# Do Polls Influence the Vote?

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Polls provide information about how well the parties are doing in a campaign. That information may affect voters' perceptions of the various parties' chances of winning in a first past the post (FPP) system such as Canada or the chances of being part of a coalition government in a proportional representation (PR) system. By affecting voters' expectations about the outcome of the election, polls may affect the vote. How and why could expectations affect voting choice? The literature suggests two key reasons: strategic voting and a contagion effect.

A strategic (or sophisticated or tactical) vote is a vote cast for a party that is not the preferred one, motivated by the intention to affect the outcome of the election (Blais and Nadeau 1996; Cox 1997; Blais et al., 2001). Typically, a strategic vote in a FPP election takes the form of supporting a second choice party that is perceived to have better chances of winning than the most preferred one. It appears that around 5 percent of voters cast a strategic vote in such elections (see Alvarez and Nagler 2000; Blais et al., 2001). Polls may affect strategic considerations because the latter are based on expectations about the outcome of the election. Polls may lead people not to vote for a given party because that party is perceived to be unlikely to win. Note that under such a scenario polls influence perceptions of the race, not preferences or evaluations of the parties.

A second possibility is that polls affect expectations about the outcome and that these expectations, in turn, affect preferences or evaluations. In this case, voters come to evaluate parties more positively if their chances of winning appear to be good and to evaluate parties more negatively if their chances seem to be slim. This is the classical contagion effect: voters rally to the parties that are doing well in the polls.[1]

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Whether there are contagion (or bandwagon) effects remains a contentious issue. Some experimental studies have documented a bandwagon effect in the opinion formation process (Nadeau, Cloutier, and Guay 1993), but others insist that the effects of representations of public opinion on attitudes are much more complex (Mutz 1992). Conflicting results are also reported with respect to the vote. Ansolabehere and Iyengar's (1994) experimental research indicated a contagion effect on preferences but not on voting intentions. And Skalaban (1988) detected bandwagon effects in the 1980 and 1984 American presidential elections. Bartels (1985) identifies the presence of a momentum effect in the early but not in the late primaries. In our view, the existence of contagion effects in elections is not well established, but it would be imprudent to rule out the possibility of such effects.

Our objective, therefore, is not only to determine whether polls influence the vote but also to understand how and why. More specifically, our goal is to determine whether polls merely affect perceptions of the race, which would suggest strategic voting, or whether they also affect how voters evaluate the parties, which would suggest a contagion effect.

We examine the impact of polls in the 1988 Canadian election. We would expect polls to be particularly important in a FPP system such as Canada's because they can provide crucial information for supporters of weak parties who may consider voting strategically for their second choice. Strategic considerations are relevant in PR systems as well (Cox 1997; Blais and Massicotte 1996), but they are likely to be less powerful.

The impact of polls depends to a great extent on their visibility. A total of twenty-two polls were published during the 1988 Canadian election campaign. This is slightly more than usual in a Canadian election[2] but certainly less than in the United States or Britain.[3] Most of these polls were reported in the nightly TV news and made the headlines (Blais and Bastien 2001). Polls may not be as visible in Canada as in some countries where "readers and viewers have a continuous diet of polls, often with four or five surveys hitting the front pages every week" (Butler 1996, 248), but there is no doubt that they are an integral part of the campaign. And indeed three-quarters of voters indicated during the 1988 campaign that they had read or heard of a poll in the last seven days (Johnston et al. 1992, 206).

## Methodology

The data are taken from the 1988 Canadian Election Study (CES). We rely on three approaches to assess the impact of polls. The first two are based

on campaign survey data. The campaign pooled data analysis entails examining the vote intentions, expectations, and preferences of our respondents and relating these to the information conveyed by the polls at the time respondents were interviewed, whereas the time-series analysis involves analyzing daily patterns in aggregate vote intentions, expectations, and preferences and relating these to the nature of poll information that was available every day of the campaign.

The third approach, the panel analysis, uses both the campaign and the postelection surveys. It examines change (or absence of change) between the vote intention indicated during the campaign and the actual vote reported after the election, and it relates this to change between the poll information available at the time the individual was interviewed during the campaign and the information available by Election Day.

Each of these approaches has strengths and weaknesses. Perhaps the most logical approach for assessing the impact of campaign events, such as polls, is time-series analysis (Blais and Boyer 1996). This approach allows us to determine whether vote intentions for a party go up after the publication of a poll indicating support for it is on the rise. Time-series analysis has at least three limitations, however. First, one can never be certain that shifts in vote intentions should not be attributable to other campaign events. This limitation is a serious one, but this problem arises whatever the approach. The second problem concerns the small number of observations (about forty-five days), which makes it difficult for small effects to reach standard levels of significance. This problem is specific to time-series analysis. The third drawback flows from the fact that the aggregate daily data are based on small samples (typically eighty respondents), which yield large sampling errors. This problem holds whatever the approach but is aggravated in the case of time-series by the small number of observations.[4]

The campaign pooled data analysis is based on the same data as the time-series analysis, the only difference being that we look at individuals rather than at aggregate daily patterns. Because it is an individual-level analysis, it has two main advantages. First, more control variables, especially sociodemographic characteristics, can be included. Theoretically, the socioeconomic profiles of our daily samples should be similar, but we should have greater confidence in our findings if these variables are explicitly controlled for. Second, we can distinguish voters according to their exposure to polls. We can directly check whether polls have a greater impact on those who have seen them.

The panel data analysis has the great virtue of allowing us to look at concrete individual change in the campaign. If polls affect the vote, some individuals must vote differently from how they intended before the poll was published. Panel data allow us to determine whether those interviewed before the publication of a poll showing a party to be improving were more likely to shift to that party and/or less likely to abandon it.

Throughout the analysis, we focus on two races, the race between the Conservatives and the Liberals (to determine who would form the government) and the race between the Liberals and the New Democratic Party (NDP) (to determine who would form the official opposition).

### Did Polls Affect Expectations?

Figure 1 presents the twenty-two national polls published in the media during the election campaign. Eight polls were released before the French and English debates that took place on October 24 and 25; they all gave the Conservatives a comfortable lead and had the Liberals and the NDP practically tied for second place. The polls published after the debates revealed that the Liberals had made substantial gains and were fighting with the Conservatives for first place. Until November 19, it was not clear from the polls which party was ahead. It was only with the publication of the final three polls, released two days before Election Day, that it became obvious that the Conservatives had regained the lead. Finally, each and every poll published after the debates confirmed that the Liberals had established a clear lead over the NDP.

The question is whether voters' expectations about the outcome of the election were influenced by the polls. Panel A in table 1 presents the findings of the campaign pooled data analysis. The dependent variable represents how much better, or worse, the respondent perceives the Conservatives' chances of winning to be compared to the Liberals' chances.[5] The key independent variable indicates by how much the Conservatives were ahead of (or trailing) the Liberals in the most recent poll published at the time the respondent was interviewed.

The campaign pooled model includes three types of control variables. First there is a debate variable, which is a dummy variable that takes the value of 1 from October 26, the day after the English debate, till the end of the campaign. Previous work has shown that the debates had a substantial impact on the vote (Blais and Boyer 1996). Debates may also have had
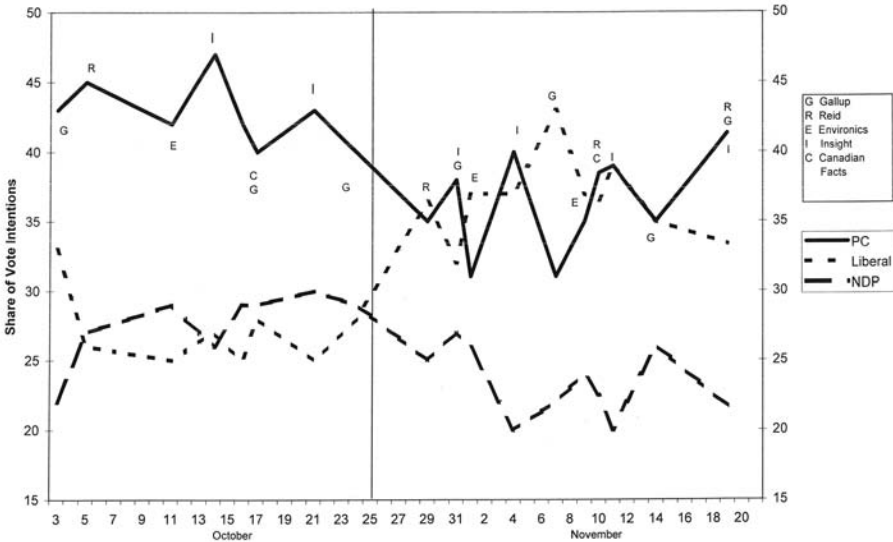
Fig. 1.   Party positions in the 1988 polls

an effect on perceptions of the race, and it is important to isolate the spe-
cific impact of the polls, independent of the debates. Second, there is party
identification. Those who identify with a party are inclined to overestimate
its appeal (Uhlaner and Grofman 1986; Johnston et al. 1992). Finally, the
model includes a set of sociodemographic factors (region, religion, educa-
tion, gender, and union membership) that are usually considered to be
salient in Canada.

　　　The results shown in panel A of table 1 confirm that voters did re-
spond to the information provided by the polls. The greater the Conserv-
ative lead over the Liberals in the most recent poll, the more inclined vot-
ers were to believe that the Conservatives had better chances of winning

TABLE 1.   Impact of Polls on Expectation

|  | Conservative/Liberal $B$ (s.e.) | Liberal/NDP $B$ (s.e.) |
| --- | --- | --- |
| A. Campaign pooled data | +.44 (.09)*** | +.54 (.08)*** |
| Last poll | ($N = 3{,}584$) | ($N = 3{,}588$) |
| B. Time-series | +.25 (.12)** | −.01 (.14) |
| Last poll | ($N = 41$) | ($N = 41$) |

*Significant at the 0.10 level　　**significant at the 0.05 level　　***significant at the 0.01 level

than did the Liberals. The same pattern held with respect to the Liberal versus NDP race.

Panel B in table 1 examines the same relationship, using time-series analysis. The dependent variable is average expectations on a given day of the campaign, and the key independent variable is the Conservative lead over the Liberals in the most recent poll. We wish to determine whether the publication of polls changes perceptions of the race. We include as a control variable average expectations as measured in our rolling cross-section survey during the days when the commercial poll in question was in the field.[6] This allows us to determine what expectations were after the publication of the poll and to compare them to expectations at the time the poll was conducted. The analysis also includes debate and party identification as control variables. The last poll variable comes up significant with respect to the Conservative versus Liberal race but not in the case of the Liberal versus NDP race.

Looking at the results in table 1, the poll coefficient is significant in three out of four equations.[7] Moreover, as expected, polls have a greater impact among those who actually see or read them. About 70 percent of respondents told us they had seen or read a poll in the last week. It turns out that polls appear to have affected perceptions only among these respondents (result not shown).[8]

There is thus relatively strong support for the view that polls affected voters' expectations about the outcome of the election. The next question to be addressed is whether polls also influenced the vote.

### Did Polls Affect the Vote?

We start again with the campaign pooled data analysis. The setup is exactly the same as that used in table 1, the only difference being that the dependent variable is vote intention rather than expectation. Panel A in table 2 presents the findings. The poll coefficient is significant in the Liberal/NDP equation but not in the Conservative/Liberal one.

A similar pattern emerges out of the time-series analysis (panel B). Here the distribution of vote intentions on a given day is regressed on the results of the most recent poll, controlling for the distribution of vote intentions at the time the poll was conducted (as well as the distribution of party identification on a given day and whether the debates had been held or not). Again, the poll coefficient is significant in the Liberal/NDP equa-

tion but not the Conservative/Liberal one. Note, however, that the coefficient in the latter case is quite substantial even though it does not reach statistical significance.

Panel C of table 2 presents the panel data evidence. In this instance, the dependent variable is not vote intention but the vote as reported in the postelection survey. The logic here is to see whether a party gained (compared to vote intention) among those initially interviewed before that party's standing in the poll improved. The poll variable corresponds to the change in the parties' standing between the day the person was interviewed and Election Day.[9] Because the goal is to determine whether people were led to change their vote, we control for their initial vote intention and evaluations of the leaders, as well as for party identification and standard sociodemographic variables. Finally, we take into account whether the respondent was interviewed before or after the debates. Here, again, only one of the two poll coefficients is significant, but this time it is the one concerning the Conservative versus Liberal race.

Looking at the results in table 2, the poll variable is significant three times out of six, but the coefficient is positive six times out of six. And the median coefficient in these equations is a hefty .40.

Did the polls affect the vote only of those who had read or seen them? As with the analysis of expectations, we checked (with the campaign data) whether there was an interaction effect between polls and exposure to them. The findings are ambiguous.

There is evidence of an interactive effect in the case of the Conservative/Liberal equation: it seems that among poll watchers, and only among them, the propensity to vote Conservative rather than Liberal was related to the gap between the two parties in the most recent poll. There

TABLE 2. Impact of Polls on the Vote

| | Conservative/Liberal B (s.e.) | Liberal/NDP B (s.e.) |
|---|---|---|
| A. Campaign pooled data | +.14 (.15) | +.37 (.19)** |
| Last poll | (N = 2,051) | (N = 1,490) |
| B. Time-series | +.52 (.36) | +.77 (.38)** |
| Last poll | (N = 41) | (N = 41) |
| C. Panel data | +.48 (.15)** | +.17 (.22) |
| Last poll (panel) | (N = 1,712) | (N = 1,113) |

*Significant at the 0.10 level    **significant at the 0.05 level    ***significant at the 0.01 level

is no trace of an interaction effect with respect to the choice between the Liberals and the NDP.

All in all, there are good reasons to believe that the polls had an impact on the vote in the Canadian 1988 election. We have estimated their effect through six different regressions, based on three different approaches. Even though only three of the poll coefficients achieved statistical significance, all six of them had the expected positive sign. But did the polls affect the vote through strategic voting or via a contagion effect?

## How Did the Polls Affect the Vote?

We have shown that polls had an impact on expectations about the outcome of the election and on the vote. It remains to specify the mechanism through which they influence the vote. We identified at the outset two potential mechanisms. The first is strategic voting. Under strategic voting, people are led not to vote for a party that they prefer because its chances of winning appear to be slim. In this scheme of things, the polls do not affect preferences—strategic voters still prefer the weak party but have an independent impact on the vote. Everything else (including preferences) being equal, voters are less inclined to support a party that is doing less well in the polls. If all of the polls' effect on the vote is accounted for by strategic voting, we should find that polls had no impact on how voters evaluated the parties and the leaders and that they influenced vote choice even after controlling for voters' preferences among the parties and the leaders.

The second potential mechanism through which polls may affect the vote is a contagion effect. If there is a contagion effect, voters should come to evaluate the parties and the leaders who are doing well in the polls more positively and those who are not doing well more negatively. If all of the polls' effect is accounted for by contagion, we should find that polls had an impact on ratings of parties and of leaders and that it is only because of these evaluations that they affected the vote, that is, the polls had no independent effect on the vote once preferences were taken into account.

Table 3 presents the evidence on the impact of polls on preferences as such. Here the dependent variable is relative evaluations of leaders and parties. The setup for the campaign pooled data, the time-series, and the panel data analysis is the same as in table 2, the only difference

being that the dependent variable is relative preferences rather than voting intention or reported vote. In this instance, it turns out that the poll variable is not significant in any of the six equations. There is no evidence of a contagion effect. However, we should not rule out the possibility of a contagion effect since five of the six coefficients have the right positive sign. In each and every case, though, the poll coefficient is very small. We are led to conclude that the hypothesis that voters come to like the parties and the leaders who are doing well in the polls is not borne out by the data.

Table 4 is designed to detect the presence of strategic voting. The dependent variable is vote intention or reported vote, as in table 2, but we have additional control variables: evaluation of the parties and of the leaders and opinions on free trade.[10] Table 4 enables us to determine whether the polls affected vote intentions independently of how voters felt about the parties, the leaders, and free trade. There is evidence of such an independent effect. The poll variable comes out significant in four of the six equations and has the expected positive sign in a fifth case. This supports the view that the polls affected the vote because some voters were reluctant to support a party that was not doing well in the polls, whatever their feelings toward the parties and the leaders.

Strategic voting appears to have been the basic reason why the polls influenced vote choice. This is best illustrated by comparing the coefficients of the poll variable in the equations designed to measure the overall impact of the polls on vote choice (table 2) with those in the equations intended to estimate their impact on strategic voting as such, that is, controlling for voters' preferences (table 4). The median coefficients are respectively .40 and .35. The implication is that the polls influenced the vote

TABLE 3.   Impact of Polls on Preferences

|  | Conservative/Liberal<br>*B* (s.e.) | Liberal/NDP<br>*B* (s.e.) |
|---|---|---|
| A.  Campaign pooled data<br>    Last poll | +.11 (.07)<br>($N = 3,559$) | +.07 (.07)<br>($N = 3,560$) |
| B.   Time-series<br>    Last poll | +.17 (.19)<br>($N = 41$) | −.17 (.20)<br>($N = 41$) |
| C.   Panel data<br>    Last poll | +.08 (.07)<br>($N = 2,649$) | +.04 (.07)<br>($N = 2,530$) |

*Significant at the 0.10 level      **significant at the 0.05 level      ***significant at the 0.01 level

independently of preferences, and this is consistent with the view that strategic considerations were the key factor.

## Conclusion

We have assessed the impact of polls in the 1988 Canadian election through three different approaches: first, a campaign pooled data analysis in which we have related individual respondents, expectations, vote intentions, and evaluations of the parties and leaders to the information conveyed by the polls (about how well each party was doing) at the time they were interviewed; second, a time-series analysis in which daily variations in aggregate expectations, vote intentions, and evaluations were correlated with variations in information provided by the polls; and third, a panel analysis in which changes in vote intentions and evaluations between the day individual respondents were interviewed during the campaign and Election Day were related to changes in the poll information coming out in the media during the same period.

The findings emerging from these three sets of analyses converge on four main conclusions about the 1988 Canadian election:

1.  Polls affected voters' perceptions of the various parties' chances of winning.
2.  Polls affected the vote.
3.  Polls affected strategic voting as some voters became less inclined to support a party whose chances of winning appeared slim.
4.  Polls did not have a contagion effect, since voters did not come to evaluate the parties and leaders who were doing well in the polls more positively.

TABLE 4.   Impact of Polls on the Vote, Controlling for Preferences

|  | Conservative/Liberal $B$ (s.e.) | Liberal/NDP $B$ (s.e.) |
| --- | --- | --- |
| A.  Campaign pooled data | −.01 (.127) | +.37 (.17)** |
| Last poll | ($N = 2{,}021$) | ($N = 1{,}460$) |
| B.  Time-series | +.61 (.31)* | +.96 (.36)** |
| Last poll | ($N = 41$) | ($N = 41$) |
| C.  Panel data | +.32 (.13)** | +.11 (.21) |
| Last poll | ($N = 1{,}554$) | ($N = 964$) |

*Significant at the 0.10 level     **significant at the 0.05 level     ***significant at the 0.01 level

These findings are limited to a specific election. More studies are needed to determine whether polls have similar effects in different settings. We have indicated at the outset that polls may play a more powerful role in a FPP system such as Canada. It would be very interesting to see if polls have a smaller impact in PR systems. We have also indicated that the effect of polls may depend on their visibility. It would also be interesting to compare their impact on the vote in countries where they are more or less visible than in Canada. We have also assumed that voters were reacting to the most recent poll, whatever its visibility. Another logical avenue of research would be to distinguish types of polls, most and least visible ones, and to determine whether the former have a greater influence on voters.

Whatever the context, however, a design such as that of the CES is particularly fruitful for assessing the impact of polls. The rolling cross-section component of the campaign survey allows us to see whether vote intentions move after the publication of a poll, while the campaign and postelection panel component allows us to see whether individual respondents vote differently from what they intended subsequent to the publication of a poll.

## APPENDIX

*Variables Included in the Regressions*

Tables 1A, 2A, 3A: Last poll. Party identification, Debate, Female, High education, Quebec, West, Union member, and Catholic.

Table 1B: Last poll. Party identification, Debate, and Expectations.

Table 2B: Last poll. Party identification, Debate, and Vote intention (fieldwork).

Tables 2C, 3C: Last poll (panel). Party identification, Debate, Leaders, Voting intention, Female, High education, Quebec, West, Union member, and Catholic.

Table 3B: Last poll. Party identification, Debate, and Preferences (fieldwork).

Table 4A: Last poll. Party identification, Debate, Preferences, Free trade, Female, High education, Quebec, West, Union member, and Catholic.

Table 4B: Last poll. Party identification, Debate, Preferences, Free trade, and Vote intention (fieldwork).

Table 4C: Last poll (panel). Party identification, Debate, Leaders, Voting intention, Preferences (panel), Free trade (panel), Female, High education, Quebec, West, Union member, and Catholic.

*Description of Variables*

EXPECTATIONS

The following questions have been used:

—We will be using a scale which runs from 0 to 100, where 0 represents no chance for the party, 50 represents an even chance, and 100 represents certain victory. (Using the 0 to 100 scale), what do you think the Conservative/Liberal/New Democratic Party's chances are of winning the election in the whole country? (f2a/b/c).

Each party's score is standardized, that is, divided by the sum of the scores received by all the parties. The variable corresponds to the difference between the standardized scores given to two parties. The variable goes from −1 to 1.

VOTE INTENTION

The following questions have been used:

—Which party do you think you will vote for: the Conservative Party, the Liberal Party, the New Democratic Party, or another party? (b2)

—Perhaps you have not yet made up your mind. But which party are you leaning toward now? (b3)

The value of 1 is given to respondents who intended to vote Conservative (Conservative/Liberal) or Liberal (Liberal/ NDP), −1 to respondents who intended to vote Liberal (Conservative/ Liberal) or NDP (Liberal/NDP), and 0 to all others.

VOTE (PANEL)

The following question has been used:

—Which party did you vote for: the Conservative Party, the Liberal Party, the New Democratic Party, or another party? (xb2)

The value of 1 is given to respondents who voted Conservative (Conservative/Liberal) or Liberal (Liberal/NDP) and 0 to respondents who voted Liberal (Conservative/ Liberal) or NDP (Liberal/NDP).

LAST POLL

Difference in vote intentions for the two parties (Conservative-Liberal, Liberal-NDP) in the most recent poll. In the case of polls published in the morning newspapers, we used the same date. In the case of polls presented on evening television newscasts (CBC—Canadian Facts, CTV—Insight), we used the next day's date. In the case when two polls are published on the same day we used the two ratings' mean.

LAST POLL (PANEL)

Difference between the difference in vote intentions for the two parties (Conservative-Liberal, Liberal-NDP) in the last poll of the campaign and the difference in vote intentions for the two parties (Conservative-Liberal, Liberal-NDP) in the last poll published before the respondent was interviewed during the campaign.

LEADERS

The following questions have been used:

—How would you rate Brian Mulroney? (d2a), John Turner? (d2b), Ed Broadbent? (d2c) (on a scale from 0 to 100, where 0 represents a very negative feeling and 100 a very positive feeling).

The variable corresponds to the difference between ratings of the two party leaders (divided by 100) (Mulroney-Turner, Turner-Broadbent). The scale goes from −1 to 1.

PARTY IDENTIFICATION

The following question has been used:

—Thinking of federal politics, do you usually think of yourself as a Liberal, Conservative, NDP, or none of these? (i1)

The value of 1 is given to respondents who identify with the Conservatives (Conservative/Liberal) or the Liberals (Liberal/NDP), −1 to respondents who identify with the Liberals (Conservative/Liberal) or NDP (Liberal/NDP), and 0 to all others.

DEBATE

0 before October 26 and 1 on and after October 26.

PREFERENCE

The variable is an index made up of two questions. The following questions have been used:

—How would you rate Brian Mulroney? (d2a), John Turner? (d2b), Ed Broadbent? (d2c) (on a scale from 0 to 100, where 0 represents a very negative feeling and 100 a very positive feeling).

—How would you rate the Conservative Party? (d2d), the Liberal Party? (d2e), the New Democratic Party? (d2f) (on a scale from 0 to 100, where 0 represents a very negative feeling and 100 a very positive feeling).

Both ratings are divided by 100. The index is the sum of the two scores divided by 2. The variable corresponds to the difference between the two indexes (Conservative/Liberal, Liberal/NDP). The scale goes from −1 to 1.

PREFERENCE (PANEL)

The following questions have been used:

—How would you rate Brian Mulroney? (xe2a), John Turner? (xe2b), Ed Broadbent? (xe2c) (on a scale from 0 to 100, where 0 represents a very negative feeling and 100 a very positive feeling).

—How would you rate the Conservative Party? (xe2d), the Liberal Party? (xe2e) the New Democrat Party? (xe2f) (on a scale from 0 to 100, where 0 represents a very negative feeling and 100 a very positive feeling).

Both ratings are divided by 100. The index is the sum of the two scores divided by 2. The variable corresponds to the difference between the two indexes (Conservative/Liberal, Liberal/NDP). The scale goes from −1 to 1.

FREE TRADE

The following question has been used:

—As you know (Canada/the Mulroney government) has reached a Free Trade Agreement with the United States. All things considered, do you support the agreement or do you oppose it? (12)

The value of 1 was given to respondents who support the agreement, 0.5 to respondents who neither support nor oppose it, and 0 to respondents who oppose it.

FREE TRADE (PANEL)

The variable is an index made up of three questions;

—And now, a few questions about the Free Trade Agreement with the United States. All things considered do you support the agreement or do you oppose it? (x1la)

—How strongly do you (support/oppose) the agreement? Would you say very strongly, somewhat strongly or not very strongly? (x1lb)

—If you had to choose would you support or oppose the agreement? (x1lc)

The index goes from 0 to 8, where 0 represents very strong opposition and 8 represents very strong support. The value of 3 is given to respondents who said that they neither supported nor opposed the agreement but that if they had to choose they would oppose it, 5 is given to those who said that if they had to choose they would support it, and 4 is given to those who could not make a choice. The results are then divided by 8, and the scale goes from 0 to 1.

FEMALE

1 for women, 0 for men.

HIGH EDUCATION

The value of 1 is given when the respondent has some university education and 0 otherwise.

QUEBEC

The value of 1 is given when the respondent lives in Quebec and 0 otherwise.

WEST

The value of 1 is given when the respondent lives in British Columbia, Alberta, Saskatchewan, or Manitoba and 0 otherwise.

UNION MEMBER

The value of 1 is given when the respondent or a member of the household belongs to a labor union and 0 otherwise.

CATHOLIC

The value of 1 is given when the respondent's religion is Catholic and 0 otherwise.

## NOTES

1. Bartels (1988, 108–19) distinguishes four potential effects: strategic, supporting a winner, cue taking, and contagion. In our terminology, the first two are direct and the latter two indirect (expectations affect the vote through preferences). When contagion or cue taking occurs, voters come to like the party that is expected to win. The only difference is that the latter has a "rational" component (the voter reasons that people are not fools and that, since a given party has so much support, it must

be good). We are in no position to assess the "rationality" of voters' cognitive processes here. What matters, from our point of view, is that in both cases the outcome is the same: voters come to like the party that they expect to win. Suffice it to say that in our view contagion (or bandwagon) is not necessarily irrational and that it encompasses cue taking. We also associate a direct effect, independent of preferences, with a strategic calculus. Bartels suggests that some voters might vote for the party that they expect to win simply because they enjoy the pleasure of being on the winning side. We acknowledge that this is a theoretical possibility, but it is not clear how this could be tested, and a detailed analysis of vote for the second preferred party in the 1988 Canadian election is entirely consistent with a strategic calculus interpretation (Blais and Nadeau 1996). It seems to us that our distinction between a direct strategic effect and indirect contagion one is simple and clear and is sufficient for providing an overall account of the impact of polls on the vote.

2. There were fourteen polls in the 1993 election, for instance.

3. Butler and Kavanagh (1988, 125) indicate that there were seventy-three public polls in the 1987 British election.

4. More specifically, statistical tests are more sensitive to deviant cases with an $n$ of 40 than with an $n$ of 3,000.

5. See the appendix for a description of variables. All explanations of approaches and variables refer to the Conservative versus Liberal race. The same logic applies to the Liberal versus NDP race.

6. This is why we start on October 11. Fieldwork for the first two polls was completed before the start of the CES fieldwork.

7. It does not make sense to tap expectations about the outcome of the election after the election, and we cannot therefore proceed to a panel data analysis in the case of expectations.

8. We obtain this result by adding to the equations in panel A of table 1 LAST POLL $\times$ EXPOSED. When we do so, the interactive variable is highly significant, but LAST POLL is not.

9. For instance, for a respondent interviewed on October 6, the most recent poll indicated a nineteen-point Conservative lead over the Liberals. The last poll gave a lead of only eleven points. The Conservative lead had thus declined by eight points between October 6 and October 20.

10. Because free trade was the dominant issue of the campaign (see Johnston et al. 1992), opinions on this issue may be construed as an additional indicator of preferences.

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