

Who Responds to Election Campaigns? The Two-Moderator Model Revisited

Patrick Fournier, Université de Montréal

Fred Cutler, University of British Columbia

Stuart Soroka, McGill University

Abstract: The information generated by campaign events affects election outcomes. The effects are sometimes powerful for the average voter, but there should also be interpersonal heterogeneity in susceptibility to these effects. So which voters are influenced most? Which are influenced least? Building on the Converse-McGuire-Zaller model of opinion change, we propose that campaigns should disproportionately affect the voting decisions of voters who are both *ambivalent* and *attentive*. This paper develops this simpler, more economical two-moderator model of opinion change. The model is tested on campaign events – advertising, debates, and media coverage – with rolling cross-section survey data from two Canadian elections. Analyses suggest that the impacts of these real, measured campaign forces are indeed limited to voters who have both high levels of information and are also somewhat ambivalent, or cross-pressured, in their vote choice. These results thus deepen our understanding of political behaviour in a campaign context; they also support Zaller’s claim that his theory of attitude change applies to election campaigns.

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Campaign events affect election outcomes. This claim, once unpopular, is now virtually undisputed (e.g., Johnston et al. 1992, 2004; Holbrook 1996; Blais et al. 1999, 2003, 2008; Farrell and Schmitt-Beck 2002; Brady and Johnston 2006). But which voters are influenced by campaign events and the information they generate? Scholars and campaign operatives alike have assumed that some voters are too set in their ways to be open to conversion, and some voters pay too little attention to be swayed by campaign information; this likely leaves only a minority susceptible to changing their minds based on the news of the campaign. In spite of this widely recognized fact, however, most research on campaign effects demonstrates only the total effect of campaign events.¹ Finding the subset of voters susceptible to campaign influence should provide a more satisfying portrayal of the campaign processes that can drive election outcomes (Hillygus and Shields 2008). Indeed, some campaign effects important to outcomes but undetectable among all voters might be visible if we know where to look.

To do so, we deploy and revise the dominant model of persuasion by new information, elaborated by Zaller (1992, 1996), and based in earlier work by Converse (1962) and McGuire (1968, 1969). It conceives of attitude change as resulting from a pair of cognitive psychological mechanisms: (1) *reception* of persuasive information and (2) *acceptance* of that information. This *two-moderator* model of attitude change has received much theoretical attention but its empirical implementation has often been less than satisfactory. Only Zaller himself — in an early article (1989) and an infrequently referenced chapter toward the end of *The Nature and Origins of Mass Opinion* (1992) — has used the two-moderator model to account for opinion change in an election campaign. Some applied work has simplified the model by operationally combining reception and acceptance into a non-monotonic one-moderator model, namely media use or political information (Converse 1962; Dreyer 1971; Macaluso 1977; Zukin 1977; Nadeau and Guay 1990; Nadeau et al. 2008). Zaller has argued that this one-moderator model is inappropriate in the context of elections (1992). That said, his own statistical approach is not thoroughly convincing, as it involves multiple functions using the same variables. Moreover, Zaller does not use dynamic data directly measuring the potentially persuasive information. It is regrettable indeed that the statistical model derived by Zaller from this theory has been all but ignored in the two decades since its appearance.

Our goal is to clarify, simplify, and refine the Converse-McGuire-Zaller (CMZ) model for use in election campaigns by drawing particularly on recent work on ambivalence and cross-pressured voters (Hillygus and Shields 2008). We test this revised model on three prominent campaign effects: advertisements, debates, and media coverage. Our data are drawn from two Canadian election surveys conducted with the rolling cross-section design: the 2003 Ontario Election Study (OES) and the 2011 Canadian Election Study (CES), allowing us to measure information flow and voting behaviour on a daily basis over a one-month election campaign.

The results fall squarely in line with recent work on campaigns by showing that the campaign did matter in these elections, which is to say that information conveyed during the campaigns had an effect on individuals' voting choices. But we go further to show that the more complete story is

¹ Existing studies of campaign effects accurately reflect the net impact of campaigns but largely ignore the potential for different responses to campaign events by different kinds of voters. There are some exceptions, including Zaller 1989, 1992, 1996; Johnston et al. 1996; Hillygus and Jackman 2003; Fournier et al. 2004; and Hillygus and Shields 2009.

that campaign information usually affects only a subset of voters: those with both high levels of information *and* ambivalence about their vote choice. Before moving to analysis, the following section reviews the existing literature on campaign effects and the two-moderator model.

Campaigns and the Cognitive Two-Moderator Model

Elections are the focus of the modern democratic process. The significance of election *campaigns* for voting behaviour has not been obvious, however. In a literature that began with an emphasis on the stability of partisan preferences and on voter inattentiveness and ignorance, it has taken a long time for researchers to answer affirmatively to the question, “Do campaigns matter?”

That said, while campaign effects have been detected regularly over the past two decades, and they are sometimes quite large (e.g., Johnston et al. 1992, 1994, 1996, 2004; Nevitte et al. 2000; Blais et al. 2002; Hillygus and Jackman 2003; Holbrook 1996), it is reasonable to expect their impact to be strong for some voters while other voters are immune. We infer this from the many reports of interpersonal heterogeneity in political behavior and political attentiveness (e.g., Rivers 1988; Sniderman et al. 1991; Krosnick 1988, 1990; Zaller, 1992; Bartels 1996; Miller and Krosnick 2000). With respect to campaigns in particular, both Fournier (2005) and Hillygus and her colleagues (Hillygus and Jackman 2003; Hillygus and Shields 2008) provide evidence of interpersonal variation in the propensity for attitude change. Yet pointed analyses of individual differences in response to campaign forces are limited.² Attempts to identify groups more and less susceptible to campaign effects have argued that partisanship and attention both moderate the impact of campaign information (Geer 1988; Gwiasda 2001; Hillygus and Jackman 2003; Johnston 1992; Johnston, Hagen, and Jamieson 2004; Zaller 1992). Only very recently, Hillygus and Shields have returned to an earlier theory of cross-pressured voters to find *The Persuadable Voter*, arguing that “individuals conflicted by the considerations underlying their vote decision should be open to campaign persuasion” (2008, 85). As in that study, we use theories of attitude change to propose a more general way to identify voters susceptible to the campaign.

The Existing Two-Moderator Model

The two-moderator model of attitude change is rooted in the study of social cognition (Fiske and Taylor 1991). For a communication to register and thereby affect judgment, several cognitive events must take place: exposure, attention, comprehension, yielding, memorizing, retrieval, and activation (McGuire 1999). In most of the relevant theory, this process is boiled down to two key cognitive processes: (1) reception, and (2) acceptance.

These processes are unfortunately not directly measurable outside of the laboratory. And separating the moderating effects of two processes is difficult, since many individual characteristics have cross-cutting effects on the probability of receiving and accepting new information (Converse 1962; McGuire 1968, 1969). In the context of modern mass politics, the most important moderators, political attention and sophistication, increase the likelihood of receiving a message but also decrease the likelihood of accepting it (see McGuire 1968; Zaller 1992; Miller and Krosnick 2000).³ For the most part, rather than try to disentangle the two

² See footnote 1 for exceptions.

³ Research on social influence has repeatedly encountered the conundrum of contrary findings. For instance, in social psychology, the relationship between self-esteem and influenceability is found to be

processes, researchers have relied on theory and assumptions about the intensity of campaign information to specify a non-monotonic mediating relationship using one variable, usually some measure of political attention and sophistication (Converse 1962; McGuire 1969; Dreyer 1971; Macaluso 1977; Zukin 1977; Nadeau and Guay 1990; Zaller 1996). The standard approach is to argue that citizens with moderate levels of sophistication or attention should be the most susceptible to influence – they are more likely to both receive *and* accept persuasive communications.

One can hardly criticize the use of political sophistication as a source of individual differences in political attitude change.⁴ But there are clear dangers in taking a theory constructed with two independent moderators and reducing it in practice to a one-moderator, albeit non-monotonic, model. Zaller's landmark research (1989, 1992, 1996) highlighted the potential perils of this approach. It also tried to operationalize a two-step process. Recognizing that reception and acceptance are two separate stages, Zaller's analyses specify a separate function for each. The problem is that his approach, as Zaller himself acknowledges, leads to complex and unwieldy empirical models. Consider, for instance, his model of two-sided information flows as applied to support for the Vietnam war (1992: 199). It includes political awareness (reception) entered three times directly and three times in an interaction term; even after a constrained form is estimated, few of the conditional effects are significant. While more manageable, the electoral choice models are still not reader- or user-friendly (Zaller 1992: Chapter 10). This is perhaps why Zaller's empirical model, while highly regarded and widely cited, is rarely replicated.

Equally if not more critical for our analysis here, Zaller's work also suggests that a one-measure, non-monotonic moderator is particularly inappropriate and even misleading for the analysis of election campaigns (1992, Chapter 10). In campaigns the partisan content of messages is so obvious that acceptance should not be moderated by awareness/attentiveness. Put differently, the prevalence of partisan cues in campaign-period communication means that even the less aware are able to distinguish between the information they wish to accept, or not; there is no group of moderately-aware individuals who are open to information contrary to their partisan disposition, because all information is so clearly partisan.⁵ As a consequence, in a campaign context,

both positive (McGuire and Ryan 1955 [cited in McGuire 1999]) and negative (Janis 1954). In political science, there is evidence of priming – the influence of media coverage on the determinants of decisions – being stronger among the less politically sophisticated (Iyengar, Kinder, Peters and Krosnick 1984; Krosnick and Kinder 1990), being stronger among the most sophisticated (Krosnick and Brannon 1993; Miller and Krosnick 2000), and being unrelated to sophistication (Iyengar and Kinder 1987).

⁴ In addition to the priming studies cited earlier, sophistication has proven to be an important discriminator of various forms of political cognition and behavior: notably agenda-setting and framing effects (Iyengar and Kinder 1987; Nelson et al. 1997; Miller and Krosnick 2000), information processing (Fiske et al. 1990; McGraw et al. 1990; McGraw and Pinney 1990; McGraw and Steenbergen 1995), interpersonal heterogeneity in decision making (Stimson 1975; Sniderman et al. 1991; Johnston et al. 1996; Fournier 2006), and deviations from enlightened opinions (Bartels 1996; Althaus 1998, 2003; Luskin et al. 2002).

⁵ In the chapter "Information Flow and Electoral Choice" (1992, 216-264) Zaller finds no solid negative relationship between awareness and acceptance. He infers that "What is different for candidate [i.e. election] considerations, in comparison with issue-relevant considerations, is that the least politically aware people exhibit nearly as much partisan discrimination as the most aware... this can only be because the cueing information necessary to achieve partisan resistance is much more widely available in election campaigns..." (242).

awareness/attentiveness measures only the probability of reception of campaign messages — it misses entirely the likelihood of acceptance. There is however another moderating variable that captures acceptance, namely, *resistance* to new information, made up of both (a) *partisan resistance*, where opponents' messages are discounted, and (b) *inertial resistance*, where new information is integrated into a “pre-existing mass of stored partisan considerations” (1992: 237). The former is measured by strength of partisanship; the latter is measured by the balance of party likes and dislikes. Zaller (1992) finds that both individually, as well as in combination, lower the probability that new information will be accepted, given that it is received.⁶

A number of studies that have sought to test Zaller's theory of the influence of information in election campaigns (e.g., Dobryznska and Blais 2007; Goren 2004; Kriesi 2003; Krosnick and Brannon 1993; Dalton et al 1998), and most appear to cast doubt on the accuracy or applicability of Zaller's theory. But this body of work has sought to apply Zaller's *general* theory of opinion change to election campaigns – rather, that is, than apply the theory specific to election campaigns discussed above. In short, existing tests of Zaller's theory do not deal with the critical modification of his theory for the campaign context.

Here, we seek to add to this body of research testing Zaller's theories. But, in contrast with existing work, we wish to take into account the campaign-specific elements introduced later in his book. In short, we aim to respecify what is in fact a more straightforward and important element of the Zaller-Converse-McGuire theory: the clarity and bulk of predispositions themselves. Simply put, the influence of new messages is moderated by the existence of predispositions in the first place. Without clear predispositions that point towards a particular attitude or behavior, citizens have no motivation to resist new information, and no one-sided store of existing considerations into which that information might sink. For those voters, new information should be decisive. The weight of voters' predispositions, then, is the second of the two moderators of campaign information, entirely separate from the first moderator measuring reception of that information.⁷

Hillygus and Shields (2008) use very similar theory and find that “persuadable” voters, defined as having at least two important policy opinions at odds with their party, are indeed far more likely to defect from their partisanship in Presidential elections.⁸ They find that rates of defection are much higher among persuadable voters when they: i) experience more campaign activity (in battleground states), ii) are habitually interested in and attentive to politics (2008, 91), or iii) are interviewed shortly after campaign events like conventions and debates (99). Our

⁶ Zaller finds that only at high levels of awareness is there a difference by partisan strength/inertia in the acceptance of messages. The group he measures as “disaffected partisans” (weak partisans with little inertia) accept the messages at all levels of political information while the “strong partisans” (strong partisans with high inertia) do not (Zaller 1992, Figure 10.1, p. 225).

⁷ Zaller points out that “political awareness is associated with resistance to persuasion in part because it is a proxy for inertial resistance” (1992, 221). Proxies, of course, should be replaced with direct measures if they are available, and in the case of election campaigns, we almost always have the direct measure. Thus Zaller says in Chapter 10 that “in adding the inertia variable [party likes & dislikes] to the acceptance function, I am able, for the first time, to make a direct test for inertial resistance.” Having done so, he can conclude that “Insofar as attentiveness affects the acquisition of campaign information, it appears therefore to be mainly via its effect on reception” (Zaller 1992, 243).

⁸ Hillygus and Shields are somewhat less explicit about the heritage of the theory in Zaller, Converse, and McGuire.

operationalization of ambivalence, below, bears a strong resemblance to their operationalization of cross-pressured, persuadable voters. Our study, conceived independently, ultimately complements theirs by using different data, from a very different electoral context, with a more explicit specification of the two moderators as jointly necessary for influence by campaign information, and with more direct measurement of persuasive information. We turn to that specification now.

The Two-Moderator Model: Towards a New Specification

Part of the complexity in Zaller's models of campaign opinion change is a function of data availability: he does not use measurements of campaign information as a cause of change, but rather infers its effect by demonstrating that the link between partisanship and vote choice is moderated by determinants of reception and acceptance, including contextual measures of campaign intensity (1992, Chapter 10 *passim*; see also Hillygus and Shields 2008). A more direct test of the model for campaign effects is the focus of this paper. We radically simplify the operationalization and test it on data better suited to detecting the influence of changing information over an election campaign.

The first moderator – probability of *reception* – is operationalized simply as a voter's level of political information. Information is a better measure than indicators of news consumption because reception is more than a question of exposure and attention (Price and Zaller 1993; Zaller 1996; Luskin 1987; but see Krosnick and Brannon 1993). As we have argued, political awareness can enter the model exclusively in the reception function, because it is not suited in a campaign context for the acceptance function. Furthermore, without this separation of empirical indicators for each moderator, the functional form and the strength of the effects of reception and acceptance on persuadability become essentially an impossible mess to disentangle.

For the second moderator – probability of *acceptance* – we agree with Hillygus and Shields (2008) that a simpler direct measure is readily available: ambivalence. Ambivalence refers to the extent to which the elements people take into account when making a decision push toward opposing positions simultaneously, in contrast to elements entirely consistent with a single position (Zaller 1992; Zaller and Feldman 1992; Alvarez and Brehm 1995, 1997, 2002; Lavine 2001; Basinger and Lavine 2005).⁹ Even many well-informed, attentive voters have conflicts among the attitudes that contribute to their decision. To use a now-dated term recently revived by Hillygus and Shields (2008) they are “cross-pressured” (Lazarsfeld et al. 1944; Berelson et al. 1954; A. Campbell et al. 1960; J. Campbell 2000), closer to indifference among choices and therefore more likely to be pushed one way or another by new information (Glasgow 2004).

Hillygus and Shields sum up the psychological research on persuasion that provides a foundation for this theory: “When the underlying structure of an attitude is less consistent, that attitude is more responsive to new information” (2008, 84; see also Eagly and Chaiken 1995). Research in political psychology confirms that ambivalence is related to attitude change. Ambivalent voters tend to exhibit greater variability in policy preferences (Alvarez and Brehm 1995), to change their issue positions more frequently over time (Zaller 1992; Zaller and Feldman 1992) or in response to counterarguments (Fournier 2003), and to exhibit instability in their vote choice

⁹ While Zaller (1992) deals with both the two-moderator model of attitude change and ambivalence, the latter concept only intervenes in his survey response framework, it is not considered for the indicator of the acceptance axiom.

during campaigns (Lavine 2001; Fournier 2005; Hillygus and Shields 2008).

The least ambivalent voters have one-sided prior considerations and are more likely to recognize messages that are at odds with their initial position and reject them or the new information even if accepted will not tip the balance to the other candidate. Friendly messages should be assimilated, but of course these new ideas will only reinforce the decision. Ambivalent, cross-pressured voters, by contrast, have a mixed set of relevant attitudes and are: (a) more likely to accept persuasive messages from various sides and (b) if integrated, the messages will be more decisive. Ambivalence, then, subsumes under a more general rubric other potential moderators such as strength of partisanship and levels of opinionation which have sometimes been used in a relatively *ad hoc* way as moderators of attitude change in campaigns (Hillygus and Jackman 2003). In truth, ambivalence is effectively a reduced form of the partisan and inertial resistance processes identified by Zaller: it measures the volume and strength of partisan and other considerations that would blunt the impact of new information.

Together, information and ambivalence yield a simple and straightforward operationalization of the model's reception and acceptance functions. Combining the two moderators in this way allows us to directly test a theory of campaign effects derived from Converse, McGuire, and Zaller. Response to campaign information should be greatest when information and ambivalence are *jointly* found at high levels. Both are necessary but individually insufficient conditions for influence by new campaign information. The subset of informed, ambivalent voters should however respond much more strongly than others to campaign influences such as advertising, debates, and news coverage.

Data

We examine campaign effects in two relatively volatile elections in Canada where campaign movement was pronounced. The first is the 2003 provincial election in Ontario. Provincial elections in Canada are among the most intensely followed, objectively important sub-national elections in the world – they are by no means the poor cousins of national elections (reference removed for review).¹⁰ The second election is the 2011 Canadian federal election, though we focus on Quebec where massive movement over the campaign produced a truly shocking result. These particular elections have several advantages for our purposes. Both are conducted using a rolling cross-section methodology (Johnston and Brady 2002).¹¹ The rolling cross-sectional

¹⁰ Provincial governments are responsible for 60% of government spending in Canada, and they raise nearly half of public revenues. They have primary responsibility for health, education, much of transportation, environmental regulation, commercial and industrial regulation, and many other areas. Voters' decisions at provincial elections have at least as great an impact on the quality of their lives as their federal choices. Canadians must be aware of this, since they turn out to vote at roughly the same rate in provincial and federal elections.

¹¹ In Ontario 2003, each night of the election campaign – from 3 September through 1 October, 2003 – a unique sample replicate was released and phoned for the next seven days. Each number was called twice a day for the first four days and once a day for the final three. A target of 80 completed interviews per night was established, and this target was reached and maintained after five days of sample replicates were released. Unreached sample from earlier replicates were re-released for the last three days as response rates declined near the end of the campaign. Fieldwork was conducted by Opinion Search, Inc. using CATI interviewing. A core survey was established and run throughout the election. Additional questions were added to the core survey at various points in the campaign.

design, with respondents distributed randomly throughout the campaign, is a sensitive instrument to capture public reactions to campaign events. Figure 1 shows the campaign tracking of vote intentions for Ontario, 2003 and Quebec 2011 respectively. These elections are, to be fair, atypical in the size of the campaign movement. But we do not think they are atypical with respect to our research question: in the way the strength of these effects are distributed through the electorate. These are simply ‘most-likely’ cases where we have greater statistical power to detect the effects we expect.

[Figure 1 about here]

Campaign Effects

Campaign effects are usually defined as changes in the balance of party/candidate preferences due to new information provided in the campaign. That information may result from events like debates and candidate appearances, from parties and candidates’ statements, or from media coverage. The dependent variable, therefore, is the voter’s intended choice among the major parties, measured during the campaign. The estimates of effects presented here are derived from a multinomial logit model of choice among the major parties. In Ontario these are the centre-right Progressive Conservative (PC) party, centrist Liberal party, and democratic socialist New Democratic Party (NDP).¹² In Quebec in 2011 these are the Conservative Party of Canada (CPC), the Liberal party, the New Democratic Party, and the nationalist Bloc Québécois. Decided voters and leaners are included, undecided voters are excluded.¹³

Key to establishing campaign effects, in our view, is careful identification and measurement of exactly the information that might be influential in a given campaign. Independent variables operationalizing campaign information are necessarily identified after a campaign and are specific to a particular campaign. In Ontario we examine three important forms of campaign information: advertisements (e.g., Freedman, Franz, and Goldstein 2004; West 1996, Shaw 1999; Johnston et al. 2004), debates (e.g., Geer 1988; Johnston et al. 1992; Blais et al. 1996, 1999; Holbrook 1996), and the balance of media coverage of different issues (e.g., Johnston et al. 1992; Mendelsohn, 1996; Miller and Krosnick 2000).¹⁴ For the 2011 election we examine the impact

For Canada 2011, similar methodology was employed, conforming to the normal practice of Canadian Election Studies conducted by the Institute for Social Research at York University.

¹² This specification allows for the possibility that campaign effects can push voters toward one party and away from another but leave some parties unaffected. Effectively, the model estimates binary comparisons among the three parties (Alvarez and Nagler 1996; Dow and Endersby 2004). This makes for a more difficult test for the model since sample sizes for the estimates of standard errors involved only those voters who chose two of the three options. In what follows, if the effect is in the same direction with respect to one party in its two comparisons with the other two parties (meaning the campaign effect pushes voters from *both* other parties toward the party in question) we note that fact and present the total effect with appropriate standard errors.

¹³ It is worth pointing out that conditional on attention to the campaign, the undecided are the *most* susceptible to campaign effects through their high level of ambivalence. Our findings are, then, probably conservative estimates of the true effects.

¹⁴ We also considered as campaign effects what are called “poll effects” (e.g., Bartels Johnston et al. 1992; Mutz 1998; Mebane 2000) but do not include them here for two reasons. First, we could not convince ourselves that the simple estimation strategy of including prior polls as independent variables is unbiased and consistent, since any unmeasured determinants of the vote choice are also determinants of poll numbers, so the latter will be correlated with vote choice even if there is no causal effect. Second, we

of media coverage of the party leaders and of the issue of Québec's sovereignty.

Ontario 2003

Advertisements

Advertisements are a prime suspect for campaign effects in Ontario in 2003. First, a series of highly negative PC television ads may have driven that party's support *down* by prompting voters to characterize the PC leader, Ernie Eves, as "too negative" (Reference removed for review). Their extreme negativity brought widespread critical coverage, with the media reporting criticism of the ads even by PC candidates and partisans. The independent variable capturing the ad effect is a dummy variable indicating whether the respondent reported seeing TV election ads from the Conservatives. (Unfortunately, the sample for this analysis is limited to the 12 days on which the question about ad reception was asked, though this covers the crucial period of the introduction and withdrawal of the negative PC ads.)

Our first hypothesis is therefore that seeing TV ads in this period drove voters away from the PC party and to the Liberals – they should have left the NDP unaffected – but only among those generally attentive (information) and with a high level of ambivalence.

Debate

The party leaders' debate appeared to stem the Liberal tide in the 2003 Ontario election, if only temporarily, preventing a runaway victory. The debate is treated as a campaign event, measured for each respondent as the number of days since the debate took place (see also Geer 1988; Hillygus and Jackman 2003; Hillygus and Shields 2008; Johnston et al. 1992). (Also included is a quadratic term to allow for the influence of the debate to decay or strengthen over time.) We prefer this measurement of the influence of the debate to other approaches, such as using debate viewership, since previous work has shown that debate effects extend through media coverage and word-of-mouth to non-viewers (Johnston et al. 1992; Blais et al. 1996, 1999). We include all respondents interviewed prior to the debate with values of zero on the debate variables. To corroborate this representation of the debate we also estimate a model using respondents' report of having seen the debate themselves.

We hypothesize that only attentive and ambivalent voters move away from the Liberals in the days immediately following the debate, but that these voters come back to the Liberals as the influence of the debate and the Liberal-positive media interpretation of the debate kicks in, or the short-term effect of the debate simply recedes in voters' consciousness.

Issue Coverage

Throughout the 2003 campaign, a considerable majority of voters (regardless of partisanship) preferred the PC party on taxes and the economy while a majority preferred the Liberals on health care and education. There is little change over the campaign in responses to the question "What party do you think will do a better job dealing with..." Issues that began as Liberal issues remained so, and vice versa; and this is true even though vote intentions change considerably over the campaign (see Figure 1).

are not convinced that polls are 'messages' like other campaign information and thus fit the two-moderator theory.

This ‘issue ownership’ would not bear notice, but for the fact that media coverage of ‘Liberal issues’ versus ‘PC issues’ was variable over the campaign. Indeed, shifts in the coverage of these issues quite nicely capture the dynamics in vote intention we have seen in Figure 1. Our third independent variable measuring campaign information is thus drawn from a daily content analysis of all election stories (not opinion or editorials) in the *Toronto Star* and the *Ottawa Citizen*, broadly typical of election coverage province-wide across newspapers, TV, and radio. Only news stories were included (not opinions and editorials). The measure is the relative weight given to Liberal versus PC issues:

$$(\% \text{ Education articles} + \% \text{ Health articles}) / (\% \text{ Taxes articles} + \% \text{ Economy articles})$$

Figure 2 tracks both Liberal and PC issue over the campaign. The balance in coverage tells an important story about the 2003 contest: coverage of Liberal issues was relatively steady over the campaign, while coverage of PC issues rose and fell considerably. The figure shows these data as rolling 3-days prior averages, and it is in this form that they are included in the individual-level dataset, combined into the variable described above. Each individual at day t is assigned a value equivalent to the 3-day average of the proportion of stories about Liberal-owned issues from $t-3$ to $t-1$. This media content measure is our best measure of campaign information as it covers the whole campaign period and has considerable variation. And our expectation is that coverage pushed voters to the Liberals (and possibly the NDP) by inducing them to place greater importance on the Liberal strengths. We hypothesize that variations in media coverage of the issues will affect the vote intentions of only voters who are both attentive (informed) and ambivalent.

[Figure 2 about here]

Quebec 2011 (Federal Election)

Media Coverage of Jack Layton, Volume and Tone

Canada’s 2011 federal election featured a barnstorming run from third place all the way to the official opposition by the NDP and its leader Jack Layton. Most of the action occurred, or occurred first, in Québec. Certainly, that province was the object of most analysis of the astonishing result, so we examine campaign effects in Québec exclusively. We have shown elsewhere that most of the story is about Jack Layton’s favourability advantage growing in phases over the campaign, and that voters also came to weigh leadership more heavily in their decisions by voting day. Here we use two separate measures of media coverage of Layton in Québec. The first is the volume of coverage of Layton. This allows us to assess the priming hypothesis that as Layton occupied more media space, voters based their decisions more heavily on assessments of him. The second variable is the tone of coverage of the NDP in Québec.¹⁵ We look for a direct impact of NDP tone from the previous three days on the voter’s intention. For both volume and tone, the expectation is that only attentive and ambivalent voters will be affected.

Issue Coverage: Sovereignty

It was widely suggested that the decisive moment leading many former Bloc Québécois voters to

¹⁵ Tone is based on automated content analysis using the Lexicoder Sentiment Dictionary (LSD). We do not discuss that dictionary in detail here, but see Young and Soroka (N.d.) and Soroka et al. (2011) for details.

jump ship was its leader Gilles Duceppe appearing at a Parti Québécois convention with its leader Pauline Marois, reinforcing the Bloc's commitment to a referendum on Québec's sovereignty. This moment signaled a shift of the Bloc's main campaign message. We operationalize the campaign information as the volume of media mentions of sovereignty, including references to referendum, independence, and the like. Our hypothesis is that as mentions of sovereignty increased all but the hard sovereigntists moved away from the Bloc and into the arms of the suitor with momentum, the NDP; but as we have argued, the effect should be strongest among the high information, high ambivalence group.

Moderators: Information and Ambivalence

As hypothesized, these campaign effects should be moderated by a combination of information and ambivalence. We now turn to the operationalization of these moderators:

Information

We employ a measure of political information to capture attention to the news of the campaign. We simply follow standard practice in using a measure of general factual knowledge about politics (Luskin 1987; Fiske et al. 1990; Zaller 1990b; Delli Carpini and Keeter 1993). The index is formed from questions asking respondents to identify the three main party leaders or three other political figures. It ranges from zero to three correct answers.¹⁶

We point out that we do not specify variation in the intensity of the campaign "messages", as Zaller would call them: ads, the debate, leader and issue coverage. Variation in intensity would imply different patterns of mediation by information and thus our information measure would be expected to have different effects on the three kinds of campaign event. Since these three forms of campaign communication are all familiar and prominent elements of modern election campaigns, we assume that there is a roughly linear relationship between political information and reception of these forms of campaign information.

Ambivalence

Drawing from existing research (Zaller and Feldman 1992; Lavine 2001; Basinger and Lavine 2005; Hillygus and Shields 2008), we consider that internal conflict may emerge from the various types of reasons that can motivate an individual to vote for one party or candidate over another. To capture relevant considerations, we use correlates of the decision.¹⁷ All items that were found to be associated with vote intentions were considered candidates for relevant

¹⁶ Two separate measures were used during the Ontario campaign due to other researchers' priorities. One, asked for the first 19 days of the campaign, involved three questions about the leaders of the three main political parties in Ontario. The other, asked over the last 10 days, asked respondents to identify "the last NDP Premier of Ontario", the "Federal Minister of Finance", and "Last year, former Saskatchewan premier Roy Romanow headed a royal commission. Can you recall what was the subject of that royal commission?". The first measure turned out to be easier. In the dichotomized measure used below, we classified two correct answers as low information on the party leaders measure and as high information on the more difficult second measure. Alternative operationalizations, such as adjusting to equalize the means, produced results with identical substantive implications.

In 2011, the questions asked about the respondent's Premier, the federal Minister of Finance, and the recently replaced Governor-General.

¹⁷ Note that Hillygus and Shields (2008) use only policy attitudes and the congruence or incongruence is relative to party identification rather than the vote decision.

considerations. The four strongest were retained for construction of an ambivalence index. In Ontario: party identification, party leader evaluations, local candidate preference, and issue position on cutting taxes. In Quebec: party identification, leader evaluations, support for Quebec sovereignty, personal taxes, corporate taxes, spending on the environment, spending on defense, and satisfaction with democracy.¹⁸ Responses to each of these four items were coded as being consistent with the respondent's vote intention, neutral (discrete or moderate or a don't know on the vote determinant), or inconsistent.¹⁹

The ambivalence index is the number of inconsistent considerations. Thus, a person scores low on ambivalence in Ontario if he likes his chosen party's leader more than any other leader, identifies with the party he voted for, prefers that party's local candidate, and shares that party's position on cutting taxes. A high score results from liking another leader more than one's preferred party's leader, identifying with a party other than one's vote intention, preferring another party's local candidate, and being at odds with one's party on taxes. This operationalization of ambivalence has been found to surpass subjective measures based on open-ended and closed-ended survey questions in predicting instability of opinion (Fournier 2005).²⁰ It must be noted, however, that this measure is taken not before the campaign, but rather at the same time as the measurement of vote choice and its determinants. We believe this will only produce conservative estimates of the mediating effect of ambivalence. We provide an extended justification of this assumption in Appendix A.

This operationalization produces a five-point scale, with a fairly uniform distribution. We dichotomize the variable so that the top two points on the scale fall into the high ambivalence category – three or four determinants inconsistent with the voter's preference – which amounts to 40% of the decided voters from whom we have the vote choice measurement.

Four group dummies are created for the combination of information and ambivalence. First, each index was dichotomized as nearly as possible down the middle. A dummy variable was then computed for each of four possible pairings:

1. Low information / low ambivalence (LILA, 31% [ON] and 15% [QC]),
2. Low information / high ambivalence (LIHA, 24% [ON] and 15% [QC]),
3. High information / low ambivalence (HILA, 30% [ON] and 41% [QC]), and
4. High information / high ambivalence (HIHA, 15% [ON] and 30% [QC]).

¹⁸ The four items varied according to vote choice.

¹⁹ We admit that strategic voters will be classified by this method as ambivalent. We are not overly concerned about this for two reasons. First, rates of strategic voting are very low (Blais 2002). Second, we would only overestimate campaign effects among the ambivalent if non-ambivalent NDP voters were voting strategically Liberal *and* were deciding to do so in response to the campaign events we measure in this paper. We think this impossible by definition, since if they are non-ambivalent NDP voters choosing the Liberals strategically, the campaign information we measure here (ads, media coverage, and the debate) should not affect that decision. That is, they may respond to polls giving them relevant information, but not to substantive information, since, by definition, they are not being persuaded to choose the Liberals sincerely.

²⁰ Glasgow (2004) has shown that existing measures of ambivalence are virtually indistinguishable from measures of indifference or neutrality. However, when indifference is controlled, ambivalence still dominates models of attitude change (Fournier 2003). We exclude indifference from our analyses in order to not overtax our interactive models.

We note that there is a strong negative relationship between information and ambivalence. In Ontario, for example, the mean number of facts correct for those with zero ambivalence is 2.52, while for those with all four considerations at odds with their choice, factual information averages 1.77.

In the models below, these ambivalence/information group dummy variables interact with campaign information measures to determine the magnitude of the campaign effects within each group.²¹

Results

At the risk of setting up a straw man, Tables 1 (ON) and 2 (QC) present homogeneous models against which to compare our subsequent dissection of the electorate.²² Alongside the campaign effects variables and moderators we include party identification, education, income, gender, and age as controls. We do not walk the reader through these coefficients.

Campaign effects in the expected direction are detected for issue coverage, but not for ads or the debate in Ontario 2003. In Quebec 2011, we find that coverage of Layton primed feelings about him in voters' calculus and that the tone of coverage of the NDP moved voters in that party's direction. But we find no effect in the full sample for coverage of sovereignty. We show below that these conclusions, lumping all voters together, would be seriously incomplete.

[Tables 1 and 2 about here]

Information, Ambivalence, and Campaign Effects

Now to the main event: Are there campaign information effects hidden in Tables 1 (ON) and 2 (QC), limited to those we predict will receive, accept, and be open to influence by the information contained in ads, debates, and polls? Tables 3 and 4 present our evidence for each campaign effect. Analyses are patterned after those in the first two tables, but with group dummy variable interactions for *all four* of the groups defined by the information/ambivalence measure (as suggested by Brambor, Clark, and Golder 2006: 69-70).²³ That is, we show the effect of each campaign effect for each of the four groups, in marginal probability changes. Standard practice would be to include one general estimate of the campaign effect variable and three of the four possible group interactions, where the omitted interaction would be for one group and the coefficients for the other groups calculated by adding their coefficients to the

²¹ In theory, we ought to use all the information in the information and ambivalence variables by using continuous interactions rather than these dichotomizations. We did estimate models using interaction terms built from the raw measures of information and ambivalence. The results were substantively similar, but plagued by large standard errors because of the inherent multicollinearity and the small measurement scales for these variables. Presenting those results would require numerous, imprecisely-estimated fitted values. Our dichotomization of the two variables gives cleaner estimates, is true to the theory, and is common practice in similar studies (e.g., Erickson 1979; Sniderman et al. 1990; Lupia 1994; Johnston et al. 1996; Miller and Krosnick 2000; Holbrook et al. 2001; Hillygus and Shields 2008).

²² We use Stata 11's **margins** command to produce the mean effect of the variable across respondents given their real values of the other variables.

²³ Note that we still include only three of the group dummy variables themselves, since there is a constant in the model. The presentation of marginal effects omits the constant. The raw multinomial estimates are available upon request (or online).

general one. We aim to make the table easier to use by reporting mathematically equivalent but more easily-interpretable estimates with all four group dummy interactions. This specification gives us built-in t-tests of the difference of each group's coefficient (the estimate of the campaign effect for that group) from zero, rather than the typical test for the difference of each group from the arbitrary baseline group's coefficient.²⁴

[Table 3 about here]

Ontario, 2003

Looking at Table 3 for Ontario first, the pattern of coefficients for ads, the debate, and media coverage in the four groups lends strong support to the two-moderator theory as applied to campaign effects: Campaign effects can sway only the minority of voters that pay close attention and have some ambivalence about their choice. In fact, these three forms of campaign information have a stunning influence on voters who are attentive and yet ambivalent (HIHA – High Information, High Ambivalence). There are only weak, inconsistent, or non-existent effects for the other three groups. And as we note in the a subsection below, all three effects operate through sensible intermediate attitudes or perceptions.

The effects are illustrated graphically in Figures 3A-3C. These graphs show predicted Liberal vote probabilities based on results in Table 3 when we set the campaign effect variable at its high and low value and leave all other variables at their real values (displayed on the x-axis). The graphs show four lines, one for each of the four information/ambivalence groups.²⁵ We choose not to include error bars because with four lines they would overlap so much as to make the figure unreadable. We note simply that the p-values for all three campaign effects for the HIHA group are less than .01 (even the non-linear effect for the debate) and for the other three groups, most of the p-values are greater than .05.²⁶ This comes through even with a relatively small number of cases in the HIHA category.

[Figures 3A-3C about here]

Figure 3A shows that the combination of overly negative PC ads and positive Liberal ones pushed viewers of TV advertisements toward the Liberals by nearly twenty points, but only in the HIHA group. That is, for these attentive, ambivalent voters, viewers of the ads were fifteen percentage points more likely to say they would vote Liberal, all else equal. No significant ad influence is found among the other groups. The two-moderator model is, therefore, strongly supported for the effect of advertising.

It bears noting, however, that our ad-viewership variable is different from the other two campaign variables in that it is a direct report of information reception. The information part of our high-information-high-ambivalence category is therefore working to facilitate the connection between information in the ad content and vote choice. We interpret this as the information effect representing two things: first, political sophistication in the sense of skills and knowledge that allows better-informed voters to put the raw information to use; and second, consumption of media reports about the ads, which provided interpretation and strongly reinforced viewers' perceptions that the ads were too negative and in bad taste (see also Freedman, Franz, and

²⁴ Of course, t-tests can easily be calculated for differences between the groups' effects.

²⁵ These predicted values are estimated using Stata 11's **margins** command.

²⁶ The clear exception is the debate effect in the High Information, Low Ambivalence group. See below for our interpretation of this result.

Goldstein 2004, 726).

Turning to the effect of the debate, Figure 3B shows clearly that again the effect is limited to the HIHA group. These voters swing away from the Liberals for a few days following the debate, but this impulse fades within a week and this group returns to pre-debate levels of Liberal support.²⁷ The other groups simply do not move over this period. Estimates using self-reported debate viewership tell the same story: viewers in the HIHA group were 19 points more likely to report a Conservative vote intention in the days immediately following the debate (not shown). Whether the effect is direct or is reinforced by media commentary on the debate, these results again provide strong evidence that campaign effects are governed by the two-moderator model.

Finally, we turn to the most striking effect in this campaign: the media agenda. Media issue coverage – the balance of ‘Liberal issues’ to ‘PC issues’ in the preceding three days’ coverage – had a powerful effect on voters, but only some voters. Again, the effect was limited to the high-information, high-ambivalence group (see Figure 3C).²⁸ Comparing a high-information, high-ambivalence voter who heard three times as many references to Liberal issues with an otherwise identical voter who heard perfectly balanced coverage of issues, the model predicts the former voter to be 17% more likely to vote Liberal. As with advertisements and the debate, the other groups simply do not exhibit any susceptibility to influence from this campaign information.

Québec, 2011

Table 4 shows the results for our 2011 data from Québec. Our original analysis of the 2003 Ontario election was conducted shortly after that election and so the 2011 data acts as something of a ‘training’ dataset after seeing evidence consistent with the two-moderator model in our ‘testing’ dataset from 2003. Figures 4A through 4C show the effects graphically.

[Figures 4A-4C about here]

We measure media content and assess how it affects vote intention over the campaign. Since the meteoric rise of the NDP is in need of explanation we present only marginal effects on the probability of an NDP vote intention in the tables and graphs. In the first column of the table and in Figure 4A, we show the interactive effect of the volume of coverage of Jack Layton and feelings about Layton. Substantively, when Layton received more coverage, voters who paid attention (high information) weighed their feelings about Layton more heavily in their voting decisions. Although the effect is visible in the high-information low-ambivalence group, we note that it is only significant in the HIHA group. For the most part, the effect was that for these voters, Layton became a more important determinant of the decision as the campaign went on.

Second, we examine the effect of coverage of sovereignty, with the expectation that increasing coverage of sovereignty in the wake of Gilles Duceppe’s appearance at the PQ convention would have spooked all but the hard sovereignists. Our model specification reflects this, in that we exclude hard sovereignists. The results in Figure 4B show an effect of sovereignty coverage on NDP vote but it is apparent across the board, in all groups. It is, however, steepest and most

²⁷ We do not make very much of the upward trend in days 6 and 7 – this may be a consequence of other trends in the last two days of the campaign, but is likely also to be because of the rather quick decay in effects from day 3 to 5.

²⁸ Granted, the effect for the low information low ambivalence group is more than twice its standard error, but it is a weak effect indeed, nearly four times smaller than the effect in the high information high ambivalence group.

reliably estimated (three times the standard error) in the HIHA group. This could simply be a campaign effect that is not well-measured. Sovereignty coverage is a very tight linear function of time and as such is highly correlated with all of the campaign forces that may have pushed voters toward the NDP.

Finally, we look at the tone of NDP coverage for a direct media influence. In Figure 4C, we see clearly a strong and significant effect limited to the HIHA group. In Table 2, the full sample undifferentiated by the two moderators, this effect is invisible. In figure 4C, the difference in the predicted probability of an NDP vote across the full range of NDP tone is nearly 25 percentage points for the HIHA group, while it is less than half that for the low-information high-ambivalence group and negative for the low ambivalence groups.

Discussion and Conclusion

Studies of campaign effects have begun to take seriously the notion that there is a minority of voters whose voting decisions can be influenced by the flow of information in a typical campaign (Fournier 2005; Hillygus and Jackman 2003; Hillygus and Shields 2008). In doing so, scholars can better understand how campaigns work and detect of a much wider array of campaign effects. Here, for instance, we have added the media policy agenda and advertisements to the usual campaign suspects, conventions and debates. The results in this paper complement the recent studies by Hillygus and her colleagues in showing that the events and information of election campaigns can have powerful effects on vote choice only among a particular set of voters: the roughly one-in-five voters in these campaign that our method classifies as attentive and ambivalent. Vote intentions in this group are powerfully affected by advertising, debates, and media issue coverage. Now that we have provided this corroborating evidence from a different electoral context and with a different research design, scholars can be more confident about the implications for the study of election campaigns with surveys and, more broadly, for the study of short-term attitude change.

On one hand, the findings amplify the importance of properly theorizing and modeling heterogeneity in voters' susceptibility to campaign effects. Specifically, using two separately-measured moderators to model susceptibility to campaign effects is fundamental to understanding how, when, and for whom campaigns matter. Reception of, and resistance to information – both “partisan resistance” and “inertial resistance” – clearly moderate campaign effects. Even though informed and ambivalent persons constitute a minority of voters, this group's response to the campaign has the potential to tip the balance in favor of the candidate or party who has a better campaign. These are indeed cross-pressured, “persuadable” (Hillygus and Shields 2008), “swing voters” (Mayer 2007). And the influence of events on the outcome might even be much larger if there is a kind of campaign multiplier effect through polls and a two-step flow of information (Cuikerman 1991; Katz and Lazarsfeld 1955). At the end of the day, our findings are one more nail in the coffin of the view that campaigns are mere sound and fury, signifying nothing (e.g. Berelson, Lazarsfeld, and McPhee 1954; Gelman and King 1993).

If analysts of campaigns are primarily interested in the response of these persuadable voters to information, they must design survey instruments appropriately. Obviously, the rolling cross-section (Johnston and Brady 2002) and multi-wave campaign panels (Hillygus and Jackman 2003) are indispensable. Survey designers must also collect, in parallel, the time-varying data that measures the information produced by the campaign. Moreover, because the group is

relatively small, in light of issues of statistical power (Zaller 2002) it may also be worth considering oversampling those voters who can easily be identified early in a survey as cross-pressured.

On the other hand, our analyses bolster support for the theory of attitude change developed by Converse, McGuire, and Zaller as applied to election campaigns. A number of recent studies had cast doubt on the applicability of the theory to elections (Dobryznska and Blais 2007; see also Goren 2004, Kriesi 2003, Krosnick and Brannon 1993, Dalton et al 1998). Following Zaller more closely, however, we show that this set of theories is a powerful theoretical tool to find those voters who respond to election campaigns and more often than not determine the outcome (Mayer 2007). The tool is only useful, however, when it is used properly: that is, researchers implement it as a *two*-moderator model, with reception and acceptance measured and included in the model separately.

The theory is even more robust in light of the fact that our study presents a different type of empirical evidence in favor of the two-moderator model. Rather than relying on indirect inferences where opinion *change* is measured imperfectly as *defection* from partisanship (but see Hillygus and Jackman 2003), we successfully apply the reception-resistance model to dynamic evidence that links daily movements in campaign information to individuals' vote intentions. And we solidify that evidence by showing that the mechanism for these effects comes through attitudes that should be affected by specific campaign information. For example, in separate analysis we find that voters' judgments of issue importance were affected by campaign news, but that this was only among attentive voters [not shown]; and then, as the main results presented here show, among the attentive, only among the ambivalent did we find changes in issue salience driving vote choices.

More generally, we have proposed a new empirical specification of the theory that is both simple and straightforward (see also Hillygus and Shields 2008). Instead of a single moderator – usually information – that confounds reception and resistance, or a complex setup that tries to disentangle these two dimensions statistically, we use information and ambivalence to capture each of the two moderators separately. In particular, the perpetual dilemma about which predispositions should matter for resistance is resolved: ambivalence enables us to jump straight to the relevant concept. Furthermore, this implementation can easily be exported to topics other than vote choice. General political sophistication and internal conflict about an issue are operationalized with items regularly found in public opinion surveys. These two variables provide the means to identify attentive and ambivalent citizens, the individuals who should be most susceptible to opinion change in response to political communication.

Appendix A: Measuring Ambivalence During the Campaign

Our discussion of the effect of ambivalence on susceptibility to new information conceives of ambivalence as existing prior to the reception of the new information. But without a pre-campaign wave of the survey, this ambivalence (call it A) remains an unmeasured variable. Thus, the measure of ambivalence we use (A^*) is better characterized as indicating how many considerations the voter has that ought to be pushing her toward a party other than the one she gives as her current vote intention. This measure of ambivalence, generated from the same interview as the vote choice, is therefore only a proxy, and one which could be so poor a proxy as to hide the mediating effect of ambivalence completely. It therefore warrants an extended discussion.

When the sample is divided into high and low ambivalence groups on the basis of A^* (A_{lo}^* and A_{hi}^*), those two groups will each contain voters high and low on A .

$$A_{lo}^* = \theta(A_{lo}) + (1-\theta)A_{hi}, \quad 0 < \theta < 1$$

$$A_{hi}^* = \lambda(A_{hi}) + (1-\lambda)A_{lo}, \quad 0 < \lambda < 1$$

Consider the low ambivalence group first. It contains both voters who have had their ambivalence resolved by the time of the interview (A_{hi} , A_{lo}^*), perhaps by the same events we identify, as well as those who have had one-sided considerations all along, such as strong partisans (A_{lo} , A_{lo}^*). Our high ambivalence group, by the same logic, will consist of those who have been ambivalent all along (A_{hi} , A_{hi}^*), and those who were not ambivalent but who have become ambivalent, probably due to the events of the campaign (A_{lo} , A_{hi}^*). Importantly, the distribution of A and A^* may not be identical. That is, the campaign might systematically reduce or increase ambivalence (though in practice we find no change during the campaign wave).

The true mediating effect of A will therefore be expressed in our models through coefficients on variables that include interactions with both A_{lo}^* and A_{hi}^* . The relative shares will be determined by the proportions of A_{lo} and A_{hi} in A_{lo}^* and A_{hi}^* .

If real campaign effects on vote choice are limited to those who were *a priori* ambivalent (A_{hi}), our coefficient estimates on the interaction of ambivalence (A^*) with a campaign event would never be biased upward. They would be biased downward, roughly by a factor of $1-\lambda$, the proportion of initially low ambivalence voters who have become ambivalent over the campaign. Of course, there will turn out to be some among the low-ambivalence group (A_{lo}) who become ambivalent (A_{hi}^*) and who change their vote intention. In that case, part of the campaign effect that really belonged in the low ambivalence group ends up in the high ambivalence group. Yet this upward bias is in some sense justified as a campaign effect among those who were not so low on ambivalence that they were inoculated against campaign information.²⁹

In practice, however, we believe that our estimates of the mediating effect of ambivalence will remain conservative because we believe that campaign events are more likely to resolve ambivalence than create it. Fundamentally, we assume that all of the ambivalent are in some sense available to have their ambivalence resolved; whereas many of the low ambivalence group

²⁹ We also investigated an instrumental variables approach to mitigate the endogeneity of the ambivalence measure. We would need an instrument correlated with A but not with A^* , which would be hard to find. And in fact, suitable instruments could not be found: even a 'kitchen sink' model of ambivalence could produce an R^2 of only .05.

are strong partisans who are highly resistant to changing the attitudes that affect their vote choice, as Zaller argued (1992, Chapter 10). In the Ontario campaign, for example, ambivalence appears to have risen slightly through the middle of the campaign and then dropped slightly at the end, though no linear or quadratic trend is statistically significant.

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Table 1. A Model of Homogenous Campaign Effects, Ontario 2003

		Lib support	PC support	
Campaign Effects	Saw Liberal ads	.00 (.03)	.00 (.03)	
	Days since debate	-.01 (.02)	.00 (.02)	
	Days ² since debate	.00 (.00)	.00 (.00)	
	Issue coverage	.02*** (.01)	-.02* (.01)	
Controls	PID PC	-.25*** (.05)	.36*** (.03)	
	PID Liberal	.46*** (.04)	-.26*** (.03)	
	PID NDP	.05 (.06)	-.32*** (.07)	
	Education	.03*** (.01)	-.03*** (.01)	
	Female	.03* (.02)	-.02 (.02)	
	Under 30	-.02 (.03)	-.05** (.03)	
	Over 60	-.01 (.02)	.01 (.02)	
	Low Income	-.03 (.02)	-.03 (.02)	
	High Income	.02 (.02)	.01 (.02)	
	Missing Income	-.06** (.03)	.02 (.03)	
	N		1569	
	Pseudo R ²		.41	

Cells contain average marginal effects, based on a multinomial logit model. Standard errors (corrected for clustering by day) are in parentheses. * p < .10; ** p < .05; *** p < .01

Table 2. A Model of Homogenous Campaign Effects, Quebec 2011

		NDP support
Campaign Effects	Layton coverage x Layton feeling	.80** (.33)
	Sovereignty coverage	.0007 (.0005)
	Tone of NDP coverage	.03** (.01)
Controls	Feeling toward Layton	.17** (.07)
	PID Bloc	-.11*** (.04)
	PID Conservative	-.20*** (.06)
	PID Liberal	-.10** (.04)
	PID NDP	.43*** (.07)
	Rural resident	.01 (.03)
	Under 35	-.03 (.04)
	Over 55	.01 (.03)
	Female	-.05 (.03)
	Visible minority	.01 (.09)
	Non-francophone	.00 (.05)
	High school dropout	-.02 (.04)
	University graduate	.00 (.03)
	N	809
	Pseudo R ²	.43

Cells contain average marginal effects, based on a multinomial logit model. Standard errors (corrected for clustering by day) are in parentheses. * p < .10; ** p < .05; *** p < .01

Table 3. Campaign Effects, Ontario 2003, Mediated by Information and Ambivalence

	Saw Liberal Ads		Debate & Debate ²		Issue Coverage	
	Lib support	PC support	Lib support	PC support	Lib support	PC support
Low information / low ambivalence	-.03 (.03)	.00 (.02)	-.02 (.02)	.02** (.01)	.01 (.01)	-.02* (.01)
			.00 (.00)	-.004*** (.002)		
High information / low ambivalence	-.01 (.03)	.06** (.03)	-.01 (.03)	.00 (.03)	.02* (.01)	-.02 (.01)
			.00 (.00)	.00 (.00)		
Low information / high ambivalence	-.05 (.06)	.05 (.05)	.00 (.02)	-.01 (.04)	.01 (.02)	-.01 (.02)
			.00 (.00)	.00 (.01)		
High information / high ambivalence	.14*** (.04)	-.19*** (.06)	-.12*** (.03)	.07*** (.02)	.08*** (.02)	-.06* (.03)
			.02*** (.00)	-.01*** (.00)		
N	726		1683		1548	
Pseudo R ²	.46		.44		.43	

Cells contain average marginal effects, based on a multinomial logit model. Control variables not shown: PID, Socio-demographics. Standard errors corrected for clustering by day) are in parentheses. * p < .10; ** p < .05; *** p < .01

Table 4. Campaign Effects, Quebec 2011, Mediated by Information and Ambivalence

	Layton coverage x Layton feeling	Sovereignty coverage	Tone of NDP Coverage
	NDP support	NDP support	NDP support
Low information / low ambivalence	1.42* (.76)	.0019 (.0014)	-.03 (.06)
High information / low ambivalence	.47 (.40)	.0017** (.0008)	-.04 (.03)
Low information / high ambivalence	.29 (.72)	.0026 (.0023)	.04 (.07)
High information / high ambivalence	1.35*** (.41)	.0032*** (.0010)	.08*** (.02)
N	807	652	807
Pseudo R ²	.46	.39	.41

Cells contain average marginal effects, based on a multinomial logit model. Control variables not shown: PID, Socio-demographics. Standard errors (corrected for clustering by day) are in parentheses. * p < .10; ** p < .05; *** p < .01

Note: Hard Sovereignists excluded in middle column.

Figure 1a. Vote Intentions Over the Campaign, Ontario 2003 (3-day averages)

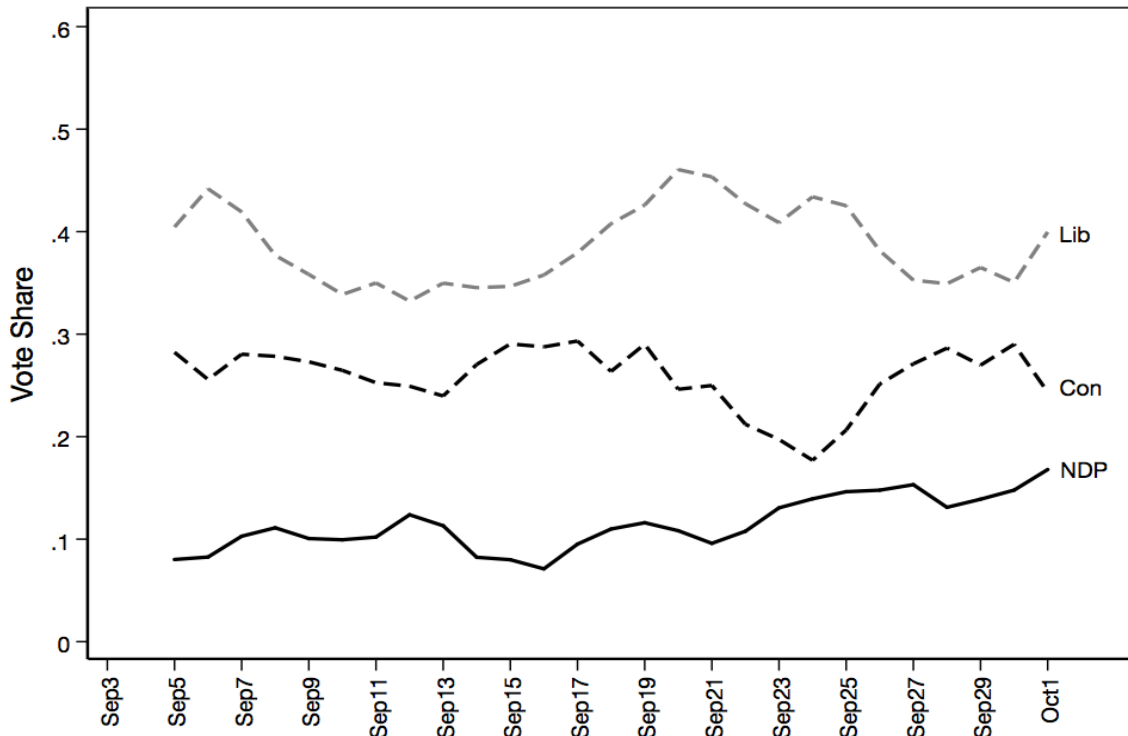


Figure 1b. Vote Intentions Over the Campaign, Quebec 2011 (3-day averages)

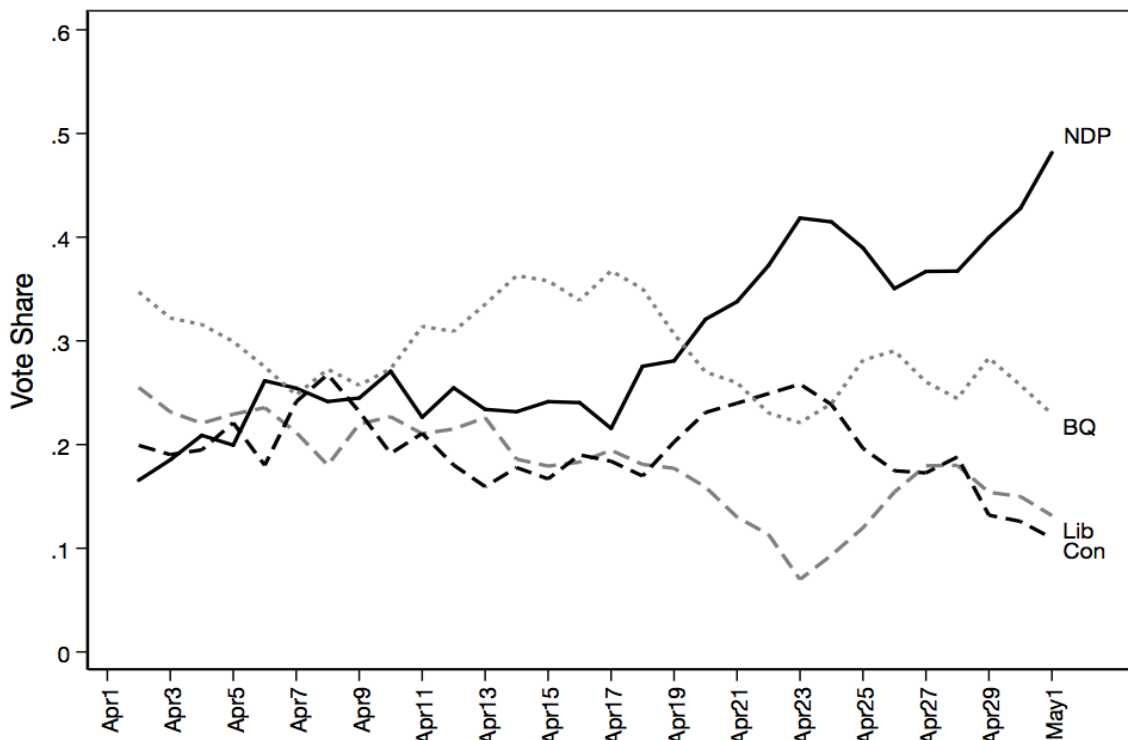


Figure 2. The Media Issue Agenda in the Over the Campaign (3-day averages)

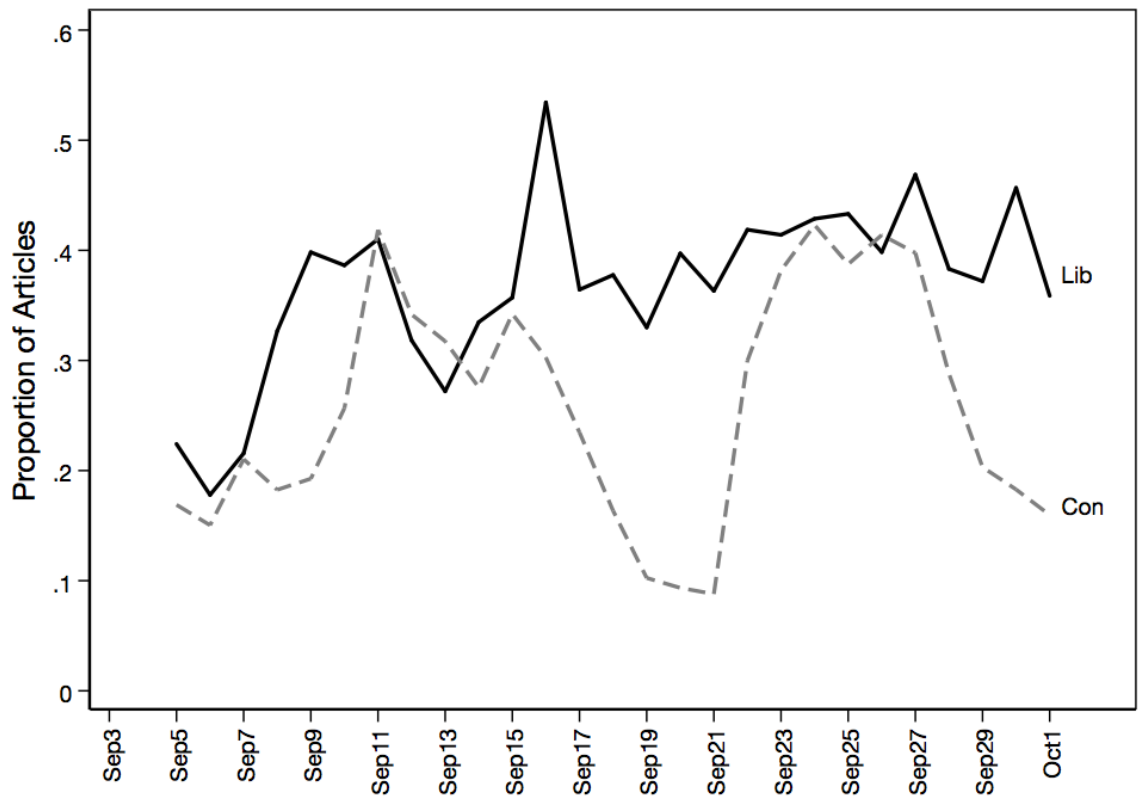


Figure 3. Graphical depiction of campaign effects by group, Ontario 2003

Fig. 3a - Effect of Ad Viewing

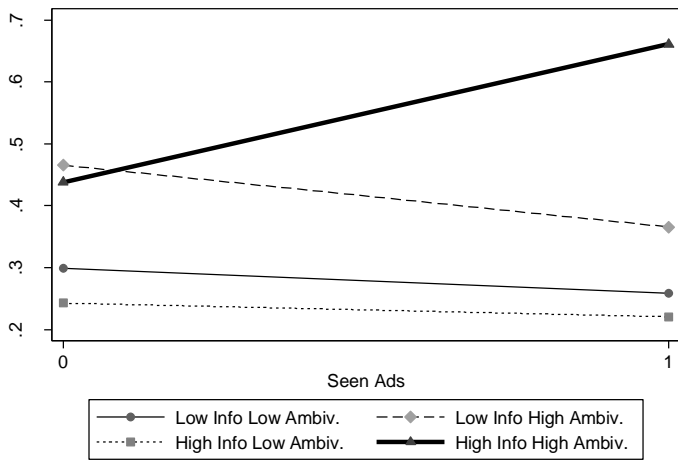


Fig. 3b - Effect of Debate Period

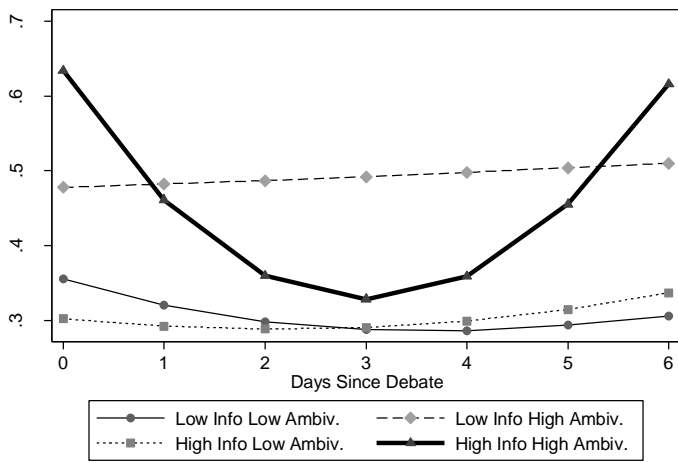


Fig. 3c - Effect of Issue Coverage

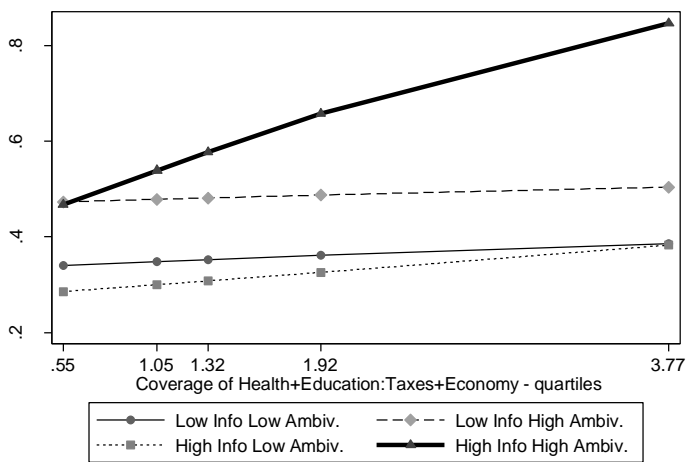


Figure 4. Graphical depiction of campaign effects by group, Québec 2011

Fig. 4a - Effect of Layton Coverage
at mean Layton rating

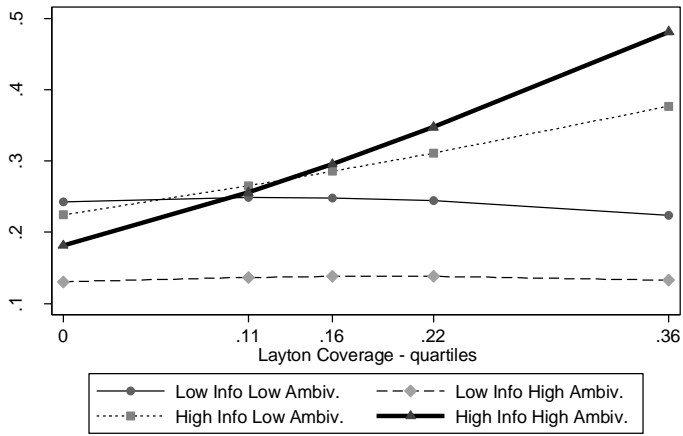


Fig. 4b - Effect of Volume of Sovereignty Coverage

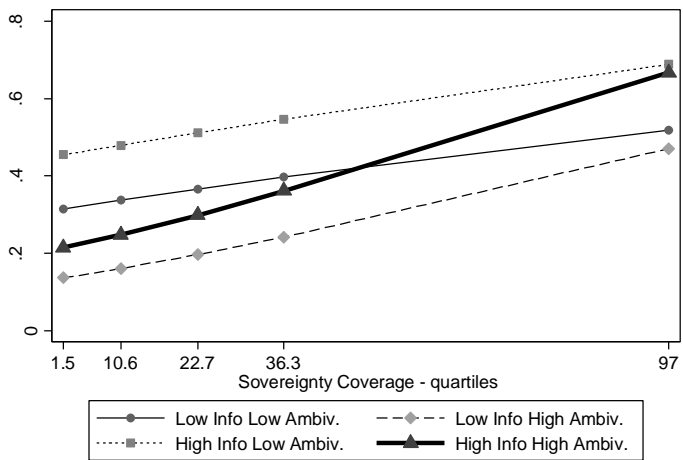


Fig. 4c - Effect of Tone of NDP Coverage

