

Deliberation from within: Changing one's mind during an interview

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Abstract: This paper examines whether a public opinion survey can induce thought among respondents and improve the quality of survey responses. More specifically, we argue that positioning a summary question after a balanced series of relevant items can increase the breadth of considerations activated, thereby producing answers that are more closely related to individuals' underlying interests, values, and predispositions. By manipulating the location of the vote intention question in two separate national election campaign surveys, we find that there are fewer 'undecided' respondents when the question is asked at the end of the survey rather than early on, that some people are changing their mind during the questionnaire, and that vote intentions based on the later question are a better predictor of the actual vote. The findings carry important lessons about the quality of survey results and of citizen decision-making.

Time and time again, studies have shown that most citizens are politically uninterested, inattentive, and uninformed.¹ This has important consequences for the quality of electoral democracy, since many people would hold different attitudes and vote differently if they were more informed.² But research indicates that information, discussion, and thought can all improve the 'quality' of attitudes. For instance, deliberative polling has shown that providing people with objective information about an issue changes the opinions of many about that issue, and those who learn more tend to exhibit the most attitude change.³ Similarly, election campaigns – during which there is an increased flow of political information and attention – tend to reduce individual differences in voting preferences attributable to low information.⁴ There is also evidence that discussion between individuals, especially those with conflicting viewpoints, enhances opinion quality by increasing knowledge of opposing perspectives and stimulating tolerance,⁵ and by inhibiting the influence of elite-level framing.⁶ Thought also appears to increase citizen competence: contexts that encourage people to decide diligently and responsibly expand their ability to make tradeoffs between competing goals.⁷

In order to understand the extent and limits of people's capacity for higher-quality choices and attitudes, we need to ascertain the conditions that can foster them. Extraordinary efforts (such as a deliberative poll or a campaign) or explicit attempts at modifying people's motivations (such as stop-and-think directives) have been found to influence opinion quality. This study suggests that a minimal and unobtrusive contextualization can also have a sizable effect. We argue that providing individuals with an *environment* that allows them to reflect more about their predispositions can help people develop a summary judgement and improve the quality of that judgement. We assert that such a deliberative context can be generated by the simple process of

answering questions.

More precisely, we argue that certain survey conditions can induce thought, expand the breadth and representativeness of accessible considerations, and provide opportunities to review those considerations more thoroughly. These conditions, in turn, help respondents provide more reliable and valid responses to the questions they are asked. The potential for survey deliberation hinges on the exhaustiveness, balance, and ordering of items in the questionnaire. Our contention is that people who are asked to state their summary judgement about an issue after having gone through a large even-handed interview covering all aspects of that issue will be more likely to express an attitude, and their answers will be more reliable, i.e. more predictive of their eventual behaviour. Evidence of several question order effects in surveys has already been uncovered.⁸ Here, we claim the existence of another question order effect which we label the *deliberation effect*.

To examine the empirical validity of the deliberation question order effect, we look at differences in responses between a late and early positioning of the vote intention question in extensive and balanced surveys. Evidence comes from two distinct research designs. First, the 1988 Canadian Election Study contains a split-sample experiment on the location of the campaign vote intention question. Half the sample received the question very early in the survey, while the other half received it almost at the end. We use these data to determine whether the location of the vote intention question can influence the distribution and the reliability of survey responses. More specifically, we test whether vote intentions captured near the end of a long and even-handed interview exhibit less non-response and predict actual vote choice more accurately than those revealed at the beginning of the interview. Second, we draw upon a unique feature of the 2006 Canadian Election Study where the vote intention question was asked twice of every respondent; first early in the survey, and then again at the very end. This design allows us to verify and supplement the findings based on the 1988 split-sample experiment. Besides examining the impact of question location on non-response and the reliability of answers, we can ascertain how many people provide different answers during the course of the interview, which individuals are changing their mind, and whether they give more reliable vote intentions at the end of the survey.

Our concluding remarks argue that these findings have significant implications for understanding the quality of survey results, of citizen decision-making, and of the democratic process.

Question Order Effects

When designing surveys, one has to pay careful attention to a variety of methodological and conceptual issues involving not just question wording, question format, response wording, response format, and response order, but also question order. As Schuman and Presser note, “Since individual survey questions are not asked in isolation, but as part of a continuous flow of items, the context in which any question appears, or its position in a sequence of items, may conceivably influence the answers given to it”.⁹ A substantial body of work has documented the often impressive impact of question order on survey responses.¹⁰

Question order effects are at odds with a traditional view of attitudes as pre-existing

crystallized evaluations of an object.¹¹ According to that perspective, people either have a position on, say, abortion or they don't. Surveys simply ask them to reveal the existence and nature of that position. Such an approach, sometimes dubbed the 'file-drawer model',¹² has trouble accounting for the instability of responses over time¹³, the susceptibility to context effects,¹⁴ and the willingness of respondents to provide opinions on obscure and fictional issues.¹⁵ These findings all suggest that many citizens hold "non-attitudes".¹⁶

More contemporary perspectives explain question order effects in terms of cognitive information-processing which considers attitudes as "temporary constructions".¹⁷ Survey answers emerge from a series of processes: "understanding the question, retrieving material about the issue, deriving an answer from what has been retrieved, and reporting the answer".¹⁸ More specifically, judgements are formed by averaging across the sample of considerations accessible in memory.¹⁹ These are considerations that have been recently activated, whether by personal experiences, a televised news report, a discussion with a friend or spouse, or the preceding questions of a survey. If, as Sudman and colleagues suggest, "human judgment is always context-dependent",²⁰ then survey responses ought to fluctuate when context varies. The ordering of survey items can modify this context: "Prior items can change how respondents interpret later questions, what considerations they retrieve in formulating their answers, which standard or norms they apply in judging the issue, and how they report their answers".²¹

Several types of question order effects have been identified in the literature. We briefly describe the existing major types to distinguish them from the effect introduced in the following section. Two effects (assimilation and contrast) deal with how answers to an item may be influenced by an interaction with a closely preceding related item or series of items, while two others (rapport and fatigue) deal with how the overall position of a question within a questionnaire may influence responses to that question.

The *assimilation* or *consistency effect* refers to a situation where responses to two connected items are more consistent as a result of the proximity of the items. Hyman & Sheatsley uncovered the classic example of a consistency effect: Americans' propensity to allow Communist reporters to visit the United States increased substantially if the parallel question concerning American reporters visiting the USSR was asked beforehand.²² The alleged factor behind this effect is the respondent's desire to appear consistent by respecting an implicit norm of reciprocity or even-handedness.²³

The *contrast* or *redundancy effect* refers to the reverse situation, where greater differences are found between answers to questions asked serially rather than in isolation. For instance, support for abortion on demand is significantly lower if it follows a specific question about support for abortion in the case of serious birth defect.²⁴ Opinion on the general item is less favourable because, it seems, respondents construe that the general statement excludes the specific circumstances cited in the previous item.

As evidence of the *rapport effect*, Sigelman found that answers to the presidential popularity question were affected by its positioning in the questionnaire.²⁵ There was no directional effect on substantive opinion (i.e., no difference in the approve/disapprove distribution), but the proportion of 'don't knows' was significantly lower when the question was asked late in the survey rather than early. This pattern is attributable to certain individuals who

possess attitudes and are less willing to divulge them at the beginning of a survey. “Rapport effects are assumed to occur because respondents become more relaxed, trusting, or committed as an interview proceeds, thus facilitating frank responses”.²⁶

By contrast, the *fatigue effect* involves negative reactions that respondents may have after being assaulted with an endless barrage of curious, insipid, annoying, or tiresome questions. For instance, Kraut, Wolfson & Rothenberg found significant increases in non-response and non-extreme answers near the end of a long questionnaire.²⁷

We propose the existence of another question order effect which we label the *deliberation effect*.

‘Deliberation from Within’

As Robert Dahl stated: “In order to express his or her preferences accurately, each citizen ought to have adequate and equal opportunities for discovering and validating, in time permitted by the need for a decision, what his or her preferences are on the matter to be decided”.²⁸ A number of settings can supply these opportunities. For instance, Fishkin proposes the deliberative poll which brings a representative sample of citizens together at a site, gives them briefing material prepared by experts and stakeholders about various aspects of an issue, and encourages them to interact and discuss the issue at length.²⁹

Can public opinion surveys also provide some of these opportunities by influencing the scope and range of relevant considerations that respondents take into account when formulating an attitude? We believe they can.

Briefly, the deliberation question order effect refers to a situation where the survey experience improves: 1) the capacity to respond to a certain question; and, 2) the quality of responses to that question. The idea is that the ability of respondents to reveal their views toward an issue should increase as the pros and cons (i.e., the various considerations) are presented in the questionnaire. If the survey questionnaire encourages respondents to think about a broad and diverse spectrum of considerations, then questions asked late during the interview ought to elicit different answers from those that would have emerged had the questions been presented earlier in the survey. Expanding the set of accessible considerations and the opportunities to review them should improve attitude reports.

Theoretically, the deliberation effect is compatible with various bodies of literature. Indications are that people possess considerations about political issues and that they answer survey questions by sampling those considerations that are currently most salient.³⁰ At any one time, the considerations at the top of the head might be numerous or few, and representative or not of the individual’s belief system. Attitude change can occur if the quantity, balance and range of accessible considerations are altered. Such a process can explain the susceptibility of individuals to informative and persuasive messages.³¹

But less invasive procedures and events can also induce attitude change. First, McGuire uncovered the Socratic effect.³² Simply asking questions about a subset of beliefs the person agrees with can modify a person’s attitudes “by manipulating the salience of information already

in her or his cognitive repertoire, without presenting new information from an outside source”.³³ Research on self-generated attitude change has also demonstrated that directing people to think about the task or issue prior to evaluation can polarize or moderate attitudes.³⁴ Wilson and colleagues similarly show that instructing subjects to state the reasons why they hold certain attitudes before expressing them leads respondents to change their minds and report different attitudes.³⁵ Thus, additional thought can bring individuals to change their views.

There are also grounds for expecting that such attitude change can result in an improvement of response quality. Zaller & Feldman’s model of survey response suggests that increasing the number and range of considerations that are sampled should expand the reliability of answers provided in relation to people’s population of considerations.³⁶ Feldman and Zaller both provide independent evidence in support of this argument.³⁷ An increase in reliability should also be expected to the extent that greater thought leads to reliance on central routes of decision-making, such as focusing on the quality of arguments and complex reasoning chains, rather than on peripheral routes, such as affective heuristic shortcuts.³⁸

Some empirical findings, however, have run contrary to expectations.³⁹ In Zaller & Feldman’s experiments, for example, inducing respondents to stop, think, and vocalize their motivations and rationalizations before answering a survey question tended to draw people away from their ‘proper’ attitudes, as demonstrated by a weakening of the correlations with ideology and specific attitudes, particularly among the less informed. These results might be attributable to the fact that such procedures shift attention from affective to cognitive considerations,⁴⁰ thereby reducing the consistency of considerations among less sophisticated individuals;⁴¹ “A more carefully crafted manipulation might yet produce the reliability gain”.⁴²

The contention here is that a public opinion survey can promote attitude development, attitude change, and the expression of more reliable attitudes by subtly fostering introspective reflection. We argue that simply going through an extensive and balanced series of survey questions *without* having to justify one’s perspective activates a wider and more systematic set of considerations and allows people to review those considerations more diligently. Thus intra-individual deliberation can be encouraged quite unobtrusively.

The first dimension of the deliberation effect concerns the impact of question order on the capacity to express an attitude. The idea is that survey questions can increase respondents’ ability to voice an opinion about a particular topic by eliciting considerations potentially worth thinking about. More specifically, after having gone through a questionnaire that takes stock of the inventory of their beliefs and views relevant to an issue, respondents are better equipped to provide a summary judgement toward the end of the survey.

The first dimension of the deliberation effect should not be mistaken with the rapport effect. The rapport effect concerns people who already have an opinion about an issue and become more comfortable to reveal it at the end of an interview. In the deliberation effect, on the other hand, people who are initially undecided about an issue figure out their opinion after (or while) being asked various questions relating to that issue. Disentangling the two effects, unfortunately, might be a challenge. For instance, an increase in opinionation, as manifested by a drop in non-response, would be compatible with both effects.

The second dimension of the deliberation effect deals with the impact of question order on the quality of attitudes expressed. We suggest that a survey can improve the quality of responses when it exposes respondents to a long and even-handed set of questions which echo pertinent considerations about a particular issue. Activating a broad and diverse spectrum of potential considerations allows people to reflect more profoundly about the issue and encourages them to answer in a way that is more consistent with their underlying interests, values, and predispositions. Responses expressed in that context should exhibit greater stability over time and be more reliable predictors of behaviour.

With the deliberation effect, as in the case of the assimilation and contrast question order effects, the context of the survey response influences answers by altering the set of considerations available in conscious memory. Deliberation, however, is induced by a comprehensive and balanced exploration of the pros and cons related to the issue. Answers regarding a particular issue are shaped by the exposure to numerous related items asked prior to the summary judgement (regardless of their proximity), rather than by the close proximity of one or two items. Moreover, responses are not influenced in a certain direction by activating a biased set of considerations.

Note that the deliberation question order effect occurs under less strict conditions than those of deliberative polls.⁴³ Fishkin and colleagues suggest that outside information *must* be provided to citizens, by experts and stakeholders, in order for attitude change to occur. By contrast, we propose that attitude change takes place by activating information “from within”, by letting respondents come to terms with their own views and beliefs about the issue.⁴⁴ In addition, the deliberative poll seeks to measure a collective preference that reflects the discussion and compromise that takes place between participants, while our deliberation effect is only concerned with individual preferences and their internal consistency.

What are the empirical manifestations of such a deliberation question order effect? There are several possibilities. First, the deliberation effect implies that people are responding differently at the end of the interview than they would have responded had they not benefited from the opportunity to reflect on their beliefs and views. Consequently, individual attitude change should be taking place during the course of the interview. Three types of attitude change are possible: movement from indecision to a preference, movement from one preference to another preference, and movement from a preference to indecision. On one hand, some undecided individuals early during the survey could use the interview to make up their mind; they may end up with a preference by the end of the questionnaire. On the other hand, certain persons could change their mind as a result of deliberation; they might switch from one preference early in the survey toward a different preference later on. Finally, some respondents could revise their initial judgement and come to recognize that they are in fact wavering; they might shift from an early preference to late doubtfulness.

Second, individual attitude change should also translate into changes in the aggregate distribution of responses. Most importantly, questionnaires that foster deliberation could reduce the proportion of item non-response (i.e., ‘don’t knows’). Because some people may move from indecision to a preference, the percentage of undecided answers might be smaller for questions asked toward the end of the survey. But this reduction in non-response does not necessarily affect the relative strength of substantive preferences. If the attitudes which are ‘discovered’ during the

interview follow the original distribution of respondents who did not require deliberation to formulate one, then no difference in substantive preferences should emerge. Also, shifts from one preference to another during the interview do not necessarily modify the distribution of substantive preferences, because movements can cancel each other out.

Finally, survey-induced deliberation ought to produce responses of higher quality. Attitude reports based on a systematic and representative sample of considerations are likely to be more grounded in people's underlying interests, values, and predispositions than those based on a few momentarily accessible ideas. Consequently, attitudes that benefit from a context that promotes deliberation should be more stable over time and better predict behaviour associated with that attitude. The empirical implication is that the strength of the correlation between preferences and behaviours should be greater for answers captured at the end of the questionnaire than for those revealed at the beginning.

The Data

There is no established procedure when it comes to the positioning of the vote intention question. Some researchers place this question at the start of the interview, others ask it at the end, while some place it somewhere in the middle. For instance, the latest American National Election Study inquired about vote intentions quite late, about two-thirds of the way through the campaign questionnaire. By contrast, the most recent British and Canadian Election Studies asked this question very early. Although we know that question order can, in certain circumstances, have a considerable influence on responses,⁴⁵ it is uncertain whether vote intentions are affected by the location of the question. Two unique datasets present an opportunity to investigate this issue systematically.

In the campaign survey of the 1988 Canadian Election Study, the question probing vote intentions was part of a split-sample question order experiment (see the top portion of Table 1).⁴⁶ A random half of respondents were asked about their voting preferences at the beginning of the questionnaire, just after a series of questions about political interest and media attention. The other half was asked near the end of the questionnaire, after nearly a half-hour of items related to vote choice, just prior to socio-demographic background questions. To our knowledge, this is the only election study to ever implement such an experiment.

In the 2006 Canadian Election Study campaign questionnaire, vote intentions were asked twice.⁴⁷ Every respondent was asked to express his/her vote choice *both* at the beginning of the interview and at the end (see the bottom portion of Table 1). The first appearance of the vote intention question came right at the start of the survey, after a few questions about campaign interest and attention. The same question reappeared as the final item, following a series of socio-demographic questions. Between the two questions are approximately twenty-five minutes of queries about various considerations that could be relevant to vote choice.

In order for respondents asked about their vote intentions toward the end of the survey to benefit from a deliberative environment, the questionnaire needs to have previously investigated a large and balanced array of items relevant to vote choice. This requirement is satisfied, in our view, by both the 1988 and 2006 CES campaign surveys. As the structure of both questionnaires illustrates (Table 1), late-vote-intention respondents had the opportunity, before expressing their

voting preferences, to think about a variety of political issues, targets (parties, leaders, and candidates), and dimensions (affective and cognitive, retrospective and prospective). Furthermore, the questions are even-handed; they favour neither the incumbent nor the opposition parties. This is precisely the type of context which might lead to a deliberation effect.

To ascertain whether vote intentions are sensitive to survey-induced deliberation, several empirical analyses are conducted.⁴⁸ First, the marginal frequencies of vote intentions captured at the beginning and the end of the survey are compared to determine whether the location of the question influences the aggregate distribution of non-responses and party preferences. Second, the extent and the nature of individual changes in vote intentions within the questionnaire are examined. Then, we explore which types of people are most likely to change their mind during the course of the interview. Finally, we compare the correlations between vote intentions in the campaign survey and reported voting behaviour in the post-election survey to evaluate the reliability of voting preferences expressed early and late in the questionnaire.

The Findings

Does the location of the vote intention question change the distribution of answers?

The first two columns of Table 2 present the distribution of vote intentions for both locations in the two surveys. The size and the significance of the differences, as revealed by t-tests, are reported in the third column.⁴⁹ The most important discrepancy between vote intentions offered early and late deals with non-response (i.e. 'don't knows').⁵⁰ Respondents were generally more inclined to indicate a party preference when the vote intention question was asked at the end of the survey than at the beginning. In 1988, respondents facing the late positioning of the question expressed slightly fewer undecided responses (a difference of 2.8 percentage points) than the ones facing an earlier positioning. This difference is statistically significant at the .05 level (two-tailed). In 2006, the proportion of undecided voters is also slightly smaller at the end of the questionnaire (9.9 percent) than at the start (13.4 percent). This three-and-a-half-point gap is also statistically significant (at .01). In both datasets, close to a quarter of the initially undecided indicated a vote choice later on.

This decline in non-response is compatible with a deliberation effect, but it is also congruous with a rapport effect. We simply cannot determine whether the interview actually helped people figure out which party they prefer, or whether they were simply more willing to reveal a pre-existing preference.

Given the fewer 'undecided' respondents at the end of the survey, one consequential question to ask is whether one or more parties benefited from the decline in non-response. In both cases, the results reveal that a late positioning of the vote intention question did not affect substantially the overall distribution of party preferences. Table 2 indicates that each party made gains that were somewhat proportional to their respective initial strength.⁵¹ None of the differences in parties' strength between the two question locations is statistically significant. More importantly, the positioning of the vote choice question did not modify the ranking of the parties. This evidence is consistent with other research showing that a late positioning increases opinionation without influencing the overall distribution of preferences.⁵²

In sum, asking about vote intentions late in a survey tends to reduce non-response without affecting the relative ordering of the election contenders.

How much and what type of attitude change occurs within the survey?

Aggregate results can mask individual-level behaviours. To fully measure the extent of attitude change during the interview, Table 3 presents the cross-tabulation of vote choice between the two questionnaire locations in the 2006 data. Of course, most cases are found on the diagonal; close to nine out of ten individuals gave the same answer at the beginning and at the end (88.9 percent). But a substantial 11.1 percent of respondents provided different responses to the same question within the span of less than a half hour. The scale of this change is much larger than that suggested earlier by the shift in aggregate distributions.

Most of the individual movements between the two question locations come from people who were initially 'undecided'. More specifically, four out of ten early non-responses were converted into party preferences by the survey's end. This group represents 5.6 percent of all respondents. Note that most of the parties' gains in the second location originate from people who had previously said 'don't know'. Again, the gains are proportional to the parties' popularity.

There was also a little movement in the opposite direction. Some individuals who initially said they intended to vote for a party at the start of the questionnaire ultimately became 'undecided'. Those respondents constitute 2 percent of the entire sample. None of the parties was particularly disadvantaged by these movements.

The last group of opinion changers, 3.4 percent of all respondents, is composed of individuals who switched from one party's camp to another. All the principal contenders do nibble some votes away from each other, but this party switching is rather modest and fundamentally off-setting in net terms.

The central point is that when opinion change occurs within the context of a single interview, it is essentially movements away from 'indecision'. We refer to apparent indecision, because we cannot, strictly speaking, rule out a rapport effect (among people previously declining politely to reveal a pre-existing preference). Party conversions and movements toward 'indecision' also take place, but they tend to be less important. The next step is to identify which individuals were most likely to modify their vote choice within the course of a survey.

Who changed their mind during the interview?

There is considerable evidence of interpersonal heterogeneity in political behavior.⁵³ Research on survey context effects, for example, has considered whether some individuals are more affected by manipulations of question order. Education, expertise, knowledge, ambivalence, opinion intensity and attitude centrality have all been proposed as mediators of context effects. The supporting evidence, however, is mixed: varying from strong to nil.⁵⁴ It remains to be ascertained whether certain kinds of people are more influenced by the location of the vote intention question than others.

Table 4 presents logistic regression estimates for three different dependent variables: 1) movement from one party preference to another, 2) movement from one party preference toward 'indecision', and 3) movement from 'indecision' to a party preference. All three dependent variables are dichotomous. We consider three explanatory variables. First, political knowledge is a frequent determinant of attitude change.⁵⁵ Following usual practice, this concept is measured by a battery of general factual knowledge questions about politics.⁵⁶ We expect knowledgeable people to be less sensitive to survey deliberation because they already possess a large number of accessible considerations and the survey, therefore, is not likely to tip the balance.⁵⁷ Second, we include strength of party identification. On the one hand, people with a strong party attachment should not be easily swayed to abandon it. On the other hand, individuals who were initially 'undecided' may end up supporting the party toward which they are already predisposed. Lastly, there is ambivalence, a known source of attitude instability.⁵⁸ Respondents are identified as ambivalent if they said they had mixed feelings toward the party they intended to support.⁵⁹ The expectation is that ambivalent individuals should be more likely than non-ambivalent people to jump ship. The details about the variables' operationalization appear in the Appendix.

The analysis in the first two columns is limited to individuals who expressed a party preference at the start of the questionnaire. The dependent variable of column 1 distinguishes those who kept their initial party preference from those who joined the ranks of another party by the end of the interview. As Table 4 indicates, political knowledge, strength of party identification, and ambivalence all have statistically significant effects, and all three impacts are in the expected direction. Because of the difficulty in interpreting logistic coefficients, we conducted simulations to gauge the *magnitude* of the effects. We calculated the change in probability of moving from one party to another by manipulating the values of each independent variable from its lowest to its highest value, holding the other variables at their means.⁶⁰ Knowledge decreases the probability of opinion change between parties, a rare occurrence, by two percentage points. The effect for strength of party identification is also negative: the likelihood of party switching is four points smaller for those who identify strongly with a party. Ambivalent respondents were, for their part, more likely to change their party preference as compared to non-ambivalent ones by three points.

In the case of people who moved from support for a party to 'indecision' (column 2), the effects are all in the anticipated direction, and they all reach statistical significance. The most knowledgeable are slightly less likely to become 'undecided' by the end of the interview (a difference of one percentage point). The ambivalent are a little more prone to change in that direction (by one point). The impact of party identification is larger: strong party identifiers are six points less likely to move toward non-response.⁶¹

In the last specification (column 3), the analysis is restricted to respondents who did not indicate a vote choice when first asked. We compare those who maintained their non-response with those who revealed a party preference when asked the second time. This model is dominated by a single variable: strength of party identification. Citizens are clearly more inclined to change from non-response to party support if they possess a long-term attachment to a political party. Having a strong party identification increases the probability of preferring a party toward the end of the questionnaire when initially 'undecided' by 46 percentage points (from .32 to .78).

Party identification clearly plays a role in accounting for the largest type of opinion

change: movement from ‘indecision’ to a party preference. Indeed, among those who left non-response and hold a party attachment, seven out of ten ultimately opted to vote for the party with which they identify. This result can be interpreted from the standpoint of both deliberation and rapport. On the one hand, deliberation would suggest that the interview may have confirmed and crystallized respondents’ traditional predispositions. On the other hand, rapport would offer that people simply warmed up to the interview, then revealed their party identification, and were willing to admit at the end that they would vote for the party they identify with. The evidence cannot settle this argument. Nonetheless, voting according to party identification is not the only pattern. There remains 45 percent who moved from ‘indecision’ to a preference and are not party identifiers. Still, we cannot confirm empirically that these people are actually making up their mind during the span of the questionnaire.

Together, the factors above point to reasonable explanations about who is most likely to change his/her responses during the course of an interview. The results indicate that people are more likely to leave a party while answering a questionnaire if they have doubts about that party or weak ties to it, and if they are not very knowledgeable politically. ‘Undecided’ people are more likely to indicate a party preference at the end of the survey if they are already predisposed toward that party. This does not necessarily mean people are expressing higher quality responses. That possibility is examined next.

Are late-surveyed vote intentions more reliable?

If the survey serves a deliberative function by expanding the set of considerations that are taken into account, then individuals who change their mind and those who make up their mind should be ending up with opinions that reflect more accurately their underlying values, interests, and predispositions. A preference that is more consistent with underlying predispositions should be more reliable and should thus better predict actual behaviour. To ascertain whether attitudes expressed toward the end of a questionnaire are more reliable, Table 5 presents, for both question locations, the percentage of respondents who reported the same vote preference in the campaign and post-election survey waves.

In 1988 and 2006, among the entire sample, vote intentions collected at the end of the questionnaire are slightly more strongly correlated to the reported vote than those collected at the beginning. For both cases, the proportion of individuals with identical preferences before and after the election is slightly higher among late-vote-intention respondents. These differences, however, are tiny and do not reach statistical significance.

Since people who did not change their vote choice during the interview could not have improved the quality of their preferences, it makes sense to limit the analysis to the opinion changers of Table 4. Among those respondents who changed their mind during the questionnaire, the increase in reliability between the two questions is substantial. More precisely, the share of vote intentions congruent with reported post-election votes is much higher for intentions reported at the end of the questionnaire (50.1 percent) than those reported at the beginning (35.9 percent).⁶² This fourteen-point gap is statistically significant.

Overall, the evidence indicates that vote intentions expressed at the end of the questionnaire are more reliable. The difference is very modest among the entire sample, but it is

sizable among individuals who changed their vote choice during the interview. Within the group of opinion changers, the reliability of preferences provided early in the survey is significantly lower than the reliability of preferences offered near the end of the survey.

Conclusion

This study examined the empirical validity of the claim that public opinion surveys can serve a deliberative function. The idea is that simply answering questions in a long and even-handed questionnaire on a particular topic can enhance citizens' capacity to articulate overall judgements and can improve the quality of the judgements provided. Specifically, summary attitudes revealed near the end of the survey ought to exhibit less non-response and should be more inline with individuals' underlying predispositions than attitudes expressed at the beginning of the questionnaire. We label this the deliberation question order effect.

We analyzed data from two national election campaign surveys where respondents were asked to express their vote intention either at the beginning of the interview, at the end of the interview, or both. The evidence is that vote intentions measured toward the end of the questionnaire showed lower non-response. The reduction in non-response is the result of attitude change occurring over the course of the interview. A ninth of the sample changed their mind during the survey. Most of the opinion changers move from 'indecision' to a party preference. This movement is not solely made up of individuals that ultimately support a party to which they are attached; an almost equivalent portion of this group is composed of individuals with no party identification. The rest of the opinion changers were induced to reconsider their initial party choice and either to switch parties or to become 'undecided'. Most importantly, this attitude change led people to adopt vote intentions that predicted their election day behavior more accurately. Vote intentions collected late among those who changed their mind during the survey resemble to a greater extent the reported post-election vote.

We do not claim that this account provides precise estimates of the amount of attitude change that occurs within the span of an interview. Indeed, some of the observed change may actually be attributable to measurement error (miscomprehension, erroneous data entry, etc.). Then again, our findings could actually *underestimate* the true attitude change. Due to concerns about apparent consistency while talking to an interviewer, many respondents may have resisted revising their initial preference.

Regardless, the results are consistent with the notion of survey-induced deliberation. By going through each person's inventory of considerations potentially relevant for vote choice, a survey may help citizens to make up their mind or to figure out that they should be supporting another party. We cannot rule out that some of the attitude change may simply be a rapport effect. More precisely, movement from 'indecision' to a party preference could be due to respondents' greater willingness to reveal existing vote intentions after having built some trust in the interviewer. Indeed, future work should focus on disentangling the relative role of rapport and deliberation. We can say with confidence, however, that deliberation is part of the story. And here the evidence among those who expressed different vote intentions early and late in the survey is quite telling. The fact that the latter better predict the actual vote cannot be accounted by a rapport effect. The interpretation that the interview helped people to better reflect on their views seems eminently plausible.

It is also worth noting that responses to the vote intention question asked late in the questionnaire do not appear to have been ‘contaminated’ by the preceding questions, as the distribution of party preferences was unaffected by the location of the question. As we hypothesized, the length and the content of the questionnaire are likely responsible for the lack of contamination. Having gone through a systematic and even-handed survey, individuals were not swayed by proximate items. Our conclusions, however, should not apply to short and oriented questionnaires, where there is a greater risk for vote intentions measured at the end of the survey of being influenced by preceding questions.

Lessons for survey design can be drawn from this study. While we can confidently conclude that the positioning of the vote intention question does have a noteworthy impact on responses, we cannot unequivocally recommend one of the two locations. There are advantages and inconveniences associated with each position. The choice of a location for vote intentions within a questionnaire is contingent upon the researchers’ objectives. If the goal is to measure individuals’ deliberate views, to minimize non-response, or to predict voting day behaviour, then our findings suggest that one should introduce the vote intention question near the end of the survey. Note, however, that while vote intentions collected late in the questionnaire resemble more closely the actual vote, the improvement comes from a survey stimulus that may not necessarily always mimic the debate brought about by the campaign. On the other hand, if the goal is to catch a snapshot of vote intentions that are representative of the circumstances at the time of the survey, then an early location is preferable. While not equally well thought-out and reliable answers, vote intentions captured at the start of the questionnaire constitute the more spontaneous opinions which respondents are willing to express. Researchers, therefore, should be aware of the consequences of choosing one location over the other, and should adopt the strategy that best suits their research objectives.

More generally, this study has shown that the location of a question in a survey can affect the quality of the answers provided to it by respondents. Surveys can induce more thoughtful reflection and activate a wider range of relevant considerations in respondents’ minds. With this more systematic set of considerations, respondents are more likely to express opinions that are more consistent with their own values, interests, and predispositions.

This study relies on the vote intention question to examine the deliberation question order effect. But there is no reason to believe that this effect does not extend to other kinds of questions. Any summary judgement can potentially benefit from the activation of all pertinent information in accessible memory. Policy preference questions, for example, may also experience a deliberation effect if preceded by policy-related questions exploring the issue’s various pros and cons.

Also, absent comparable experiments, it is not possible to provide evidence that speaks to the generalizability of these findings beyond the Canadian case. Arguably, the contextual, cultural and institutional differences between western democracies are sufficiently small to suggest the applicability of our conclusions to other countries. Clearly, further research is necessary to confirm such speculation.

Finally, the fact that the ordering of questions in a survey influences the quality of

respondents' answers sheds some light on the competence of citizens. It has been established, repeatedly, that most citizens are not politically sophisticated. They have little interest in politics, pay little attention to it, and possess dismal levels of political knowledge.⁶³ Nor is it clear that affective and cognitive shortcuts allow ill-informed people to mimic the attitudes and behaviours of the more informed⁶⁴. Nevertheless, under certain circumstances, citizens can overcome, at least partly, some of their limitations. When they are exposed to intense information flows, for instance during campaigns, they can learn substantially.⁶⁵ When they are brought in to deal with a difficult and contentious issue within a deliberative poll, they can acquire knowledge, discuss the issue extensively, and reach sensible policy-making decisions.⁶⁶ This study has showed that a public opinion survey, a much less invasive and costly operation, can also stimulate reflection and lead to more reliable political choices. What some citizens need, it seems, is an opportunity to reflect and to ponder their political views. When given such an opportunity, some citizens take advantage of it.

Appendix: Construction of Variables in Table 4 (2006 CES)

Change from one party to another (0/1):

[ces06_cps_b5, ces06_cps_b5, ces06_cps_s21, ces06_cps_s22]

0 if respondent supported a political party at the early vote intention question and supported the same party at the late vote intention question;

1 if respondent supported a political party at the early vote intention question and supported a different party at the late vote intention question.

Change from one party to indecision (0/1):

[ces06_cps_b5, ces06_cps_b5, ces06_cps_s21, ces06_cps_s22]

0 if respondent supported a political party at the early vote intention question and supported any party at the late vote intention question;

1 if respondent supported a political party at the early vote intention question and did not support a party at the late vote intention question.

Change from indecision to one party (0/1):

[ces06_cps_b5, ces06_cps_b5, ces06_cps_s21, ces06_cps_s22]

0 if respondent did not support a political party at the early vote intention question and did not support a party at the late vote intention question;

1 if respondent did not support a political party at the early vote intention question and supported any party at the late vote intention question.

Political knowledge (0-1):

[ces06_cps_know_1, ces06_cps_know_3, ces06_cps_know_5, ces06_cps_know_6a, ces06_cps_know_6b]

0 if respondent answered all questions incorrectly;

1 if respondent answered all questions correctly.

Strength of party identification (0-1):

[ces06_cps_q2]

0 if respondent does not identify with a political party;

.33 if respondent identifies not very strongly with a party;

.67 if respondent identifies fairly strongly with a party;

1 if respondent identifies very strongly with a party.

Ambivalence (0/1):

[ces06_cps_b8]

0 if the views about the party the respondent intends to support at the early vote intention question are mostly or all positive;

1 if the views about the party the respondent intends to support at the early vote intention question are mixed.

Table 1: Structure of 1988 and 2006 Canadian Election Study Campaign Surveys

1988

- Political interest and media attention
- * Vote intentions, location #1 (split sample group #1)
- Personal economic conditions
- Leader, party, and candidate evaluations
- Provincial economic conditions
- Strategic considerations
- National economic conditions
- Self and party placements
- Federal party identification
- Government performance
- Campaign activities
- Public policy issues
- Campaign activities
- * Vote intentions, location #2 (split sample group #2)
- Socio-demographic background

2006

- Political interest and media attention
 - * Vote intentions, location #1 (all respondents)
 - Campaign contact
 - Leader knowledge
 - Issue importance
 - Personal economic conditions
 - Values and issues 1
 - Leader and party evaluations
 - Political ethics
 - National economic conditions
 - Leader traits
 - Party promises
 - Parties' chances of winning
 - Values and issues 2
 - Political financing
 - Party identification
 - Leader debate perceptions
 - General political knowledge
 - Socio-demographic background
 - * Vote intentions, location #2 (all respondents)
-

Table 2: Aggregate Distribution of Vote Intentions for each Question Location (%)

	Question asked at the start	Question asked at the end	Difference
<i>1988</i>			
Conservative	37.8	38.7	+0.9
Liberal	27.5	28.6	+1.1
New Democrat	18.9	19.3	+0.4
Other	3.6	4.1	+0.5
Don't know	12.2	9.4	-2.8 **
<i>N</i>	<i>1524</i>	<i>1622</i>	
<i>2006</i>			
Liberal	29.3	31.2	+1.9
Conservative	29.0	30.3	+1.3
New Democrat	14.5	15.1	+0.6
Bloc Québécois	9.1	9.4	+0.3
Green	3.7	3.2	-0.5
Other	1.0	0.8	-0.2
Don't know	13.4	9.9	-3.5 **
<i>N</i>	<i>3436</i>	<i>3436</i>	

Statistical significance: * < .10; ** < .05

Table 3: Cross-tabulation of Answers to the Two 2006 Question Locations (% of entire sample)

Question asked at the end	Question asked at the beginning						Don't know	<i>Row total</i>
	Liberal	Conserv.	NDP	Bloc	Green	Other		
Liberal	27.9	0.3	0.7	0.1	0.2	0.1	2.0	31.2
Conservative	0.3	28.0	0.2	0.2	0.1	0	1.5	30.3
NDP	0.2	0.1	13.3	0.1	0.1	0.2	1.1	15.2
Bloc	0	0.1	0	8.7	0	0	0.5	9.4
Green	0	0	0	0	2.9	0.1	0.2	3.2
Other	0.1	0	0.1	0	0	0.3	0.3	0.8
Don't know	0.8	0.5	0.3	0.1	0.3	0.2	7.8	9.9
<i>Column total</i>	29.3	29.0	14.5	9.1	3.7	1.0	13.4	100

Table 4: Determinants of Attitude Change

	Change from one party to another	Change from one party to 'indecision'	Change from 'indecision' to a party
Political knowledge	-.57* (.30)	-.72* (.38)	.45 (.30)
Strength of party ident.	-1.05** (.28)	-2.90** (.41)	2.03** (.33)
Ambivalence	.71** (.20)	.59** (.26)	-
Constant	-2.70 (.27)	-2.52 (.31)	-0.99 (.19)
<i>N</i>	2876	2948	453
Log-Likelihood	-463.2	-295.1	-286.8
Pseudo R-squared	.04	.13	.07

Note: Entries are logit coefficient estimates with standard errors in parentheses.
 Statistical significance: * < .10; ** < .05

Table 5: Percentage of Respondents with the Same Campaign and Post-Election Vote Choice (%)

	Question asked at the start	Question asked at the end	Difference
<i>1988</i>			
All respondents	78,7	80,3	+1,6
<i>N</i>	986	1080	
<i>2006</i>			
All respondents	83,7	84,0	+0,3
<i>N</i>	2198	2198	
Those who changed their mind	35,9	50,1	+14,2**
<i>N</i>	128	191	

Statistical significance: * < .10; ** < .05

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- ¹ Phillip E. Converse, 'The Nature of Belief Systems in Mass Publics', in David E. Apter, ed., *Ideology and Discontent* (New York: Free Press, 1964), pp. 206-61; Robert C. Luskin, 'Measuring Political Sophistication', *American Journal of Political Science*, 31 (1987), 856-99; Eric R.A.N. Smith, *The Unchanging American Voter* (Berkeley: University of California Press, 1989); Michael X. Delli Carpini and Scott Keeter, *What Americans Know about Politics and Why it Matters* (New Haven: Yale University Press, 1996).
- ² Larry Bartels, 'Uninformed Votes: Information Effects in Presidential Elections', *American Journal of Political Science*, 40 (1996), 194-230; Delli Carpini and Keeter, *What Americans Know about Politics and Why it Matters*; Scott L. Althaus, 'Information Effects in Collective Preferences', *American Political Science Review*, 92 (1998), 545-58; Scott L. Althaus, *Collective Preferences in Democratic Politics* (Cambridge: Cambridge University Press, 2003).
- ³ Robert C. Luskin, James S. Fishkin, and Roger Jowell, 'Considered Opinions: Deliberative Polling in the U.K.', *British Journal of Political Science*, 32 (2002), 455-87.
- ⁴ Patrick Fournier, 'The Impact of Campaigns on Discrepancies, Errors, and Biases in Voting Behavior', in Henry Brady and Richard Johnston, eds, *Capturing Campaign Effects* (Ann Arbor: University of Michigan Press, 2006), pp. 45-77.
- ⁵ Diana C. Mutz, 'Cross-Cutting Social Networks: Testing Democratic Theory in Practice', *American Political Science Review*, 96 (2002), 111-26.
- ⁶ James N. Druckman and Kjersten R. Nelson, 'Framing and Deliberation: How Citizens' Conversations Limit Elite Influence', *American Journal of Political Science*, 47 (2003), 729-45
- ⁷ James H. Kuklinski, Paul J. Quirk, Jennifer Jerit and Robert F. Rich, 'The Political Environment and Citizen Decision Making: Information, Motivation, and Policy Tradeoffs', *American Journal of Political Science*, 45 (2001), 410-24.
- ⁸ Howard Schuman and Stanley Presser, *Questions and Answers in Attitude Surveys: Experiments on Question Form, Wording and Content* (New York: Academic Press, 1981); Norbert Schwarz and Seymour Sudman, *Context Effects in Social and Psychological Research* (New York: Springer-Verlag, 1992); Roger Tourangeau, Lance J. Rips and Kenneth Rasinski, *The Psychology of Survey Response* (Cambridge: Cambridge University Press, 2000).
- ⁹ Schuman and Presser, *Questions and Answers in Attitude Surveys*, p. 24.
- ¹⁰ E.g., Schuman and Presser, *Questions and Answers in Attitude Surveys*; Schwarz and Sudman, *Context Effects in Social and Psychological Research*.
- ¹¹ Gordon W. Allport, 'Attitudes', in Carl Murchison, ed., *Handbook of Social Psychology* (Worcester: Clark University Press, 1935), pp. 798-844; Muzaffer Sherif and Hadley Cantril, *The Psychology of Ego-Involvements: Social Attitudes and Identification* (New York: Wiley, 1947); Russell H. Fazio, 'On the Functionality of Attitudes: The Role of Attitude Accessibility', in Anthony R. Pratkanis, Steven J. Breckler and Anthony G. Greenwald, eds, *Attitude Structure and Function* (Hillsdale: Erlbaum, 1989), pp. 153-79.
- ¹² Timothy D. Wilson and Sara D. Hodges, 'Attitudes as Temporary Constructions', in Leonard L. Martin and Abraham Tesser, eds, *The Construction of Social Judgments* (Hillsdale: Erlbaum, 1992), pp. 37-66.
- ¹³ Phillip E. Converse, 'The Nature of Belief Systems in Mass Publics'.
- ¹⁴ Schuman and Presser, *Questions and Answers in Attitude Surveys*.
- ¹⁵ George Bishop, Robert Oldendick and Alfred Tuchfarber, 'Opinions on Fictitious Issues: The Pressure to Answer Survey Questions', *Public Opinion Quarterly*, 50 (1986), 240-50.
- ¹⁶ Phillip E. Converse, 'Attitudes and Non-Attitudes: Continuation of a Dialogue', in Edward R. Tuftte, ed., *The Quantitative Analysis of Social Problems* (Reading: Addison-Wesley, 1970), pp. 75-169.
- ¹⁷ Fritz Strack and Leonard L. Martin, 'Thinking, Judging, and Communicating: A Process Account of Context Effects in Attitude Surveys', in Hans-J. Hippler, Norbert Schwarz and Seymour Sudman, eds, *Social Information Processing and Survey Methodology* (New York: Springer-Verlag, 1987), pp. 123-48; Roger Tourangeau and Kenneth Rasinski, 'Cognitive Processes Underlying Context Effects in Attitude Measurement', *Psychological Bulletin*, 103 (1988), 299-314; Timothy D. Wilson and Sara D. Hodges, 'Attitudes as Temporary Constructions', p. 40; Seymour Sudman, Norman M. Bradburn and Norbert Schwarz, *Thinking About Answers: The Application of Cognitive Processes to Survey Methodology* (San Francisco: Jossey-Bass Publishers, 1996); Tourangeau, Rips and Rasinski, *The Psychology of Survey Response*.
- ¹⁸ Roger Tourangeau, 'Context Effects on Responses to Attitude Questions: Attitudes as Memory Structures', in Norbert Schwarz and Seymour Sudman, eds, *Context Effects in Social and Psychological Research* (New York: Springer-Verlag, 1992), pp. 35-48, at p. 36.
- ¹⁹ John R. Zaller, *The Nature and Origins of Mass Opinion* (Cambridge: Cambridge University Press, 1992); John R.

Zaller and Stanley Feldman, 'A Simple Theory of the Survey Response: Answering Questions versus Revealing Preferences', *American Journal of Political Science*, 36 (1992), 579-616; Tourangeau, Rips and Rasinski, *The Psychology of Survey Response*.

²⁰ Sudman, Bradburn and Schwarz, *Thinking About Answers*, p. 124.

²¹ Tourangeau, Rips and Rasinski, *The Psychology of Survey Response*, p. 20.

²² Herbert H. Hyman and Paul B. Sheatsley, 'The Current Status of American Public Opinion', in John C. Payne, ed., *The Teaching of Contemporary Affairs* (Twenty-first Yearbook of the National Council of Social Studies, 1950), pp. 11-34.

²³ Howard Schuman and Jacob Ludwig, 'The Norm of Evenhandedness in Surveys as in Life', *American Sociological Review*, 48 (1983), 112-120. It is important to note that question order effects can take place even though no change in the aggregate distribution of responses is encountered. Simply placing items in close proximity, for instance, tends to increase the correlations between the items. See William J. McGuire, 'Cognitive Consistency and Attitude Change', *Journal of Abnormal and Social Psychology*, 60 (1960), 345-53; Nancy A. Rosen and Robert S. Wyer, 'Some Further Evidence for the "Socratic Effect" Using a Subjective Probability Model of Cognitive Organization', *Journal of Personality and Social Psychology*, 24 (1972), 420-424.

²⁴ Howard Schuman, Stanley Presser and Jacob Ludwig, 'Context Effects on Survey Responses to Questions About Abortion', *Public Opinion Quarterly*, 45 (1981), 199-207.

²⁵ Lee Sigelman, 'Question-Order Effects on Presidential Popularity', *Public Opinion Quarterly*, 45 (1981), 199-207.

²⁶ Schuman and Presser, *Questions and Answers in Attitude Surveys*, p. 50.

²⁷ Allen I. Kraut, Alan D. Wolfson and Alan Rothenberg, 'Some Effects of Position on Opinion Survey Items', *Journal of Applied Psychology*, 60 (1975), 774-6

²⁸ Robert A. Dahl, 'Procedural Democracy', in Peter Laslett and James Fishkin, eds, *Philosophy, Politics, and Society* (New Haven: Yale University Press, 1979), pp. 97-133, at p. 104-5.

²⁹ James S. Fishkin, *Democracy and Deliberation: New Directions for Democratic Reform* (New Haven: Yale University Press, 1991); James S. Fishkin, *The Voice of the People: Public Opinion and Democracy* (New Haven: Yale University Press, 1995).

³⁰ Zaller, *The Nature and Origins of Mass Opinion*; Zaller and Feldman, 'A Simple Theory of the Survey Response'; Tourangeau, Rips and Rasinski, *The Psychology of Survey Response*.

³¹ Zaller, *The Nature and Origins of Mass Opinion*; Zaller and Feldman, 'A Simple Theory of the Survey Response'.

³² McGuire, 'Cognitive Consistency and Attitude Change'.

³³ William J. McGuire, *Constructing Social Psychology: Creative and Critical Processes* (Cambridge: Cambridge University Press, 2000), p. 191.

³⁴ Abraham Tesser and Christopher Leone, 'Cognitive Schemas and Thought as Determinants of Attitude Change', *Journal of Experimental Social Psychology*, 13 (1977), 340-56; Abraham Tesser, 'Self-Generated Attitude Change', in Leonard Berkowitz, ed., *Advances in Experimental Social Psychology* (San Diego: Academic Press, 1978), pp. 289-338; Shelly Chaiken and Suzanne M. Yates, 'Affective-Cognitive Consistency and Thought-Induced Attitude Polarization', *Journal of Personality and Social Psychology*, 49 (1985), 1470-81; Murray G. Millar and Abraham Tesser, 'Thought Induced Attitude Change: The Effects of Schema Structure and Commitment', *Journal of Personality and Social Psychology*, 51 (1986), 259-63; Akiva Liberman and Shelly Chaiken, 'Value Conflict and Thought-induced Attitude Change', *Journal of experimental Social Psychology*, 27 (1991), 203-16.

³⁵ Timothy D. Wilson, Dana S. Dunn, Jane A. Bybee, Diane B. Hyman and John A. Rotondo, 'Effects of Analyzing Reasons on Attitude-Behavior Consistency', *Journal of Personality and Social Psychology*, 47 (1984), 5-16; Timothy D. Wilson and Dana S. Dunn, 'Effects of Introspection on Attitude-Behavior Consistency: Analyzing Reasons Versus Focusing on Feelings', *Journal of Experimental Social Psychology*, 22 (1986), 249-63; Timothy D. Wilson, Dana S. Dunn, Dolores Kraft and Douglas J. Lisle, 'Introspection, Attitude Change, and Attitude-Behavior Consistency: The Disruptive Effects of Explaining Why We Feel the Way We Do', in Leonard Berkowitz, ed., *Advances in Experimental Psychology* (San Diego: Academic Press, 1989), pp. 287-343; Timothy D. Wilson, Dolores Kraft and Dana S. Dunn, 'The Disruptive Effects of Explaining Attitudes: The Moderating Effect of Knowledge about the Attitude Object', *Journal of Experimental Social Psychology*, 25 (1989), 379-400.

³⁶ Zaller and Feldman, 'A Simple Theory of the Survey Response'.

³⁷ Stanley Feldman, 'Measuring Issue Preferences: The Problem of Response Instability', *Political Analysis*, 1 (1989), 25-60; John R. Zaller, 'Political Awareness, Elite Opinion Leadership, and the Mass Survey Response', *Social Cognition*, 8 (1990), 125-53.

³⁸ Richard E. Petty and John T. Cacioppo, *Communication and Persuasion: Central and Peripheral Routes to Attitude Change* (New York: Springer-Verlag, 1986); Sniderman, Brody & Tetlock also suggest that sophistication is

related to the type of decision-making employed by citizens. They do not believe, however, that the quality of their decisions is influenced by the decision-making procedures they use. See Paul M. Sniderman, Richard A. Brody and Philip E. Tetlock, *Reasoning and Choice: Explorations in Political Psychology* (Cambridge: Cambridge University Press, 1991).

³⁹ E.g. Wilson, Dunn, Bybee, Hyman and Rotondo, 'Effects of Analyzing Reasons on Attitude-Behavior Consistency'; Wilson and Dunn, 'Effects of Introspection on Attitude-Behavior Consistency'; Wilson, Dunn, Kraft and Lisle, 'Introspection, Attitude Change, and Attitude-Behavior Consistency'; Wilson, Kraft and Dunn, 'The Disruptive Effects of Explaining Attitudes'; Zaller and Feldman, 'A Simple Theory of the Survey Response'.

⁴⁰ Millar and Tesser, 'Thought Induced Attitude Change'.

⁴¹ Zaller and Feldman, 'A Simple Theory of the Survey Response'; Tourangeau, Rips and Rasinski, *The Psychology of Survey Response*.

⁴² Zaller and Feldman, 'A Simple Theory of the Survey Response', p. 606.

⁴³ Fishkin, *Democracy and Deliberation: New Directions for Democratic Reform*; Fishkin *The Voice of the People: Public Opinion and Democracy*; Luskin, Fishkin and Jowell, 'Considered Opinions'; James S. Fishkin and Peter Laslett, *Debating Deliberative Democracy* (Oxford: Blackwell, 2003).

⁴⁴ McGuire, 'Cognitive Consistency and Attitude Change'; McGuire, *Constructing Social Psychology*, p. 191.

⁴⁵ Schuman and Presser, *Questions and Answers in Attitude Surveys*; Schwarz and Sudman, *Context Effects in Social and Psychological Research*.

⁴⁶ The 1988 CES campaign survey uses a rolling cross-sectional design: small random samples of respondents were interviewed each day of the campaign. Interviews started the day the election was called (October 4) and ended the day before the election (November 20). In total, 3609 36-minute interviews were completed. The co-investigators of this study were Richard Johnston, André Blais, Henry Brady and Jean Crête. The survey was conducted by the Institute for Social Research at York University. The response rate was 57 percent. Financial support was provided by the Social Sciences and Humanities Research Council of Canada. Information about the study, questionnaires and data can be obtained from the Interuniversity Consortium for Political and Social Research (www.icpsr.umich.edu).

⁴⁷ The 2006 CES is also based on a rolling cross-sectional design. Fieldwork began the day the election was called (November 29) and ended on the eve of the election (January 22). There were 4058 29-minute interviews. The study's co-investigators were André Blais, Joanna Everitt, Patrick Fournier, Elisabeth Gidengil, and Neil Nevitte. The Institute for Social Research conducted the interviews. The response rate was 57 percent. Financial support was provided by the Social Sciences and Humanities Research Council of Canada and by Elections Canada. Information about the study, questionnaires and data can be obtained from the Canadian Election Study (ces-ec.mcgill.ca).

⁴⁸ Although we often use the singular expression 'vote intention question', vote intentions are typically measured by more than one question. The Canadian Election Studies used in this study employ two questions: a main question and a follow-up prompt among those who answered 'don't know' to capture 'leaners'. We collapse answers to both questions as a single phenomenon. Note that treating 'leaners' as undecided produces similar results to those reported here (results available upon request). It actually strengthens them a little; the drop in non-response and the amount of intra-survey attitude change are slightly greater. Some of this extra movement, however, may be artifactual. Some 2006 CES respondents could have modified their response to the main question in the second location because they are anticipating a follow-up question after a 'don't know' response (as they experienced in the first location). Therefore, it is preferable (i.e. conservative) to collapse both questions.

⁴⁹ The absence of non-voters stems from the fact that the vote intention question was not asked of respondents who said to a preceding question about the likelihood of voting that they 'did not expect to vote' in 1988 or were 'certain not to vote' in 2006.

⁵⁰ The non-response category only contains 'don't know' responses, 'refusals' were excluded. It should be noted that including refusals does not substantially alter these or the following results (results available upon request). Since a decline in refusals is more readily interpreted as a rapport effect, it is logical to exclude those answers.

⁵¹ There are two exceptions in 2006: the Green party and other parties. Their support is slightly lower in the late question location.

⁵² Norman M. Bradburn and William M. Mason, 'The Effect of Question Order on Responses', *Journal of Marketing Research*, 1 (1964), 57-61; Seymour Sudman and Norman M. Bradburn, *Response Effects in Surveys: A Review and Synthesis* (Chicago: National Opinion Research Center, 1974); Sigelman, 'Question-Order Effects on Presidential Popularity'.

⁵³ E.g. Sniderman, Brody and Tetlock, *Reasoning and Choice*; Zaller, *The Nature and Origins of Mass Opinion*; Johanne M. Miller and Jon A. Krosnick, 'News Media Impact on the Ingredients of Presidential Evaluations:

Politically Knowledgeable Citizens are Guided by a Trusted Source', *American Journal of Political Science*, 44 (2000), 295-309.

⁵⁴ Sudman and Bradburn, *Response Effects in Surveys*; Schuman and Presser, *Questions and Answers in Attitude Survey*; Schuman, Presser and Ludwig, 'Context Effects on Survey Responses to Questions About Abortion'; Jon A. Krosnick and Howard Schuman, 'Attitude Intensity, Importance, Certainty, and Susceptibility to Response Effects', *Journal of Personality and Social Psychology*, 54 (1988), 940-52; Roger Tourangeau, Kenneth A. Rasinski, Norman Bradburn and Roy D'Andrade, 'Carryover Effects in Attitude Surveys', *Public Opinion Quarterly*, 53 (1989), 495-524; Jon A. Krosnick, 'The Impact of Cognitive Sophistication and Attitude Importance on Response-order and Question-Order Effects', in Norbert Schwarz and Seymour Sudman, eds, *Context Effects in Social and Psychological Research* (New York: Springer-Verlag, 1992), pp. 203-20; Sudman, Bradburn and Schwarz, *Thinking About Answers*.

⁵⁵ Zaller, *The Nature and Origins of Mass Opinion*; John R. Zaller, 'The Myth of Massive Media Impacts Revived: New Support for a Discredited Idea', in Diana C. Mutz, Paul M. Sniderman, and Richard A. Brody, eds, *Political Persuasion and Attitude Change* (Ann Arbor: The University of Michigan Press, 1996), pp. 17-78.

⁵⁶ Luskin, 'Measuring Political Sophistication'; Susan Fiske, Richard Lau and Richard Smith, 'On the Varieties and Utilities of Political Expertise', *Social Cognition*, 8 (1990), 31-48; Zaller, 'Political Awareness, Elite Opinion Leadership, and the Mass Survey Response'; Michael X. Delli Carpini and Scott Keeter, 'Measuring Political Knowledge: Putting First Things First', *American Journal of Political Science*, 37 (1993), 1179-206.

⁵⁷ Zaller, *The Nature and Origins of Mass Opinion*.

⁵⁸ R. Michael Alvarez and John Brehm, 'American Ambivalence Towards Abortion Policy: Development of a Heteroskedastic Probit Model of Competing Values', *American Journal of Political Science*, 39 (1995), 1055-82; Zaller and Feldman, 'A Simple Theory of the Survey Response'; Howard Lavine, 'The Electoral Consequences of Ambivalence Toward Presidential Candidates', *American Journal of Political Science*, 45 (2001), 915-29; Patrick Fournier, 'Ambivalence and Attitude Change in Vote Choice: Do Campaign Switchers Experience Internal Conflict?', in Stephen Craig and Michael Martinez, eds, *Ambivalence, Politics, and Public Policy* (New York: Palgrave, 2005), pp. 27-46.

⁵⁹ Note that ambivalence was not measured of those respondents who did not initially indicate a party preference. So this variable is excluded from the model which deals with movement from 'indecision' to a party preference.

⁶⁰ All effects were calculated using Clarify. See Gary King, Michael Tomz and Jason Wittenberg, 'Making the Most of Statistical Analyses: Improving Interpretation and Presentation', *American Journal of Political Science*, 44 (2000), 347-361; Michael Tomz, Jason Wittenberg and Gary King, *CLARIFY: Software for Interpreting and Presenting Statistical Results. Version 2.0*, (Cambridge, MA: Harvard University, 2001), June 1. gking.harvard.edu

⁶¹ Modeling the attitude change of columns 1 and 2 as a multinomial logistic regression with no change as the reference category does not alter the inferences to be drawn from the results (results available upon request).

⁶² While this group's answers at the end of the questionnaire are more strongly correlated to their post-election reported vote, still only about half voted on election day as they intended to vote in the campaign survey.

⁶³ Converse, 'The Nature of Belief Systems in Mass Publics'; Luskin, 'Measuring Political Sophistication'; Smith, *The Unchanging American Voter*; Delli Carpini and Keeter, *What Americans Know about Politics and Why it Matters*.

⁶⁴ Bartels, 'Uninformed Votes: Information Effects in Presidential Elections'; Althaus, 'Information Effects in Collective Preferences'; Althaus, *Collective Preferences in Democratic Politics*; James H. Kuklinski and Paul J. Quirk, 'Reconsidering the Rational Public: Cognition, Heuristics, and Mass Opinion', in Arthur Lupia, Mathew D. McCubbins and Samuel L. Popkin, eds, *Elements of Reason: Cognition, Choice, and the Bounds of Rationality* (New York: Cambridge University Press, 2000), pp. 153-182; Luskin, Fishkin and Jowell, 'Considered Opinions: Deliberative Polling in the U.K.'

⁶⁵ Larry Bartels, *Presidential Primaries and the Dynamics of Vote Choice* (Princeton: Princeton University Press, 1988); Charles Franklin, 'Eschewing Obfuscation? Campaigns and the Perceptions of U.S. Senate Incumbents', *American Political Science Review*, 85 (1991), 1193-214; Richard Johnston, André Blais, Henry Brady and Jean Crête, *Letting the People Decide: Dynamics of a Canadian Election* (Kingston: McGill-Queen's University Press, 1992); Richard Johnston, André Blais, Elisabeth Gidengil and Neil Nevitte, *The Challenge of Direct Democracy: The 1992 Canadian Referendum* (Montreal, McGill-Queen's University Press, 1996).

⁶⁶ Fishkin, *Democracy and Deliberation*; Fishkin, *The Voice of the People*; Luskin, Fishkin and Jowell, 'Considered Opinions'; Fishkin and Laslett, *Debating Deliberative Democracy*.