The Impact of Local Context on the Gender Gap in Political Knowledge: The Case of Canada

Elisabeth Gidengil, McGill University
Daniel Rubenson, Université de Montréal
André Blais, Université de Montréal
Patrick Fournier, Université de Montréal
Neil Nevitte, University of Toronto

Paper prepared for presentation at the workshop in ‘Local Participation in Different Contexts’ at the ECPR Joint Sessions of Workshops, April 14-19, 2005 University of Granada, Spain
The Impact of Local Context on the Gender Gap in Political Knowledge: The Case of Canada

Elisabeth Gidengil, McGill University
Daniel Rubenson, Université de Montréal
André Blais, Université de Montréal
Patrick Fournier, Université de Montréal
Neil Nevitte, University of Toronto

Introduction

Women typically know less about politics than men do. The knowledge gap cannot be explained by differences in women’s educational attainment or material resources or by the greater demands that childcare responsibilities continue to make on many women’s time. The knowledge gap has persisted despite the massive influx of women into the paid work force. Rich or poor, married or single, young or old, women know less about politics than their male counterparts. This pattern holds in most Western industrial democracies (Delli Carpini and Keeter 1996; Verba, Burns and Schlozman 1997; Kenski and Jamieson 2000; Norris 2000; Claibourn and Sapiro 2002; Frazer and Macdonald 2003; Mondak and Anderson 2004).

Some scholars have attributed the knowledge gap to the lack of women in elected office. Verba and his colleagues (Verba, Burns and Schlozman 1997, 1053), for example, suggest that the gap may be “a reflection of the fact that politics has been traditionally, and continues to be, dominated by men.” This argument implies that women’s knowledge of politics will be enhanced when women are more visible in the electoral arena. This is certainly plausible, but the hypothesis has been subject to only limited empirical testing and the results to date have been distinctly mixed.

We use data from the 2000 Canadian Election Study (CES) to assess the impact of both the presence of female candidates and the sociodemographic context on women’s political knowledge. Like their counterparts in other industrial democracies, Canadian women have lower levels of political knowledge than men (Fournier 2002; Gidengil et al. 2004). As elsewhere, this difference cannot be explained by other individual-level social background characteristics, such as education, income, marital status, age, or employment status (Gidengil et al. forthcoming).

Gender, Context and Political Knowledge

Gender gaps in political knowledge have appeared with remarkable consistency across both established and emerging democracies. The size of the gaps may differ from one country to another, but the pattern is clear: men consistently score higher than women on measures of political knowledge (Claibourn and Sapiro 2002; see also Delli Carpini and Keeter 1996; Verba, Burns and Schlozman 1997; Kenski and Jamieson 2000; Norris 2000; Frazer and Macdonald 2003; Mondak and Anderson 2004). Equally striking is the fact that these gaps have proved so resistant to explanation. Typically, attempts to account for these differences in political knowledge have focused on structural and situational factors that differentiate the lives of women and men. These explanations usually involve some mix of gender differences in resources and opportunities (Claibourn and Sapiro 2002).
Gender differences in educational attainment and income would seem to be obvious candidates when it comes to explaining why women have smaller stocks of political knowledge. Education and income are typically strongly correlated with political knowledge. Education furnishes people with the cognitive skills that are needed to acquire information and to cope with the complexities of politics (Delli Carpini and Keeter 1996). This is one reason why education has an impact on where people turn to get their news about politics. People with less formal schooling and lower levels of literacy are more likely to depend on television as their main source of information about politics, and dependence on commercial television—as opposed to newspapers-- for information about politics has been linked to lower levels of civic literacy (Milner 2002). Education also helps to inculcate norms of civic behavior and encourages people to take an interest in politics. People with more education are more likely to occupy social roles where information about politics is useful and to participate in the sorts of social networks where information about politics circulates (see Tichenor, Donohue and Olien 1970). Yet, despite all this, and despite the fact that the average woman continues to have less education than the average man, the gender gaps in political knowledge persist even controlling for educational attainment.

The same is true of income. Women continue to have lower incomes on average than men, and lower incomes typically make for smaller stores of political information. Acquiring information about politics is not costless. People who are barely getting by do not have the money to spare to buy a daily newspaper or to go on-line in search of political information (Milner 2002). And, in any case, struggling to make ends meet may leave little time or energy to follow politics. Moreover, there may be little incentive to pay attention to politics if the political system is perceived to be unresponsive to the concerns of those in economic need. And yet, for all this, the feminization of poverty does not seem to account for the gender gaps in knowledge about politics, either.

At one time, women’s lower levels of political knowledge were attributed to their traditional roles as wives and mothers and their confinement to the domestic sphere. By this account, women's traditional roles as wife, mother and homemaker deprived women of the opportunity for political stimulation and made politics less relevant to their lives. This explanation implied that the gender gaps would narrow, if not disappear, as more and more women joined the paid work force. This has not proved to be the case. Women have moved into the paid work force in massive numbers and yet the gender gaps in political knowledge persist (Delli Carpini and Keeter 1991). More recently, scholars have focused on the increased demands on women’s time as they attempt to juggle the demands of their working and family lives. Yet, even the “double day”, it seems, does not explain why women continue to be less aware than men of what is going on in public life (Gidengil et al. 2004).

Finally, people have looked to political socialization for an explanation. This type of explanation typically emphasizes the pre-adult learning of sex roles. It holds that women are less knowledgeable about politics than men are because they were conditioned as children and adolescents to think of politics as a male preserve. The socialization explanation implies that the knowledge gaps should be smaller for younger generations that grew to adulthood at a time when women were becoming more visible in political life. There is evidence, though, that the gaps may actually be wider between young men and young women (Gidengil et al. 2004).
This begs the question of whether the presence of women in elected office does in fact enhance women’s political awareness and encourage them to become more informed about politics. There are certainly good reasons to think that it should. An early critique of gender and voting studies, for example, suggested that women were less interested in politics because political parties had made so little effort to stimulate women’s interest or encourage their participation (Goot and Reid 1975, 33). Running more female candidates in winnable seats is a plausible way for political parties to reach out to female voters. There is more to it, though, than a lack of women in elite-level politics. Reflecting the longstanding male dominance, politics is still governed by stereotypically masculine norms of behavior. These norms reinforce the notion that politics is a predominantly masculine activity. And so, too, does the way that the media typically frame political news. With its reliance on metaphors of sports and warfare, the news remains very much a “masculine narrative” (Rakow and Kranich 1991, 8). Likening politics to a battlefield or to a boxing ring subtly conveys the message that women do not really belong in politics (Gidengil and Everitt 1999). As a result, many women may come to see politics as very much a man’s game. This perception may be counteracted, though, when women run for, and especially when they succeed in gaining, elected office at the national level. Women’s candidacies convey the message that politics is not just for men. If so, we would expect the presence of female candidates and especially female incumbents to be associated with a smaller gender gap in political knowledge.

This hypothesis has received very mixed support, however. Verba and his colleagues (1997, 1069) concluded with “a definitive maybe” when they examined the impact of the presence of women in politics on the knowledge gap. Data from the 1990 Citizen Participation Study (CPS) revealed that women were more likely than men to be able to name a senator in the three states where there was a female candidate or incumbent for the US Senate. However, this pattern did not hold when it came to naming the representative in Congress: the presence of a female House candidate or incumbent made no difference, possibly because House elections are less salient to voters and receive less media coverage. Nor did the pattern hold when data from the 1988-90-92 National Election Studies (ANES) were used instead. This was even the case in 1992, which was the “Year of the Woman.” The knowledge gap did close, though, when a female senate candidate won in a state that had not previously had a female senator. And the CPS data showed that living in a state with a statewide female incumbent or candidate enhanced women’s ability to name public officials, though it had no effect on more general knowledge of politics.

Michele Claibourn and Virginia Sapiro (2002) reached a more pessimistic conclusion. They used data for 21 established and emerging democracies from the Comparative Study of Electoral Systems project to examine cross-national variation in the effect of gender on political knowledge. They hypothesized that the size of the gender coefficient would vary depending on women’s political context and women’s social situation, as well as the country’s level of political and economic development. When it came to the effect of macro-level variables associated with the status of women, however, it was very much a case of the “dog that didn’t bark” (p. 18). Even in a bivariate setup, the percentage of female members in the lower house of parliament bore little or no relationship to the size of the gender coefficient. The same was true of the presence of a quota for female candidacies. And quite counter to expectations, the knowledge gap was actually wider in countries with systems of proportional
representation (which are generally held to boost female representation) and/or where conceptions of gender roles tend to be more egalitarian.

Similarly, Susan Banducci and Holli Semetko (2002) found that the proportion of women in sub-ministerial positions in government had no significant effect on the gender gap in attention to various types of news across 14 European Union member countries. They did find some evidence, though, that gender differences in attention to some types of news were related to cross-national variation in women’s social resources (as indicated by the percentage of women with a tertiary degree and women’s labour force participation). However, when Claibourn and Sapiro (2002) examined the impact of cross-national variation in women’s education and employment on the knowledge gap, they found no significant effects. In their study of gender differences in political knowledge in Britain, Elizabeth Frazer and Kenneth Macdonald (2003) explored possible constituency level effects. They looked at a number of features of the constituency context in which respondents lived, but found only one significant socio-demographic effect: class diversity was associated with lower knowledge scores. However, they lacked true contextual measures. Instead, they had to create proxies by aggregating the characteristics of respondents within each constituency. Given the relatively small number of respondents per constituency, they could not differentiate constituency characteristics by gender.

It is certainly plausible that the larger socio-demographic context could affect how much women know about politics. According to Robert Putnam (2000, 338), “Political information flows through social networks.” People pick up information about politics as they engage in casual conversations with friends and acquaintances. And if politics often comes up in conversation, it gives people an incentive to stay informed in order to keep up their end of the conversation. However, social networks do not necessarily enhance participants’ knowledge about politics. It takes politicized partners to stimulate political discussion (Erickson and Nosanchuk 1990). Women are typically less politicized than men, which is one reason why their social networks do not provide as much information about politics as men’s (Gidengil et al. 2004). Some women, though, are more politicized than others. Women who are university-educated, for example, are typically better informed about politics. Living in areas with high proportions of such women may provide other women with more opportunities to learn about politics. It could also provide an incentive. As Doris Graber’s (1988, 110) observed, “Women generally feel less social pressure to retain political information and therefore show higher rates of forgetting than men.” This may not be the case, though, in contexts where politics comes up in conversation with other women. Tellingly, Frazer and Macdonald (2003) found that respondents who lived in areas with a high mean knowledge score were themselves more knowledgeable.

**Data and Methods**

In order to examine the impact of female candidacies and social context on the gender gap in political knowledge, we combine individual-level survey data from the 2000 Canadian Election Study with constituency-level data from the 2001 Canadian Census. Combining as they did country-level and individual-level survey data, the studies conducted by Banducci and Semetko (2002) and by Claibourn and Sapiro (2002) had to contend with a small-N problem. Similarly, Verba and his colleagues’ (1997) analysis was constrained by the small number of
US states that had a female incumbent or challenger for the Senate. In focusing instead on a parliamentary system with a single-member plurality electoral system, we are able to maximize the number of macro-level contexts, while simultaneously having a substantial number of female candidates. We are also freed of the need to rely on proxy measures for constituency characteristics.

In the 2000 Canadian election, 20.7 percent of the candidates were female, down from 24.4 percent in the 1997 election. Of the 375 women who ran for parliament, 242 were candidates for one of the five major parties, while the remaining 133 ran as independents or for minor parties. Sixty-two women won their seats, and women made up 20.6 percent of MPs in the new parliament. In the analyses that follow, we exclude the three constituencies that are located in Canada’s northern Territories (Yukon, Nunavut and Northwest Territories) since the 2000 Canadian Election Study did not include interviews in Canada’s North. This brings the number of female candidates down to 371 and the number of women who won down to 60.

In order to assess the impact of female candidacies and other contextual factors on the gender gap in political knowledge, we link respondents to the election study with data on their local constituency. We constructed a number of different measures to assess the impact of female candidacies. The first measure is a dummy variable, coded ‘1’ if the incumbent is a woman and ‘0’ otherwise. The logic here is that women’s general political awareness should be enhanced when their member of Parliament is herself a woman. Presumably, women residing in one of the 60 constituencies that had been represented by a female MP since 1997 would be less likely to perceive politics as a male-dominated arena.

The other measures relate to the visibility of female candidates in the 2000 election. The first of these measures is based simply on the presence of female candidates. Out of 298 constituencies, 125 (41.9 percent) had no female candidates, 121 (40.6 percent) had one female candidate, 40 (13.4 percent) had two female candidates, 11 (3.7 percent) had three female candidates, and one constituency had four female candidates. Accordingly, the female candidacy variable runs from 0 to three or more. Independent and minor party candidates are not included in the count. Since their share of the vote is typically trivial, women running as independents or for a minor party are extremely unlikely to have sufficient visibility to have any impact on the political awareness of women in their constituency.

The mere fact of running as a candidate for one of the five major parties, though, is no guarantee of visibility. If the party has little chance of winning, its candidate may have little visibility. Accordingly, the second measure counts the number of constituencies where women were competitive, the criterion for assessing competitiveness being that they won or lost the riding by a margin of 10 points or less. This measure is based on the assumption that a close race will garner more attention in the media, and so women in the constituency are more likely to be aware that a woman is running when she has a shot at winning. Overall, 70 (23.5 percent) of the constituencies were won by a margin of 10 points or less; women won or lost by a margin of 10 points or less in 22 of these constituencies.

The final measure focuses on whether the constituency was actually won by a woman. The fact that a woman won election should enhance the likelihood that women in the
constituency would be aware that a woman was running; it should also help to counter perceptions that women do not belong in politics and/or face insuperable obstacles in making their way politically. In all, 60 constituencies were won by a woman. These constituencies were coded ‘1’, while the remainder were coded ‘0’.

The key dependent variable is political knowledge. The 2000 Canadian Election Study included a number of questions designed to assess respondents’ general knowledge of politics. The campaign survey measured respondents’ general factual knowledge of politics by asking them to name each of the federal party leaders, Canada’s finance minister, the premier of their province, Canada’s prime minister at the time of the 1988 Canada-US Free Trade Agreement, and the capital of the United States. The post-election survey also tapped respondents’ election-specific knowledge by asking them to match campaign promises with the correct political party.4

Some feminist scholars argue that measures like these are gender-biased because they implicitly equate politics with the traditional arenas of electoral and legislative politics. As a result, the critique continues, these questions necessarily underestimate women’s political knowledge.5 Marion Smiley (1999), for example, suggests that knowing how to access government services for herself and her family is a more appropriate criterion for assessing a women’s political knowledge than whether she knows the names of the party leaders or the parties’ stands on the issues. Knowing how to obtain welfare and other services undoubtedly matters more to the immediate well-being of a single mother and her family than any amount of political knowledge as conventionally conceived. However, it would be a mistake to overlook the importance of traditional political arenas for determining, say, who is entitled to welfare assistance and how much should be allocated to its provision. From this perspective, knowledge of politics as traditionally conceived is consequential because “relative deprivation of knowledge may lead to a relative deprivation of power” (Donohue, Tichenor and Olien 1973, 4).6 And in our case, using questions that relate to the traditional arenas of politics is appropriate because we want to see how the presence of women in electoral and legislative politics affects women’s knowledge of these arenas.

A quite different form of possible gender bias in measuring political knowledge stems from the differential propensity of women and men to respond “don’t know” (Kenski and Jamieson 2000; Burns, Schlozman and Verba 2001; Claibourn and Sapiro 2002; Frazer and Macdonald 2003; Mondak and Anderson 2004). The problem with “don’t know” responses is that “Different respondents use the same words to signify different things—ignorance, indecision, or uncertainty about the meaning of the question asked” (Sanchez and Morchio 1992, 455). The cultural norm that politics is a man's world may make it harder for men to admit to being ignorant of basic political facts. If this makes men more prone to guess, men’s knowledge scores will be inflated. Conversely, if women are more reluctant to respond unless they are confident of their answer, women’s knowledge scores may be deflated. Either way, the gender gap in political knowledge will be overstated.

The jury is still out on how much of the knowledge gap is attributable to gender differences in willingness, as opposed to ability, to answer. If men are more prone to guess, we would expect them to give more incorrect answers. Both Richard Nadeau and Richard Niemi
(1995) and Jon Dalager (1996) provide evidence that men are more likely than women to answer political information questions incorrectly rather than admit that they do not know. However, Kate Kenski and Kathleen Hall Jamieson (2000) found no significant gender difference in the number of incorrect answers to their political knowledge questions. And when they converted “don’t know responses” under various guessing scenarios, a significant and substantial gender gap in the number of correct answers remained. Jeffrey Mondak and Mary Anderson (2004) on the other hand, conclude that as much as half of the gender gap in political knowledge may be the result of a systematic response set effect that is created by men’s reluctance to say that they do not know an answer. As they acknowledge, though, that still leaves a sizeable gap to be explained.

We created simple additive scales for our two knowledge domains. Correct answers received a score of ‘1’ and incorrect answers received a score of ‘0’. Following Robert Luskin and John Bullock (2004), we also give “don’t knows” a score of ‘0’. They found that this simple binary coding outperformed any knowledge measures that attempted to take account of “degrees of correctness” or to correct for possible guessing. The knowledge questions that we are using are, in any case, less susceptible to guessing because they are all open-ended.

Following Nancy Burns and her colleagues (2001), we compared reliability coefficients for women and men. If men were more likely than women to guess the answers, we would expect to see lower reliability coefficients for men. On the general political knowledge scale, the reliability was almost identical for women (.84) and men (.83), while the reliability coefficient was actually higher for men (.62) than it was for women (.53) on the party promises scale.

Still, the use of open-ended questions does not get around the problem of women possibly being more reluctant to offer answers for fear of being wrong (Mondak and Anderson 2004). To the extent that this was so, we may be underestimating women’s political knowledge. Our purpose, however, is not gauge the size of the gender gap in political knowledge per se, but to see whether the gap is affected by the presence of female incumbents and/or candidates and by the larger constituency context.

The expectation is that the gender gap in general political knowledge will narrow in constituencies that had a female incumbent because the presence of a female MP should convey the message that politics is not just a man’s world. Similarly, the gender gap in election-specific knowledge should diminish when female candidates, and especially competitive female candidates, are running for election in the constituency. Finally, whether we are looking at general political knowledge or election-specific knowledge, the gender gap should be smaller in constituencies where women’s social networks offer more opportunities to acquire information about politics.

Because we are combining individual-level survey data with constituency-level data, we use a multilevel model (c.f. Banducci and Semetko 2002). This technique allows us to directly test hypotheses within and across our two levels of analysis (individuals and constituencies) and also to deal with the non-independence of cases within constituencies (which would otherwise inflate estimates of statistical significance) (see Steenbergen and Jones 2002). Multi-level modeling enables us to combine both levels of analysis within a single model, while simultaneously recognizing that the individual survey responses and the
constituency characteristics represent distinct sources of variation and need to be modeled as such. Most importantly, for our purposes, it allows for the testing of cross-level interactions. In other words, we can determine whether the impact of gender is conditioned by constituency-level characteristics. And we can do this without the heightened risk of Type 1 error. If we chose instead to estimate a standard regression equation with interaction terms to capture any possible conditioning effect of context, we would violate the assumption of independence. This is because respondents living in the same constituency are subject to common influences (assuming that is, that context matters). Moreover, a conventional interactive model necessarily makes the unrealistic assumption that constituency-level factors can fully account for constituency-level variation (see Steenbergen and Jones 2002).

Multi-level modeling requires the specification of both an individual-level (or level-one) model and a constituency-level (or level-two) model, which are then combined into a single comprehensive model. The individual-level model is represented by equation 1, where knowledge$_{ij}$ is the political knowledge score for each respondent (i) in constituency (j), $\beta_0$ is the unique intercept for each constituency, $\beta_1$Female$_{ij}$ is the unique slope of gender for constituency (j), $X_2, ..., X_N$ represent controls for other social background characteristics, and $\varepsilon_{ij}$ represents the error term of respondent (i) for constituency (j):

\[
(1) \quad \text{Knowledge}_{ij} = \beta_0 + \beta_1 \text{Female}_{ij} + \beta_2 X_2 + ... + \beta_n X_N + \varepsilon_{ij}
\]

A separate level 1 model is estimated for each constituency and so each constituency can have a unique intercept, gender slope and error term. The level 2 model uses contextual measures to account for variation in the gender slopes. This model is represented by equations (2) and (3), where $\beta_0$ is the intercept and $\beta_1$ is the slope estimate for $\beta_1$Female$_{ij}$ from the level one model for constituency (j), $z_j$ represents the various contextual explanatory variables at the second level, $\gamma_{11}z_j$ ... $\gamma_{nz}$ denote the various fixed level-2 parameters, and $\delta_j$ is the error term for the second level models.

\[
(2) \quad \beta_0 = \gamma_{00} + \delta_0
\]

\[
(3) \quad \beta_1 = \gamma_{10} + \gamma_{11}z_j + ... + \gamma_{nz}z_j + \delta_1
\]

Substituting (2) and (3) into (1) yields the single multi-level model:

\[
(4) \quad Y_{ij} = \gamma_{00} + \gamma_{10} \text{Female}_{ij} + \gamma_{11}z_j \text{Female}_{ij} + ... + \gamma_{20} X_2 + ... + \delta_0 + \delta_1 \text{Female}_{ij} + \varepsilon_{ij}
\]

Note that we are not including any covariates for the random intercept since there is relatively little variance in political knowledge across constituencies to explain. This is evident when we estimate random effects ANOVA models for our two measures of political knowledge. These models decompose the variance in political knowledge across the two levels of analysis. A comparison of the variance components at the individual and constituency levels indicates that most of the variance in political knowledge is to be found at the individual level (see Table 1). Only 3 percent of the variance in general political knowledge and 5 percent of the variance in election-specific knowledge is at the constituency level. Given the nation-wide reach of the mass media, we should hardly be surprised that most of the variance in political
knowledge is to be found at the individual level. There is a wealth of data from a range of countries attesting to the powerful impact of individual characteristics like age, education, income and gender on people’s motivation and ability to acquire information about politics. Our focus here is on the impact of the constituency context on the individual-level effect of gender. This impact is captured by the cross-level interaction terms in equation (4)

In the level-one model, gender is coded 1 for women and 0 for men. The level-one model also includes controls for variables that are associated with political knowledge. Age, education and income are all entered as continuous variables. The other social background characteristics are all represented by dummy variables: current marital status (coded 1 for married or living with a partner), parenthood (coded 1 if at least one child is currently living at home), employment status (coded 1 for actively employed or self-employed), and Catholic (coded 1 for Catholics). Given Canada’s regional and ethno-racial diversity, controls were also included for region (three dummy variables, coded 1 for Atlantic Canada, 1 for Quebec, and 1 for Western Canada), and race (coded 1 for racial minorities).

In addition to the measures relating to female candidacies, the level-two models include the percentage of women in the constituency who are university-educated, the percentage who are in the labour force and have children, and a dummy variable that is coded ‘1’ if the constituency is located in Atlantic Canada (and ‘0’ for other regions). The percentage of university-educated women is included as a measure of women’s social resources, while residence in Atlantic Canada is intended to capture the impact of living in a social context characterized by more traditional cultural norms. Finally, the labour force participation measure is designed to assess the impact of having a high proportion of women who work a “double day”. The assumption here is that social networks will be less politicized when a high proportion of women are dealing with the time constraints of juggling full-time employment with family responsibilities. Both the percentage of university-educated women and the percentage of working mothers are centered on the grand mean for all constituencies.

Findings

Like women elsewhere, Canadian women clearly know less about politics than men do. The easiest questions were naming the capital of the United States, the premier of one’s province, and the leader of the incumbent party, but even on these three questions the gender gap was around 10 points (see Figure 1). One woman in five, for example, failed to come up with the name of the leader of the Liberal Party, Jean Chrétien, despite the fact that he had been Canada’s prime minister since 1993. Among men, the figure was closer to one in ten. Men and women alike had more difficulty naming the leaders of the opposition parties, but men were more likely to come up with the correct answers. This was even true of the name of the lone female party leader, the New Democratic Party’s Alexa McDonough. The gap was equally wide when it came to identifying Canada’s finance minister: many fewer women could name the person who is charged with charting the country’s fiscal and monetary policies. Finally, less than half of the women could name Canada’s prime minister at the time of the Canada-US Free Trade Agreement, compared with two-thirds of the men. Overall, men (39 percent) were almost twice as likely as women (21 percent) to get all eight general political knowledge questions correct. The average score on the scale was 6.1 for men, compared with 5.1 for women (f=172.4, p<.001). In other words, on average, men came up with one more
correct answer than women did. This is comparable to the difference between a high school dropout and someone with some college or between someone with a household income of less than $20,000 per year and someone with a household income of $90,000.

[Figure 1 about here]

Women also found it harder to identify various election promises with the correct party or parties (see Figure 2). The gap was widest for the Alliance Party’s proposal to introduce a single tax rate for all Canadians earning less than $100,000 per year. This may not seem surprising, given that fiscal issues are often seen as being less salient for women (Gidengil et al. 2003). It is more surprising that women were also less likely to know that the NDP was promising to introduce a national prescription drug plan. Health care was an even more important issue for women than for men in the 2000 election. Similarly, even though women in Canada, as elsewhere, tend to be more concerned about social spending (Gidengil 1995), the gender gap was no smaller for the Liberal promise to use half the federal surplus for spending on health care and social programmes than it was for the Conservatives’ promise to introduce a law requiring that the federal debt be paid off within 25 years. And women were less likely than men to know that the Alliance Party and/or the Bloc Québécois were promising to bring in a law to combat criminal biker gangs, even though fighting crime was a higher priority for women than for men (Gidengil et al. 2003). Overall, almost twice as many women (39 percent) as men (23 percent) were unable to identify a single party position correctly. The average score on the scale was 1.8 for men, compared with 1.2 for women ($f=166.4, p<.001$). This is comparable to the difference between someone with a household income of less than $20,000 per year and someone with a household income of $90,000, and is twice the difference between a high school dropout and someone with some college.

[Figure 2 about here]

What is striking about these knowledge gaps is not just the consistency with which they appear but their persistence in the face of a host of relevant controls. Most of the social background controls have the expected effects, but they explain very little of the gender gap in general knowledge about politics (see Table 2). The gender coefficient shrinks only slightly when other social background characteristics are added to the model. Regardless of social background characteristics, the average woman knew less about politics than the average man. Even though education is a powerful predictor of political knowledge, the knowledge gap cannot be explained away by the fact that the average woman has less education than the average man. Income tells a similar story. Economic disadvantage is clearly associated with lower levels of political knowledge, but the feminization of poverty does not account for the gender gap in political knowledge, either. Nor does the fact that women are less likely than men to be working for pay. In fact, employment does not have a significant impact on political knowledge. As predicted, having children at home is associated with lower levels of political knowledge. Interestingly, this effect is confined to women: when an interaction between gender and having children is added to the model, the main effect of having children ceases to be statistically significant (result not shown). But even this does not explain away the knowledge gap between women and men. In short, the results for the level 1 model are very much in line with previous studies.

[Table 2 about here]

When cross-level interactions are added, the results for female incumbent are another case of the “dog that didn’t bark” (Claibourn and Sapiro 2002, 18). The presence of a female incumbent apparently does little or nothing to diminish the gender gap in political knowledge.
This remains the case even when other cross-level interactions are dropped from the model. Whether a constituency has been represented by a female MP or not makes little difference to the knowledge gap between women and men.

This is not the case, however, with the other contextual measures. As predicted, the more women there are living in the constituency who have a university degree, the smaller the knowledge gap between women and men. The percentage of female graduates varies from a high to 43.6 percent to a low of 5.4 percent, so this is not a trivial effect. Indeed, the model suggests that the female slope could vary as much as three-quarters of a point between constituencies with very few female graduates and those with a high proportion. Given the correlation between the proportion of female graduates and the proportion of male graduates, we cannot be sure that it is the presence of female graduates per se that makes a difference. However, substituting the percentage of male graduates or simply the percentage of graduates has a weaker effect on the knowledge gap. We can be more confident that education is the key social resource: neither the median female income nor the percentage of women employed in professional and managerial occupations has a significant effect on the gender slope. Living in a constituency with a high proportion of university-educated women significantly narrows the gender gap in political knowledge.

Conversely, the more women there are in the constituency who are combining employment with raising a family, the wider the knowledge gap between women and men. Again, there is wide variation in the proportion of women working a “double day” from one constituency to another. The figure ranges from a high of 39.1 percent to a low of 9.7 percent. The model suggests that the female slope could be as much as three-quarters of a point bigger in a constituency with a high proportion of working mothers, compared with a constituency where the proportion is low. This cross-level interaction cannot be explained away by other socio-demographic differences between ridings that might be associated with large numbers of working mothers. For example, the effect continues to hold when controls are added for residence in a major metropolitan constituency. The presence of a high proportion of working mothers is very much a contextual effect. The effect of working a “double day” is not statistically significant when included in the level 1 model. The presumption is that women’s networks are less likely to include politicized members when a high proportion of women face the time constraints of combining work and family.

Finally, living in a region characterized by a more traditional culture widens the knowledge gap between women and men. According to our model, the female slope is as much as half a point bigger in constituencies located in Atlantic Canada. The fact that Atlantic women know even less about politics is telling, given the visibility of female politicians in the region. One of only two Conservative MPs elected in 1997 came from the region, and NDP leader Alexa McDonough was a “native daughter”.

The basic pattern is very similar when we estimate the level 1 model for election-specific knowledge (see Table 3). Whatever their social background, women typically had greater difficulty matching election promises with the correct political party. Indeed, adding an array of social background characteristics has virtually no effect on the gender gap in election-specific knowledge. Again, education, income and age all have the predicted effects, and again
employment does not significantly enhance (or diminish) knowledge of the parties’ election promises. However, having children in the home no longer makes a difference, even for women.

Because the variance component for the female slope was not statistically significant, we estimated the models for election-specific knowledge with female as a fixed, not random, effect. This offers a more conservative test of the cross-level interactions. The pattern of cross-level interactions is very similar to those observed for general political knowledge. But there is one striking difference: the presence of female candidates does have a statistically significant effect on the female slope. Counter to conventional wisdom, though, the sign is negative. In other words, the female slope is actually bigger when there are female candidates in the constituency. This is not a case of over-control: the effect holds when other cross-level interactions are dropped. Nor can it be explained away by other characteristics of these constituencies, such as (non)competitive races. Indeed, a similar finding holds if we only examine the effect of female candidates who had a chance of winning (that is, they won or lost by a margin of less than ten points). The coefficient only ceases to be statistically significant when we look only at women who won, but even then the sign remains negative. However counterintuitive this finding, it parallels Claibourn and Sapiro’s (2002) equally unexpected finding that the knowledge gap was actually wider in countries with systems of proportional representation (which are typically associated with a higher proportion of women in the national legislature).

Regardless of the measure used to assess the impact of female candidacies, the basic results hold for the other cross-level interactions. The more women there are who have a university degree, the smaller the knowledge gap between women and men. Conversely, the more working mothers there are, the wider the gender gap. And, again, constituencies in Atlantic Canada have significantly bigger gender gaps. In short, whether we look at general knowledge about politics or election-specific knowledge, the pattern of contextual effects is the same.

**Discussion**

These results suggest that the knowledge gap between women and men narrows when women have access to social resources in the form of large numbers of highly educated women. This effect holds whether or not individual women are themselves highly educated. Living in a constituency with a high proportion of working mothers has the very opposite effect. The time constraints entailed in working a “double day” may not be a crucial determinant at the individual level, but the aggregate effect is to widen still further the knowledge gap between women and men. Living in a region characterized by more traditional cultural values also widens the knowledge gap.

However, our most striking finding is a non-finding. We found no support for the notion that women’s political knowledge is enhanced by the presence of women in the local electoral arena. The presence of a female incumbent MP did little or nothing to diminish the gender gap in general political knowledge, and, if anything, the presence of female candidates actually coincided with a wider gap in knowledge of party promises. It might be objected that a Westminster-style system like Canada’s diminishes the salience of the local candidate.
However, it would be a mistake to underestimate local candidate effects. Detailed analysis of the impact of local candidates in the 2000 election reveals that close to half of Canadian voters formed a preference for a local candidate and that this preference had an effect on vote choice independent of how people felt about the parties and the leaders (Blais et al. 2003). Indeed, the local candidate was the decisive consideration for five per cent of voters. So it is doubtful that the nonfinding can be attributed to the low salience of the local race. Indeed, it is striking that the knowledge gap persisted when women and men were asked to name the woman who was leading the NDP. Moreover, cross-national studies have reported a similar non-finding.

The gender gaps in political knowledge are consequential. If women do not know where political parties stand on the issues, their ability to translate their interests and values into appropriate political choices will be compromised. Simulating what the distributions of opinion or party preference would look like if women were better informed about the parties’ stands suggests that women would be more likely to vote for parties that advocate a strengthening of the social safety net and promote liberal stances on moral and lifestyle issues, like capital punishment and gay marriage (Gidengil et al. 2004 c.f. Althaus 1998).

It would be interesting to see whether the presence of female councilors makes a difference to women’s knowledge of local politics. It is often assumed that women prefer to focus their political energies on their local communities. After all, it is the local government that deals with many of the issues that are closest to women’s daily preoccupations, such as public safety, schooling, recreation, street lighting, and public health. And local politics has often proved to be more hospitable to women (Verba, Burns and Schlozman 1997). Multi-level modeling provides a potentially powerful technique for examining how variations in the gender composition of local councils affects women’s knowledge of politics at the local level.
Figure 1: Gender and General Political Knowledge

% providing the correct answer

- Capital of the USA
- Provincial Premier
- Liberal Party Leader
- Alliance Party Leader
- Bloc Leader (Quebec only)
- Conservative Party Leader
- Canada’s Finance Minister
- PM at time of CUFTA
- NDP Leader (outside Quebec)

[Chart showing gender differences in political knowledge for various roles, with percentages for men and women.]
Figure 2: Gender and Election-Specific Knowledge

- Single tax rate for <$100,000 p.a.: Men = 50%, Women = 30%
- Law to fight criminal biker gangs: Men = 40%, Women = 30%
- Use of the federal surplus: Men = 40%, Women = 30%
- National prescription drug plan: Men = 30%, Women = 20%
- Law to repay federal debt in 25 years: Men = 20%, Women = 10%
Table 1: Individual-Level versus Constituency-Level Variance Components

<table>
<thead>
<tr>
<th>Parameter</th>
<th>General Political Knowledge</th>
<th>Election-Specific Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Effects:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>5.74 (.05) ***</td>
<td>1.58 (.03) ***</td>
</tr>
<tr>
<td>Random Effects:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual-Level Variance</td>
<td>5.40 ***</td>
<td>1.94 ***</td>
</tr>
<tr>
<td>Constituency-Level Variance</td>
<td>0.16 ***</td>
<td>0.10 ***</td>
</tr>
</tbody>
</table>
Table 2: Gender and General Political Knowledge

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>Standard Error</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>-0.98 (.09)**</td>
<td>-0.85 (.09)**</td>
<td>-0.46 (.45)</td>
</tr>
<tr>
<td>Age</td>
<td>0.05 (.00)**</td>
<td>0.05 (.00)**</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>2.04 (.14)**</td>
<td>2.00 (.14)**</td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>1.40 (.15)**</td>
<td>1.41 (.15)**</td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>0.17 (.11)</td>
<td>0.17 (.11)</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>0.30 (.10)**</td>
<td>0.32 (.10)**</td>
<td></td>
</tr>
<tr>
<td>Children in the home</td>
<td>-0.29 (.09)**</td>
<td>-0.27 (.09)**</td>
<td></td>
</tr>
<tr>
<td>Catholic</td>
<td>-0.20 (.10)*</td>
<td>-0.19 (.10)a</td>
<td></td>
</tr>
<tr>
<td>Racial minority</td>
<td>-0.59 (.19)**</td>
<td>-0.61 (.19)**</td>
<td></td>
</tr>
<tr>
<td>Atlantic Canadian</td>
<td>0.24 (.15)**</td>
<td>0.45 (.17)**</td>
<td></td>
</tr>
<tr>
<td>Quebecker</td>
<td>0.50 (.12)**</td>
<td>0.48 (.12)**</td>
<td></td>
</tr>
<tr>
<td>Western Canadian</td>
<td>0.22 (.11)a</td>
<td>0.22 (.11)*</td>
<td></td>
</tr>
<tr>
<td>Female x female incumbent</td>
<td>0.01 (.12)</td>
<td>0.02 (.01)*</td>
<td></td>
</tr>
<tr>
<td>Female x % female graduate</td>
<td>-0.02 (.01)a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female x % working mothers</td>
<td>-0.47 (.24)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>6.21 (.06)**</td>
<td>2.82 (.20)**</td>
<td>2.81 (.20)**</td>
</tr>
</tbody>
</table>

Random effects:

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>Standard Error</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual-level variance</td>
<td>5.03***</td>
<td>3.72***</td>
<td>3.72***</td>
</tr>
<tr>
<td>Constituency-level variance</td>
<td>0.24***</td>
<td>0.27***</td>
<td>0.26***</td>
</tr>
<tr>
<td>Female slope variance</td>
<td>0.56***</td>
<td>0.53***</td>
<td>0.47***</td>
</tr>
</tbody>
</table>

Number of respondents: 3,049
Number of constituencies: 297

Note: Column entries are restricted maximum likelihood estimates with estimated robust standard errors in parentheses.

*** p<.001  ** p<.01  * p<.05  a p<.10
Table 3: Gender and Election-Specific Knowledge

<table>
<thead>
<tr>
<th></th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>-0.67 (.06)***</td>
<td>-0.64 (.06)***</td>
<td>-0.51 (.07)***</td>
</tr>
<tr>
<td>Age</td>
<td>0.02 (.00)***</td>
<td>0.02 (.00)***</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>1.10 (.10)***</td>
<td>1.08 (.10)***</td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>0.45 (.11)***</td>
<td>0.44 (.11)***</td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>-0.02 (.07)</td>
<td>-0.02 (.07)</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>0.11 (.07)</td>
<td>0.11 (.07)</td>
<td>a</td>
</tr>
<tr>
<td>Children in the home</td>
<td>0.03 (.06)</td>
<td>0.04 (.06)</td>
<td></td>
</tr>
<tr>
<td>Catholic</td>
<td>-0.22 (.07)**</td>
<td>-0.21 (.07)**</td>
<td></td>
</tr>
<tr>
<td>Racial minority</td>
<td>-0.50 (.12)**</td>
<td>-0.50 (.13)**</td>
<td></td>
</tr>
<tr>
<td>Atlantic Canadian</td>
<td>-0.06 (.08)</td>
<td>0.06 (.10)</td>
<td></td>
</tr>
<tr>
<td>Quebecker</td>
<td>0.19 (.08)*</td>
<td>0.20 (.08)**</td>
<td></td>
</tr>
<tr>
<td>Western Canadian</td>
<td>0.19 (.08)**</td>
<td>0.19 (.08)**</td>
<td></td>
</tr>
<tr>
<td>Female x female candidates</td>
<td>-0.13 (.04)**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female x % female graduate</td>
<td>0.01 (.01)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female x % working mothers</td>
<td>-0.01 (.01)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female x Atlantic region</td>
<td>-0.28 (.14)**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>1.89 (.05)***</td>
<td>0.53 (.12)***</td>
<td>0.52 (.12)***</td>
</tr>
</tbody>
</table>

Random effects:

<table>
<thead>
<tr>
<th></th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual-level variance</td>
<td>1.84***</td>
<td>1.61***</td>
<td>1.60***</td>
</tr>
<tr>
<td>Constituency-level variance</td>
<td>0.09***</td>
<td>0.05**</td>
<td>0.04**</td>
</tr>
<tr>
<td>Number of respondents</td>
<td>2,434</td>
<td>2,434</td>
<td>2,434</td>
</tr>
<tr>
<td>Number of constituencies</td>
<td>297</td>
<td>297</td>
<td>297</td>
</tr>
</tbody>
</table>

Note: Column entries are restricted maximum likelihood estimates with estimated robust standard errors in parentheses.

*** p<.001      ** p<.01     * p<.05      a p<.10
Works Cited


This research was supported by the Social Sciences and Humanities Research Council of Canada. The authors are also grateful to Jason Roy for his research assistance.

1 Kate Kenski and Kathleen Hall Jamieson (2000) found some support for this explanation when they compared the impact of repeated interviewing on women’s and men’s ability to recall issue positions.

2 Funding for the study was provided by the Social Sciences and Humanities Research Council of Canada, Elections Canada, and the Institute for Research in Public Policy. The field work was conducted by the Institute for Social research at York University (outside Quebec) and by Jolicoeur (in Quebec). The response rate for the 30-minute campaign telephone survey was 59 percent. Of the 3,647 respondents, 2,918 participated in a 30-minute post-election survey.

3 As recently as 1980, only five percent of MPs were women, which meant just 14 women. The numbers began to increase in 1984 and grew steadily until stalling around the 20 percent mark in the three most recent elections. Canada has had a female prime minister, but Kim Campbell’s tenure was brief. Canada’s traditional “third party”, the New Democratic Party, has also had two female party leaders, but like Campbell, Audrey McLaughlin and Alexa McDonough may have been the ultimate “sacrificial lamb”, chosen to lead a party that was doomed to defeat.

4 These questions were also asked in the campaign survey. We have opted to use the post-election measures because we want to see whether women ended up knowing more about the election when a woman had run for election and/or won in their constituency.

5 Interestingly, Norris’s (2000) analysis of Eurobarometer data found that men knew more than women about economic issues, citizenship rights, European Union institutions, and party policies, but the gender gap was reversed when it came to knowledge of the risks of skin cancer. The European Union had been conducting a public awareness campaign on the latter issue.

6 Tellingly, there is one area of politics about which women appear to be better informed than men, and that is school board politics. According to a 1990 CROP survey in Quebec, for example, women were more likely than men to know the date of the next school board elections and to know the name of at least one of their school board commissioners (CROP9011B). They were also more likely to have voted in school board elections. Apparently, school board politics are more salient to women than they are to men. This seems to be true of the US as well (Verba, Burns and Schlozman 1997). It could be that school board politics has traditionally been more hospitable to women, as Verba and his colleagues suggest. It could also be that this is an area of politics that touches very directly on the day-to-day preoccupations of women with pre-school and school age children.

7 Coefficient alpha was .84 for the general political knowledge scale and .61 for the party promises scale. Because the Bloc Québécois only ran candidates in Quebec and the New Democratic Party (NDP) won a mere 1.8 percent of the popular vote in Quebec, the general political knowledge scale excludes the name of the Bloc leader outside Quebec and the name of the NDP leader in Quebec. The coefficients of reliability were almost identical in Quebec (alpha=.84) and outside Quebec (alpha =.85).
True, it would be relatively easy to guess a party name for the party promise items, but with five parties to choose from in the 2000 Canadian election, the odds of guessing correctly were not very high.

The fact that the number of cases varies by constituency is not a problem since we will be using an empirical Bayes estimator. This allows us to “borrow strength” from the data for other constituencies when estimating level one parameters, as opposed to having to rely only on the individual-level data for the given constituency (see Steenbergen and Jones 2002).

The 2000 Canadian Election Study did not collect data on respondents’ occupation and so we cannot include any measure of occupational status.

This was the only interaction with gender that proved to be statistically significant.

The number of respondents is reduced because the sample size was smaller for the post-election survey. This also means that the significance tests for the variance components are based on only 280 of the 298 constituencies since some constituencies did not have sufficient numbers of respondents.