Polls, Voters, and the Quality of Electoral Democracy: Evidence from the 2007 Ontario Election

Fred Cutler
University of British Columbia
cutler@politics.ubc.ca

J. Scott Matthews
Queen's University
scott.matthews@queensu.ca

Mark Pickup
Oxford University & Simon Fraser University
mark.pickup@politics.ox.ac.uk

Authors' note: Draft version. Please do not cite without authors' permission. This paper was prepared for presentation at the Annual General Meeting of the Canadian Political Science Association, June 4 to 6, 2008, Vancouver, BC. The authors would like to acknowledge the support of the Environics Institute, for its generous funding of the Ontario Election Study, 2007, and the Social Sciences and Humanities Research Council of Canada (# 410-2007-1127).

1. Introduction

Coverage of election campaigns is increasingly characterized by a focus on "the polls," especially surveys of vote intention (Patterson 2005). For some, the dominance of such "horse race journalism" portends an electorate that would forsake the substance of politics for a politics of surface appearance—a politics of image, symbol and emotion, rather than of issues, interests and ideas (see, e.g., Patterson 1994; Trimble and Sampert 2004). For others—in particular, some students of voting behaviour—the media's increasing attention to poll results has more sanguine implications. On this view, the media's attention to polls may, under certain conditions, help to serve an important democratic function: the enlightenment of the electorate.

One way poll reporting may serve to inform the voter is by facilitating the familiar calculus of strategic voting. A strategic vote, in this sense, is a vote for some candidate other than one's most favoured candidate in order to prevent some less favoured candidate from winning. Insofar as information about the relative standings of the candidates is critical in any such calculation, media reports of poll results obviously have enlightenment potential (providing voting strategically is regarded as democratically functional).[1] Another, somewhat less familiar way in which poll reports may enlighten the voter is by informing various "cue-taking" strategies (Ansolabehere and Iyengar 1994). The basic idea here is that voters can compensate for a lack of detailed, "encyclopedic" knowledge of parties and candidates by relying on the collective judgment of their peers (cf. Lupia 1994). For instance, observing a swing away from the incumbent in recent poll results, voters may infer that the incumbent has undesirable qualities (e.g. policy positions, performance traits) or, conversely, that the opposition has desirable ones. Apart from their general utility to the voter, such "information shortcuts" may be especially important for the chronically uninformed (Cukierman 1994; Fournier et al. 2004).

As it happens, in spite of decades of research, the question of whether these political reasoning processes are prevalent in democratic electorates remains an open one (Bartels 1988; Kenney and Rice 1994; Morwitz and Pluzinski 1996; Mutz 1998; Blais, Gidengil, and Nevitte 2006; Pickup 2008). Whatever the outcome of that on-going debate, however, a fundamental question remains: *do voters satisfy the preconditions for enlightenment by polls?* Three such preconditions strike us as crucial. First, voters must attend to poll results. Second, voters must form reasonably accurate perceptions of the poll results to which they attend. Third, voters must have confidence in poll results—that is, they must find the polls credible. If any of these conditions is not satisfied, *poll reports can not enlighten the voter*, notwithstanding the precise mechanism of poll effects.

The aim of the present paper, accordingly, is an empirical evaluation of these preconditions for voter enlightenment by polls. We explore the issue through analysis of

[1] This has been the dominant image of the effect of poll reporting among scholars of Canadian elections (e.g. Blais, Gidengil, and Nevitte 2006; Johnston et al. 1992).

the 2007 Ontario Election Study (OES).[2] The OES consisted of telephone interviews with Ontario voters during the provincial election campaign in September and October. The survey was conducted as a rolling cross-section design, with approximately 45 interviews conducted per day over the 30 day campaign (N=1352). The survey included original instrumentation concerning polls, including measures of attention to polls, reception of poll information, perceptions of poll accuracy, perceptions of momentum, and attitudes to the role of polls in the electoral process. To preview our findings, the analysis suggests that the preconditions for enlightenment by polls were mostly, though not entirely, satisfied by Ontario voters in 2007.

2. Preconditions for enlightenment by polls: attention, accuracy and credibility

Voter attention to the information contained in poll reports is obviously necessary if that information is to enlighten the voter's decision-making process. But how much attention to polls should we expect voters to pay? Reflecting on the informational demands of strategic voting and cue-taking, a certain asymmetry suggests itself. Any kind of strategic voting calculus requires, at a minimum, three bits of poll information: the share of one's most favoured candidate, the share of one's least (or lesser) favoured candidate, and the share of some third candidate that is preferable to the latter candidate but dominated by the former one (see, e.g. Black 1978). Cue-taking's informational minimum, on the other hand, arguably demands only one, or perhaps two, bits of poll information: certainly the identity of the leading candidate, but possibly also the leading candidate's margin over his/her nearest challenger (Ansolabehere and Iyengar 1994). An implication of this reasoning is that a minimally "poll attentive" electorate might be able to take cues from the polls, even if informed strategic voting is beyond its grasp.

Abstract analysis aside, empirical expectations for poll attention are unclear at best. On the one hand, plausible correlates of poll attention, such as general political knowledge and interest, are notoriously found wanting in the mass public (Campbell et al. 1960; Converse 1990; Luskin 1991; Delli Carpini and Keeter 1996; Fournier 2002). Consequently, it seems uncontroversial to expect only moderate levels of attention to poll reports. On the other hand, poll information may be quite unlike other sorts of information to which the voting population might be expected to attend. So-called "horse race polls" are central to political news and, thus, are likely to be more widely disseminated than other kinds of political information, such as policy commitments, candidate biographies and the like. At the same time, poll results, especially those suggesting significant changes in party or candidate standings, may be inherently more interesting than other varieties of political news. The media's emphasis on poll results suggests at least this much (Patterson 2005). It is reasonable to assume, therefore, that voter attention to the polls is somewhat greater than the level of attention devoted to the average unit of political information.

[2] The authors were the co-investigators of the 2007 OES.

It also bears noting that, notwithstanding the general level of attention to poll results, the electorate's focus on the polls may increase with the progress of election campaigns. This is the strong implication of work motivated by the "enlightenment thesis," which suggests that election campaigns supply voters with the motivation and information necessary to form qualitatively better vote decisions (Gelman and King 1993; Mendelsohn and Cutler 2000; Andersen, Tilley and Heath 2005; Arceneaux 2005; but see Matthews 2007). If a general campaign learning dynamic holds, it presumably extends to the domain of poll results.

Attending to the polls, of course, is not a sufficient condition for forming accurate perceptions of them. If one were to generalize from levels of knowledge in other areas relevant to politics, one would have low expectations in this regard, as noted above. Then again, Fournier's (2002) conclusion that (at least Canadian) voters are "uninformed" but not "misinformed" is suggestive here. That is, those who attend to the polls may get party or candidate shares approximately right,[3] even if many (or most) people are ignorant of poll results. Furthermore, in keeping with the above, the accuracy of poll perceptions may increase with the approach of Election Day.

A complication with this line of reasoning concerns the potential for biased perception, or at least recall, of poll results. As Bartels' (2002) has emphasized, partisan bias in political perception is "ubiquitous," extending beyond perception of objects with obviously partisan implications (e.g. government performance, candidate traits) to seemingly objective, real world conditions, including the state of the economy and the size of budget deficits (see also Berelson, Lazarsfeld and McPhee 1954; Campbell et al. 1960; Finkel 1993; Granberg 1993; Evans and Andersen 2006). Beyond such broad conclusions, it bears noting that polls of vote intention may be peculiarly susceptible to selective attention and perception processes moderated by partisanship. Indeed, in contrast to, for instance, the link between economic perceptions and one's partisan leanings (see, e.g., Mutz 1994, 1998; Duch, Palmer and Anderson 2000), the implications of poll standings for one's partisan identity are exceedingly obvious: when party *X* (or a candidate of party *X*) falters, partisans of *X* are required to reconcile their support for *X* with the perception that *X* may lose. One approach, of course, might be to adjust one's assessment of the larger electorate. But an alternative response, perhaps the dominant one, would be to edit upwards one's perception of the poll standings. The critical point in all this is that, however such cognitive dissonance is resolved, awareness of dissonance is likely to be uniformly high. Thus, partisan bias would seem a grave threat to the accuracy of perceptions of poll results.[4]

Assuming the magnitude of bias in perception of poll results is not too severe, one final precondition for enlightenment by polls remains: voters must find poll results to be

[3] An "approximate" standard is probably the appropriate one for the evaluation of knowledge of poll results, given response sets associated with numerical survey items (Tourangeau, Rips and Rasinski 2000).

[4] But partisans, of course, may be virtually immune to poll effects, given the strength of the direct effects of partisanship (Green, Palmquist and Shickler 2002).

credible. Put differently, voters must have confidence that pollsters, and the methods they employ, deliver a valid representation of the political currents they seek to capture. Moreover, voters must trust the media to report poll results faithfully. The importance of such "confidence in the polls" arises from the role of "source credibility" in the moderation of political communications (Zaller 1992) and cue-taking processes (Lupia 1994; Lupia and McCubbins 1998). That is to say, the acceptance of political information and of "elite cues" on political matters is conditioned by beliefs about the trustworthiness and knowledge-level of the originator (the media, political figures) of such information and cues. Thus, if reports of poll results are to be involved in voter decision-making, then voters must have confidence in those poll results—confidence that they are reported accurately and that they are accurate in themselves.

3. Attention to Polls

How much attention do citizens' pay to poll reports in the media? There are two ways to measure attention to polls: one with explicit questions about attention, the other with questions asking about poll results. If methodological work on political information is any guide, we should prefer the latter (Zaller 1992). That is, asking survey respondents to give the parties' standings in the latest poll should be the most accurate indicator of which citizens are getting, and storing, the information contained in poll reports. But this strategy is not without its shortcomings. First, some respondents, habitually attentive to party standings in polls, may be temporarily distracted and not notice a very recent poll, and so their estimate of the party standings would be out-of-date. For the purposes of gauging the general level of attentiveness to polls, we would not want to lump the "temporarily distracted" in with those who consume no political media or who ignore polls for other reasons. Second, other citizens, perhaps motivated only by strategic voting, might not go to the trouble of storing the numbers, instead filing in memory which party was ahead and whether the lead was big or small. The bottom line is that we used both strategies to measure attention to polls.

Our measures of attention are only meaningful in relation to the supply of poll information. So to begin, we analyzed Toronto Star coverage for mentions of polls and for the prominence of poll mentions.[5] Prominence, in this case, is a measure of where in the story the first reference to a poll occurred, where 1 represents the start of the story. Figure 1 shows the results. The proportion of stories mentioning polls fluctuates a good deal over the campaign, peaking with a majority of stories referring to polls shortly after the campaign kickoff and again in the campaign's last few days. Prominence appears to have its own rhythm, though. When mentions are most prevalent, they must include more references to polls placed deeper in the story.

[5] We use the Star as only indicative. Other media outlets commission their own polls, so their mentions might follow a different path. We do assume, however, that other outlets' polls get a mention in the Star, if a day or two late and only in passing.

To measure attention directly, we asked a seemingly straightforward question: "How much attention are you paying to the polls in this Ontario election campaign." Nearly half of respondents chose "No attention at all", 26% "little attention", 22% "some attention", and 6% "a great deal of attention". We were frankly surprised by the low level of attention suggested by these responses, given scholarly accounts of poll-driven election reporting as responding to market forces (Patterson 2005; Zaller n.d.). Our suspicion, however, is that these results are nearly useless, apart from providing an object lesson in questionnaire design. Our reasoning is as follows: Because "attention" has more than one meaning, the question can be taken to ask about *intention to receive* poll information, *intention to accept* poll information, and *intention to use* poll information. Put differently, if I say I pay attention to polls, I may be interested only as a spectator, having no intention to use the information. Or, I may attend to the information only to reject it, perhaps because it is at odds with my partisan commitments. Then again, I may receive and accept poll information but ignore it in my voting decision, such that "I don't pay the polls any attention" means "I don't heed the polls". Once we realized this was a possibility, we changed the questionnaire on the fly to add a follow-up question for respondents who gave the "no attention at all" response. We discovered that one-third of these respondents had actually heard poll results.

An alternative indicator of attention is a question asking about the last election poll the respondent had read or "heard about." At the start of the campaign less than one-quarter had read or heard about a poll. The increase was steady for the first three weeks of the campaign, reaching a high of roughly 60% before leveling off for the final week.[6] Obviously, only the end-of-campaign reading matters to our assessment of the conditions for poll-induced enlightenment. That two-thirds of very-likely voters say they have heard a poll result satisfies the first, minimal condition and accords with the prevalent view of the high visibility of poll reporting.

Is attention to polls simply an indicator of general attention to the campaign? One way to assess this is to examine the correlation between knowledge of parties' campaign promises and awareness that the Liberals were ahead in the polls – a fact which never changed. We asked which party was promising: "to close Ontario's coal-fired power plants by 2014" (Lib), "to consider funding for faith-based or religious schools" (PC), "to lower the cost of electricity for big industries in Ontario" (NDP), and to "consider contracting out some medical procedures to privately-run medical clinics" (PC). Reporting of these platforms varied, from extremely loud coverage of the PC faith-based schools promise to relatively little coverage of the NDP's electric rate proposal. We use only respondents in the second half of the campaign, by which time the promises had all received coverage and the Liberal lead in the polls should have been obvious to anyone hearing the poll reports.

Table 1 presents four cross-tabulations with cell percentages. Forty-two percent had heard a poll and correctly said the Liberals were ahead in that poll. This is almost the

[6] Nearly half say the poll they heard was "in the last couple of days," while only one in six say it was "more than a week ago."

same percentage as knew about the Liberal power plant promise and the Conservative contracting out medical services promise. The faith-based schools promise was correctly attributed to the Conservatives by 60%, while only 14% had heard the NDP's electricity promise.

The crosstabulation indicates substantial overlap, yet it is clear that there are some people getting the policy message but not the poll reports, and vice-versa. That is, policy and poll information are not perfectly correlated. Only 9% were aware of the Liberal lead but unaware of the faith-based schools promise whereas 33% were aware of both. The proportions were reversed for the NDP promise. The other promises fell in-between these extremes. Thus, poll information was less well-known than the promise that became the focus of the campaign, about as well known as two other elements of the leading parties' platforms, and much better-known than the third party's barely-newsworthy proposal.

Our last attempt to tap awareness leads into consideration of accuracy in the next section. The first half of the campaign had only 23% willing to give us a number when asked about the Liberal party's standing in the polls.[7] The proportion went to 41% in the second half and thereafter leveled off. (If a respondent got far enough to give us a numerical poll reading, nearly all did so for all three major parties.) The upshot is that only a minority met the requirements for the sophisticated use of polls required by strategic voting—and some of these had ideas about the parties' standings that were a long way off the mark.

4. The Accuracy of Citizens' Poll Information

Voters might use poll information for a number of purposes, and different purposes carry different requirements for accuracy. For the entertainment of watching the horserace, voters have no instrumental motivation to remember the precise, numerical figures. For strategic voting, they would need to know the margin between their preferred and the leading candidates, and also the closeness of the race at the top. For cue-taking, voters' attention might be better directed to changes in the polls – the parties' momentum. Our assessment of accuracy therefore uses a variety of measures of the concept, from simple awareness of which party is leading to figures that match the most recent polls.

The simplest inference from a poll Ontario voters might have made concerns the identity of the party that is most likely to win. But polls are not the only means to a forecast of the outcome. Separate from our questions about polls we asked, "Which party has the best chance of winning the most seats in the province overall?" More than 80% gave an answer, far more than had direct poll information, but voters who had heard a poll were, nevertheless, 14% more likely to do so. And, as Figure 2 shows, those with poll information were more accurate: overall, nearly three-quarters of these respondents said the Liberals would win, as compared to only half among other respondents. The poll-informed were also slightly more likely to say the Liberals would win easily. And they

[7] The rest either hadn't hear a poll, didn't know which party was leading, or declined when confronted with a question asking for a number.

were much quicker to update their forecasts on the basis of poll information. Nevertheless, these results indicate that there are a good many people who could engage in strategic voting *without poll information*, as 60% of those who had not heard a poll nonetheless forecast a Liberal win by voting day.

At the end of the campaign, though, about half of the electorate can use polls accurately for at least the first, basic step in strategic voting if they wish. Figure 2 (dashed line) also shows that awareness of the Liberal lead in the polls jumped from below 20% to nearly 50% over the middle third of the campaign. More striking evidence of the overall gain in awareness is found in the average of respondents' guesses about the parties' numbers in recent polls. Ours is the first survey study of an election to ask respondents for the parties' percentages of decided voters as reported in recent polls. The average of these responses hits the poll numbers exactly. Figure 3 shows an amazing correspondence between the actual Liberal lead and the daily average of respondents' estimate of the Liberal share minus the PC share. There is no systematic overall bias in voters' information about polls; it may be spotty, there may be variation, but the effect of polls on voting behaviour and election outcomes cannot, on this evidence, be said to derive from *mis*information about polls.

We now turn to examine that individual variation in estimates of the parties' poll standings. How much learning about poll standings takes place over the campaign? Is this simply a function of increased attention to the campaign, so that we can expect this kind of trajectory in most election campaigns? To answer these questions about accuracy we estimate predictive models.

To test the hypothesis that the progress of the campaign generates awareness of parties' standings in the polls, we estimated the following model for each party.

$$Recall_i \sim bern(P_{it})$$

$$logit(P_{it}) = \alpha_0 + \alpha_1 target_t + \alpha_2 nopoll_t + \alpha_3 campaignday_t + \sum_j \beta_j covariate_{ji}$$

Recall is our measure of accuracy: a binary variable coded '1' if the respondent was able to accurately recall the party's standing in the polls and '0' otherwise.[8] An accurate recollection is defined as within plus or minus one percentage point of the range defined by the minimum and maximum value reported for the party in the polls over the last three days. These minimum and maximum values are plotted in Figure 4, along with the recollected party standings.

The intuition behind defining a *range* of accuracy is that a sophisticated consumer of polls who had seen more than one poll result recently may, when asked to recall the party

[8] Those that were unable to accurately recollect poll results includes those that had seen no poll and those that had seen a poll but could not accurately recollect the results.

poll standings, provide some rough average. The downside of using a range, however, is that an individual that makes a random guess is more likely to provide a response within this range when it is larger. The range will be larger when there is more volatility in public opinion and, therefore, a greater range of values in the published polls. In order to control for this, the magnitude of the range is included as an independent variable (*volatility)*: there will always be some random guessers defined as having an accurate recollection, but including such a control ensures that the proportion of respondents that fall into this category is constant across the campaign.

Two additional variables are included. As we noted above, during the first 16 days of the campaign, those that indicated they paid no attention to the polls were not asked to indicate what they thought the poll results were. After day 16, those that indicated they paid no attention were asked if they had heard or read about the polls. Those respondents that indicated that they had were then asked to indicate what they thought the poll results were. To control for this change in the survey design a simple dummy variable, *Nopoll*, is included (coded '1' for the period before September 26 and '0' otherwise). Finally, the variable *campaign day* tests for an increase in the accurate recollection of poll information.

The model is hierarchical, in order to account for the nesting of individuals within campaign days. We estimate three variants of the model. The first only includes the *target*, *Nopoll* and *campaign day* variables. The second variant includes additional covariates, the most important of which is the degree of attention the respondent pays to polls. The third variant includes the same covariates but only includes in the analysis those that had explicitly seen or heard a poll.[9]

The estimation results for the Liberals, Progressive Conservatives and NDP are presented in tables 2, 3 and 4 respectively. Model 1 answers the question, is there evidence of learning, with regard to polls, throughout the campaign? The coefficient on *campaign day* is positive and statistically significant for the Liberal and Conservative poll results but not the NDP. This suggests that respondents were increasingly able to accurately recall the Liberal and Conservative standings in the polls as the campaign progressed. This was not the case for the NDP. At the beginning of the campaign, recollection of the NDP results were better than those for the Liberals or the Conservatives but it was only nine days into the campaign before this was reversed.

Having determined that respondents had increasingly accurate poll information as the campaign progressed, the second model was run to test what may have contributed to this

[9] These analyses were also run with a continuous poll accuracy dependent variable. The accuracy variable was defined as the log of the absolute value of the minimum distance between the recalled value and the range of accurate values. It was also defined as zero for those that had a response within plus or minus one percentage point of the range. This produces an accuracy variable that is continuous but only positively valued. The analysis was run using a Tobit analysis with those with a value of 0 being defined as censored on the left end of the distribution (smallest inaccuracy) and those that indicated they had not seen a poll or could not recall the results as being censored on the right end of the distribution (largest inaccuracy). The results from the analyses were not substantively different from those using the binary accuracy variable.

effect. Of particular interest is the extent to which increased attention to the campaign may be responsible for the increased accuracy in poll recollection.

The answer is unequivocal. For Liberal, Conservative and NDP poll results, increased attention results in greater recollection accuracy. In fact, controlling for increased attention, the *campaign day* no longer has a statistically significant effect. Thus, increased attention explains campaign learning, rather than features of the campaign context, such as an increase in the density of polls or more intense poll reporting.

Other than an increase in attention to the polls, a number of individual attitudes and characteristics are also related to recollection accuracy. Identifying with the provincial Liberals increased recollection accuracy for Conservative results.[10] No other party identification had any impact on recollection accuracy for any other party. This gives the impression that Liberal identifiers spent the campaign looking over their shoulders to see if the Conservatives would catch up.[11] Turning to indicators of poll credibility (discussed in the next section), believing polls are accurate increased accuracy. Ironically, those that believe polls help them make their vote decision were less likely to accurately recollect poll results. Other attitudes regarding polls did not emerge as significant predictors. Controlling for poll attention, party ID, age, and attitudes about polls, talking about the polls increased Liberal and NDP recollection accuracy but not Conservative recollection accuracy. Interest in the election campaign, however, did not increase recollection accuracy.

The probability of reading about or seeing a poll increased over the campaign. This was largely a function of increased attention to the polls, higher campaign interest and an increased probability of talking about polls (separate analysis, not shown). Given the increase in the probability of reading about or seeing a poll throughout the campaign, does this explain the increase in accuracy? We tested for this pathway by examining whether there was increased recollection accuracy independent of reading about or seeing a poll (that is, only for those that did see or read about a poll).

The results are presented in tables 2, 3, and 4 as Model 3. The estimation strongly suggests that there was little increase in poll recollection accuracy independent of reading about or seeing a poll. Only those that paid a great deal of attention had higher poll recollection accuracy independent of reading about or seeing a poll, and only for the Liberal results. Therefore, the increase in poll recollection accuracy throughout the campaign is almost completely explained by the increased probability of reading about or seeing a poll.

---

[10] The control is those without any provincial PID.

[11] One of the few differences in the Tobit analysis using a continuous dependent variable was that there was a positive effect from being a Progressive Conservative identifier on accurately recalling Liberal and Conservative poll results.

The partisanship variables in these models indicate no clear problem with a partisan bias in poll-information-processing. By this standard, partisans appear to be, if anything, more accurate than non-partisans.[12] An alternative approach to partisan bias is simply to plot the estimates of party standing for each partisan group. Figures 5 does this efficiently by plotting the perceived Liberal lead for Liberal, PC, and non-partisans only (there are too few NDP partisans for analysis). Not much is lost by plotting the lead alone, rather than the separate party figures. In fact, plotting the lead has the advantages of tracking the quantity relevant for strategic voting and of eliminating any inter-respondent and inter-poll variability in understanding of decided voters, the share of minor parties, and so on.

There is only a hint of partisan bias here: it is weak and fluctuates over the campaign, petering out to insignificance by the end. The dashed line is the actual lead in the most recent poll, and the PC partisans are consistently below it, with Liberals above it. Curiously, nonpartisans, presumably because of weaker attention to the polls, overestimated the Liberal lead for the first 20 days and then underestimated it for the final ten. A regression version of this graph tells us that Liberals overestimated the lead by an average of 1.7 points ($p<.22$), the PC's underestimated the lead by 3.1 points ($p<.03$), and NDP partisans and others had unbiased perceptions of the Liberal lead. Other regression results indicate that the only partisan effect on each party's poll share is that NDP partisans give all three parties a boost beyond their actual standing (not shown). On this evidence, then, we can all but rule out serious partisan bias in cognition of poll numbers.

More important than citizens' recollection of poll numbers, though, is, again, their estimate of the likely winner. So we come full circle to consider how polls affect partisan wishful thinking. There is little action on the Liberal side, that is among partisans of the leading party. To be sure, poll attention makes Liberals even more confident of a win, but the pattern is no different from the full sample difference evident in Figure 2. Few NDP partisans entertained the possibility of a win and polls did not make a difference.[13] It is among the second-place party's partisans that we see poll information dominating wishful thinking. But not completely – only at the end of the campaign when all hope is lost. In figure 6, we compare PC partisans who heard and did not hear a poll, using nonpartisans who had heard a poll as a baseline. Clearly, partisans exhibit a great deal of wishful thinking early in the campaign, whether or not they have heard the polls. And when the polls indicate a tightening of the race, not even a PC lead, there is even more (wishful) optimism among those attentive to the polls than those inattentive. But then the two groups part ways when the polls turn against them and the campaign gets closer to its

[12] But our indicator of accuracy would not show us bias if partisans' errors were all in one direction at the same time as non-partisans were less likely to hit the mark but their errors were on both sides of the polls. In that instance, partisans would be systematically one side of the polls, while non-partisans would have a larger variance but average closer to the true poll reading.

[13] More important for NDP partisans is the prediction of a Liberal win. This was not affected much by poll attention, though it was upgraded more quickly among the attentive. With or without polls, NDP partisans were all but certain of a Liberal win by the end of the campaign. More of them thought so, in fact, than among non-partisans with poll information.

climax. The effect is stunning: PC partisans who had heard a poll went from more than 60% predicting a win to only 10% retaining their optimism, all in the space of five days when the Liberal lead reported in the polls went from 3 points (day 15) to 10 points (day 20). This demonstrates the dominance of objective poll information over wishful thinking. Just as convincing is that PC partisans who had not heard a poll rose with the tide early on, but then went merrily on thinking a PC win was in the cards, oblivious to the polls and oblivious to any 'campaign mood' diffused through other social channels.

The bottom line is that polls are taken as objective reality by the vast majority of those who notice them. Partisans or not, voters are getting the poll signal and if they do, they are very likely to keep up-to-date with new poll information. By the end of the campaign, any effect of the polls on vote choice will not be the product of misinformation or biased cognition. But just as important, only half of the electorate, at the maximum, can be affected by polls. Indeed, the effect of voters' forecasts of the outcome may be more interesting, even worryingly perverse, among those who lack poll information.

5. Credibility: What Citizens Think of the Polls

The foregoing amounts to strong circumstantial evidence that most citizens find polls credible. Otherwise, how to explain the link between objective poll readings, perceived poll standings, and predictions of the likely winner? Nevertheless, we can ask voters directly whether they find polls, and those who conduct them, credible. Do voters have confidence in the polls, and what do they think of the role of polls in the electoral process?

We asked whether respondents agreed or disagreed with four propositions. The questions and the percentage agreeing were[14]:

- The people who conduct election polls manipulate the questions to get the answers they want: **49%** agree.
- Polls reported during elections sometimes help me make my choice: **25%** agree.
- The media help voters understand the numbers in the polls: **63%** agree.
- In general, the polls reported during election campaigns usually give a reliable indication of how the parties are doing: **74%** agree.

There was no significant change in response to these questions over the campaign.

Less than one in three voters are skeptical about the reliability of polls and the media's handling of them. It may, thus, seem paradoxical that nearly half agree that polls are manipulated by those who conduct them. However, there is likely some acquiescence bias in all of these propositions, perhaps more so for the first one in the sequence. Or some respondents may think that there is some manipulation, but that voters can sniff it out over the long haul. When we examine the joint distribution of attention to polls (having heard one) and the question on reliability, we find only 8% of the sample have heard a poll *and* consider polls, in general, unreliable. Thinking polls are reliable does

[14] Don't know responses were 8%, 2%, 4%, and 5% respectively.

have a small effect on attention: 80% of the attentive think polls reliable, 12 points higher than among those deaf to the polls.

The last question deserves separate discussion. Exactly one in four voters admits that polls help them decide. We think this is surprisingly high, given the cultural value placed on the making of independent decisions at election time. Among this quarter of voters there must be a number of different motivations for using polls in the decision, ones that our larger research agenda aims to map comprehensively. Anyone who has considered a strategic vote would likely fall into this category, although we find this response no more prevalent among the most likely strategic voters, NDP partisans. We think it unlikely that those who take cues from polls will consciously admit that they are doing so. One clue emerges when we look at the proportion saying polls help them decide in the four groups defined by the heard-a-poll variable and the polls-are-reliable variable. Amazingly, those who heard a poll are no more likely to say that polls help them decide. Credibility does make a difference, however: thinking polls reliable doubles the probability that a voter will use them in her decision (29% to 14%).

So we are left with a rather ambivalent conclusion about confidence in, and credibility of, the polls. Most voters think polls reliable, but if we imagine that polls can only affect those who think them reliable and who hear poll information, we are still left with less than half of the electorate whose decisions might be affected by polls. And only one in three of these, meaning one in seven voters, admit that polls help them make their decisions. If poll effects are limited, it is through a combination of inattention, skepticism about their reliability, and a dogged insistence on make up one's own mind.

6. Conclusion

This paper is premised on the assumption that voter enlightenment by polls requires three conditions to be satisfied: the voter must attend to the polls; the voter must form accurate perceptions of the polls; and the voter must find the polls credible. The analysis above suggests that the first two of these conditions are roughly satisfied, while the third may not be. Put differently, voters generally attend to poll results and form reasonably accurate perceptions of them, but may be too suspicious of pollsters and too protective of their autonomy as voters to significantly involve them in their voting decisions.

Apart from this general conclusion, two other specific findings bear noting. First, it is significant that the preconditions for "poll enlightenment" are nearer satisfaction as the campaign progresses. That is, it would seem that, at least with respect to poll results, the campaign is a learning experience for the voter. This fits the "enlightenment thesis" with regard to campaign effects. Second, the minimal impact of partisanship on poll perceptions—and its apparent weakness in the face of objective information—is somewhat heretical from the point of view of the conventional wisdom on partisan bias (e.g. Bartels 2002). Some facts, it seems, are too intrusive for even the most motivated partisan to deny. As it happens, this comports with the earliest work on dissonance reduction processes in political science—as Berelson, Lazarsfeld and McPhee (1954)

remark, "Deviation or misperception requires a certain degree of ambiguity in the objective situation being perceived" (220).[15] An avalanche of sour (or sweet) poll results, then, may permit only a narrow range of interpretations.

Finally, it is important to remark on the generalizability of these results. Vigorous as the Ontario provincial campaign of 2007 may have been, it was only that: an Ontario election. Other electoral contexts, particularly those at the federal level, may differ in significant ways. Even so, it is reasonable to surmise that those differences would only reinforce this paper's generally optimistic conclusions. That is, the potential for poll enlightenment may very well be higher with the greater poll intensity and intensity of poll reporting found in federal elections. The magnitude of poll enlightenment in Ontario, then, may constitute only a lower-bound for enlightenment by polls in Canadian elections.

[15] More generally (and colourfully), Festinger (1957) observes, "If a person is standing in the rain and rapidly getting soaked, he will almost certainly continue to have the cognition that it is raining no matter how strong the psychological pressures are to eliminate that cognition" (21).

Bibliography

Andersen, Robert, James Tilley and Anthony Heath. 2005. 'Political Knowledge and Enlightened Preferences: Party Choice Through the Electoral Cycle.' British Journal of Political Science 35: 285-302.

Ansolabehere, S., and S. Iyengar. 1994. 'Of Horseshoes and Horse Races - Experimental Studies of the Impact of Poll Results on Electoral-Behavior.' Political Communication 11 (4): 413-30.

Arceneaux, Kevin. 2005. 'Do Campaigns Help Voters Learn?: A Cross-national Analysis.' British Journal of Political Science 35-1.

Bartels, L. M. 1988. Presidential Primaries and the Dynamics of Public Choice. Princeton, NJ: Princeton University Press.

Bartels, Larry M. 2002. 'Beyond the Running Tally: Partisan Bias in Political Perceptions.' Political Behavior 24-2: 117-150.

Berelson, Bernard, Paul Lazarsfeld, and William McPhee. 1954. Voting. Cambridge: Harvard University Press.

Black, J.H., 1978. 'The Multicandidate calculus of voting: application to Canadian Federal Elections.' American Journal of Political Science 22, pp. 610–638.

Blais, Andre, Elisabeth Gidengil, and Neil Nevitte. 2006. 'Do Polls Influence the Vote?' In Capturing Campaign Effects, ed. H. E. Brady and R. Johnston. Ann Arbor, MI: University of Michigan Press, 263-279.

Campbell, Angus, Philip Converse, Warren E. Miller and Donald E. Stokes. 1960. The American Voter. New York: Wiley & Sons.

Converse, Philip. 1990. 'Popular Representation and the Distribution of Information.' In Information and Democratic Processes, ed. J. Ferejohn and J. Kuklinski. Chicago: University of Illinois Press.

Cukierman, A. P. 1991. 'Asymmetric Information and the Electoral Momentum of Public Opinion Polls.' Public Choice 70 (2): 181-213.

Delli Carpini, Michael and Scott Keeter. 1996. What Americans Know About Politics and Why It Matters. New Haven, CT: Yale University Press.

Evans, Geoffrey and Robert Andersen. 2006. 'The Political Conditioning of Economic Perceptions.' Journal of Politics 68-1: 194-207.

Finkel, Steven. 1993. 'Reexamining the Minimal Effects Model in Recent Presidential Campaigns.' Journal of Politics 55: 1-21.

Fournier, Patrick. 2002. 'The Uninformed Canadian Voter,' in Joanna Everitt and Brenda O'Neill, eds., Citizen Politics: Research and Theory in Canadian Political Behaviour. Don Mills: Oxford University Press.

Fournier, Patrick, Fred Cutler, Stuart Soroka, and Greg Lyle. 2004. Revitalizing the Two-Mediator Model: Heterogeneity in Campaign Effects. Paper presented to the Annual Meeting of the American Political Science Association, Chicago.

Gelman, Andrew and Gary King. 1993. 'Why Are American Presidential Election Campaign Polls So Variable When Votes Are So Predictable?' British Journal of Political Science 23: 409-451.

Granberg, Donald. 1993. 'Political Perception,' in Shanto Iyengar and William McGuire, eds., Explorations in Political Psychology. Durham: Duke University Press.

Green, Donald, Bradley Palmquist and Eric Schickler. 2002. Partisan Hearts and Minds: Political Parties and the Social Identities of Voters. New Haven: Yale University Press.

Johnston, R., A. Blais, H. E. Brady, and J. Crete. 1992. Letting the People Decide. Kingston and Montreal: McGill-Queen's University Press.

Kenney, P. J., and T. W. Rice. 1994. 'The Psychology of Political Momentum.' Political Research Quarterly 47 (4): 923-38.

Lupia, Arthur. 1994. 'Shortcuts Versus Encyclopedias: Information and Voting Behavior in California Insurance Reform Elections.' American Political Science Review 88-1: 63-76.

Lupia, Arthur and Matthew McCubbins. 1998. The Democratic Dilemma: Can Citizens Learn What They Need to Know? New York: Cambridge University Press.

Luskin, Robert C. 1991. 'Explaining Political Sophistication.' Political Behavior 12-4: 331-361.

Matthews, J. Scott. 2007. 'Enlightenment, Equalization or What? Campaigns, Learning and the Economy in Canadian Elections.' Presented at the Canadian Voting Behaviour Workshop, November, 2007, London, ON.

Mendelsohn, Matthew and Fred Cutler. 2000. 'The Effect of Referendums on Democratic Citizens: Information, Politicization, Efficacy and Tolerance.' British Journal of Political Science 30-4: 685-699.

Morwitz, V. G., and C. Pluzinski. 1996. 'Do Polls Reflect Opinions Or do Opinions Reflect Polls? the Impact of Political Polling on Voters' Expectations, Preferences, and Behavior.' The Journal of Consumer Research 23 (1): 53-67.

Mutz, D. C. 1998. Impersonal Influence: How Perceptions of Mass Collectives Affect Political Attitudes. New York: Cambridge University Press.

Patterson, T. E. 1994. Out of order. New York: Vintage Books.

Patterson, T. E. 2005. 'Of Polls, Mountains - US Journalists and their use of Election Surveys.' Public opinion quarterly 69 (5): 716-24.

Pickup, Mark. 2007. 'Election Campaign Polls and Democracy in Canada.' Presented at the Canadian Voting Behaviour Workshop, November, 2007, London, ON.

Tourangeau, Roger, Lance J. Rips and Kenneth Rasinski. 2000. The Psychology of Survey Response. Cambridge: Cambridge University Press.

Trimble, L., and S. Sampert. 2004. 'Who's in the Game? the Framing of Election 2000 by the Globe and Mail and the National Post.' Canadian Journal of Political Science 37 (01): 51-71.

Zaller, John. 1992. The Nature and Origins of Mass Opinion. New York: Cambridge University Press.

Zaller, John. A Theory of Media Politics. Unpublished manuscript, UCLA.

Table 1 - Poll Awareness and Campaign Information
respondents in second half of campaign only
entries are cell percentages, which add to 100%

1a	UNAWARE of Liberal Poll Lead	AWARE of Liberal Poll Lead	total
UNAWARE of PC faith-based schools promise	31%	9%	40%
AWARE of PC faith-based schools promise	27%	33%	**60%**
total	58%	42%	n=707

1b	UNAWARE of Liberal Poll Lead	AWARE of Liberal Poll Lead	total
UNAWARE of Liberal coal-fired power promise	38%	18%	55%
AWARE of Liberal coal-fired power promise	20%	24%	**44%**
total	58%	42%	n=707

1c	UNAWARE of Liberal Poll Lead	AWARE of Liberal Poll Lead	total
UNAWARE of PC contracting out medical promise	41%	17%	57%
AWARE of PC contracting out medical promise	17%	25%	**43%**
total	58%	42%	n=707

1d	UNAWARE of Liberal Poll Lead	AWARE of Liberal Poll Lead	total
UNAWARE of NDP electricity rate promise	52%	34%	86%
AWARE of NDP electricity rate promise	6%	8%	**14%**
total	58%	42%	n=707

Table 2: Poll Recollection Accuracy – Liberals

	Model one		Model two		Model three	
	Log odds	SE	Log odds	SE	Log odds	SE
T	0.049	0.018	0.019	0.022	0.006	0.025
Volatility	0.470	0.300	-0.284	0.363	-0.037	0.406
Target	0.149	0.067	0.269	0.080	0.335	0.090
Great deal of attention			2.060	0.420	0.990	0.445
Some attention			1.127	0.335	0.078	0.358
Little attention			1.143	0.313	0.147	0.345
Campaign interest			0.466	0.497	0.414	0.511
Age			0.006	0.006	0.006	0.007
PC PID			0.568	0.275	0.536	0.278
NDP PID			0.139	0.375	0.076	0.381
Liberal PID			0.239	0.273	0.195	0.277
Other party PID			0.004	1.178	0.449	1.235
Talk politics			0.082	0.347	0.688	0.358
Poll accuracy evaluation			1.581	0.218	0.562	0.219
Poll value evaluation			-0.623	0.259	-0.542	0.265
Intercept	-3.16	0.427	-5.479	0.718	-3.359	0.805

Table 3: Poll Recollection Accuracy – Progressive Conservatives

	Model one		Model two		Model three	
	Log odds	SE	Log odds	SE	Log odds	SE
t	0.044	0.021	0.011	0.027	0.000	0.030
Volatility	-0.004	0.359	-0.344	0.464	-0.191	0.519
Target	0.148	0.041	0.266	0.057	0.250	0.028
Great deal of attention			1.661	0. 18	0.456	0.433
Some attention			1.162	0.316	0.002	0.341
Little attention			0.999	0.301	-0.133	0.333
Campaign interest			0.392	0.468	0.254	0.488
Age			0.005	0.006	0.006	0.006
PC PID			0.466	0.260	0. 429	0.265
NDP PID			0.302	0.342	0.247	0.350
Liberal PID			-0.057	0.263	-0.097	0.266
Other party PID			0.527	0.904	1.101	1.092
Talk politics			0.322	0.333	0.169	0.340
Poll accuracy evaluation			2.005	0.221	0.944	0.216
Poll value evaluation			-0.474	0.240	-0.444	0.244
Intercept	-3.17	0.424	-5.274	0.781	-2.78	0.872

Table 4: Poll Recollection Accuracy – NDP

	Model one		Model two		Model three	
	Log odds	SE	Log odds	SE	Log odds	SE
t	0.031	0.020	0.007	0.023	-0.0006	0.025
Volatility	-0.340	0.341	-0.442	0.379	-0.200	0.421
Target	0.126	0.056	0.157	0.063	0.167	0.070
Great deal of attention			1.020	0.460	-0.016	0.470
Some attention			1.137	0.341	0.118	0. 359
Little attention			1.259	0.316	0.259	0.346
Campaign interest			0.418	0.488	0. 311	0.499
Age			0.008	0.006	0.008	0.007
PC PID			-0.162	0.281	-0.193	0.282
NDP PID			0.365	0.343	0.295	0.351
Liberal PID			-0.001	0.264	-0.038	0.268
Other party PID			-0.120	1.124	0.273	1.210
Talk politics			0.641	0.354	0.547	0.360
Poll accuracy evaluation			1.840	0.228	0.799	0.224
Poll value evaluation			-0.541	0.256	-0.481	0.260
Intercept	-2.79	0.537	-4.947	0.778	-2.820	0.863

Figure 1

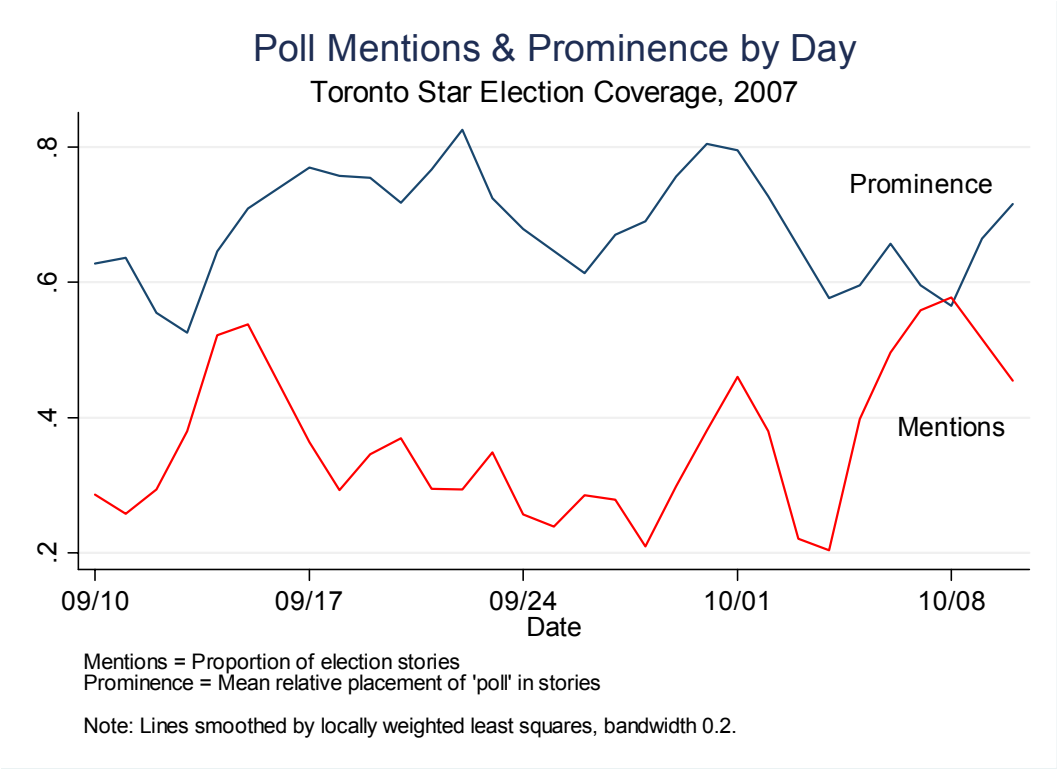
Poll Mentions & Prominence by Day
Toronto Star Election Coverage, 2007
.2
.4
.6
.8
Prominence
Mentions
09/10
09/17
09/24
10/01
10/08
Date
Mentions = Proportion of election stories
Prominence = Mean relative placement of 'poll' in stories
Note: Lines smoothed by locally weighted least squares, bandwidth 0.2.

Figure 2 – Likely Winner and Perceptions of Liberal Poll Lead
(loess smoothing)

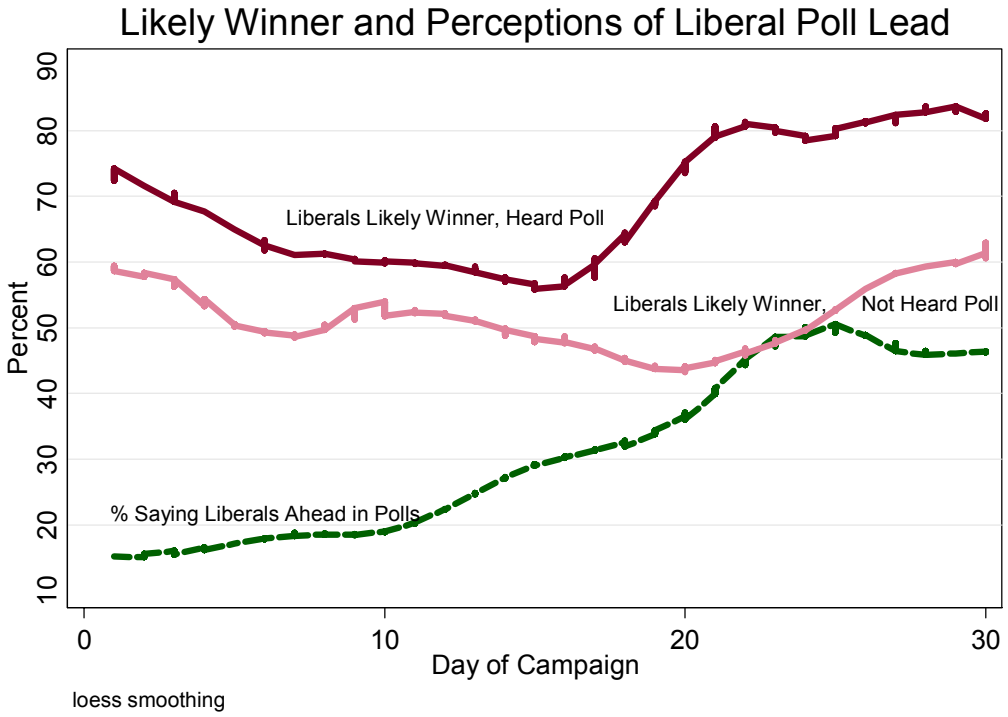

Figure 3 – Liberal Lead: Actual and Perceived
(loess smoothing)

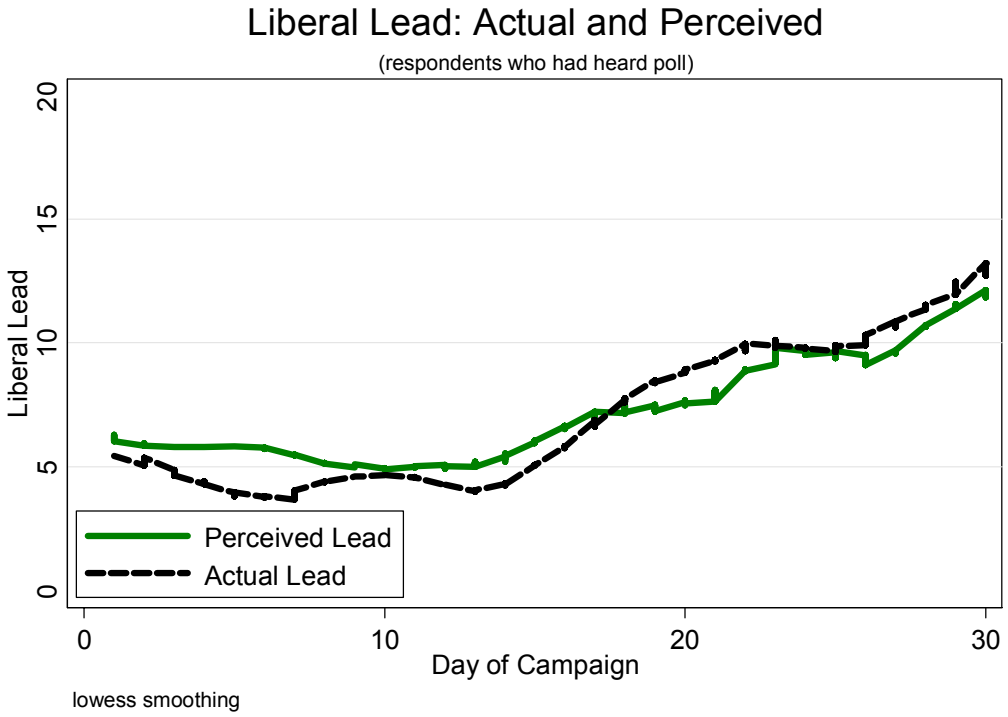

Figure 4 – Poll Recollections vs. Poll Reports.

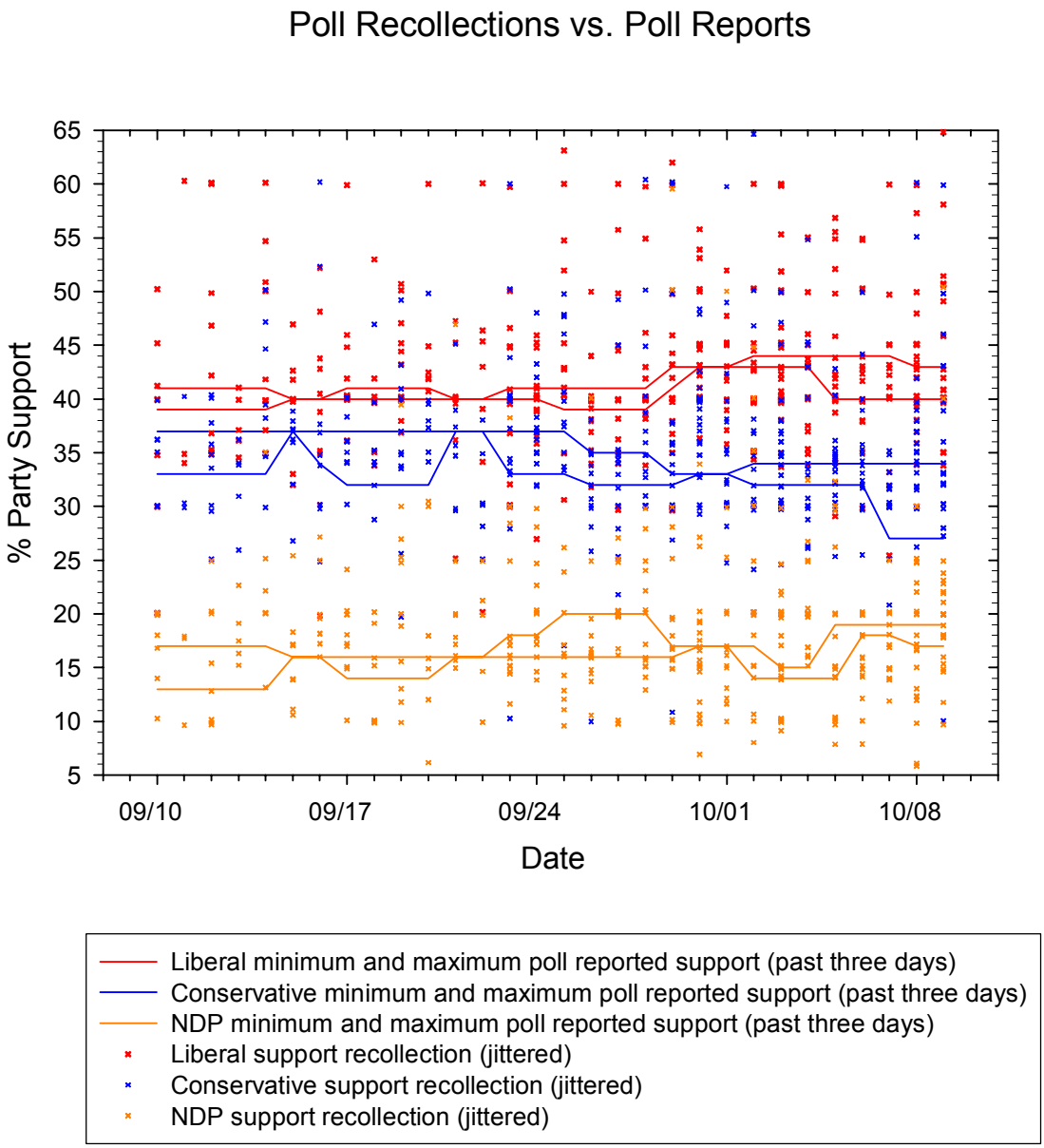

Figure 5 – Liberal Lead by Partisanship
(loess smoothing)

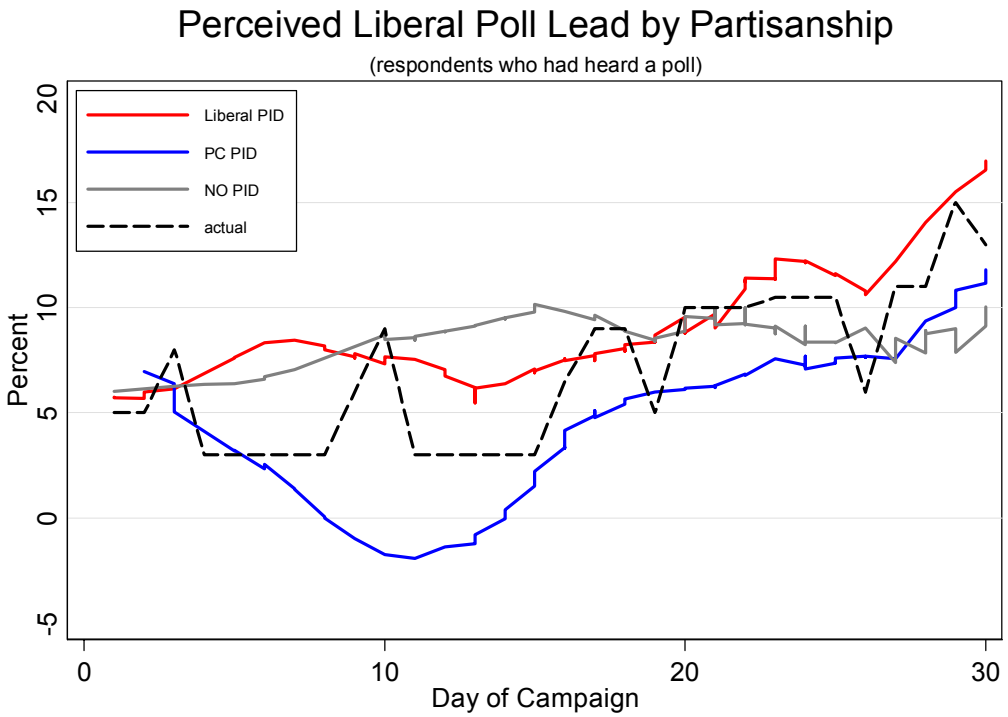

Figure 6 – Proportion of PC Partisans Thinking Their Party Will Win
(loess smoothing)