policy stances alone.

Developing an accurate measure of party policy positions, however, is the most challenging component of any study of correct voting. Just as heuristics have the potential to lead one to vote incorrectly, subjectively determined estimates of party positions are susceptible to filtration or distortion. In their 1997 article, Lau and Redlawsk's estimates of party positions are determined by professors, graduate students and an elected official, and in a later version of their work (2006), they use the responses of election study subjects themselves to assign policy positions to presidential candidates (unlike the CES, the American National Election Study asks respondents to estimate the positions of candidates with respect to a variety of issues). The responses of "experts", or those above the median with respect to political knowledge questions, were used to estimate candidate positions. Another approach to estimating party policy positions is provided by Benoit and Laver (2007), who base their estimates of party policy positions upon surveys administered to "experts" (in this case, recognized political experts such as political science professors).[5] As with Lau and Redlawsk's work, however, Benoit and Laver's estimates are determined subjectively.[6]

The concern with such approaches is that even the most knowledgeable survey respondents or political experts may provide inaccurate estimates. These individuals are simply relaying their impressions of party positions, which are subject to internal biases, differences in knowledge or widespread misconceptions, among other things.[7] Even if Benoit and Laver's experts are more reliable than Lau and Redlawsk's (2006) National Election Study experts, their estimates are similarly based upon subjective evaluations of party policies.

Recognizing this data limitation,[8] Walgrave et al. (2009) adopt a new method of estimating party positions in their examination of correct voting in Flemish Belgium. The authors argue that the actual positions of parties can only be obtained from the parties themselves. To that end they conduct interviews with politicians, asking about positions on a wide range of issues. They then ask voters the same questions, and are thus able to calculate correct voting rates quite neatly.

In line with Walgrave et al., an attempt has been made here to employ an objective measure of party policy positions. As primary sources of information, official party manifestos are one source for such a measure. They provide unfiltered and undistorted insight into the campaign period positions of parties on a variety of issues,

as well as the importance that parties place upon each respective issue. Manifestos are the tools that parties themselves use to clearly lay out their policy positions, and even if campaign promises are not eventually kept, politicians can be held accountable for published promises, and they thus have an incentive to adhere to proposed policies (Laver & Hunt, 1992).

Accordingly, party policy positions are estimated here using data from the Comparative Manifestos Project – this is the first study of correct voting to use this dataset.[9] The CMP analyses official party manifestos using quantitative content analysis,[10] assigning a score for each party for 56 pre-defined categories[11] spanning seven policy domains.[12] By combining category scores it is possible to determine party positions with respect to a variety of policy dimensions (this process is described in more detail below) (Klingemann et al., 2006). Party positions for these dimensions can then be compared to the positions of individuals, which are based upon CES data, to determine if individuals have voted correctly.

Data and Methodology

The methodology and results here are based upon the spatial theory of party competition. That is, it is assumed that the preferences of parties and individuals can be placed upon a continuous scale ranging from left to right (with endpoints of -1 for the left and $+1$ for the right). Following Downs (1957), the assumption here is that it is possible to understand voting behaviour on the basis of the preferences of individuals, and the distance between those preferences and the policy stances of the parties on a bipolar scale. If individuals and parties can be located on such a scale, the distance between them can be calculated, and the "correct" vote choice can be identified. In one dimensional competition, the most proximate party is the one that should receive an individual's vote. In other words, an individual will vote for party X if the distance between that individual and party X is less than the distance between that individual and any other party.

While theoretically attractive, the spatial model of party competition can be difficult to apply in practice. Political competition is rarely, if ever, based upon a single dimension. To determine an overall distance between voters and parties in a multidimensional competition all relevant dimensions must be identified, and the distance between parties and voters must be determined in each dimension. Dimensions can be evaluated individually, but it is important that information from each dimension be combined to generate an overall distance between an individual and each party.

Accordingly, the policy positions of individuals and parties with respect to six (or seven in the case of Quebec) dimensions are considered here.[13] The distances for each dimension are combined to arrive at a measure of overall distance as follows:

$$Dist_{PartyX:overall\ unweighted} = \Sigma_{i=1}^{y} |Position_{i\ voter} - Position_{i\ Party\ X}| \qquad (1)$$

Where $y = 7$ for Quebec and 6 for the rest of Canada (ROC).

While (1) is able to account for more than one dimension, it remains flawed in that it weights each dimension of competition equally. It overlooks the fact that some issues may vary in importance to individuals and parties. In other words, this formula fails to recognize the fact that an individual may assign a relatively high degree of importance to some issues, and little to others. For instance, a voter who believes that environmental protection is the most important election issue may choose to support the party that he or she is closest to with respect to that dimension, even if that party is a great distance from that individual in other dimensions. Position and salience are two distinct components of policy positions (Laver, 2001), and a method of calculating distances with respect to multiple policy dimensions must take both components into consideration.

While the format of CES data makes it impossible to determine the relative weight that individuals place upon each dimension,[14] it is possible to determine the weight that each *party* places upon each dimension. Specifically, CMP data allow for the calculation of issue salience (or the importance which a party assigns to a particular dimension).[15] The share of a manifesto devoted to a various topics is reflected in CMP category counts (which can be combined to determine salience scores for policy dimensions). By considering the share of party manifestos devoted to each dimension, it is possible to estimate the relative importance that the parties assign to those dimensions.

While there will be significant variation with respect to the importance that individuals place upon various issues,[16] the assumption made here is that parties design their manifestos to reflect the weight that they believe voters assign to each dimension (or at least the voters that they wish to attract). In other words, if a party wishes to attract voters who believe that environmental policy is important, that party will devote a relatively large portion of its manifesto to that topic. While using party saliencies to calculate the importance of each dimension is less desirable than using individuals' preferences, since the latter method is not an option, distances between parties and individuals are determined as follows:

$$Dist_{PartyX:overall\ weighted} = \Sigma_{i=1}^{y} |Position_{i\ voter} - Position_{i\ Party\ X}| \times Salience_i \qquad (2)$$

Where salience is calculated for each dimension for each party.[17] The party with the lowest value from equation (2) is considered an individual's correct vote choice.

In order to properly compare the policy positions of individuals to those of parties, data from the CMP[18] and CES[19] must be converted to a format whereby they are compatible with one another. In theory, CES questions can be matched up with the seven existing CMP policy domains – external relations, freedom and democracy, political system, economy, welfare and quality of life, fabric of society, and social groups (each of which is based upon a combination of CMP variables). However, because the data are not created specifically with Canada in mind, there are some factors which do not apply in this context (for example, the CMP contains a "Marxist analysis" variable which is largely meant to apply to former communist

countries – all Canadian parties have a value of 0 for this variable). The CES poses an additional complication, as the questions contained in this dataset do not always correspond neatly with CMP policy domains. As a result, the policy dimensions considered here do not match exactly with those in the CMP.

To overcome these issues, combinations of CMP variables are used to generate seven new policy categories: US–Canada relations/protectionism, militarism (which is indicative of positions on military spending and peace), social conservatism (which reflects positions on traditional morality, multiculturalism, law and order and feelings towards women and minorities), planned vs. market economy (which taps into positions on the debate between government intervention and the free market), environmental protection,[20] state-provided services and social justice (which evaluates positions on welfare and education spending, as well as the redistribution of wealth) and, for Quebec only, sovereignty.

It is common practice for CMP variables to be combined in this fashion to create indices. Klingeman et al. combine 26 CMP variables, from all seven of their policy domains, into a single left–right variable (2006). Similarly, Benoit and Laver (2007) have proposed indices for "state involvement in economy" and "social liberal-conservatism" and Lowe et al. (2011) have created similar indices for "free market economy", "environmental protection" and "state-provided services". For this study, index design is based heavily upon the format of CES data. As such, while ideas are borrowed from the work of previous scholars in this field (i.e. the state-provided services and social justice variable used here is very similar to the state-provided services variable proposed by Lowe et al. (2011)), most indices used here have been created specifically for this article (the one variable borrowed from previous work is Lowe et al.'s environmental protection variable). Policy dimensions are thus selected on the basis of the availability and compatibility of CMP and CES data.[21]

For each policy dimension, scores for party and individual policy positions are calculated by combining multiple variables, and normalized to fit on a scale from -1 to 1, thus making the calculation of the distance between individuals and parties using equation (2) possible. Multiple CES questions are used to calculate the positions of individuals for each policy dimension (with the exception of the sovereignty dimension, where a single question is considered). The descriptions of CMP variables provided by Klingemann et al. (2006) are matched with corresponding CES questions in order to make the two scales compatible with one another. In the case of party positions three to seven CMP variables are used while for individual positions two to seven CES questions are combined for each dimension.

CMP variable descriptions are evaluated to determine how best to match data from the two datasets. For example, the "State-Provided Services & Social Justice" dimension is based upon four CES questions and five CMP variables. The CES questions ask respondents if the government should spend more, less or about the same on welfare, healthcare and education, respectively, and if more or less should be done to reduce the gap between the rich and poor. The CMP variables for this dimension are based upon welfare state expansion and limitation, education expansion and

limitation, and social justice. The welfare state CMP variables are based upon mention of healthcare, child care, elder care and social housing, and correspond with the CES questions on healthcare, welfare and the rich/poor divide. The education variables are based upon mention of a need to expand or limit education expenditures, and correspond with the CES education question. Finally, the social justice variable taps into concepts like the need for special protection for the underprivileged, the fair distribution of resources and the removal of class barriers. This variable corresponds nicely with the CES question on reducing the gap between rich and poor. The CMP and CES included here were thus carefully chosen so as to ensure compatibility. The variables used to calculate party[22] and individual positions are listed in Appendices I and II respectively. Appendix III explains how CMP and CES data are converted to scores ranging from -1 to 1, and contains descriptive statistics for estimates of party and individual policy positions.

A few other important methodological details should be mentioned. The analysis below is based upon data from the 2004 federal election. The CMP does not yet have data on the 2008 election, and the 2006 CES does not contain a mail-back portion of the survey (meaning that it has far fewer questions that can be used to determine individuals' positions). 2004 is thus the most recent Canadian election for which data are available. Additionally, due to differences in party systems Quebec is considered independently from the rest of Canada (ROC). Finally, since the CMP has no information on the Green Party or other minor parties, only the Liberals, Conservatives, NDP and Bloc are considered, and individuals who did not vote for these major parties are excluded from the following analysis.

Correct Voting Rates

Before combining political dimensions to identify a single correct vote for each individual it is worthwhile to briefly evaluate each dimension of political competition individually. Table 1 contains the correct voting results, by dimension, for ROC and Quebec respectively.[23] Note that since the Liberals, NDP and Conservatives all have the same position on the sovereignty dimension, they are grouped together in that segment of the table.

For each dimension Table 1 shows (a) the percentage of individuals that should vote for a party, (b) among those that should vote for a party, the percentage that actually do, (c) among those who do vote for a party, the percentage that actually should, and (d) overall levels of correct voting. Whereas (b) is indicative of how successful parties are at attracting those voters who *should* be voting for them, (c) reflects how successful parties are at attracting voters who *should not* support them. A party that receives most of the votes it should, while at the same time getting a large share of its votes from individuals who should be supporting other parties, will likely be quite successful. A high value indicates success for (b), while a low value is desirable for (c).

Considering that if voters cast their ballots randomly 33% of people can be expected to vote correctly in ROC (since only three major parties are present)

Table 1. Rates of correct voting by policy dimension

Policy Dimension		ROC			Quebec			
		LIB	CON	NDP	LIB	CON	NDP	Bloc
Foreign Special Relationship/ Protectionism	% who should vote	4.4	59.4	36.2	1.5	13.2	23.4	61.9
	% of those who should that do	15.6	46.5	32.4	75.0	11.4	12.9	53.0
	% of those who do that should	1.9	65.0	57.7	4.1	14.3	47.1	60.8
	Overall rate of correct voting		40.1			38.5		
Militarism	% who should vote	5.5	14.7	79.8	2.3	2.5	76.2	19.0
	% of those who should that do	26.8	73.6	23.2	45.5	25.0	6.0	28.6
	% of those who do that should	4.0	25.8	88.9	3.0	6.7	81.5	10.9
	Overall rate of correct voting		30.8			11.7		
Social Conservatism	% who should vote	50.3	32.5	17.2	14.4	14.8	18.9	51.9
	% of those who should that do	38.7	60.9	39.3	21.1	17.9	16.0	51.8
	% of those who do that should	52.3	15.9	32.9	10.4	25.0	47.1	50.0
	Overall rate of correct voting		46.0			35.6		
Planned vs. Market Economy	% who should vote	53.9	5.6	40.5	56.9	3.4	33.2	6.6
	% of those who should that do	36.9	81.4	30.6	37.2	31.3	8.9	45.2
	% of those who do that should	53.3	11.0	59.4	60.6	11.1	51.9	5.9
	Overall rate of Correct voting		36.9			28.1		
Environmental Protection	% who should vote	66.3	7.3	26.4	63.5	0.0	28.9	7.5
	% of those who should that do	36.1	34.7	28.8	29.6	n/a	11.7	65.0
	% of those who do that should	64.4	5.9	37.9	64.9	n/a	52.9	9.0
	Overall rate of correct voting		34.0			27.1		
State-Provided Services & Social Justice	% who should vote	15.1	56.3	28.7	19.3	17.2	37.1	26.4
	% of those who should that do	44.6	52.4	27.0	29.3	7.3	5.6	39.7
	% of those who do that should	18.1	69.8	37.2	16.1	13.3	38.5	21.0
	Overall rate of correct voting		43.9			19.5		
Sovereignty	% who should vote					53.5		46.5
	% of those who should that do					82.9		87.4
	% of those who do that should					88.4		81.6
	Overall rate of correct voting					85.0		

and 25% in Quebec (with four parties), the results for (d) in Table 1 are only minimally encouraging. While in almost all cases observed rates of correct voting surpass these values (the exception being militarism in Quebec), the results remain far below the 75% found by Lau and Redlawsk (1997) for US presidential elections and the greater than 70% success rate calculated by Lau et al. (2008b) for the 2004 Canadian federal election (this second difference is not surprising considering the significant methodological differences between that study and the approach used here).

The overall rates of correct voting may provide some insight into which issues individuals see as most important, or perhaps which issues individuals seem to know more about. If a perfectly informed individual agrees with one party on some issues and another party on others, this ambivalent individual may choose to base his or her vote upon a dimension that is of the greatest importance to him or her. Similarly, if an individual only knows about one issue (perhaps the most high profile issue in a campaign), this individual might be expected to vote based upon this dimension. Perhaps unsurprisingly, the highest correct voting rates are found in Quebec along the sovereignty dimension. While results from this dimension are not directly comparable to other data in Table 1 (due to differences in data format), the fact that the Bloc was highly successful in attracting those who should vote for them based upon this dimension (87.4% – the highest value in Table 1) indicates the importance of this dimension. Conversely, correct voting rates are lowest for the militarism dimension. Again, this could suggest either that voters do not assign a high degree of importance to this issue, or that they are unknowledgeable with respect to the party positions in this dimension.

Based upon single dimensions alone, there are some cases where parties should receive very little, or even none of the vote. For example, the Conservatives should have no voters based upon the environmental protection dimension, while the Liberals should only attract 0.4% of the vote on the foreign special relationship/protectionism dimension. On the other hand, the Conservatives should be highly successful on the state-provided services and social justice dimension, and the Liberals should receive the support of a majority of votes based upon the social conservatism, planned vs. market economy and environmental protection dimensions. In very few cases, however, when values for (a) surpass 50% do values for (b) also go above 50%. In other words, when parties should seemingly have a "lock" on a dimension, they generally are unable to capitalize substantially. On the other hand, there are a number of cases where values of (c) are very low, suggesting that parties which should not be successful in a dimension are, in fact, getting the support of voters who should not (at least when one dimension is considered) be voting for them. This could mean that parties are either attracting individuals on the basis of other dimensions, or that voters simply do not have an accurate knowledge of party positions.

To properly determine rates of correct voting, however, all dimensions must be considered simultaneously. Again, elections are rarely, if ever, fought along a single dimension (at least for all voters), and different combinations of dimensional

Table 2. Overall rates of correct voting

	ROC (n = 952)			Quebec (n = 256)			
	LIB	CON	NDP	LIB	CON	NDP	Bloc
Vote Share (%)	37.8	41.8	20.3	28.1	10.9	6.6	54.2
% who should vote	22.1	33.9	44.0	12.1	10.2	28.5	49.2
% of those who should that do	41.4	66.9	29.8	54.8	34.6	13.7	88.9
% of those who do that should	24.2	54.3	64.4	23.6	32.1	58.8	80.6
Overall rate of correct voting (%)		45.0			57.8		

distances between voters and parties and the salience of each issue theoretically can produce overall rates of correct voting that vary substantially from those contained in Table 1. Along these lines, Table 2 shows information on overall rates of correct voting, calculated using equation (2). It also shows actual party vote shares for ROC and Quebec, based upon CES data.

The overall rates of correct voting are 45.0% in ROC and 57.8% in Quebec. The value for Quebec is buoyed by the ability of the Bloc to attract a significant percentage of voters that should vote for them (88.9%). *Nationally, the correct voting rate is 47.5%*[24] (the margin of error for this estimate is +/− 2.81%).[25] Overall, it is the NDP that suffers the most from its inability to attract voters that should be voting for the party. Only 29.8% and 13.7% of individuals that should be supporting the party, in ROC and Quebec respectively, end up doing so, and the NDP's actual vote share is significantly lower than it "should" be, in both regions. On the other hand, it is the Liberal Party that benefits most from incorrect voting. In both ROC and Quebec, less than a quarter of individuals that vote for the party should be voting Liberal. The party's actual vote share is almost 40% in ROC, and nearly 30% in Quebec – enough to allow the Liberals to form a minority government. For their parts, the Conservatives and Bloc have similar values for their respective (b) and (c) scores, indicating that they come out relatively even with respect to the balance between not attracting voters they should and attracting voters they should not be able to.

Among the CES respondents included in this study, party vote shares for the 2004 election were as follows: Liberals: 35.8%, Conservatives: 35.3%, NDP: 17.4% and the Bloc: 11.5%.[26] If these same individuals had voted "correctly" the results would have been as follows: Liberals: 20.0%, Conservatives: 28.9%, NDP: 40.7% and the Bloc: 10.0%. In other words, every party except the NDP benefited from incorrect voting, while the NDP was punished significantly by this phenomenon. The results indicate that the median voter seems to be closer to the NDP than election results would suggest.[27] While it is difficult to say what exactly an acceptable level of correct voting is, the fact that a different party would theoretically have won the election had everyone voted correctly is, to say the least, a significant finding.[28] The party that "should" have formed government in 2004 was instead relegated to fourth place.[29]

Conclusion

This article contributes to the growing literature on the study of correct voting and provides researchers with a new way of operationalizing party policy positions. Data from the Comparative Manifestos Project are valid, relatively objective indicators of party policy stances, (since they are based upon statements from parties themselves), and are publicly available for 55 countries. In contrast to existing approaches, this new method focuses exclusively upon policy when evaluating the ability of voters to identify the party that best corresponds with their individual beliefs and preferences. It thus excludes some of the factors considered in previous studies of correct voting that can serve to bias estimates of rates of correct voting upwards (such as party identification), or which have only a tenuous relationship with government outputs (including group association).

While the data considered here are Canadian, this new approach can be applied to other settings and can be tailored to take country specific policy issues or dimensions into account. The inclusion of the sovereignty dimension in Canada is an excellent example of why the adaptable nature of this new approach is attractive. This dimension is vital to political competition in Quebec in particular, and helps to explain why rates of correct voting are higher in that province than in ROC. On the other hand, because of the importance of this dimension, Quebecers exhibit lower rates of correct voting in all other dimensions than do voters in ROC. This method thus allows researchers to consider the relative importance of each dimension of political competition, as well as to account for national peculiarities.

Comparing variables that theory suggests should be related to correct voting provides some validation of this new method of measuring correct voting. It shows that CMP and CES data are compatible with one another, and provides justification of the decision to factor dimension salience into the process of identifying correct voters. Lau et al. (2008a) list three types of individual level factors expected to predict correct voting: political heuristics (measured here through a partisanship dummy variable), political expertise (determined through a measure of knowledge of a series of party promises),[30] and political motivation (which is based upon whether respondents agree with the statement that there are no differences between parties). When dimension salience is considered, these factors are all positively associated with correct voting (these relationships are statistically significant at the 95% level for partisanship and knowledge, and $p = 0.21$ for motivation). These results provide some validation of the decision to combine CES and CMP data. There are no statistically significant relationships, however, between these three factors and the measure of correct voting which ignores dimension salience, thus suggesting strongly that factoring salience into calculations is important to properly evaluating correct voting rates. Overall, therefore, these findings illustrate that this new approach to studying correct voting is a worthwhile addition to the literature.

This new method should be applied in future work to help explain correct voting patterns. The rate of correct voting calculated here for the 2004 Canadian federal election is relatively low – fewer than half of CES respondents were found to have voted for the party that best reflects their individual policy preferences. The fact that Canadian parties have been described as brokerage parties (suggesting that they are non-ideological in nature and aim for consensus building) (Brodie & Jenson, 1996), may or may not have contributed to this finding. Nevertheless, CMP data reveal significant differences between the parties in many dimensions (see Appendix III), meaning that, in most dimensions, it should not be too difficult for knowledgeable voters to distinguish between their options. The results suggest that the majority of respondents were either unable to identify the party that best represents their views, or were for some reason unwilling to vote for the "correct" party (e.g. they may have considered the mechanical effects of the electoral system). Future research can apply the method introduced here to explain this outcome more fully, and to calculate and explain correct voting rates in other settings.

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Notes

1. The word "unlikely" is included here as a caveat to account for the mechanical effects of an electoral system.
2. While the Vote Compass does give respondents an opportunity to answer a question on vote intention, it is unable to account for individuals who are undecided at the time of taking the survey, or those who change their minds before election day.
3. American National Election Study respondents were asked how close they feel to social groups with close links to candidates. For instance, in 1972, the groups associated with Nixon were businessmen, southerners and conservatives, while those associated with McGovern were liberals, the poor and blacks.
4. A similar argument can be made about the factors considered by Lau et al.'s (2008b) comparative paper (party feeling thermometers, self-placement on a left–right scale and retrospective economic evaluations).
5. The authors conducted their survey of Canadian experts shortly before the 2004 merger of the Progressive Conservative Party and the Canadian Alliance. The data are thus inapplicable to the 2004 election, which was held shortly after the merger (although this dataset could theoretically be applied to earlier elections if so desired).
6. For a thorough comparison of these two methods of estimating party positions see Volkens (2007).
7. Misinformation (both intentional and unintentional) is a common component of political competition, whether such information comes from formal political figures themselves or otherwise (Bennet, 1992). For instance, a Pew Research Poll from August 2010 found that 18% of Americans believe Barack Obama to be Muslim (he is not), and among those who believe he is Muslim, 60% cited the media as the source of this erroneous information (Pew Research Center, 2010, Online). Ideally such individuals would be weeded out by Lau and Redlawsk's knowledge requirement, but

the inclusion of even a few such people can potentially introduce significant noise to party position estimates.

8. Lau et al. (2008b) also recognize this limitation, and call upon other researchers to devise an objective measure of party positions that does not rely upon survey respondents.
9. The CMP has a publicly available dataset that includes information from over 3,300 manifestos and 55 countries, in some cases going as far back as 1945.
10. CMP coders undergo extensive training to maximize inter-coder consistency, or reliability. This training "set[s] and enforce[s] central standards on coders" by laying out a set of rules to help coders decide how to properly categorize quasi-sentences (Volkens 2001: 94). Trainees are required to code a series of previously coded texts, and their results are compared to previously established results.
11. Each manifesto is divided into a series of mutually exclusive "quasi-sentences", which are coded to correspond to one of the 56 categories. If a sentence expresses more than one idea it is divided into quasi-sentences. The score for each category is normalized (by dividing by the total number of quasi-sentences) to control for manifesto length.
12. The policy domains are external relations, freedom and democracy, political system, economy, welfare and quality of life, fabric of society, and social groups.
13. While the list of policy areas considered here is not exhaustive, it undeniably represents a significant proportion of the overall list of policies that parties focus on during an election. Better data would allow for a more extensive examination of policy dimensions, but it likely is impossible to take into account every possible factor upon which individuals base their decisions.
14. The 2004 CES does contain questions about which issues individuals consider to be the most important. However, the relative importance that each individual places upon each dimension is required to properly incorporate individual, rather than party, saliencies.
15. The CMP is designed to reflect the "saliency theory" of voting. The theory asserts that all party platforms endorse the same positions, with only minor exceptions. Parties differentiate themselves by emphasizing issues on which they have the best reputation with voters (Budge et al., 2001). Seen another way, when dealing with "valence issues" (those that virtually all voters are in agreement) parties must try to set themselves apart from others (Stokes, 1963). In line with this theory, Budge (1987) notes that party manifestos may gloss over policy areas that opponents are deemed to have an advantage in, and emphasize areas that the party feels it has an advantage in (suggesting that parties can "own" an issue). However, the estimates of party positions here control for the share of a party's manifesto devoted to an issue, thus taking the notion of issue ownership into account. Additionally, not every issue is one-sided, meaning that not all parties will endorse the same position (see Table A3 in Appendix III). For instance, protectionist measures may be supported by some parties, and opposed by others. By combining positive and negative CMP variables into a single index for each dimension, however, it is possible to have parties located on both sides of an issue, and to thus make the data compatible with the spatial theory of party competition.
16. A concern with using manifestos to determine salience scores is the fact that voters (even those who support the same party) differ with respect to the importance they place upon issue or dimension. This individual level variation cannot be fully accounted for by using manifestos to determine salience scores. Since individual level data of this sort are unavailable, the alternative to this approach is to weight dimensions equally. This ignores the possibility, however, that some issues are clearly more important than others during an election. For example, when asked which election issue is most important (and provided with five options), 48.8% of CES respondents answered "healthcare", while only 4.3% stated that they believed the "environment" to be the most important. Thus, while the approach to accounting for dimension salience employed here is imperfect, it is nevertheless preferable to ignoring issue salience altogether.
17. The issues covered here do not account for all of the variables in the CMP, thus the sum of the salience values for each party do not add up to 100% (see Table A3 in Appendix III for salience scores). Salience values are calculated by dividing the salience score for a dimension by the sum of all salience

scores for all of the dimensions considered here (in order to control for the percentage of each manifesto devoted to these dimensions).

18. CMP data are available online at: <http://manifesto-project.wzb.eu/>.
19. CES data are available online at: <www.queensu.ca/cora/ces.html>.
20. This policy dimension assumes that environmental protection and economic growth are in tension with one another. While this assumption may not necessarily be true, both CMP and CES data explicitly accept it. The CES contains a question about the importance of the environment relative to job creation, and the CMP category "anti-growth" economy is meant to take into account mentions of the relationship between economic growth and the environment.
21. Depending upon the availability of election study data on respondent policy positions, studies based upon data from countries other than Canada can be tailored to focus upon dimensions different from those considered here. While the CES contains many questions on policy positions, the method outlined here is compatible with data from election studies with fewer questions, provided that the questions that are available correspond suitably with CMP data.
22. Overall party positions were calculated by averaging the positions from all dimensions (excluding sovereignty). From left to right (on a scale from −1 to 1), the NDP has a score of −0.53, the Bloc −0.29, the Liberals +0.07, and the Conservatives +0.35. This fits with conventional wisdom that the Conservatives are a right-wing party, the Liberals a centrist party, and the NDP and Bloc are social democratic, left-wing parties (Johnston, 2008, placed the parties in these same relative positions in his Canadian Political Science Association presidential address). This finding provides some external validation of party estimates.
23. Results in Tables 1 and 2 are based upon unweighted CES data. Weights are based upon the entire CES sample, and because this article deals with a subset of the data it would be necessary to calculate new weight values in order to make proper generalizations about either Quebec or ROC. As such, all conclusions here are based upon the CES sub-sample only, and care should be taken when drawing conclusions about the population as a whole.
24. This value is calculating using a national sampling weight. The unweighted value is 47.7%. Correct voting rates are lower when dimension salience is not taken into account: 39% in ROC, 56.6% in Quebec and 43.6% nationally.
25. Margins are higher when ROC and Quebec are considered separately, so the disaggregated data must be interpreted with slightly greater caution than should the national value.
26. This differs somewhat from the actual election results because the sample here is not representative of the population (for instance, Quebec is oversampled in the CES). Recall also that individuals who supported minor parties or candidates are excluded here.
27. The results challenge Benoit and Laver's (2007) assumption that election results and knowledge of party policy stances can be combined to estimate the position of the median voter. Such an approach is based upon the notion of "revealed preferences". That is, the assumption here is that individuals, by definition, prefer the candidate that they voted for. Lau and Redlawsk (2006) reject this assumption as a "pretty unrealistic description of human behaviour". Simply put, individuals do not always make utility maximizing decisions.
28. It is possible, even with low levels of correct voting, to have an election result that mirrors the result that should occur if everyone votes correctly. This would occur if each party gained roughly the same number of incorrect votes as it lost. This does not, however, turn out to be the case here.
29. The NDP's poor performance likely has something to do with the fact that many voters simple do not see it as a viable option (since it has never formed government at the federal level). Voters who do not support their most preferred party (including strategic or protest voters) should not be expected to vote correctly, and future work can investigate the impact of these voters on correct voting rates.
30. These promises include pledges made by the Conservatives to scrap the gun registry and to increase military spending, by the Liberals to increase spending on fighting AIDS in the developing world and to reduce surgical wait times, by the NDP to introduce a tax on estates worth over one million dollars and to eliminate the GST on family essentials, and by the Bloc to spend two billion dollars on social housing.

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Appendix I: CMP Variables used to Calculate Party Policy Positions

Table A1. Policy dimensions and CMP variables – left and right

Policy Dimension	"Left" Position (−1)	"Right" Position (+1)
Foreign Special Relationship/ Protectionism	Foreign special relationships: negative Protectionism: positive	Foreign special relationships: positive Protectionism: negative
Militarism	Military: negative Peace: positive	Military: positive
Social Conservatism	Traditional morality: negative Non-economic demographic groups: positive Multiculturalism: positive Underprivileged minority groups: positive	Traditional morality: positive Law and order: positive Multiculturalism: negative
Planned vs. Market Economy	Market regulation: positive Economic planning: positive	Free enterprise: positive Economic orthodoxy: positive
Environmental Protection	Environmental protection: positive Anti-growth economy: positive	Productivity: positive
State-Provided Services & Social Justice	Welfare state expansion: positive Education expansion: positive Social justice: positive	Welfare state limitation: positive Education limitation: positive
Sovereignty (Quebec only)	*Coded as anti-sovereignty*	*Coded as pro-sovereignty*

Appendix II: CES Variables used to Calculate Individuals' Policy Positions

Table A2. Policy dimensions and CES variables – left and right

Policy Dimension	CES Question	"Left" Position (−1)	"Right" Position (+1)
Foreign Special Relationship/ Protectionism	Do you think Canada's ties with the United States should be [closer or more distant]?	More distant	Closer
	How do you feel about the United States?	Negative	Positive
	Overall, free trade with the US has been good for the Canadian economy?	Disagree	Agree
	Agree or disagree: international trade creates more jobs in Canada than it destroys.	Disagree	Agree

(*Continued*)

Table A2. (*Continued*)

Policy Dimension	CES Question	"Left" Position (−1)	"Right" Position (+1)
Militarism	Should the government spend more, less, or about the same on defense/military spending?	Less	More
	Canada decided not to participate in the war against Iraq. Was this a good or bad decision?	Good	Bad
Social Conservatism	Do you favour or oppose same-sex marriage, or have no opinion on this?	Favour	Oppose
	Agree or disagree: society would be better off if more women stayed home with their children.	Disagree	Agree
	Agree or disagree: we must crack down on crime, even if that means that criminals lose their rights.	Disagree	Agree
	Agree or disagree: immigrants make an important contribution to this country.	Agree	Disagree
	How much do you think should be done for racial minorities? (more/less)	More	Less
	How do you feel about aboriginal peoples?	Positively	Negatively
	How much do you think should be done for women? (more/less)	More	Less
Planned vs. Market Economy	Agree or disagree: the government should leave it entirely to the private sector to create jobs.	Disagree	Agree
	Agree or disagree: if people can't find work in the region where they live, they should move to where the jobs are.	Disagree	Agree
	Should personal taxes be increased, decreased or kept about the same as now?	Increased	Decreased
	Should corporate taxes be increased, decreased or kept about the same as now?	Increased	Decreased
Environmental Protection	Should the government spend more, less, or about the same on the environment?	More	Less
	Agree or disagree: protecting the environment is more important than creating jobs.	Agree	Disagree

(*Continued*)

Table A2. (*Continued*)

Policy Dimension	CES Question	"Left" Position (−1)	"Right" Position (+1)
State-Provided Services & Social Justice	Should the government spend more, less, or about the same on welfare?	More	Less
	Should the government spend more, less, or about the same on healthcare?	More	Less
	Should the government spend more, less, or about the same on education?	More	Less
	How much should be done to reduce the gap between the rich and poor in Canada?	More	Less
Sovereignty (Quebec only)	Are you very favourable, somewhat favourable, somewhat opposed, or very opposed to Quebec sovereignty?	Opposed	Favourable

Appendix III: Determining Policy Positions

CMP Data. The conversion of observed category counts (the units of CMP data) into points on a continuous policy dimension requires some scaling procedure. Budge (1999) suggests that a party's position be based upon the difference between positive (or R) and negative (or L) scores for a policy dimension, divided by 100 (the salience score for the entire manifesto), or:

$$Position_{Party\ (Budge)} = \frac{\Sigma R - \Sigma L}{100} \qquad \text{(III} - 1)$$

However, equation (III − 1) has the effect of pushing a party's position towards the centre (or 0) as the salience of an issue decreases, meaning that party positions can be grossly misestimated. For instance, a party may be staunchly pro-military, giving only positive mentions to this issue, yet for some reason may devote relatively little of its manifesto to the topic. According to (III − 1) this party may actually be classified as centrist when compared to a party that devotes more of its manifesto to the topic, but has more balanced positive and negative mentions with respect to this dimension.[1]

To deal with this problem, Kim and Fording (2002) have proposed a measure which controls for the relative salience of the issue – termed a "relative proportional difference" estimate. By dividing by the sum of R and L, rather than by 100, a party's position is decoupled from the relative importance placed upon a dimension. In other

words, unrelated quasi-sentences do not affect position estimates.[2] This logic is expressed mathematically as follows:

$$Position_{Party\ (relative\ proportional\ difference)} = \frac{\Sigma R - \Sigma L}{\Sigma R + \Sigma L} \qquad (\text{III} - 2)$$

To obtain scores on both the right (◇1) and left (◇ − 1) of centre (0) it is necessary to include both "positive" and "negative" CMP variables. If only positive (or only negative) variables are considered, all parties would be located on the same side of zero. While this may actually be the true in some countries at some elections, the inclusion of both types of variables leaves open the possibility that this is not the case. A similar problem arises when a party makes only positive mention of an issue. According to (III-2), this would push that party's position to an extreme value of 1, or −1, regardless of salience. To minimize the number of instances in which this happens the number of variables included in each index has been maximized as far as is reasonably possible. Nevertheless, this problem occurs twice with the data here – both times with the Conservative Party. That party is a perfect +1 for militarism since it has a score of 0 for both the "military negative" and "peace positive" CMP variables. It also has a score of +1 for planned vs. market economy as its manifesto has scores of 0 for both "market regulation positive" and "economic planning positive".

Whenever possible, calculations of party positions are based upon equation (III-2). However, the format of the data dictates that positions for two of the seven dimensions considered here must be calculated using a slightly different approach. The first uniquely scaled variable is "state-provided services & social justice". Party positions are calculated using five CMP variables, and while two of these variables have the potential to pull party positions towards the negative side of 0 (welfare state limitation and education limitation), no party gives any mention of welfare state limitation in its manifesto, and the only party to mention education limitation is the NDP (and only a value of 0.17). Using formula (III-2), this would mean that all of the parties would be pulled to the extreme negative side of the party position scale (−1 for all parties but the NDP, and the NDP would have a value of −0.98), thus they would all seemingly have the same position (making the distance between the positions of individuals and parties the same for each party). To get around this problem party scores for this dimension are coded by dividing their respective salience scores by the salience score of the party which gives this topic the greatest attention in its manifesto (in this case that party is the Liberals, who devote 30.35% of their overall manifesto to this dimension).[3] With the Liberals coded as a −1, for instance, a party that devotes half as much of its manifesto to this dimension would receive a score of −0.5. While this methodological deviation is undesirable, this augmented approach is preferable to relying upon (III-2) to calculate positions and giving all parties virtually the same score. Without this change almost all voters would be closest to the NDP in this dimension (as almost all voters are to the right of −0.98), which is clearly unreasonable.

The second variable for which party positions are scaled in a unique manner, "sovereignty", applies only to Quebec. The CMP contains no category explicitly related to the topic, but since the issue is of such obvious importance in Quebec this variable cannot be ignored. As such, party positions are assigned here simply as +1 for the Bloc, and −1 for all other parties (coding the Bloc as −1 and all other parties as +1 would have no effect on the results above).[4] These values are then compared to the results of a single CES question on the topic of sovereignty. As above, this variable suffers from the problem of little variation in party position (only the Bloc has a value other than −1). An individual opposed to sovereignty can cast a correct vote for any of the parties other than the Bloc. This does not pose a problem for "overall" correct vote calculations – it simply means that the results of this variable are displayed slightly differently in the results section when policy dimensions are examined independently in Table A3. Party position and salience scores are as follows:[5]

CES Data. As with CMP data, all answers are coded to correspond with either a "right" or "left" position (coding choices are shown in Appendix II). Depending upon the number of options given to respondents (scales range anywhere from three options to a 100-point scale), values from −1 to 1 are assigned. Responses from multiple questions are combined, weighting each question equally, to determine an overall position for individuals with respect to each dimension.

Most CES questions have a "don't know" response option. Since respondent policy positions are based upon multiple questions, there are two ways in which these responses can be dealt with. The first option is to consider only those individuals who give responses to all questions. Adhering to this method the study's sample size would be significantly diminished (as failing to respond to a single question would mean that an individual is removed from the pool of data). In cases where a high number of questions are combined to calculate respondent scores for a single dimension, attrition from the removal of such cases would be significant. This approach also means that the sample would become less representative of the population (as only those individuals who have opinions on each and every question would be included).

A second approach to dealing with this issue is to code "don't know" responses as a 0 (i.e. the centre position on the left–right scale). This approach has the effect of moderating the overall dimension scores (towards 0) of individuals who give such responses. While individuals are not explicitly stating a centrist position, the fact that they fail to provide an answer corresponding with the extremes of the scale suggests that they should not be positioned at the exterior of the scale (i.e. near −1 or 1). Individuals who truly belong on the extreme edges of the scale should be expected to provide responses corresponding to those positions. On the other hand, those individuals who have extreme positions on some components of a policy dimension (i.e. punishment of young offenders), and no positions on others (i.e. should more or fewer immigrants be admitted to Canada) should not be considered extreme with respect to that *overall* dimension (in this case, social

Table A3. Party positions and salience

Policy Dimension	Liberals		Conservatives		NDP		Bloc	
	Position	Salience	Position	Salience	Position	Salience	Position	Salience
Foreign Special Relationship/ Protectionism	0.86	2.04	0.67	4.48	−0.63	6.35	0.22	5.04
Militarism	0.87	4.06	1	3.55	−0.2	2.5	−0.16	2.66
Social Conservatism	−0.42	3.26	0.58	12.33	−0.44	5.35	−0.17	8.09
Planned vs. Market Economy	0.44	9.76	1	2.99	−0.49	7.19	−0.72	5.61
Environmental Protection	−0.33	4.5	−0.64	4.11	−0.8	14.89	−0.5	9.59
State-Provided Services & Social Justice	−1	30.35	−0.52	15.69	−0.66	20.08	−0.38	11.51
Sovereignty	−1	17.75	−1	10.66	−1	17.56	1	19.7

Table A4. Individual policy positions – descriptive statistics

Dimension	Mean	Std. Dev.	Min.	Max.	N
Foreign Special Relationship/Protectionism	0.13	0.39	−1	1	1286
Militarism	−0.17	0.59	−1	1	2250
Social Conservatism	−0.11	0.34	−1	0.85	1271
Planned vs. Market Economy	0.03	0.39	−1	1	2198
Environmental Protection	−0.22	0.46	−1	1	1294
State-Provided Services & Social Justice	−0.51	0.34	−1	1	2250
Sovereignty (Quebec only)	−0.11	0.82	−1	1	480

conservatism). Consequently, "don't know" responses are dealt here by assigning a value of 0 to the respondent's position for the appropriate CES question. Table A4 shows descriptive statistics for individual policy positions.

Appendix Notes

1. For instance, Party A may have a value of 11 for R and 1 for L, and Party B may have a value of 30 for R and 15 for L. Equation 5 would assign a value of 0.10 for Party A, and 0.15 for Party B, suggesting that B is to the right of A. While B may consider this issue to be of greater importance than A, it is difficult to justify them being placed to the right of A, which had only 1 L mention for this dimension.
2. According to this method Party A would receive a value of 0.92, and Party B would have a score of 0.33 – values that intuitively seem much more appropriate.
3. This method is compatible with the directional theory of party competition, whereby individuals are assumed to support the party that has the most extreme positions on issues that they care about, within a "region of acceptability" (Rabinowitz & Macdonald, 1989). For instance, according to this theory, an individual who is supportive of environmental protection will vote for the party that has the strongest stance on this issue (i.e. is willing to go the furthest to protect the environment). This data remains, however, compatible with the spatial theory of vote choice. All parties are simply coded on the same side of the scale.
4. It would be theoretically possible to apply positions to parties with respect to Quebec nationalism, rather than sovereignty (by focusing on CMP variables like centralization vs. decentralization and national way of life positive and national way of life negative), but the 2004 version of the CES does not contain the questions necessary to make such a comparison. These four CMP variables are used, however, to determine the relative salience of this issue for each party. Not surprisingly, this issue is of greater importance to the Bloc than it is for any other party.

5. The issue of corruption was of significant importance in the 2004 campaign. The CMP does have a variable for negative mentions of political corruption (the scores for the parties are as follows: Liberals 1.08, Conservatives: 7.85, NDP: 1.51 and Bloc: 2.81). Unfortunately, the 2004 CES does not have a question that is comparable to these scores. Such a question would be of a form similar to: "What is your opinion of government corruption? Strongly opposed, opposed, supportive, strongly supportive". Such a question is clearly worthless since there would almost certainly be no variation in the responses (presumably people would be strongly opposed to corruption). As such, this issue is not considered here.