Decision-Making in Canada:
Information and the Social Bases of Opinion and Attitude Formation

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Introduction

Regional cleavages. Religious cleavages. Linguistic cleavages. The heartland/hinterland cleavage. For years Canadian scholars have pointed to the number of social cleavages in Canada, and their effects and influences on attitudes, opinions, and vote choice. Some point to historical/cultural roots that have been passed down for generations (Horowitz 1966; Irvine and Gold 1980), while others suggest that Canadian institutions have had a major role in perpetuating and even exacerbating social cleavages (Cairns 1968; Cairns 1977). Whatever the source, it is generally accepted that social identities shape political values: Catholics vote Liberal (Belanger and Eagles 2005; Blais 2005; Irvine and Gold 1980; Johnston 1985); individuals of non-European origin vote Liberal (Blais 2005; Blais et al. 2002); individuals living in rural areas tend to be more socially conservative than their urban counterparts (Cutler and Jenkins 2000); women are more 'left-wing' than men (Gidengil et al. 2003); and 'the west' tends to vote differently than 'the east' (Blais et al. 2002).

The notion that social groups have an important influence on voting behaviour is not new. Earliest studies of elections and voting illustrated the importance of social class, religious background, and social group relationships in vote choice (Berelson, Lazarsfeld, and McPhee 1954). Further, social group identity and group affect have been examined by scholars seeking to understand citizen reasoning processes, and it has been suggested that these factors may help individuals to overcome a lack of knowledge and information (Brady and Sniderman 1985; Sniderman, Brody, and Tetlock 1991). Conversely, others have shown that group differences are reduced with increased exposure to media (and by extension, through information) (Mendelsohn and Nadeau 1997).

What, then, is the relationship between information and the social bases for political attitudes? How do the two affect the types of decisions made by citizens? This paper seeks to answer these questions using data from the 2004 Canadian Election Study. Making use of the method introduced by Larry Bartels (Bartels 1996), I examine the effect of information on the decision-making practices of voters from a wide variety of socio-demographic backgrounds. The data suggest that not only do the less informed **not** make the same types of decisions as the more informed, but in fact, information has the further effect of minimizing the types of decisions and attitudes traditionally associated with some social cleavages and social identities in Canada.

The Uninformed Citizen

In one of the earliest studies of voting behaviour, Campbell et al. (1960) observed the lack of interest and knowledge among the majority of voters, and found that both were closely associated with education—that is, that the more educated tended to be more interested in and more knowledgeable about politics (1960:25). These findings were not only confirmed, but also reinforced in Converse's (1964) seminal work, in which he found that the mass public had little understanding of basic political concepts (i.e. left/right dimensions), and that the political ideas that voters did possess lacked constraint or consistency both horizontally (across ideas) and longitudinally (over time). The implications of these findings were devastating for notions of democracy which expected individuals to have some basic understanding of politics in order to be

able to articulate their own interests: what is the point of democracy if citizens lack coherent attitudes and beliefs?

In the last 40 years, political scientists have made significant efforts to address this "democratic dilemma"[1] and have responded to the problems raised by Converse's article in four main, and often related, ways. The first is the group (spearheaded by the efforts of Christopher Achen) who suggest that Converse's findings are largely a result of measurement error. Using the same data as Converse, Achen (1975) suggests that the issue is really the reliability of the measures themselves—what is the likelihood that an individual with unchanged values will give the same answer time after time. He argues that the problem is not that respondents are thick-headed, but that the survey measures themselves are problematic. In contrast, a second group suggests that in fact, the lack of attitude stability seems to sort itself out at the aggregate level—that any inconsistencies that may exist at the individual level are not present at the aggregate level, thus the electoral outcomes are unaffected (Converse and Pierce 1986; Kramer 1971; Page and Shapiro 1992; Wittman 1989).

A third strand seeks to understand what constitutes citizen knowledge, and to specify what it is that citizens actually need to know (Delli Carpini and Keeter 1996; Lupia and McCubbins 1998). The results among this group are mixed, as some scholars argue that citizens tend not to have the information that they need (Delli Carpini and Keeter 1996), while others suggest that they do have the capacity to make reasoned choice using the tools available to them (Lupia and McCubbins 1998). A fourth strand, closely related to the third, consists of a group of scholars seeking to understand how it is that citizens reason about politics, combining social and cognitive psychology with political science (Brady and Sniderman 1985; Conover and Feldman 1989; Fiske 1986; Hamill, Lodge, and Blake 1985; Sniderman, Brody, and Tetlock 1991).

Some in this fourth tradition have attempted to ascertain whether citizens are able to overcome their information shortfalls by using a series of cognitive tools available to them (Brady and Sniderman 1985; Sniderman, Brody, and Tetlock 1991). These scholars have suggested that perhaps individuals use heuristics or information "short-cuts" to come to the decisions they would make if they were fully informed. Larry Bartels (1996) tests the notion that people are able to compensate for their information shortcomings, and examines the extent to which the less informed make the same kinds of decisions as those who are more informed. His data confirm the negative: those who are less informed do not make decisions as do the more informed, whether through heuristics or some other tool.

What exactly is the role of information? What is the effect of information on attitudes and decisions, particularly the social group basis of those decisions? It is to these questions that I now turn.

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[1] To use a phrase employed as a title in one of these efforts, by Arthur Lupia & Mathew McCubbins (1998), *The Democratic Dilemma.*

The Study

In order to study the effect of information on social group attitudes in Canada, I utilized and built upon a research method introduced by Larry Bartels (1996), applying his methodology to data from the 2004 Canadian Election Study.[2] The 2004 survey data provide indicators for a substantial number of the questions and variables I seek to examine, including vote choice and issue attitudes, as well as an extensive battery of factual questions that can be used to establish the level of political knowledge/sophistication held by respondents.[3]

In the first half of his (1996) paper, Bartels sought to test the notion that those with lower levels of information were able to make decisions as if they were fully informed. To do so, he ran a series of probit analyses with vote choice as the dependent variable and a battery of demographics as the independent/explanatory variables. In order to determine the effects of information, he included a "complete set of interactions between political information and all of the other explanatory variables in the analysis" (1996:205). While Bartels employed the interviewer rating of political sophistication as his information measure, I opted to construct an index based on 14 factual questions asked of respondents in the 2004 survey, since these data were available, and because this appears to be the most robust indicator of political knowledge (Zaller 1986).

I diverged from Bartels' method in one other significant way: in addition to looking at vote choice as the dependent variable, I also looked at attitudes towards four traditionally 'contentious' issues in Canadian politics, to determine the effects of information on attitudes and opinion. These four issues included: whether or not Canada should have closer ties to the United States; whether or not Canada should do more for Quebec; attitudes towards abortion; and attitudes towards same sex marriage. This study looks exclusively at the attitudes of voters outside of Quebec, accepted practice in the study of Canadian elections and public opinion (see, for example, Johnston et al. 1992), due to the substantially different nature of the political contest within Quebec and within the rest of Canada.

This study, therefore, consists of five probit analyses, with five separate dependent variables, including these four issues as well as Conservative Party vote choice. The issues chosen represent 'old' and 'new' issues in the Canadian political landscape, and vote choice for the Conservative Party was chosen over another party because of the relative 'newness' of the party: the role of information had the potential to be more 'informative' because there was simply more to learn about the Conservatives than there was about the Liberals, given the relative ages of the parties and the substantial difference in the amount of time they had each spent in the office in the previous 11 years (if not the previous century).[4]

A typical model for either vote choice or issue preference is as follows:

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[2] The data were collected by the Institute for Social Research (York University) for the principal researchers: André Blais, Joanna Everitt, Patrick Fournier, Elisabeth Gidengil, and Neil Nevitte. During the campaign, a total of 4,323 interviews were conducted, with a response rate of 53% (see Blais et al. 2005 for study details).
[3] See Appendix B for details on variables used in the study (and coding of those variables).
[4] In the future, it is worth comparing the effects of information on both Liberal and Conservative vote choice in the 2006 election, in order to ascertain whether or not the role of information is different as a result of greater familiarity with the Conservative Party by that time.

Conservative Vote = a + β1*age + β2*education + β3*income + β4*woman + β5*married +
β6*homeowner + β7*urban + β8*atlantic + β9*prairies + β10*BC +
β11*Catholic + β12*Atheist + β13*retired + β14*self-employed +
β15*French as native language + β16*ageknow + β17*educationknow +
β18*incomeknow + β19*womanknow + β20*marriedknow +
β21*homeownerknow + β22*urbanknow + β23*atlanticknow +
β24*prairiesknow + β25*BCknow + β26*Catholicknow +
β27*Atheistknow + β28*retiredknow + β29*self-employedknow +
β30*French as native languageknow + β31*knowledge + e

Similarly to Bartels' study design, the model thus includes both the demographic variables as independent variables (generally coded as 0/1 dummy variables), as well as these same demographics interacted with the knowledge indicator, thus uncovering the effects of the social group basis of choice as well as the information effect. It is to unpacking these effects that I now turn.

Results: The Effect of Information on Opinions and Attitudes

The findings of this study confirm those of Bartels (1996). Simply put, the less informed **do not** behave as the more informed. Table 1 (below) illustrates the role of information in affecting the nature of the impact of the demographic variables. In some cases, information actually has the effect of reversing the nature of the impact of the demographic variable. For example, 'uninformed' Catholics are substantially less likely to vote for the Conservative party than are non-Catholics. However, the information effect is actually positive, indicating that informed Catholics are more likely to vote Conservative. The effect of information on urban voters is similar: uninformed urbanites are less likely to vote Conservative than their rural counterparts, but the role of information significantly decreases this inclination.

Table 1
Probit Parameter Estimates for Conservative Party Vote Propensity (ROC), 2004

	Fully Informed Preferences	Uninformed Preferences	Information Effect (Difference)
Intercept	0.224	-0.757	0.981
	(0.441)	(0.448)	(0.776)
Age	-0.007	0.011	-0.018
	(0.007)	(0.007)	(0.012)
Education	-0.107	0.051	-0.158
	(0.072)	(0.086)	(0.141)
Income	0.015	0.005	0.010
	(0.028)	(0.033)	(0.055)
Woman	-0.195	0.088	-0.283
	(0.143)	(0.167)	(0.278)
Married	0.456	0.087	0.369
	(0.169)	(0.177)	(0.308)
Homeowner	-0.321	0.202	-0.523
	(0.203)	(0.201)	(0.359)
Urban	-0.075	-0.543	0.468
	(0.154)	(0.170)	(0.290)
Atlantic	-0.076	-0.349	0.273
	(0.242)	(0.258)	(0.449)
Prairies	0.508	0.414	0.094
	(0.173)	(0.200)	(0.334)
BC	0.314	0.075	0.238
	(0.192)	(0.228)	(0.375)
Catholic	0.022	-0.647	0.670
	(0.178)	(0.201)	(0.340)
Atheist	-0.761	-0.015	-0.746
	(0.179)	(0.204)	(0.339)
Retired	0.218	-0.065	0.283
	(0.249)	(0.314)	(0.508)
Self-Employed	0.360	-0.018	0.378
	(0.212)	(0.283)	(0.450)
Native French Speaker	0.156	-0.546	0.703
	(0.376)	(0.445)	(0.730)

Log Likelihood = -977.49824 N = 1592
Standard errors in parentheses

Information results in different types of actions within a particular social group. Bartels makes an important observation with regards to the utility and validity of this model. He states:

> It is also worth emphasizing that nothing in the structure of the model proposed here biases it in favor of finding information effects of any kind at all. If well informed and uninformed voters in similar social locations made similar choices, the two columns of parameter estimates in Table 1 would simply be identical (within sampling error), and the model would be equivalent (again, within sampling error) to a standard probit model including the single list of explanatory variables and no information effects. This equivalence provides a straightforward way to formally test the hypothesis that uninformed voters act *as if* they were fully informed (Bartels 1996:208-9, emphasis in original).

The effect of information on the social bases of opinion and attitudes is apparent not only in relation to vote choice, but in relation to issue attitudes as well. Table 2 (below)

illustrates the effect of information on attitudes related to same sex marriage (see Appendix A for estimations of the other three issue models).

Table 2
Probit Parameter Estimates for Support for Same Sex Marriage (ROC), 2004

	Fully Informed Preferences	Uninformed Preferences	Information Effect (Difference)
Intercept	0.011	-0.207	0.218
	(0.439)	(0.448)	(0.769)
Age	-0.021	-0.026	0.005
	(0.007)	(0.007)	(0.013)
Education	0.192	-0.020	0.212
	(0.073)	(0.089)	(0.144)
Income	0.030	0.009	0.021
	(0.029)	(0.033)	(0.055)
Woman	0.580	0.415	0.165
	(0.146)	(0.183)	(0.293)
Married	-0.486	0.122	-0.608
	(0.169)	(0.180)	(0.309)
Homeowner	0.142	-0.205	0.347
	(0.198)	(0.200)	(0.351)
Urban	-0.065	0.397	-0.462
	(0.156)	(0.177)	(0.296)
Atlantic	0.574	-0.218	0.792
	(0.226)	(0.255)	(0.429)
Prairies	-0.479	-0.240	-0.239
	(0.184)	(0.214)	(0.355)
BC	0.029	-0.092	0.122
	(0.192)	(0.231)	(0.377)
Catholic	0.034	-0.309	0.343
	(0.186)	(0.215)	(0.358)
Atheist	0.786	0.505	0.281
	(0.171)	(0.202)	(0.330)
Retired	-0.222	0.097	-0.319
	(0.253)	(0.350)	(0.544)
Self-Employed	-0.227	0.484	-0.711
	(0.206)	(0.263)	(0.420)
Native French Speaker	0.290	-0.156	0.446
	(0.391)	(0.447)	(0.736)

Log Likelihood = -878.59806 $N = 1746$
Standard errors in parentheses

Similarly to its effect on Conservative vote choice, information also results in different levels of support for same sex marriage. Informed women are more likely to support same sex marriage than are uninformed women. Informed Atheists are more likely to support same sex marriage than are uninformed Atheists. In contrast, the effect of information on the probability of support for same sex marriage among urbanites and married individuals is the opposite, resulting in a lower likelihood of support for same sex marriage. Clearly, information matters.

Further illustrating the important differences between uninformed and fully informed voting is Bartels' display of the results of similar likelihood ratio tests for the models which do and do not incorporate information effects. I generated a similar table from the results of the 2004 data. Table 3 (below) displays the results.

Table 3
Likelihood Ratio Tests for Deviations from Fully Informed Voting and Issue Attitudes

	Probit Log-likelihood without information effects	Probit Log-likelihood with information effects	p-value for difference
Vote for Conservative Party	-991.58984	-977.49824	0.082
Pro easier access to abortion	-962.6096	-947.99965	0.000
Pro-close ties to the US	-1133.9317	-1121.1516	0.000
Pro Same-sex marriage	-913.11333	-878.59806	0.000
Pro-do more for Quebec	-526.972	-511.3026	0.000

Similarly to the results obtained by Bartels, the table indicates that the unconstrained models which incorporate information effects provide substantial improvement in goodness of fit over the constrained models (without information effects). Comparing the log likelihoods of the data under the two vote models (with information effects and without) produces a χ^2 value of 28.2 with 17 degrees of freedom. The chance of obtaining a value this large by chance is less than 10%, indicating that uninformed voters do not really behave as the more informed. The p-values for the χ^2 for the probit analyses of attitudes towards the four issues are even smaller, thus providing further evidence to disconfirm the notion that uninformed voters act as if they were fully informed. The bottom line: uninformed and informed voters behave differently.

Understanding the Role of Information

What exactly is the effect of information on voting and opinion? Since Tables 1 and 2 (above) and Tables 5-7 (in the Appendix) report probit estimates, the coefficients are not terribly straightforward to interpret. While the rule may be that one can divide the coefficients by 2.5 (logit coefficients can be similarly divided by 4) to make them comparable to the estimates of linear models (see Wooldridge 2003), I also estimated the effects of information for different demographic characteristics using "clarify" software (see Tomz, Wittenberg & King 2003 for details). The figures below illustrate the impact of information on some estimated demographic effects for both Conservative vote propensity as well as opinion regarding the four specific issue areas.

Catholics

Figure 1 illustrates the effect of information on opinion and vote choice among Catholics. As is evident, as Catholics become informed, they go from being 20 percentage points less likely than non-Catholics to vote Conservative, to passing the zero-threshold with a probable support for the Conservative Party of 1.3%.

Figure 1
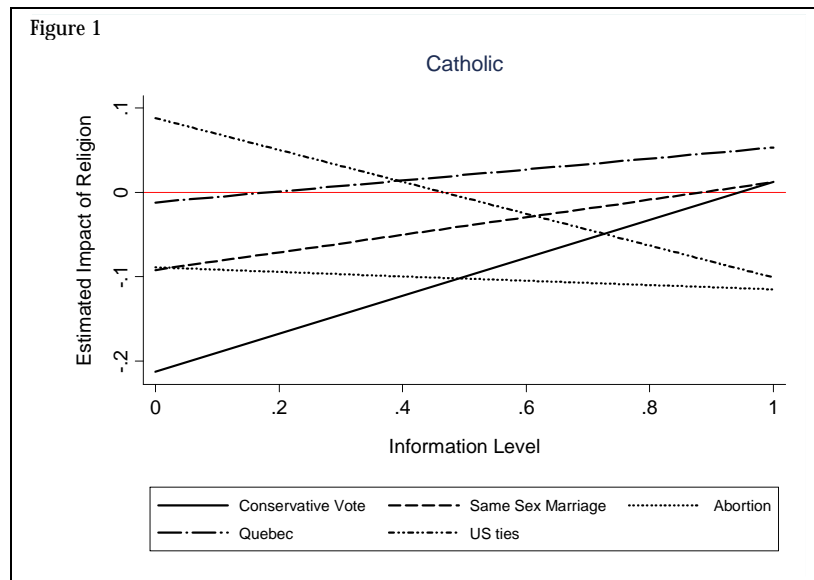
It appears that the notion that "Catholics vote Liberal" appears to require a slight modification: uninformed Catholics are much more likely to vote Liberal than are informed Catholics.[5]

We see a similar effect when it comes to support for same sex marriage. Uninformed Catholics are ten percentage points less likely than non-Catholics to support same sex marriage. When information enters into the scene, the situation is different: suddenly, the probability of supporting same sex marriage is the same as the probability of Conservative party support: approximately 1.3 percentage points higher than non-Catholics.
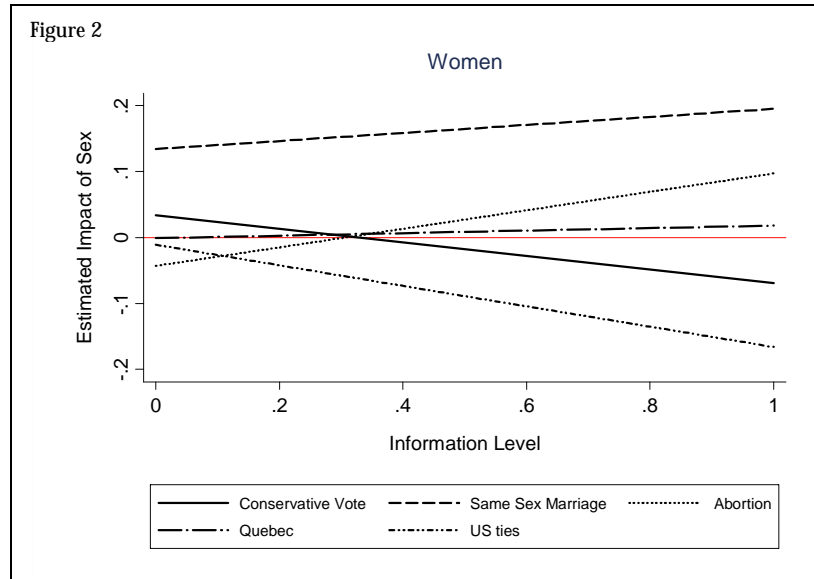
Women

Figure 2 (below) illustrates the effect of information for women. As can be seen from the graph, the gender gap identified in Canadian politics (Gidengil et al. 2003) appears to widen on a number of issues when information enters the picture. Women do appear to be more left-leaning when it comes to both vote choice (see solid line) and attitudes toward same sex marriage (dash line). Uninformed women were five percent more likely than men to vote for the Conservative Party, while fully informed women were 15% less likely than men to vote for the Conservative Party. In fact, of all those who admitted to voting for the Conservative Party in the 2004 CES, 52% were women, while 47% were men. Relatedly, there were fewer women in the higher end of the knowledge index, indicating that the bulk of the female vote for the Conservative Party came from less knowledgeable women.

On the issue of same sex marriage, uninformed women were approximately 14% more likely to support same sex marriage than were men, and information had the effect of widening that gap, bringing the probability of support up to nearly 20% higher than

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[5] I ran similar probit analyses for Liberal vote choice, and the probability of a hypothetical Catholic voting for the Liberal party dropped by nearly 15% when the individual went from being uninformed to fully informed (a slightly smaller effect than seen above with regards to Conservative vote choice.

men. Information had a similar (and larger) effect on the support for easier access to abortion. Uninformed women were approximately five percent less likely than men to support easier access to abortion, and information has the effect of increasing the probability of support for easier access to abortion to nearly ten percent: **an increase of nearly 15 percentage points**.

Figure 2

The effect of information is equally substantial with regards to the issue of how close ties should be to the United States. As the bottom-most line indicates, uninformed women are only slightly (2%) less likely to support closer ties to the US than are men, while fully informed women are 15% less likely to support closer ties to the US than are uninformed women. Similarly to the effect of information on attitudes towards abortion, information results in a change in probability of approximately 15%. Again, these data indicate that information has the effect of widening the gender gap as outlined by Gidengil et al. (2003:144). They note that "previous studies of the gender gap phenomenon have consistently found that women are less sanguine than men about the virtues of free enterprise, more supportive of social welfare programs, and less open to market solutions." While I do not explicitly look at issues related to free enterprise or social welfare programs, these data are consistent with other observations in the gender gap literature (one could make an argument that support for same sex marriage, abortion, and close ties to the US could act as proxies for attitudes towards free enterprise or social welfare).

In addition to confirming the findings of others, these results indicate that information does not only have a substantial effect for 'new' issues (i.e. same sex marriage) where there is perhaps more uncertainty and less information overall, but also has an important effect for issues that have played a role in Canadian politics for decades (i.e. abortion and ties to the US). Simply put, information appears to affect the nature of opinion and decision-making, regardless of how long 'information' on a given issue has been around.

Atheists

While research on the role of religion in shaping Canadian attitudes has traditionally focused on the difference between Catholics and Protestants (Belanger and Eagles; Irvine and Gold; Johnston 1985; Mendelsohn and Nadeau 1997), the large number of individuals who claim to be atheists or to have no religion is substantial enough to warrant a look at their values. A quick scan of the 2004 CES data indicates that while Catholics remain largest in number, the number of atheists is relatively similar to the number of Protestants.[6] Table 4 illustrates the breakdown of these three groups within the total sample, and also specifically among voters.

Table 4

Number of individuals claiming to be Atheist, Catholic, or Protestant in 2004 CES

	Voters	Total Sample
	#	#
Atheists	507	783
Catholics	974	1670
Protestants	730	1056
All	2719	4323

The effect of information on opinion and vote choice among Atheists is similar to the effect on women. That is, with more information, Atheists become less supportive of the Conservative Party and more supportive of same sex marriage and abortion. Figure 3 below illustrates the effect of information on vote choice and issue attitudes among Atheists.

As the graph indicates, uninformed atheists are no more or less likely to support the Conservative Party than are individuals affiliated with another religion. This changes substantially, however, when information enters the picture. Informed atheists are 24% less likely to support the Conservative Party than are uninformed atheists. This is a large (and statistically significant) drop in the probability of vote choice. Information therefore not only plays a pivotal role in informing the vote choice of Catholics, it also substantially affects the nature of party support among the non-religious.

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[6] In fact, the proportion of Atheists in comparison to Protestants and Catholics appears to have increased since previous years. In the 1997 CES, of the total sample of 3651, 496 claimed to be atheists or have no religious affiliation, while 1025 claimed to be Protestants and 1751 claimed to be Catholic. In the 2000 CES, of the total sample of 3949, 582 claimed to have no religious affiliation, while 1376 claimed to be Protestants, and 1667 claimed to be Catholic. Thus the proportion of atheists in the total sample increased from 14% in 1997 to 15% in 2000 to 18% in 2004.

Figure 3
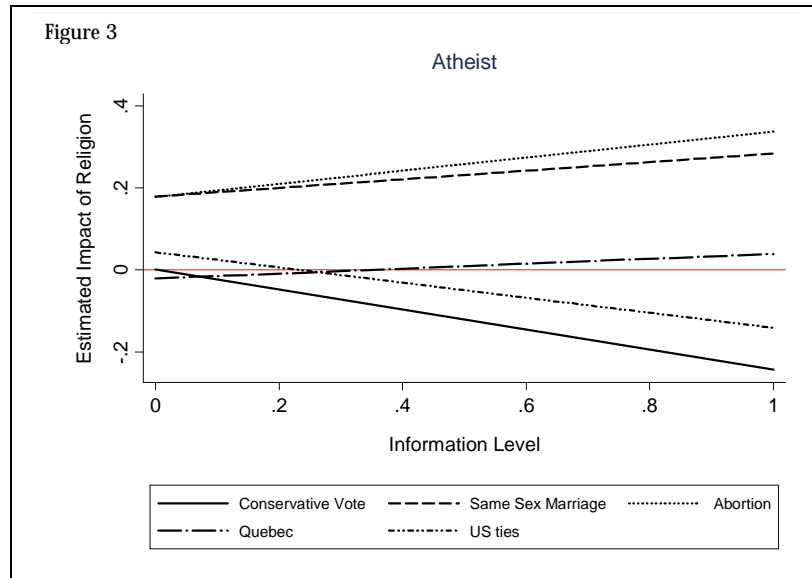
Atheist

Information has the opposite (though perhaps ideologically consistent) effect upon support for both same sex marriage and abortion. That is, with increased information, atheists become increasingly supportive of both same sex marriage and easier access to abortion. Fully informed atheists are approximately 10 percentage points more supportive of same sex marriage than are uninformed atheists (jumping from 18% to 28%), while fully informed atheists are approximately 16 percentage points more supportive of abortion than are uninformed atheists. Perhaps more impressively, however, is the effect of information when we compare atheists to non atheists: informed atheists are 28% more likely to support same sex marriage than are non-atheists, and 34% more likely to support abortion than non-atheists. These changes in probabilities of support illustrate the role that information plays, compounded upon what appears to be an already substantial difference along the religious/non-religious divide.

What is also striking, as noted earlier, is the different role that information plays among atheists as opposed to Catholics. Where information serves to narrow the gap or eliminate the differences between Catholics and non-Catholics for both vote choice and support for same sex marriage, information serves to widen the gap between atheists and non-atheists on these same lines. Similarly to the patterns found in the man-woman gap, information appears to play a substantial role in affecting the nature of choices and attitudes among atheists and non-atheists.

Urbanites

The fourth and final demographic group that I looked at included those individuals classified as living in an "urban core" in the 2004 CES. My intention was to look at the urban/rural divide in greater detail, to determine the role that information might play in influencing urban/rural values. This followed from Fred Cutler and Richard Jenkins' (2000) analysis which hinted at the role that education might serve in diminishing the differences between the two groups. What I found was that similarly to the other demographic/social groups, information did indeed affect the nature of opinion and attitudes.

Figure 4 (below) illustrates the change in probability of support for the Conservative party, as well as changes in issue attitudes, for uninformed and fully informed urbanites. As the graph demonstrates, information had the largest impact on two dependent variables: Conservative vote choice and support for same sex marriage.

Figure 4
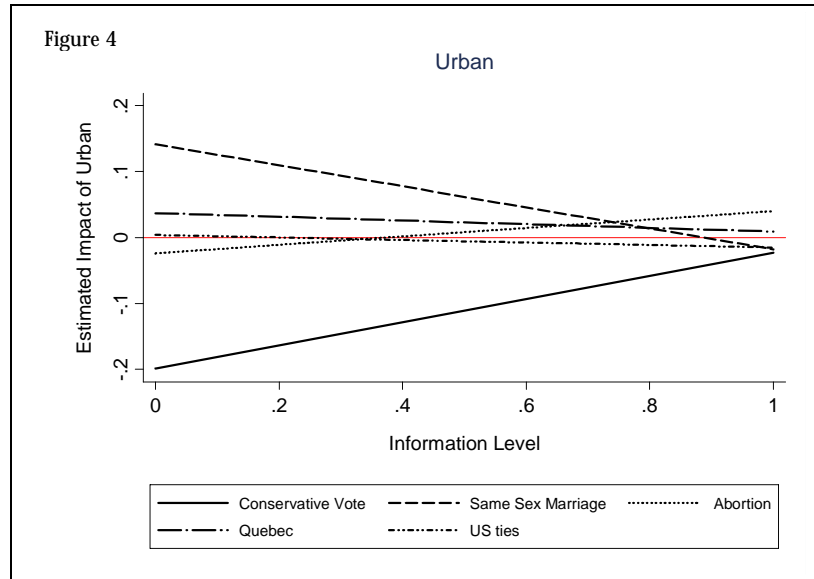
What is strange, certainly in comparison to the results for the other demographic groups, is the contradictory effect that information seems to play. Uninformed urbanites are 20% less likely than those living in rural areas to vote for the Conservative party. This fits with Cutler and Jenkins' observation that rural individuals are more socially conservative: if this is true, it makes sense that they might choose to vote for the Conservative party in greater numbers. Information serves to narrow the gap, raising the probability of a Conservative vote by 15 percentage points. Fully informed urbanites are still approximately 5% less likely to vote for the Conservative party than are individuals living in rural areas, but the 20% difference has been bridged considerably as a result of information. Thus it appears that information can indeed help to decrease the urban/rural dichotomy, at least for vote choice.

In contrast, uninformed urbanites are 14% more likely than their rural counterparts to support same sex marriage, fitting with the notion that individuals living in urban areas are more socially progressive than their hinterland counterparts. However, perhaps surprisingly, information actually serves to decrease this gap, and reverses the probability of support for same sex marriage. Fully informed urbanites are actually 2% less likely than their rural counterparts to support same sex marriage. How can this be? While the results seem counterintuitive, in actual fact, they may not be as strange as they seem.

Rather than suggesting that information may serve to make urbanites more socially conservative, these data may actually depict the exact opposite: *that information may serve to make individuals from rural areas more socially progressive*. Given that the "rural/urban" variable is dichotomous, the effect of information as shown only really tells us that the difference between urban and rural attitudes toward same sex marriage have been narrowed, and slightly reversed, which could indicate that an increase in

information results in rural individuals becoming **substantially** more supportive of same sex marriage than they are if they are uninformed. Thus information has a considerable influence in narrowing the gap between urban and rural dwellers, largely due to the effect it has on 'liberalizing' those living in rural areas.

Discussion

Overall, these results are consistent with Bartels' study: the less informed do not behave as if they were more informed. While Bartels looked only at the impact of information on vote choice, data from the 2004 CES indicate that information has an important mediating effect on issue attitudes as well, regardless of whether the issue has been around for quite some time (i.e. ties to the United States and abortion), or has only more recently entered public debate (i.e. same sex marriage).

Not only do the less informed not behave like the more informed, but information also has the additional (and perhaps more interesting) effect of disturbing or upsetting patterns of behaviour associated with traditional cleavage lines in Canada. As Mendelsohn and Nadeau (1997) suggest regarding the relationship between media exposure and the religious cleavage in Canada, the relationship between knowledge/information and the social bases of opinion highlights an interesting link between two literatures, literatures for which the links aren't normally drawn.

There is a substantial literature examining the decision-making abilities of citizens given how little political knowledge is possessed by the average citizen. Some suggest that citizens do indeed possess an adequate amount of knowledge, and that the problem as identified is simply one of measurement error (Achen 1975). Others suggest that citizens are able to find the information they need, as those with less information rely on the advice and cues of others in order to make decisions (Lupia 1994; Lupia & McCubbins 1998). These scholars suggest that the values of the less informed will meet the values and attitudes of those possessing higher levels of knowledge, once information sharing and persuasion have taken place.

Others still suggest that citizens will use information shortcuts or heuristics to overcome the information deficit. This literature emerged as a response to minimalism and suggests that even if individuals don't have a lot of information, they are still able to use what information and tools they do have, to come to reasoned decisions—often the same decisions they would come to if they had more information (Brady and Sniderman 1985;Lau and Redlawsk 1997). Indeed, Sniderman et al. (1991) even point to the role of group affect as an intermediary, helping individuals to come to the same decisions they would make if they were fully informed.

In the general population, there is indeed a group basis of attitude and opinion: women often hold attitudes different from those of men, "Catholics vote Liberal," rural folk tend to be more socially/morally conservative than those living in urban areas. However, as Bartels (1996) illustrates, and as the data from the 2004 CES illustrate, information plays an important role in bridging that 'cultural' divide. Informed urbanites tend to be no less likely than their rural counterparts to vote Conservative. Information helps to (dramatically) reduce the difference between Catholics and non-Catholics in terms of both vote choice as well as support for same sex marriage. These data suggest, therefore, that a sense of social identity is not a way to bring the less

informed 'up' to the point they would be at if they were more informed, as suggested by some scholars. The more informed members of a given social group behave differently from the less informed.

The integration of knowledge or information into the relationship between social cleavages and values or attitudes is particularly important in the Canadian case, given the extent to which the Canadian literature has focused on the long-standing "difference" of particular social groups: in particular, Catholics vs. Protestants and the urban/rural divide, without being able to concretely suggest why this is so. Johnston (1985) suggests that the Catholic/Protestant difference is grounded in identification with and socialization into the social group, and the 2004 CES data do indeed provide support for that hypothesis. As individuals become more informed, they appear to lose awareness of and reliance upon that social group identity.

Two "kinds" of social cleavages?

While the data indicate that information has a bridging effect among some social groups (namely Catholics/non-Catholics and urban/rural), it also appears to have an amplifying effect along other cleavage lines. Among women and atheists, the less informed behaved less 'differently' than their 'dummy' counterparts (men and non-Atheists). As individuals went from being uninformed to fully informed, their 'social group' behaviour became increasingly pronounced, with both groups becoming more left-leaning and socially 'liberal' than their male and non-atheist counterparts.

This does raise the question of the nature of social group values. Do some values exist and flourish largely as a result of a basic form of identification or group 'think' regardless of whether the attitudes are in their 'interest,' only to diminish when people become more informed, while other values lay dormant among the general (uninformed) population but become more pronounced as individuals become more aware of their self or group-interest? Furthermore, what is to become of these social cleavages in the future, with the ever-growing increase in the education of the mass-public? Do the traditional religious and urban/rural cleavages have the potential to all but disappear if the population becomes even more educated and informed in the future? More research is needed into the linkages between knowledge/information and social group identities and values, if we are to better understand the nature of social cleavages in Canada, and the impact they may have on public opinion and electoral outcomes.

Appendix A: Estimations

Table 5
Probit Parameter Estimates for Support for "Easier" Access to Abortion (ROC), 2004

	Fully Informed Preferences	Uninformed Preferences	Information Effect (Difference)
Intercept	-0.294	0.061	-0.355
	(0.459)	(0.450)	(0.792)
Age	0.009	-0.008	0.017
	(0.007)	(0.007)	(0.012)
Education	0.053	0.037	0.017
	(0.073)	(0.084)	(0.140)
Income	0.062	0.057	0.005
	(0.030)	(0.033)	(0.056)
Woman	0.262	-0.103	0.365
	(0.149)	(0.168)	(0.283)
Married	-0.500	-0.065	-0.435
	(0.176)	(0.175)	(0.311)
Homeowner	-0.097	0.095	-0.192
	(0.208)	(0.198)	(0.361)
Urban	0.109	-0.063	0.172
	(0.160)	(0.169)	(0.294)
Atlantic	0.675	-0.465	1.140
	(0.244)	(0.243)	(0.436)
Prairies	-0.146	-0.280	0.134
	(0.179)	(0.198)	(0.337)
BC	-0.041	-0.021	-0.020
	(0.200)	(0.229)	(0.383)
Catholic	-0.302	-0.224	-0.078
	(0.177)	(0.194)	(0.332)
Atheist	1.08	0.492	0.593
	(0.200)	(0.209)	(0.360)
Retired	-0.430	0.503	-0.933
	(0.254)	(0.310)	(0.508)
Self-Employed	-0.192	-0.162	-0.030
	(0.216)	(0.267)	(0.434)
Native French Speaker	0.363	0.014	0.349
	(0.427)	(0.397)	(0.726)

Log Likelihood = -947.99965 $N = 1753$
Standard errors in parentheses

Table 6
Probit Parameter Estimates for Support for Doing More for Quebec (ROC), 2004

	Fully Informed Preferences	Uninformed Preferences	Information Effect (Difference)
Intercept	-1.422	1.208	-2.630
	(0.524)	(0.542)	(0.911)
Age	-0.013	-0.012	-0.001
	(0.008)	(0.008)	(0.015)
Education	0.263	-0.420	0.683
	(0.092)	(0.107)	(0.173)
Income	-0.036	-0.088	0.052
	(0.037)	(0.043)	(0.070)
Woman	0.096	-0.034	0.130
	(0.181)	(0.211)	(0.346)
Married	-0.379	-0.001	-0.378
	(0.199)	(0.212)	(0.360)
Homeowner	0.335	-0.200	0.536
	(0.242)	(0.232)	(0.415)
Urban	0.057	0.206	-0.149
	(0.201)	(0.214)	(0.366)
Atlantic	0.091	0.008	0.083
	(0.269)	(0.274)	(0.478)
Prairies	-0.221	-0.453	0.233
	(0.237)	(0.261)	(0.441)
BC	0.065	-0.775	0.840
	(0.246)	(0.326)	(0.508)
Catholic	0.259	-0.117	0.376
	(0.223)	(0.240)	(0.410)
Atheist	0.201	-0.203	0.404
	(0.217)	(0.261)	(0.418)
Retired	0.022	-0.234	0.257
	(0.314)	(0.370)	(0.607)
Self-Employed	0.002	-0.548	0.550
	(0.279)	(0.405)	(0.611)
Native French Speaker	0.015	0.005	0.010
	(0.453)	(0.458)	(0.787)

Log Likelihood = -511.3026 $N = 1746$
Standard errors in parentheses

Table 7
Probit Parameter Estimates for Support for Closer Ties to the United States (ROC), 2004

	Fully Informed Preferences	Uninformed Preferences	Information Effect (Difference)
Intercept	0.327	-0.383	0.710
	(0.413)	(0.414)	(0.719)
Age	-0.002	0.006	-0.008
	(0.006)	(0.006)	(0.011)
Education	0.004	-0.206	0.210
	(0.066)	(0.078)	(0.129)
Income	-0.017	0.014	-0.031
	(0.027)	(0.030)	(0.051)
Woman	-0.458	-0.031	-0.427
	(0.135)	(0.154)	(0.258)
Married	0.077	0.252	-0.174
	(0.157)	(0.158)	(0.279)
Homeowner	-0.294	0.242	-0.536
	(0.187)	(0.181)	(0.326)
Urban	-0.043	0.006	-0.049
	(0.143)	(0.154)	(0.265)
Atlantic	-0.407	0.356	-0.762
	(0.216)	(0.220)	(0.388)
Prairies	0.025	0.001	0.249
	(0.163)	(0.183)	(0.309)
BC	-0.125	0.041	-0.166
	(0.183)	(0.213)	(0.353)
Catholic	-0.257	0.224	-0.510
	(0.169)	(0.180)	(0.312)
Atheist	-0.404	0.105	-0.510
	(0.165)	(0.189)	(0.313)
Retired	0.174	-0.109	0.283
	(0.228)	(0.280)	(0.456)
Self-Employed	0.187	-0.211	0.398
	(0.196)	(0.246)	(0.397)
Native French Speaker	-0.407	0.128	-0.535
	(0.368)	(0.346)	(0.623)

Log Likelihood = -1121.1516 $N = 1746$
Standard errors in parentheses

Appendix B: Variable Definitions

Political Knowledge

Index built based on correct responses to 14 factual questions:

KNOW1 – recall name of leader of the Federal NDP (Jack Layton)

KNOW2 – recall name of leader of the Federal Conservative Party (Stephen Harper)

KNOW3 – recall name of leader of the Federal Liberal Party (Paul Martin)

KNOW4 – recall which party was promising to get rid of the Gun Registry
   (Conservatives)

KNOW5 – recall name of party promising to get rid of sales tax on family essentials
   (NDP)

KNOW6 – party promising to increase military spending by $2 billion (Conservatives)

KNOW7 – party promising $250 million spending on AIDS in poor countries (Liberals)

KNOW8 – party promising $4 billion to reduce wait times for surgeries (Conservatives)

KNOW9 – party promising inheritance tax on estates over $1 million (NDP)

KNOW10 – recall name of respondent's provincial Premier

KNOW11 – recall name of Federal Finance Minister (Ralph Goodale)

KNOW12 – recall name of British Prime Minister (Tony Blair)

KNOW13 – recall name of female cabinet minister who ran against Paul Martin for
   Liberal Party leadership (Sheila Copps)

KNOW14 – know which level of government is responsible for healthcare, etc.
   (Provincial)

All recoded as 0-1 dummy, where 1=correct answer. Added together to form index,
   then recoded on a 0-1 scale where 1=correct responses to all 14 questions,
   0=no correct responses at all.

Issue Attitudes

DOMOREFORPQ – Based on: "How much do you think should be done for Quebec:
   much more, somewhat more, about the same as now, somewhat less, or much
   less?" Recoded as a dummy variable, 1= more/somewhat more; 0= all others.

PROCLOSETIESUS – Based on: "Do you think Canada's ties with the United States should be much closer, somewhat closer, about the same as now, more distant or much more distant?" Recoded as a dummy variable, 1= more/somewhat closer; 0= all others.

FAVOURSAMESEXMAR – Based on: "Do you favour or oppose same-sex marriage, or do you have no opinion on this?" Recoded as a dummy variable, 1= favour; 0= all others.

ABORTION – Based on: "Do you think it should be: very easy for women to get an abortion, quite easy,   quite difficult, or very difficult?" Recoded as a dummy variable, 1= very easy/quite easy; 0= all   others. DK/Ref coded as missing.

Demographic Variables

AGE – from year of birth

EDUCATION – coded into 5 categories: 1=elementary school or less 2= high school or less 3= some college/some university 4= completed college/completed university 5= post-graduate/professional. DK/Ref coded as missing.

INCOME – coded into 10 categories: 1 <$20,000 2 $20-29,999 3 $30-39,999 4 $40-49,999 5 $50-59,999 6 $60-69,999 7 $70-79,999 8 $80-89,999 9 $90-99,999 10 $100,000+. DK/Ref coded as missing.

WOMAN – coded as dummy variable: 1= woman, 0=man

MARRIED – coded as dummy variable: 1= married/living with partner 0= all others. DK/Ref coded as missing.

HOMEOWNER - coded as dummy variable: 1= homeowner 0= all others. DK/Ref coded as missing.

URBAN – generated from original study variable "uaratype" – coded as a dummy variable: 1= "urban core" 0= all others.

ATLANTIC- coded as a dummy variable: 1= PEI/NS/NB/Newfoundland 0= others

ONTARIO – coded as a dummy variable: 1= Ontario 0= others

PRAIRIES – coded as a dummy variable: 1= Man/Sask/AB 0= others

BC – coded as a dummy variable: 1= BC 0= others

CATHOLIC – coded as a dummy variable: 1= Catholic 0= others. DK/Ref coded as missing.

ATHEIST – coded as a dummy variable: 1= non-religious 0= others. DK/Ref coded as missing.

RETIRED – coded as a dummy variable: 1= retired 0= others. DK/Ref coded as missing.

SELFEMPLOYED – coded as a dummy variable: 1= self-employed 0= others. DK/Ref coded as missing.

FRENCHNATIVELANG – coded as a dummy variable: 1= French first language 0= others. DK/Ref coded as missing.

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