PARTY COMPETITION AND CAMPAIGN KNOWLEDGE

by

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B.A. McMaster University, 2005

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS

in

THE FACULTY OF GRADUATE STUDIES

(Political Science)

THE UNIVERSITY OF BRITISH COLUMBIA

August 2006

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ABSTRACT

Election campaigns are often cited as tools of political learning. The intensity and volume of the information disseminated during a campaign is said to “enlighten” voters, allowing them to arrive at their preferred electoral decision.

Using the 1997, 2000 and 2004 Canadian Election Studies, this paper uses the enlightenment thesis as a theoretical guide for the analyses of three types of campaign learning: policy learning, identification of party leaders and perceptions of a national party’s chances of winning the entire electoral contest. This paper examines local riding competitiveness as a catalyst for interest and competition’s role as an incentive to learn. The intensity of the competition should reveal the importance of information as it assists voters in making an effective electoral choice. From the perspective of political parties, competitiveness highlights the marginality of a riding encouraging parties to adjust levels of local candidate spending accordingly, the result of which is more information distributed to the electorate. Competitiveness should compound the pre-existing effect of campaign learning by increasing the incentives for the dissemination of information.

The study concludes that there is little support for campaign learning, both on its own and as a by-product of competitiveness. There is no general learning trend in the Canadian case. In addition, highly competitive contests do not appear to provide incentive for voters to learn, save in one instance. There is a perceptible link between highly competitive local ridings and a voter’s ability to accurately predict the outcome of the national contest. Also, there is no indication that local candidate spending has any positive effect on knowledge.

Strong implications arise about the concept of campaign learning and the campaigning process in general. Campaigns are not enlightening voters about factual information, and competitiveness, which should spark interest, is not providing a strong incentive to learn. These findings should encourage political parties to critically evaluate information dissemination and campaigning strategies in competitive districts.
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ACKNOWLEDGEMENTS

My most sincere thanks go to Richard Johnston, for setting high standards and encouraging me to go beyond. Also, thank you for expanding both my repertoire of grammatical correctness and Latin phrases; I will take these with me in all my future endeavours. To Fred Cutler, for showing me that quantitative methods do not have to be frightening for non-math types and for patiently assisting with a slew of data queries.

Special thanks to the University of British Columbia faculty of Political Science for making the Master’s program my most challenging and enjoyable academic experience to date. And my most heartfelt gratitude to my colleagues, my friends, in the graduate program – working alongside you gave me the motivation to continue.

To Nathan Allen for hours of editing and the exchange of ideas over tennis; and to James Baker and Rodolfo Franco Franco for telling me when we were on a break and when to stop fixing things. You have made this past year absolutely wonderful.

Finally, this project would not have been possible without Scott Matthews, who not only provided the necessary data for this study, but was exceedingly generous with both his time and ideas while helping me puzzle over some very perplexing results. My most sincere thanks.

That being said, all errors, omission and shortcomings of this paper are exclusively mine.
CHAPTER 1: CAMPAIGN LEARNING AND LOCAL PARTY COMPETITION

INTRODUCTION: THE CAMPAIGN AS A TOOL OF LEARNING

Election campaigns are said to "enlighten" voters. Ideally, information received from campaigns educates the electorate allowing voters to make decisions that best reflect their true political preferences. But, do campaigns in fact teach voters any concrete information that is used in the decision-making process? Are campaigns instruments that inform voters about politics and parties, persuasive tools that help parties win over potential supporters, or are campaigns simply sound and fury that alert voters to what they already know and believe? Research has presented competing theories as to the instructional effectiveness of campaigns. While some scholars have supported the idea that learning does indeed occur, others have doubted the capacity of the public to absorb, retain and apply new information when making an electoral choice, and still others have questioned the motives of politicians in disseminating information. Absent from the literature is an adequate discussion on the motivation for campaign learning and how incentives to learn are created by features of the campaign.

Rational choice theorists posit that the closer the election, the greater the probability of a vote mattering to the outcome and therefore, the more a voter feels her participation is useful or required (Downs 1957; Riker and Ordeshook 1968). Quite reasonably, neck and neck races foster more interest than done deals. It follows logically that the greater one's interest in the outcome, the more one takes pause during the campaign to learn about the issues that assist in party or candidate selection. The purpose of this thesis is to substantiate the campaign learning argument using riding competitiveness as a catalyst for interest. Though no claim is made that competition is the
only, or even the best, marker of interest, competitiveness is of particular note as it is an expression of interest that is manifested geographically. Using the literature on campaign effects, voter sophistication and the effects of competition on electoral behaviour, I set up a framework in which to determine whether a high level of competition in local ridings positively affects campaign learning and whether the electorate, on the whole, uses competition as an incentive to learn.

Precisely what effect might competitiveness have on the incentive to learn? Moreover, who are the beneficiaries of these incentives? From the perspective of the voter, the intensity of the competition reveals the importance of information as it assists in making an effective electoral choice. From the perspective of political parties, competitiveness highlights the marginality of a riding, encouraging parties to increase the expenditure of resources in order to gain more votes. In short, competitiveness should compound the pre-existing effect of campaign learning by increasing the incentives for the dissemination and absorption of information.

THE IMPORTANCE OF BEING KNOWLEDGEABLE

There is no democratic principle that states knowledge is a requisite for electoral participation. The popularly resounded statement is “One man, one vote”, not “One man who demonstrates the intellect and capacity to make a good decision, one vote”. Aside from the obviously unwieldy length of the latter statement, imposing knowledge as a necessity to actively participate in a democratic forum such as an election ignores the fundamental tenet of equality of opportunity in the democratic system. Why, then, should knowledge be assigned such importance in the context of a campaign? As was articulately stated by Delli Carpini and Keeter, “Political information is to democratic
politics what money is to economics: it is the currency of citizenship" (1996: 8). If an
election is viewed as the opportunity for citizens to articulate their interests and give them
tangible expression in the form of representation, the decision of the vote is more than a
mere expression of citizenship, it is a rare opportunity to directly affect the outcome of
governance. Knowledge isn’t required to participate, but it is a catalyst to participate in a
meaningful way.

CAMPAIGNS AS ENLIGHTENING EVENTS

Gelman and King (1993) originated the argument that campaigns are the
mechanism through which parties “enlighten” voters. That is to say, campaigns reveal
vital information that assists voters in coming to the electoral decisions best suited to
their preference structure. Enlightenment is not simply learning; rather, enlightenment
combines newly gathered information about candidates and party platforms with pre­
existing political cues such as ideology and party identification. An “enlightened”
individual, therefore, is able to make the decision best suited to their preferences without
having perfect information. This thesis is, in part, a test of the enlightenment theory using
competitive campaigns as catalysts of learning.

Campaigns have two functions with respect to increasing political knowledge.
The first is to update citizens’ range of factual information, which they use in political
decision-making. The second, and perhaps more common function, is to activate
knowledge that may have been forgotten or put aside in memory1 (Luskin 1987). In the
words of Zaller (1991), campaigns bring to light political information that may not have

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1 Lazarsfeld, Berelson and Gaudet 1964 state that campaigns reawaken partisan predispositions more than
they acquire new information
been a “top of head” consideration. What is certain is that campaigns are intended to leave voters more knowledgeable about the issues than they were before the campaign.

Campaigns then, are unique from other methods of political learning, such as knowledge gained through membership in a political group or factual information received from formal education and the news media. Campaigns are marked by their sporadic and intense nature. Their infrequency, coupled with the high stakes event that immediately follows, leads campaigns to attract attention where regular political coverage fails to do so. Campaigns have the additional bonus of having a participatory event at the end; knowledge becomes more important when there is a need to apply it in a manner that has consequences for the participant. Conducted over weeks or months, campaigns are punctuated by events such as leader’s debates or advertising campaigns that attract heightened attention at certain times. An unpredicted external force in the form of a highly competitive election could generate even higher levels of awareness. In this sense, a competitive campaign can prompt learning or intensify the learning process as more aggressive competitions draw heightened attention from the media and the electorate.

Learning, of course, has its costs. Otherwise, it would be irrational to be underinformed before making an electoral decision. Costs can be broken up into two types: costs borne by the voter and those accrued by politicians. According to Franklin (1991), obtaining factual information through research of an incumbent’s record or the policy beliefs of a challenger is costly to an individual. Those who are pressed for time (read: most individuals) rarely care to devote energy to interpreting raw information. Voters, therefore, often overlook factual information in favour of impressions of
candidates or historical judgments of parties, leading some scholars to believe that factual information in campaigns has only a "minimal effect" on vote choice (Zaller 1992; Klapper 1960). Moreover, voters are selective learners, often effectively ignoring elements of a party's platform when they are in contrast with partisan ties, pre-existing judgments of a candidate, or lack of interest in a party (Bartels 2002).

LOW INFORMATION RATIONALITY VERSUS THE AGGREGATION OF KNOWLEDGE

Campaign learning, as discussed in the literature, draws predominantly from two schools of thought: low-information rationality and the aggregation of learning. The purpose of this paper is not to select which side is correct or to corroborate their arguments with further findings. Instead, this article describes the differing propositions, both their benefits and their limitations, in order to underscore general learning theories in the current literature. Additionally, there is some justification as to how levels of competitiveness may affect these well-entrenched theories of learning.

Low-information rationality (LIR), a concept popularised by Samuel Popkin in *The Reasoning Voter* (1991) is "a method of combining, in an economical way, learning and information from past experiences, daily life, the media and political campaigns" (1991: 7). There are those who believe that the cognitive demands on the citizen are too burdensome and an equally effective manner of making a rational electoral choice is through the employment of heuristics, shortcuts or cues (Johnston et al. 1996; Sniderman, Brody and Tetlock 1991; Popkin 1991). LIR supports the use of shortcuts as an acceptable substitute for factual information avoiding undue cognitive burden.

The usage of shortcuts, a concept that reaches back to Anthony Downs (1957), suggests that voters are aware that they are acting with imperfect information, but believe
the information they do posses to be indicative of the overall political situation. This school of thought contends that in the absence of factual information, an individual can use a reasoning chain or a process of substitutions to come to the exact decision he would have made with full information. Such cues include party identification, messages from political elites or even "gut-instinct" – something no more steeped in knowledge than "I like the look of him, so I must like his policies". While this statement may be an over simplification of the substitution process, it is not unreasonable to think that many underinformed citizens base their decision on less than cognitively demanding rationales.

Some scholars contend that even if the individual makes incorrect inferences using heuristics, this is made up for by public opinion in the aggregate (Page and Shapiro 1992; Converse 1990). While some people may incorrectly employ short cuts, those who properly use cues or are actually knowledgeable balance the field, and overall, the wishes of the electorate are properly expressed in the outcome of an election. The result of such a situation is the electorate, as a whole, reaching an appropriate electoral decision at the end of the election campaign.

Campaigns, in and of themselves, present a conundrum for LIR voters. While campaigns are the richest source of political information, they are relatively short. In Canada, campaigns generally span no longer than four to six weeks. Voters who are pressed for time during the course of the campaign are likely to miss much of the information required to cast the ballot that best reflects their political preferences. This rings particularly true if there is no incentive to learn. Competitiveness has the potential to affect LIR and provide an incentive to learn. This speaks to the importance of interest
or any catalyst of interest such as competitiveness, as a mechanism with which to engage citizens in the learning process.

There are scholars who contest the LIR reasoning, stating that heuristics are not effective substitutes for knowledge, and that even if they were, citizens rarely have the capacity to employ them correctly (Kuklinski and Quirk 2000; Delli Carpini and Keeter 1996). If shortcuts are the only tools that a portion of the public use to make decisions, then encountering competing information presents a cognitive roadblock. In the absence of the proper cues, an individual who relies on heuristics avoids information that requires any cognitive processing at all. Delli Carpini and Keeter (1996) suggest that without the proper knowledge of context as background, heuristics are used improperly. Kuklinski and Quirk (2000) add that, when presented with information that does not neatly fit into the schema designed by an individual using heuristics, inconsistencies will be overlooked and inconvenient facts will be ignored. Shortcuts, in general, are designed to replace learning owing to a lack of time or opportunity to engage in the learning process; if used to excess, they provide an outright barrier against future learning.²

The provision of cues by the media and by elites should be regarded with an air of scepticism. The timeless warning of “consider the source” rings particularly true. Information presented to the public is generally unbalanced, insofar as it does not provide competing opinions with the same vigour. In addition, full information is rarely disclosed; rather, emphasis is placed on information that the media or political parties view as interesting or favourable (Kuklinski and Quirk 2000). These points are reiterated in Franklin’s (1991) argument that obfuscation by political elites is used readily if it

² Though it is recognised that Sniderman, Brody and Tetlock (1991) state that heuristics are used effectively by those with some, not no, knowledge.
provides a greater electoral benefit. In sum, perfect information in the electorate is hard to come by, and effort on the part of voters may be required to receive and comprehend information that is accessible.

Competitiveness as an incentive to learn has a place in the aggregationist argument. Shortcuts, if they are not bringing voters to their true preferences, may damage a political party's chance of mobilising potential supporters. Assuming a portion of voters make decisions based on policy information, full disclosure of information, in certain cases, may not be to a party's benefit (Franklin 1991; Page 1978; though see Enlow and Hinich 1981 and Shepsle 1972 for cases where ambiguity is not favourable to the candidate). Parties tend not to widely advertise unfavourable policies such as tax increases and cuts to social programs. The absence of perfect information, though to the benefit of one party, creates an incentive for opposition parties to inform the public about their opponent's policies in order to win dissenters over to their side. A competitive election, by instigating more attention from political parties of all stripes, encourages greater dissemination of information, which, inevitably, assists one party in reaching their political goals.

**LEARNING WHAT? FACTS, FIGURES AND TIMEFRAME**

If campaign learning does indeed occur, it is unreasonable to assume that voters learn at the same pace or that pre-existing levels of knowledge are evenly distributed across the electorate. From an optimistic point of view, campaigns have the power to raise the overall level of knowledge in the voting public. Yet, even the most fervent optimist must concede that campaign learning does not eliminate the disparities in knowledge among the electorate.
This leads one to ask, what type of information are voters receiving, albeit unequally, in a campaign? Information disseminated during a campaign can be factual, biased by partisanship or purposely misleading. It is factual political knowledge that gives the voter an idea of the current electoral conditions that is the focus of this paper. Delli Carpini and Keeter define political knowledge as the range of factual information about politics that is stored in the long-term memory (1996: 10). This has several implications for campaign learning. First, pure knowledge is free from subjectivity, rationality and attitudes. Just because one does not care for a particular party, it does not change the content of their platform. Second, knowledge that is learned in a campaign must be subject to recall. A voter does not have to be able to cite chapter and verse of a party’s platform, nor does he have to retain the information after the election, but he must be able to produce the pertinent information during the course of the campaign. There is no supposition that all of the information disseminated during a campaign is absorbed. There is, however, the hope that the main tenets of the party platform and the behaviour of relevant political actors figure prominently in the minds and decisions of voters.

**WHO LEARNS? VOTER SOPHISTICATION**

To combat the problem of the misinformation and clever obfuscation by political actors, citizens must critically approach political information. The most prominent work on voter sophistication by Robert Luskin (1987; 1990) defines a sophisticated voter as an individual with a breadth and depth of political knowledge. It is a combination of cognitive complexity and political expertise (Luskin 1990). Adding to Converse’s

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3 The perspective toward knowledge in this paper dissents from Delli Carpini and Keeter’s statement that information has to be retained the long-term memory. For information to matter to this study, it must only be retained during the campaign.
(1964), notion of "constraints" – associations, beliefs or attitudes – Luskin establishes "cognitions" – the factual information in memory that is subject to recall. The broader the range and the better organised (Converse uses the term "highly constrained") a belief system is, the more politically sophisticated the individual. Sophistication is not simply how much a voter knows, it is how well she can logically link a variety of concepts and understand the context of political occurrences.⁴

The sophisticated political thinker is a critical thinker. Information is not consumed without reflection as to the source and content. To their credit, sophisticated voters are said to take into account the trustworthiness of the source when accepting political information (Zaller 1991). During a campaign it is rare that information is presented without the accompaniment of a partisan message, a judgement on the issue or context that puts the information into a positive or negative light. According to Ansolabehere and Iyengar (1995), voters are able to react critically to both positive and negative advertising. Facts can be distinguished from mud slinging. Even the most uncomplimentary advertisements tend to focus on past records or flaws in a platform rather than simple *ad hominem* attacks. Competitive elections should be regarded as contests that up the ante, therefore, by their very nature, they present more factual information. So long as the voter is willing to take in facts with the partisan message, learning occurs.

Exactly how susceptible are voters to biased information – or any information? The incorporation of new facts does not occur for all citizens at the same time or pace. Though political sophisticates have already been identified as political learners, other

⁴ Discussion of the role of prior political knowledge is taken up in the Chapter Two exploration of general political knowledge as an independent control on the regression model.
groups respond to the messages of campaigns as well. Zaller (1994) develops a crude typology for campaign learners. Categorising individuals as possessing a low, moderate or high level of political awareness, Zaller states that each of these groups varies in its ability to learn new facts and to resist partisan bias in information. The chronically underinformed pay too little attention to receive new information, the highly aware are too steeped in knowledge to be swayed by bias; therefore, it is the moderately aware who are most susceptible to elite messages as they are not sophisticated enough to resist (Zaller 1991; Iyengar & Kinder 1987; Sniderman et al. 1986; Krosnick and Kinder 1990).

The purpose of this paper is not to further explore Zaller's typology of sophisticated voters. Instead, the following section examines the relationship between exposure to political information and persuasion by campaign messages. Voters have varying capacities to internalise information and different levels of exposure to political information; both factors affect the number of messages revealed to a voter as well as the effect of these messages. Therefore, the interaction between exposure and persuasion produces disparities in learning among different segments of the population.

**HOW ARE VOTERS LEARNING? EXPOSURE TO INFORMATION**

In the *Nature and Origins of Mass Opinion*, John Zaller (1992) speaks to the issue of political awareness and its association with exposure to political communication. Zaller states that some types of information, namely persuasive messages, provide the voter with a reason to take a point of view. Such messages appeal directly to non-rational emotion. As capacity to critically react to new information fluctuates among voters, reactions to persuasive information disseminated through parties or media, vary throughout the population. Johnston, Hagen and Jamieson (2004) state that persuasive
messages tend not to reach their target audience without first being mediated (2004: 5). Indeed, in this light, campaign information distributed through even the most persuasive messages may have only a “minimal effect” on a voter.

A voter’s level of sophistication functions as an intermediary between the message and acceptance of the message. A greater capacity to take in political information is generally coupled with higher levels of political exposure. Those who have the ability to interpret a large volume of information are likely to respond positively to messages that fit in coherently with their pre-existing belief system and reject messages that they find either contradictory or inconsistent, which may in fact be the bulk of campaign information. Voters with less capacity to critically assess information have a greater propensity to yield to political messages. However, since reduced exposure to political information is often common to those with less critical capacity; voters who rarely receive political information are unlikely to be persuaded at all. The result of these statements is a curvilinear relationship between capacity and exposure. Most individuals do not fall at the extremes of high or low processing capacity and rates of exposure; rather, the majority are of the middle ground. Therefore, learning in the form of persuasion is combated by both political sophistication and political ignorance.

FROM WHOM DO VOTERS LEARN? RATIONAL ACTORS AND THEIR MOTIVES

How voters with varying levels of political awareness obtain their information is of great relevance to the subject of campaign learning. The largest and most obvious source of information is the media. Whether information is in print, televised or obtained through the Internet, the media are the chief disseminators of political facts during a campaign. The media are not without their biases, conscious or otherwise. As the largest
source of political information, media reports are subject to "spin" that may affect the content of what is taken in. The existence of priming effects\(^5\) indicates that citizens are influenced by what media chooses to present (Iyengar and Kinder 1987; Krosnick and Kinder 1990; 500). If a particular agenda is set by the media, priming becomes a powerful tool with which elites can manipulate the information gathering processes (Lupia 1992; Johnston et al. 1992). Complete reliance on any one source for information presents two problems: incomplete information and selective presentation of information.

Despite the imperfections of information obtained from media, the news still has a significant impact on campaign learning – both what information is received and how it is retained in the memory. The media’s report of campaign happenings tends to highlight the horserace aspect of the campaign (Brady and Johnston 1987); opinion polls and approval ratings take up a significant portion of media interest in the campaign. Competitive races are exacerbated by precisely this type of information. In this sense, competitiveness breeds competitiveness. Informative events such as ad campaigns and leader debates, while not free of attitudinal effects, give the electorate factual information. According to Blais, Nadeau, Gidengil and Nevitte (1999) these effects are not necessarily immediate or lasting. This is to say, what is learnt can easily be undone by forgetting (also see Price and Zaller 1990).

The prevalence of the media as the dominant source of campaign information should come as no surprise. According to Gelman and King (1993), it is the media who are responsible for enlightening voters to campaign issues and candidate positions, but moreover who assist the voter in assigning the proper weights to their "fundamental

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\(^5\) Lenz (2005) defines priming as campaign or media attention that increases the salience of an issue leading individuals to change their vote to the party that shares their position on that issue.
variables” or the matters that concern them specifically. One of the largest effects of the media in campaigns appears to be returning voters to their natural ideological or party identification “home” (Gelman and King 1993; Johnston, Hagen and Jamieson 2004). Yet, the media is not equally used by all. Price and Zaller (1990 and 1993), report that people’s ability to take in information depends on their pre-existing level of cognition. Therefore, the levels of information absorbed by two people watching the same news broadcast could differ significantly.

The media is not the sole source of political information during an election. Reliance on interpersonal communication with members of the community and interaction with members of a political party are also tools that teach voters about the campaign issues. Price and Zaller (1993) state the importance of dialogue in the community. Though it undoubtedly carries less detail than formal exposure to politics in the media, often voters find personal communication to be more trustworthy, thus they are more likely to accept the message that is being received. Putnam (2000) states the importance of community organisations in political learning. Even groups without explicit political leanings are excellent venues for discussing political matters and engaging in dialogue supporting the increase of political knowledge. In addition, community groups play a strong role in the mobilisation of the electorate, not only informing, but encouraging individuals to interpret political information in a manner that can be practically employed (Uhlaner 1989).

Rationally speaking, all actors have stakes in the outcomes: political parties have seats to gain in the legislature, community groups have policy preferences they would

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6 Another important finding by Price and Zaller (1993) is that self-reported media exposure is generally over reported, making such a measure difficult to use in quantitative analysis. This is addresses further in the Chapter 2 methodology section.
like to see enacted, and politics is the bread and butter of the media. If the competition is a foregone conclusion, no matter what information is learnt, there is little point in putting wasted effort into informing the public. If there is a chance that information could affect change however, knowledge becomes of great importance. Few would argue that parties would forego the opportunity to woo potential supporters to their side. Therefore, electoral competition becomes a great catalyst for raising the stakes and encouraging the distribution of information.

**WHY LEARN? OPPORTUNITY, ABILITY AND MOTIVATION**

Motivation to induce campaign learning on the part of the media and political parties is fairly clear. But, what characteristics are prevalent among voters who have higher tendencies to learn? Delli Carpini and Keeter (1996) state three characteristics of the politically savvy: ability, opportunity and motivation. Ability to organise thoughts rationally and apply information to the decision-making process is unique to the individual. While the public is educable, some people, plainly put, have more cognitive ability than others. This may unlock some explanation behind the apparent paradox of political learning: Canada reports higher levels of formally educated people at present than ever before, yet political knowledge remains at dismal levels (Fournier 2002). Formal education, while not a deterrent of political knowledge, supplies little additional factual political information to the citizen. According to Converse (1964), education may contribute to consistency and the alignment of beliefs, but to think that one high school civics course makes so grand a contribution to the political capacities of the electorate as a whole is a gross over-estimation of the ability of the Canadian public school system.7 It

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7 No slight to the Canadian public school system intended.
is not that the public cannot learn about politics, but not everyone is endowed with the same inherent capacity to learn, or the interest in improving their lot.

The opportunity to become politically savvy refers to having the time and resources to put the required amount of thought into political participation. As Converse (1964) states, demands on time and attention lead to low levels of sophistication – not lack of ability. Brady, Verba and Schlozman (1995) concur, stating that time and resources are central to participation in the political arena. Franklin's (1991) addition that the process of acquiring full information is costly to the voter also deters those with demanding professional and personal obligations from becoming politically knowledgeable. These two qualities in conjunction - ability and opportunity - suggest that Canada should be home to a population of politically well-informed housewives and apolitical unionised workers. This is far from the case; indeed, the opposite appears true. Enter the third, and arguably, the most important characteristic of the politically knowledgeable: motivation.

Motivation to seek out political knowledge could come from anywhere - general political interest, a personal stake in the outcome, a politicised career that requires attention paid to political occurrences (Luskin 1990; Delli Carpini and Keeter 1996). Highly motivated individuals not only pay attention to the most visible information, but likely seek out supplementary information or draw upon pre-existing reservoirs of information to contextualise new knowledge. Interest breeds knowledge and vice-versa. According to Luskin (1990), the relationship between interest and sophistication is cyclical insofar as those who are politically knowledgeable tend to feed this knowledge with more information through media exposure. Moreover, these sophisticates are best
equipped to assimilate new information into their pre-existing stores (Zaller 1989; Price and Zaller 1993). Personal motivation to learn, if for practical use or mere bragging rights, encourages the growth of a well-constrained political belief system.

How does political interest come about? Early political socialisation in the home tends to foster interest in politics and equips an individual with the fundamental basis of political education to become knowledgeable (Plutzer 2002). According to Wolfinger and Rosenstone (1980), the "start up cost" of becoming politically aware is mitigated in situations where parental political resources are strong. Participation in groups that have political leanings or that advocate their interests through politics gives tangible importance to issues and thus, cultivates interest (Putnam 2000). In addition, external forces may also be at work in driving political interest. Riding competitiveness falls into this category.

**COMPETITIVENESS AS MOTIVATION**

Competitiveness as an incentive to learn is inextricably linked to interest in the campaign. As previously mentioned, both voters and parties have reason to pay attention to levels of competition. Competitiveness, to a rational voter, arouses interest in obtaining information with which to make the most suitable electoral decision. In short, information should be in greater demand during a competitive campaign, and this should affect the way parties target their vote base.

Conversely, competitiveness to a political party encourages greater dissemination of information with the intent to mobilise a larger support base. This implies that parties, if they recognise competitiveness, should increase spending to attract voters. This proposition, if true, creates a disparity in the electorate. Voters who live in uncompetitive...
districts are at an automatic disadvantage with respect to gathering information. Less resources and less interest both on the part of voters and parties remove part of the incentive to learn. While this is partly an institutional artefact of the SMP electoral system, where geography can wreak havoc on cross-national campaign conditions, the absence of competitiveness may very well have independent effects on the reduction of resources spend at the district level.

How, then, are voters and politicians recognising competitiveness? Competition in a campaign can stem from several sources. The perception of a local campaign could be that it is the best way to articulate a choice for a national leader. A poor record could leave an incumbent fighting for a seat against a fresh faced challenger. The presence of a new or high profile candidate could have constituents bemused or angered. Spillover from a multi-ballot election could put the local contest under a magnifying glass (Cox and Munger 1989). A lagged effect from a previous election could have voters thinking that there is a carryover to the current election (Johnston, Matthews and Bittner 2005). In short, competition, or at least perceptions of competition in a riding have the power to make voters interested in the outcome. Interest, through competition, should encourage learning.

Employing judgement of perceptions of competition is not a straightforward process. To start, voters have to believe that their vote has a possibility, even if only a remote possibility, of affecting the outcome of the election. According to Blais (2000), voters fairly assess their probability affecting the outcome, which speaks well to their ability to assess the status of the electoral competition. However, in the case of any single member plurality system, all votes are not created equal. Once a plurality of votes is cast
for a candidate, the others have, in effect, no value. Mathematically breaking down the vote count and how each vote contributed to a candidate's win assigns only a fraction of worth to a substantial number of votes. Indeed, SMP is critiqued as "wasting votes" as much as it is noted for depressing turnout (Jackman 1987). Thus, the electoral framework itself may present an impediment to learning.

PERCEPTIONS OF COMPETITION AND MOBILISATION OF LEARNING

Mathematical formulae aside, for competition to matter to campaign knowledge, competitiveness has to encourage the dissemination and learning of new information. It is unlikely that most voters engage in some numerical exercise to determine exactly how much worth their vote has, but it is probable that voters have a general idea of how hotly contested the race is. How is it, though, that the average citizen is made aware of a competitive riding in such a short span of time? Canadian federal campaigns are generally no longer than two months. Catalysts must exist to transfer two types of knowledge to the electorate: first, that the competition is close and thus merits attention; second, that the candidates are presenting platforms that are sufficiently different that it warrants learning about their distinctions. Several actors can take on this role - some of whom have particular incentives to do so. Generally speaking, a combination of the media, political parties and the community at large transmit this information to the electorate.

A second related factor to the perception of riding competition is the timing or period of a campaign. Voters are less inclined to pay attention to summer elections as opposed to those held in the fall. Longer campaigns have more time to affect learning than shorter campaigns. Even the day of the campaign itself has a perceptible influence
on the recognition of riding competition. Turning points, media scandals, leader debates, and the release of ad campaigns, can awaken a voter to the reality of competition or foster the perception of competition where it previously did not exist.

Finally, a significant external factor that can help or hinder riding competition is the level of resource mobilisation that a party has already dedicated to that area. The presence of a high profile candidate, the knowledge that the riding is perpetually changing hands or the departure of a long-serving incumbent could encourage the national party to dispense a greater amount of financial resources to the riding. In addition, non-financial mobilisation resources may be distributed in greater amounts. More aggressive canvassing, larger lawn signs and increased candidate appearances in the community can bring awareness to a pre-existing level of competition as well as increase the competition by demanding a counter proliferation of resources by opposing candidates. These types of mobilisation resources, though more difficult to measure, are quite effective in promoting the notion of riding competition.

Recognition of competition is one element of this puzzle; determining whether competition drives knowledge is the testable hypothesis of this paper. Whatever the reasoning behind a citizen’s perception of competition, it is intuitive that it should compel interest and, as previously determined, interest should compel knowledge. If competition is an active motivational force, an addendum must be made to Franklin’s (1991) study. Promoting knowledge for knowledge’s sake is not in every political actor’s favour, but what does not benefit one party more than likely benefits their opponent. Information, therefore, is more prevalent in marginal ridings.
If competitiveness does indeed drive knowledge, there are substantive implications for political parties. Ridings that are deemed competitive, if they are home to the politically savvy, could indicate that interest is piqued because of increased resources spent in the riding and heightened coverage in the local and/or national media. A party that views the constituents of a riding as unmobilised supporters has cause to increase party visibility in the riding through the deployment of resources and the mobilisation of party supporters. In such instances, increasing competitiveness should logically increase the voter’s level of knowledge. This assumption is contingent on one factor: knowledge gained through the campaign must bring to light facts about the party that induce the voter to cast a ballot for this party. Electoral benefit must be the incentive to foster competition. Conversely, recognition that support would not be increased or even be decreased by a rise in a riding’s campaign knowledge should encourage a party not to direct resources that promote the learning of new information. Competition and learning, if they do go hand in hand, speaks to the notion that money should not be thrown blindly at marginal ridings in an attempt to garner votes. The lesson here: teach the masses when it serves you, obfuscate when it doesn’t, and foster competition accordingly.
CHAPTER 2: RESEARCH METHODOLOGY

The data used to test this hypothesis are from the 1997, 2000 and 2004 Canadian Elections Studies. Measures of candidate expenditures and competitiveness per riding are incorporated into the data sets.\(^8\) To determine the strength of a linear relationship between riding competitiveness and knowledge, an Ordinary Least Squares model is employed.\(^9\) The model controls for three possible types of influence on knowledge – demographic, structural and behavioural.\(^10\) Demographic controls account for characteristics such as gender and age, both of which are assumed to have predictable influences on political knowledge. Structural controls such as education account for institutional influences on a voter that encourage a propensity toward learning. Behavioural controls speak to the personal interest in politics and attention paid to political information as the campaign progresses, though direct measures are not used in this model.\(^11\) These factors address both well-entrenched socio-economic indicators as well as an individual’s own resources (See Brady, Verba & Schlozman 1995, Fournier 2002; Plutzer 2002; Wolfinger & Rosenstone 1980). For the purpose of this study, education, gender, age, party identification and prior knowledge gauge what personal traits, intellectual characteristics or skills honed by interest, encourage campaign learning. Other elements look at circumstances outside of the voter’s control that may influence knowledge. These include the day of campaign, the amount of financial resources spent by parties in a riding, and

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\(^8\) Campaign spending data collected from www.elections.ca

\(^9\) The competitiveness index for all years was supplied by J. Scott Matthews. For details on the measure see Johnston, Matthews and Bittner (2005).

\(^10\) I also estimated a Poisson regression model in order to account for a count dependent variable that is skewed toward the lower end of the scale, but saw no significant difference in the estimates. Therefore, a simple OLS model is used for its accessibility and ease in interpretation.

\(^11\) As per the typology set out by Delli Carpini and Keeter (1996).

\(^1\) Strength of party identification is used as a partial proxy for interest in this model. It does not speak directly to personal interest, but is used in order to avoid problems of endogeneity. Further discussion below.
the level of competition within that riding.

**DEPENDENT VARIABLE**

Levels of political knowledge are noted to be quite low and unevenly distributed among socio-economic groups in the population (Fournier 2002; Delli Carpini and Keeter 1996). Voters receive neither the same volume of information nor do they possess the same capability or desire to learn about politics, often rendering factual knowledge secondary to feelings or misinformed ideas about political occurrences. According to Delli Carpini and Keeter (1996), most voters are political "generalists". This implies that the majority of the electorate should be able to answer a variety of surface level questions about a wide range of political occurrences, but should not be expected to have a strong grasp on detailed affairs. While it has been speculated that voters take pause to learn about issues that are of personal concern, according to Price and Zaller (1993), "domain-specific" effects, or the propensity for voters to know more about their particular area of interest, are limited. Despite good intentions on the part of the electorate, political knowledge is not as extensive as most citizens would hope.

**KNOWLEDGE DECONSTRUCTED**

For the sake of this study, it is tempting to regard knowledge as the accumulation of all factual questions available in the Canadian Election Studies. This would include a variety of question types, some directly pertinent to the campaign, others, not. In disaggregating the knowledge measure into separate categories of learning, some telling results come to light. Not all types of knowledge are obtained or sharpened at the same level during a campaign. Rather, trends in learning very much depend on the material that is presented and the amount of time in which it is available for processing.
OPERATIONALISATION

Generally speaking, the dependent variable, campaign knowledge, is a scale of factual questions\textsuperscript{12} answered correctly by the respondent about party platforms, important figures, and the likelihood of national success for a political party\textsuperscript{13} (See Appendix A for all question texts). Owing to the variability in the question types in the Canadian Election Studies, separate measures of campaign knowledge are created for each election. This presents a challenge to the research as some studies were richer in their range of factual questions asked. The 2000 study failed to ask perceived chances of winning, whereas the 1997 CES does not ask questions about leader identity.\textsuperscript{14} Lacking uniformity in the number of questions asked, and consistency across studies, cross-election comparison is not straightforward; therefore the analysis is broken down both by year and by question type.

The scale of campaign knowledge is an imperfect test of knowledge – it fails to ask voters questions on all parties, which may introduce an element of partisan bias. Price and Zaller candidly characterise this sort of approximation of knowledge as, “trying to assess literary ability with a spelling test” (1993: 139). This measure does not examine the acuity of the voter’s intellectual constraints nor does it test ability to critically integrate information into a pre-existing political belief system. Yet, testing factual

\textsuperscript{12} The answer to each question is assigned a zero or one value: one for a correct (or even a partially-correct answer in a situation where an individual is allowed to name more than one party) and zero for an incorrect answer.

\textsuperscript{13} The question simply asks the party’s chances of winning in the whole country. It does not specify whether the party would form a minority or majority government. Percentages were determined as rough but reasonable estimates of chances of winning. While these are subject to partisan bias – individuals may project a higher rate of winning onto their preferred party - they still serve as a general indicator of an individual’s ability to gauge campaign activity and therefore, an indicator of information taken in during the course of the campaign. Percentages are listed in Appendix A.

\textsuperscript{14} Although the 1997 did not specifically ask leader identification questions, one question, which asked the name of Finance Minster Paul Martin was included in the seven point knowledge scale. The Martin question was included because it demonstrated a learning trend over the course of the campaign. It was, however, omitted in the individual policy or perception regressions.
information is a well-accepted method of measuring knowledge and has been used with much success (Delli Carpini and Keeter 1996; Cutler 2002). It remains a fairly reasonable test of an individual's ability to receive, retain and recall information that is made available during the course of a campaign.

Of additional relevance is the factual nature of the questions used in the creation of the dependent variable. These questions refer only to events that occur within the context of the (then) current electoral campaign. They do not ask for judgements on issues, nor are they tests of how the voter internalises an issue with respect to pre-existing political beliefs. Campaign questions simply test an individual's ability to learn and retain facts in a brief period of time. Zaller, with respect to what constitutes a well-informed individual, states, "One is politically aware to the degree that one is exposed to and comprehends media news reports, issues and personages" (1990: 147). Because the responses are factual and "immune to social desirability response and individual differences in standards of self-description", they are a good test of both cognitive ability and attention paid to media. Campaign questions are therefore useful tools in testing learning within a specific time frame.

THE CANADIAN ELECTION STUDIES

As previously mentioned, inconsistencies in the Canadian Election Studies have resulted in three different measures of knowledge across three cases.\(^{15}\) The 1997 knowledge measure, in full, has three policy questions and three perceived chances of winning questions for a total six point measure of knowledge. The 2000 measure uses four policy questions and four leader identification questions. By far the broadest
measure of knowledge, the 2004 scale incorporates six policy questions, three leadership identification questions, and three perceived chances of winning questions. The distribution of correct answers is portrayed in Figure 2.1.

While separate campaign trends do not follow the exact same pattern, there is an element of consistency insofar as the bulk of the respondents fall in the low to mid-range of correct responses (usually in the zero to fifty percent range). In every case, there are few respondents in the top-scoring range. Initially, these results corroborate the work of Patrick Fournier (2002) who found the level of political knowledge in Canada to be rather dismal. However, the breakdown of the knowledge variable into sub-categories introduces a discernable pattern in the type of knowledge that Canadians are most likely to possess, as well as illuminating why some years are skewed toward the bottom of the scale and others heavily concentrated in the mid-range.

Psychometric analysis provides strong support for disaggregating the knowledge measure into individual categories. The alpha levels, which are .76, .74 and .77 for 1997, 2000 and 2004 respectively, are used to test scale reliability. In the 1997 and 2000 cases, the alpha values for the individual policy, chance and leader ID knowledge measures are roughly at the same level or higher than the alpha for the aggregate knowledge measure. This indicates that the measures for individual types of knowledge are generally stronger than the combined scale, indicating that some measures of knowledge have more predictive power than others. In 2004, all of the individual knowledge measures are above the alpha of the aggregate measure; however, the values of policy and leader identification knowledge are below that of the scale reliability. In this instance, perceived
party chance questions are having a stronger effect on the knowledge scale than the other two types of knowledge.

**VARIATIONS IN KNOWLEDGE**

Returning to the previously created knowledge typology, the three categories of knowledge are neither equal in importance, nor in ease of answering. Knowledge of a political party’s policy goals directly assists in the electoral decision. According to Downs (1957), rational citizens tend to vote based on who will deliver the best possible policy outcome for their own or their community’s preferences (Uhlaner 1989). Knowing the content of a platform gives the voter tangible material with which to make an informed decision. It is therefore policy questions that should be stressed as the richest contribution to knowledge.

It can be legitimately argued that many individuals vote based on the candidate at both the local and national level. Name recognition, therefore, is important to a successful campaign. In this context however, recognition of a leader’s name does not necessarily indicate a politically knowledgeable respondent. Correctly identifying a leader is not necessarily correlated with knowing factual information about that leader’s policies or character. This is not to discount the importance of a general familiarity with prominent party figures. Inferences can be made about a party’s goals using the leader’s character or past record as a short-cut. This type of knowledge however could pose methodological problems to the study. Knowledge of a party leader could be dated information held by a respondent and therefore be an “easy” survey question. Therefore some caution should be employed when weighting a correct response in this category against a correct response in the policy category.
The third type of knowledge, perception of a party's chances of electoral success, takes on a temporal element, though, distinct from that of policy questions. Measuring chance of success, though an art for pollsters, is a gamble for most. Although the average citizen's chances of determining the winner improves during the course of a campaign, attempts at prediction can create substantial amounts of measurement error. Guessing may inflate the rate of correct response. In addition, it is not unreasonable to assume that voters may have knowledge of a party's chances of success in advance of the campaign, particularly when one party has a clear or long-standing advantage over its competitors (i.e. the Liberal Party in 2000 coming off of two successive majority governments or the very fact that the Liberals are referred to as the "natural governing party"). Conversely, a significant proportion of voters get their perceptions from, or at least have their perceptions enhanced by, the intense media coverage that takes place during a campaign. Voters are better equipped to answer a perception-based question while being inundated with newspaper and television election polls for weeks on end.

At this juncture, it is critical to reinforce the importance of the interaction between time and knowledge when identifying a learning pattern. Whereas the first few weeks or the campaign can be times of low information, leader's debates and the launch of ad campaigns create an influx of information. The days leading up to election day are, with good reason, points of high salience as parties do their best to convert or mobilise wavering voters using information that places the party in a favourable light. Learning therefore, occurs with varied intensity depending on the point in the campaign.

Election promises are made during the course of the campaign, and by nature, are announced after an electoral writ is dropped. In Canada, this limits the window of
opportunity for learning to approximately four to six weeks. The information required to answer policy and chance questions correctly is drawn almost exclusively from the campaign period and should be less correlated with having prior political knowledge. Leader identification, on the other hand, could occur anytime during the party leader’s tenure. Determining a party’s chances is easiest during the course of the campaign, but not impossible before campaigning begins.

It is therefore policy questions and, to a lesser extent, perceptions of electoral success questions, which provide the best indicator of how attentive an individual is to the current election campaign. Again, both categories of knowledge are not equal with respect to importance or ease in learning. If rationality and the enlightenment thesis are to hold for the sake of this project, then the expectation should be for the public to want to become more knowledgeable on issues of policy as this is the type of knowledge that is of most direct use to voters. On the other hand, higher levels of correct responses for the leader identification or perceived chance of winning questions indicate that voters are paying more attention to surface details of the campaign.

POLICY KNOWLEDGE

Regrettably, there is little reward for those expecting a “rationally informed” population. Using the measures provided by the CES, Canadians do not score very well on campaign knowledge measures (See Table 2.1). In each year, the bulk of respondents fall at or below the 50% threshold, indicating bleak prospects for the rationale behind learning policy-related information.

16 Indeed, correlations for knowledge of leader identity and prior knowledge are highest. In 2000 knowledge of party leaders and prior political knowledge are correlated at a level of .65, and in 2004 at a level of .60.
Although disappointing from the perspective of proponents of the enlightenment thesis, this result is not all that surprising. Responding correctly to policy questions requires greater attention to the media in a concentrated period of time. There remains the question of salience however. If policy questions are of greatest use to a voter in making their electoral decision, why don’t we see better informed voters? And, since 1997, 2000 and 2004 are all elections with varied dynamics (1997 being a sure bet for the Liberals and 2004 an uncertain outcome), there should be distinct patterns of knowledge in cases where the stakes of the election are higher. Yet, knowledge levels remain consistently low; a puzzling result of cross-temporal study, which paints a disappointing overview of knowledge levels in Canada and casts a foreboding shadow over the prospect of campaign learning.

**LEADER IDENTIFICATION KNOWLEDGE**

Contrast policy learning with questions that pertain to the identity of a party leader (See Table 2.2). Respondents fair far better at identifying the leader of a political party in both 2000 and 2004 than they do at correctly answering policy questions. Here, the majority of respondents are above the 50 percent mark. As previously stated, this may be reflective of the style of questions being asked. In the 2000 study, all party leaders, save Stockwell Day, were well entrenched figures in the Canadian political system. Even Day, a political neophyte, received enough press coverage to make the public familiar with his name and party affiliation. The information that needed to be learned was, for the most part, already available for some time. The situation differs in 2004. Three out of the four main party leaders were new to the position, though not new
figures to the Canadian political scene. This may account for the greater familiarity with leader’s identities during the 2000 campaign.

PERCEPTIONS OF A PARTY’S CHANCES

While knowledge of policy and leader identity provides some consistency in their trends, knowledge of party chances of winning presents a different story. There is a marked difference in correct response rates between the 1997 and 2004 studies. While the results from 1997 indicate that respondents were moderately-informed as to a party’s chances at electoral success, 2004’s results showed that over 80% of respondents were unable to correctly perceive more than one party’s chance at electoral success. Potential problems with survey techniques, such as guessing, could have inflated the rate of correct responses in 1997. However, Table 2.3 indicates that in 2004, there are strikingly few respondents who seemed in tune with the electoral pulse of the country in 1997 or 2004.

Contextualising the results may shed some light on this ambiguity. The 1997 Canadian federal election was the second of a three-term Liberal party hegemony. A second majority for the Chrétien government seemed all but inevitable. It was likely a simple proposition in 1997 for even a low to moderately-informed voter to deduce that the Liberals had a strong chance of forming the government again. In 2004, the picture is not quite so clear. The recently-discovered sponsorship scandal placed the Liberals on the outs with many Canadian voters. With the opposition parties capitalising on the Liberals’ record of mismanagement, a Liberal victory of any magnitude - majority or minority – was not evident. In addition, the rising popularity of the new Conservative Party led by Stephen Harper was not a clear-cut choice for governing either. Unfamiliarity with Harper’s character and concerns over his socially conservative value
structure prevented even some of the most disgruntled Liberal supporters from abandoning the sinking Liberal ship. While the rate of correct responses is on the lower end of the scale, confusion over, or a lack of knowledge about the chances of a party’s electoral success, may be partially accounted for by a nationally competitive electoral forum.

**LEARNING TRENDS**

Does an overview of the knowledge measure provide any information about the learning trends that occur in each of the election campaigns? Tables that present a one-shot look at the knowledge levels of voters do not take into account the timing of the interview or the respondent’s amount of exposure to media or campaign materials. To determine the strength of learning during the campaign, it is helpful to look at the relationship between day of campaign and the various categories of political knowledge.

According to the regressions displayed in Table 2.4, there appears to be little consistency in learning trends. With respect to policy learning, the 1997 and 2000 studies show that knowledge of campaign promises is increasing over the course of the campaign. In 2004, however, the trend reverses and learning decreases as the campaign progresses.\(^\text{17}\) Leader identification is positive in both 2000 and 2004, but a stronger relationship is found in the former case. Surprisingly, knowledge of a party’s chances of winning demonstrates no actual trend in learning. Although both coefficients are negative, their lack of statistical significance prevents drawing too strong a conclusion from these results.

\(^{17}\) This anomalous result is discussed further below.
It is helpful to graph the relationship between day of campaign and knowledge type. Lowess distributions are presented below both by year and by knowledge type (See Figures 2.3 to 2.8). Contrary to the rationality argument, a pattern in policy learning is barely discernable. There is only a clear occurrence of learning in one of the three cases. In fact, the relationships between time and learning have perceptible decreases at various points during the 2000 and 2004 campaigns. It is noteworthy that in 1997, 2000 and 2004, knowledge levels end up at roughly the same point as one another at the conclusion of the campaign. This indicates that, despite the fluctuations in learning over the course of the campaign, some equilibrium appears to be reached at the end of the campaign journey.

Learning trends for perceived chances of winning follow a similar pattern in 1997 and 2004, though at significantly different levels. The higher rate of questions answered correctly in 1997 may, as previously stated, be a signal that the outcome for 1997 was relatively easy to predict. Uncertainty in the 2004 election, evident by the change in the change in governmental status for the Liberal party and the emergence of the united Conservative Party of Canada, may have been responsible for the distinctly lower percentage of questions answered correctly. Also indicative of the Liberal’s tenuous hold on governing status is the drop in correct responses at the tail end of the 2004 campaign. So few correct answers at this point in time hints at a high level of national competition preventing voters from accurately being able to ascertain the outcome of the national contest.

Though the Lowess curve in 2004 is consistently lower than that of 2000, the leadership identity graph demonstrates some trend in learning. The first notable point is
that the line does not remain static thus indicating that knowledge of party leadership was not a "freebie" question or knowledge that had been learned prior to the start of the campaign. Second, there is a significant increase in questions answered correctly shortly before the beginning of the second week of the campaign, in the vicinity of the leadership debate. This speaks positively to campaign learning as this indicates that voters are taking pause to become informed during significant points in the campaign. The dramatic downturn in correct responses at the conclusion of both campaigns, particularly the 2004 case, is a mysterious outcome of the campaign process.

IMPLICATIONS

What does all of this mean in terms of using a combined knowledge measure as a dependent variable? The breakdown of knowledge demonstrates a few points. First, no matter the learning trend that may or may not occur, knowledge scores are relatively low in all sectors. Only in leader identification does knowledge appear on the higher end of the scale. Those questions, as previously mentioned, are less accurate measures of political knowledge as there is no time restriction to learning.

Second, there is no great trend in learning during the course of a campaign – in all three measures of knowledge. What is suspected to be a linear or at least a curvilinear relationship over time is actually a wavering line. Learning appears to occur at some points, but more often than not, learning dies down before the end of the campaign. This is not only surprising from a scholarly aspect, but presents a few normative implications as well. If consistent learning is not occurring during campaigns and information levels remain static, then what is the purpose of media during a campaign? Does the problem lie
with the distributors of information or the recipients? Is useless information being presented to voters? Are researchers asking the wrong questions?

Finally, knowledge can not be viewed as the sum of all parts. A thorough disaggregating of the knowledge variable indicates that some types of knowledge are more important than others. Measuring knowledge as a whole ignores several questions: What are voters capable of learning? What type of information are voters choosing to focus on? And what elements of campaigns are encouraging the consumption of information? Further study of these questions will be taken up upon the introduction of competitiveness into the research model.

INDEPENDENT VARIABLES

MEASURING COMPETITION

The traditional methods for measuring competition in districts are the raw vote and the two-party margin.\(^{18}\) Both assume two-party competition and completely discount the relevance of the ever-present third (and potentially fourth) party in Canadian elections, despite the fact that such parties receive a significant proportion of ballots cast. The remedy devised by Endersby, Galatas and Rackaway (2002), a multi-party competitiveness index, allows for multiple parties to be taken into account. The equation used to derive the competitive index, as created by Endersby, Galatas and Rackaway (2002) is:

\[
c_{kj} = k^k \prod_{i=1}^{k} p_{ij}
\]

where:

\(c\) is competitiveness among the \(k\) parties in constituency \(j\);

\(^{18}\) Two Party Margin measures the difference between first and second party divided by total votes for both parties whereas the Raw Vote Margin, which assumes two-party competition, subtracts the votes of the second place party from those of the first place party.
$p_{ij}$ is the proportion of the total votes cast for the $i$th party in the $j$th constituency (where $i$ indicates the position in which the party places in terms of votes). Competitiveness among effective number of parties is measured as a continuous variable ranging from zero to one. Zero is a non-competitive riding and one, a dead-heat race.

While multi-partyism necessitates a complex formula to derive competition, this is the very same characteristic that makes competition in the Canadian case so sporting to watch. According to Endersby, Galatas and Rackaway (2002) and Cox and Munger (1989), the institutional features in Canada make the measurement of competition easier than would be elsewhere. The SMP system requires the voter to cast one single vote – no ranking, no preferences, no complexity in the ballot. The straightforwardness of the ballot allows the voter to express a clear preference in the case of a highly competitive race. The single-election format of the ballot means that there is no “carryover” effect as occurs in the United States where voters may cast a blind vote for city councillor or school board trustee when voting for the president. Finally, the multi-party system, one that encourages the development of regional and brokerage parties, produces a wider variety of parties which is said to increase interest, though depress turnout (Jackman 1987). All of these factors combine to make the judgement of local riding competition a fairly straightforward process.

A quick glance at the competitiveness data used in this study gives an indication of how voters may have recognised competition and of what impact it may have had on their information-gathering process. In all three cases, the mean competitiveness ranking is approximately in the mid-range (See Figure 2.2 and Table 2.5 for descriptive statistics). Competitiveness is highest in 1997, but closely trailed by 2004, with standard deviations
of approximately .15 in each case. This indicates that most ridings across Canada in these years were of a moderate degree of competitiveness. If one particular area of Canada is consistently competitive, this may unlock some explanation about the circumstances under which competition is fostered.

Region seems to provide no clear answers. In 1997, the majority of competitive ridings were located in Quebec. In 2000, competitiveness was concentrated in Ontario, Quebec and parts of the Prairies. The 2004 case saw a fairly even distribution of ridings in the top 20th percentile of competition with significant representation from Ontario and British Columbia. The healthy distribution of competition throughout Canada provides encouragement for the argument that competitiveness is not simply another term for region.

**RECOGNITION OF COMPETITIVENESS OVER TIME**

Competitiveness as an *ex post* measure gives no indication as to whether voters in a riding are aware of competition as it is occurring. If competition is to spark interest in the campaign, there has to be transmission of this information from political actors (i.e. politicians, media) to the voters. A useful source of information on competition may come from the competitiveness of the previous election. Frequent expansion and redistricting of Canadian federal ridings makes comparison over the years a difficult task. There were few enough changes in electoral boundaries between 1997 and 2000 that comparing the two years should be a rough and reasonable estimate of the extent to which competition was stable from 1997 to 2000. However, boundaries were significantly redrawn in 2004 thereby making a comparison with the first two cases impossible.
Testing the stability in competitiveness from 1997 to 2000 demonstrates a positive, though not overly robust relationship. A small coefficient (.04) indicates that 2000 competitiveness levels are not recapitulating the 1997 conditions. Thus, voters, if they are recognising competition, are likely doing so from external sources such as political parties and the media.

**CAMPAIGN SPENDING**

Increases in campaign spending enhance the visibility of a candidate, and, by extension, a party in a particular riding. Spending encourages voters to actively support a candidate and to mobilise supporters to the polls. Increased visibility of one or more candidates in a riding can strengthen perceptions of competitiveness by bringing awareness to the electoral race and, theoretically, should increase knowledge by actively engaging constituents in campaign material. Higher rates of riding spending generally equate to additional volunteers knocking on doors, more exposure to media through advertising and greater amounts of information distributed in the community. Obviously, seats that are viewed as potentially “winnable” (as opposed to a safe seat or a sure loss) by the party are prone to attract more spending from both the candidate and the national party.

The predicted relationship of spending on campaign learning is positive. In terms of measuring this relationship, however, endogeneity may exist between competition and campaign contributions.\(^{19}\) Competitiveness may drive money spent as much or more as it drives learning.\(^{20}\) Even if spending is proven to be substantially influenced by

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\(^{19}\) According to the data, there appears a low correlation between spending and competitiveness in 1997 (.17), but a moderate correlation in 2000 and 2004 (.31 and .39).

\(^{20}\) The data for all three cases indicates a positive and significant relationship between spending and competitiveness.
competition, this does not necessarily translate into a connection between spending and knowledge. Assuming that competition through spending is responsible for increasing knowledge potentially creates inefficiency in the model. Therefore it is essential to determine whether competitiveness and spending have independent effects on knowledge.

Two types of spending should ideally be considered for this study. The first, the local candidate’s total election expenses, recognises the salience of the local competition by the chief stakeholders – the candidates. The second type of expenditure that could have a telling impact on competition is the resources expended by the national party. This is not limited to financial contributions to the district, but includes personal visits by the leader or prominent party personages, party-instigated coverage in the national media and so forth. These types of contributions are inherently more difficult to measure. Elections Canada does not offer a visit log of the party leaders and it is even more difficult to quantify strategic measures that were taken by the national party in terms of encouraging media coverage. It is therefore the first type of expenditure that is used in the model to account for recognition and reinforcement of competition.

Looking at the spending data that is available, per capita spending appears to be consistent throughout the three case studies (See Table 2.6 for descriptive statistics). The range in each case runs between approximately fifty cents (though only half that in 2004) and roughly five dollars. If a strong relationship between spending and knowledge is found, the relationship between competitiveness and spending should be examined.

---

21 In each case the standard deviation is well below one half the size of the mean, indicating that most ridings see roughly comparable levels of spending.
closely to ensure that any effect of competition on knowledge is not actually a result of spending.

Measuring the statistical relationship between levels of local riding competitiveness and campaign spending provides greater clarification about which variable, competitiveness or spending, is a stronger predictor of knowledge. Though the purpose of the study is to ascertain the relationship between competitiveness and learning, it is impossible to accurately comment on this relationship without first eliminating the possibility that the campaign effect is merely a by-product of campaign spending.

Logic dictates that competitiveness drives spending (Though see Eagles 2004 for an opposing view). This claim is supported by statistical analysis that proves that increases in local riding competitiveness are related to higher levels of per capita spending in all three cases (See Table 2.7). This speaks well to the supposition that competitiveness is having a perceptible difference on the way local candidates allocate their funds and that there is recognition that resources benefit candidates in marginal ridings.

**DAY OF CAMPAIGN**

The majority of the discussion of the interaction of time and learning is discussed in the section on the dependent variable. However, a brief note is made with respect to the structure of measuring time in the statistical model. In the competitiveness model, day of campaign is included as an independent control and in quadratic form.²² As the campaign progresses, learning should increase. The relationship however, should not

---

²² The model also specified an interaction between competitiveness and day of campaign. There were no significant findings, nor were there any substantive changes to other coefficients, therefore the interaction was dropped from the model.
necessarily be linear. Greater increases in learning are expected after the leaders’ debate and in the later portions of the campaign, though, a delay in learning may occur and the information presented may not take effect right away. As the amount of information needed for most voters to make a decision is a finite quantity, running the variable in quadratic form tests if learning tapers off at the end. If this is the case, then this may illustrate that voters are “maxed out” in terms of their desire or capability to learn.

GENERAL POLITICAL INFORMATION

Knowledge begets knowledge. Price and Zaller’s (1993) claim that prior political knowledge is the best indicator of current learning patterns is repeated throughout the literature. In a previous study, Zaller (1989) cites the possession of neutral, factual information as the best measure of political awareness, as it is free from subjectivity and survey response problems such as a social desirability effect. Moreover, he states that those who are more “chronically” aware tend to be more exposed to campaign information, and therefore, better able to critically resist bias in campaign messages.

One of the most profound contributions to the study of political learning is Luskin’s (1990) work on voter sophistication. Luskin’s concept of the sophisticated voter stresses the importance of prior political knowledge, free from partisan attitude, as a mechanism for the incorporation of new political material. Strictly factual knowledge, without partisan bias, is a measurement that demonstrates the propensity of an individual to learn about issues across the ideological board during a brief period. While partisanship positively affects the learning process in terms of amount of information digested (those with a partisan affiliation having higher exposure rates to political information), it is the intake of facts that allow citizens to make decisions that best reflect
their true preferences (Delli Carpini and Keeter 1996). Sophistication, by definition, must include the assimilation, the retention and the usage of factual information in voting decisions (Price and Zaller 1990).

Franklin (1990) adds to the argument stating that cognitive capacity is strained by lack of contextual information. In the absence of context there is bias, (i.e. projection of personal preferences onto a candidate). Therefore, having prior political knowledge or a highly constrained set of beliefs promotes the coherent integration of new facts. Context, add Delli Carpini and Keeter (1996), better allows citizens to use elite cues, thereby enabling voters to use mediated information correctly. In sum, prior knowledge of politics strengthens an individual’s capacity for electoral decision-making. This makes controlling for prior political knowledge a necessary choice. Political junkies are more likely to learn, whereas political neophytes are more resistant to political learning.

STRENGTH OF PARTY IDENTIFICATION

As there is not an accurate measure of political interest available to use as a control in this study, party identification has been selected for two reasons. First, party identification functions as a partial proxy for interest; those who possess a strong interest in politics are often active party identifiers. The inclusion of a partial measure of interest stabilises the results of the statistical model and alleviates some of the concern about omitted variable bias. Second, strength of party identification provides the perfect covariant to the statistical model. Low correlations with competitive and prior political knowledge allow party identification to control for an element of interest in the

23 V.O. Key (1959) refers to party identification as a “standing decision” to support that party, which could indicate that partisans are biased in terms of the information that they receive and choose to internalise. Therefore, it is a fair assumption to say that party identification is not necessarily correlated with prior political knowledge and should be included in the model for its own merits.
statistical model without detracting from the robustness of the competitiveness coefficient or allowing prior political knowledge to take too much credit for interest.

As mentioned, the recurring theme of interest as a predictor of knowledge presents a measurement problem to this study. Those who are interested in politics learn more because they want to, and, to a certain extent, because they have conditioned themselves to readily absorb political information. Therefore, the omission of interest as an explanatory factor of knowledge is problematic; it potentially ignores one of the greatest causes of learning. However, there is good reason to avoid adding interest as it is measured in the CES to the model. While the Canadian Election Studies do ask the respondents to indicate their personal interest in the campaign and their self-reported exposure to media about the campaign, these measures are typically inaccurate and (media usage in particular) subject to over-reporting (Price and Zaller 1990).

Another concern of using self-reported interest in the model is the potential endogeneity between interest and knowledge. Political interest, in effect, may simply be political knowledge by another name. This would detract from the model's validity. To get around this problem, ideally, one could perform Two Stage Least Squares, however, the data does not provide appropriate variables to use as instruments for interest that are independent of other variables. Additionally, including interest would likely lead to high levels of correlation between education, factual knowledge, age and competition. Indeed, running a correlation matrix supports that there is modest to high correlation in using self-reported interest, therefore it appears best to leave interest aside until proper proxies can be found.
EDUCATION

The remainder of controls are similar to those of any standard voter turnout mode (See Johnston, Matthews and Bittner (2005) and Blais (2000) for a complete description).24 There are competing notions as to whether controlling for education is necessary in a test of political knowledge. Initially, it appears logical that the more education one receives during a lifetime, the more cognitively equipped one is to make consistent political decisions. Education, according to Converse (1964), leads to more consistency/alignment of beliefs. The “opportunity/motivation/ability triad” of Delli Carpini and Keeter (1996)25 manifests itself clearly in education. A well-educated individual should have a higher degree of interest in politics, should possess and develop the cognitive skills required for processing information, and should be influenced to pursue specific career paths that require political knowledge.26

Unpacking the issue in a little more detail, the logical relationship between education and political sophistication is more tenuous than initially thought. The relationship between education and political knowledge is in question.27 Education may

24 As noted by most Canadian political scientists, removing geography from any study of Canadian politics is to discount one of the most potent explanatory variables in any aspect of national politics. With respect to the relationship between region and competition, it is noted by Johnston, Matthews and Bittner (2005) that riding competitiveness is more pronounced in certain provinces at certain times. However, the authors also point out that region could simply be another word for competitiveness (Johnston, Matthews and Bittner 2005). Region may explain away some of the discrepancies in respondent ability to answer the campaign questions asked in the survey, but it also may over-control for competition and disguise some of the effects that should be attributed to competitiveness. Geography should be given due consideration; however, controlling for region in this study may lead to an under-estimation of the importance of competitiveness. Running the model with and without regional controls did not appear to alter the overall results of the model. Certainly the trend was the same in both models, however, the robustness of the results when controlling for region were deflated. There was no substantial increase in the model’s R-squared and the coefficients of most regional controls were insignificant and minute. I therefore opted to leave region out of this model.
25 See also Brady, Verba and Schlozman (1995) for a similar typology.
26 Luskin (1990) notes the importance of occupation as a determinant of political sophistication.
27 Concurring with Smith (1989), Robert Luskin (1990), states that formal education does not contribute much to knowledge or political sophistication itself. It is merely a catalyst for knowledge, whereas interest and native intelligence are the two best predictors of knowledge. Luskin qualifies this statement noting that
be endogenous to knowledge: people who are smarter go further in school; however, there is no determined causal relationship that states that education makes people more politically knowledgeable. Those educated in a field without direct political content (i.e. political science, history) have no direct means to learn factual political information apart from their own volition. Answering campaign-related factual information on a survey is simply an exercise in news recall, not a test of educational prowess.

This aside, it is suspected that education has a positive influence on knowledge. Even if the propensity to learn formal political knowledge is separate from general academic education, it would be counter-intuitive to suggest that education has a negative effect on political knowledge. If Luskin (1990) is correct and education is not an efficient predictor of knowledge, the coefficient will likely appear insignificant and of a relatively small magnitude. Despite the possibility that education is not an overwhelmingly strong predictor of knowledge, it is included to strengthen the fit of the model.

AGE/GENDER

Demographic controls such as age and gender address the fact that some people are inherently more interested in and have more time to dedicate to politics. As is indicated from the previous literature, those who are older have had more time to develop and interest in politics as well as an increased store of factual and partisan information. The political belief systems of older voters tend to be better organised than those starting out. However, as with day of campaign, the relationship between age and learning should not necessarily be suspected to be linear. It is true that a voter who has had more experience with elections and more political exposure over the course of a lifetime is

the effect of education is not independent from intelligence and interest. As intelligence is not measured in the CES, there is the potential for omitted variable bias, however, this threat will have to be dealt with by controlling for education.
predicted to be more politically knowledgeable. It is also possible however, that the oldest age group pays less attention to politics owing to poor health, or a reduction in interest or capacity to remember.

The existing literature on voter learning also suggests that there is a significant gender gap in political knowledge. On average, men demonstrate greater political knowledge than women. With fewer at-home commitments, their traditionally dominant role in politically-oriented occupations and even perhaps a keener interest in the rough and tumble world of politics\(^{28}\) are only some of the possibilities as to why a gender discrepancy in political knowledge has come about.

**LIMITATIONS OF THE DATA**

There are some limitations of the data, particularly with respect to the measure of competition. Such limitations may have adverse effects or detract from the robustness of the results. First, competitiveness is an *ex post* measure that employs effective number of parties while looking at total votes cast for each effective party (See Johnston, Matthews & Bittner 2005; Endersby, Galatas & Rackaway 2002). While this is a particularly useful measure for the Canadian multi-party system, it is a measure of the *results* of the electoral competition, not the *perceived* competitiveness of a riding to a constituent during the period when casting his/her vote. If the riding is not perceived to be competitive by the voter, then the effect of the level of competition may be biased downwards.

Second, the content of the policy, leader identification and perception questions in the CES refer to some, not all parties (in the 1997 Survey, for example, questions were asked about the NDP, the Conservatives and the Reform party, not the Liberals or the

Bloc). In certain Canadian ridings, one or more of these parties may have been effectively disenfranchised – a candidate may not have been run, or a candidate’s chance of winning is so slim that the party has declared the riding a lost cause – therefore, the constituents of this riding may be disadvantaged in answering campaign questions as, at the local level, they have not have been equally exposed to campaign material that covers the scope of the choice in parties. This limitation, however, can be overlooked or at least accepted if it is suspected that the type of information asked is of national concern and could easily have been obtained from national media coverage. Such tends to be the case in Canadian federal elections. The absence of a local candidate of a particular party may reduce interest in that party’s platform, but not necessarily exposure to party information.

Third, the Canadian parliamentary system has the perpetual problem of having no specific electoral outlet for exclusively national concerns. The election of an MP is a local matter and, unlike in a presidential system, the voter never directly expresses a choice for the head of government. The Canadian media, however, tend to focus the majority of concern on the national party and the party leader. In the absence of a mechanism to express judgement on these concerns, voters may map national sentiments onto the local contest. A vote for the local candidate of a preferred party takes the place of voting for that party’s leader. In this sense, riding competition may be merely a reflection of the voter’s perceptions of the greater national contest. This is more of a ubiquitous institutional criticism of SMP parliamentary elections than a limitation of these specific data. Local representation may be secondary to national leadership in the minds of a significant number of voters – in some cases, however, the reverse may also be true. Despite the possibility of some incongruence between the overall perceptions of
electoral competition and the mathematical calculations of local riding competition, the competitiveness index is still the most reasonable measure of the level of competition in the riding.

Finally, the interaction of time and competition is crucial to the study of riding competitiveness. A highly competitive race in a prior election (be that in the federal or provincial level) may very well have left a lagged effect on voters (Johnston, Matthews & Bittner 2005). The presence of a time delay would further muddy the concept of perceived district competitiveness. The electorate may still hold onto ideas of competition from the previous election and may be grafting these perceptions onto the current election. If this is the case then the measured effect of learning may be inflated.

Caveats aside, these limitations do not significantly threaten the study. Some limitations, such as the absence of a mechanism to directly select the Prime Minister, are institutional structures within which the model is forced to work. The \textit{ex post} measure of competitiveness has been used in recent Canadian scholarly work with much success (See Johnston, Matthews & Bittner 2005), and is the best mechanism currently available to gauge competition. Furthermore, there is no guarantee that measuring an individual’s perceived level of riding competition\textsuperscript{29} would be either an accurate assessment of the riding or that her perception of competitiveness would not be biased by partisanship. The post-election competitive index avoids these problems, thus can be used with some confidence as the best measure of riding competition.

\textsuperscript{29} It is assumed that this could be attempted as the Canadian Election Studies in 1997, 2000 and 2004 ask the respondent their perceptions of local candidates’ chances of winning.
TABLES AND FIGURES

**TABLE 2.1: RESPONSES TO POLICY QUESTIONS**

<table>
<thead>
<tr>
<th>1997</th>
<th>2000</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Questions Answered Correctly</td>
<td>% Respondents</td>
<td>% Questions Answered Correctly</td>
</tr>
<tr>
<td>0</td>
<td>46.67</td>
<td>0</td>
</tr>
<tr>
<td>33</td>
<td>31.45</td>
<td>25</td>
</tr>
<tr>
<td>66</td>
<td>17.68</td>
<td>50</td>
</tr>
<tr>
<td>100</td>
<td>4.2</td>
<td>75</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>Total</td>
</tr>
</tbody>
</table>

Alpha: .81  
Alpha: .88  
Alpha: .67

**TABLE 2.2: RESPONSES TO LEADER IDENTIFICATION QUESTIONS**

<table>
<thead>
<tr>
<th>2000</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Questions Answered Correctly</td>
<td>% Respondents</td>
</tr>
<tr>
<td>0</td>
<td>12.85</td>
</tr>
<tr>
<td>25</td>
<td>13.09</td>
</tr>
<tr>
<td>50</td>
<td>13.31</td>
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<tr>
<td>75</td>
<td>20.13</td>
</tr>
<tr>
<td>100</td>
<td>40.62</td>
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<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>
### Table 2.3: Responses to Perception Questions

<table>
<thead>
<tr>
<th></th>
<th>1997</th>
<th></th>
<th>2004</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% Questions Answered Correctly</td>
<td>% Respondents</td>
<td>% Questions Answered Correctly</td>
<td>% Respondents</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>12.79</td>
<td>0</td>
<td>72.94</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>49.48</td>
<td>33</td>
<td>5.78</td>
<td></td>
</tr>
<tr>
<td>66</td>
<td>27.07</td>
<td>66</td>
<td>21.17</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>10.66</td>
<td>100</td>
<td>.12</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>Total</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Alpha: .85

### Table 2.4: Impact of Campaign Day on Knowledge

#### Campaign Learning By Campaign Day

<table>
<thead>
<tr>
<th>Variable</th>
<th>1997</th>
<th>2000</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Knowledge Measure</td>
<td>5.19</td>
<td>3.20</td>
<td>-1.04</td>
</tr>
<tr>
<td></td>
<td>(.674)**</td>
<td>(.655)**</td>
<td>(.548)</td>
</tr>
<tr>
<td>Policy Knowledge</td>
<td>6.93</td>
<td>2.95</td>
<td>-1.24</td>
</tr>
<tr>
<td></td>
<td>(.501)**</td>
<td>(.743)**</td>
<td>(.437)**</td>
</tr>
<tr>
<td>Leader Identity Knowledge</td>
<td>1.49</td>
<td>.111</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.402)**</td>
<td></td>
<td>(.347)</td>
</tr>
<tr>
<td>Perceived Chances of</td>
<td>-.022</td>
<td></td>
<td>-.407</td>
</tr>
<tr>
<td>Winning Knowledge</td>
<td>(.568)</td>
<td></td>
<td>(.478)</td>
</tr>
<tr>
<td>N</td>
<td>3949</td>
<td>3648</td>
<td>4323</td>
</tr>
</tbody>
</table>

Note: Robust Standard Errors in parentheses

*** p ≤ .001, ** p ≤ .01, * p ≤ .05
**Table 2.4: Competitiveness Statistics**

<table>
<thead>
<tr>
<th>Competitiveness</th>
<th>1997</th>
<th>2000</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>.612</td>
<td>.517</td>
<td>.597</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>.159</td>
<td>.173</td>
<td>.145</td>
</tr>
<tr>
<td>Lower Bound</td>
<td>.269</td>
<td>.178</td>
<td>.239</td>
</tr>
<tr>
<td>Upper Bound</td>
<td>.938</td>
<td>.914</td>
<td>.925</td>
</tr>
<tr>
<td>N</td>
<td>2221</td>
<td>3637</td>
<td>4050</td>
</tr>
</tbody>
</table>

**Table 2.5: Per Capita Spending Statistics**

<table>
<thead>
<tr>
<th>Competitiveness</th>
<th>1997</th>
<th>2000</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>1.47</td>
<td>1.36</td>
<td>1.51</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>.63</td>
<td>.51</td>
<td>.60</td>
</tr>
<tr>
<td>Lower Bound</td>
<td>.48</td>
<td>.45</td>
<td>.23</td>
</tr>
<tr>
<td>Upper Bound</td>
<td>4.49</td>
<td>4.88</td>
<td>5.03</td>
</tr>
<tr>
<td>N</td>
<td>2221</td>
<td>3649</td>
<td>4049</td>
</tr>
</tbody>
</table>
### Table 2.6: Impact of Competitiveness on Per Capita Spending

<table>
<thead>
<tr>
<th>Variable</th>
<th>1997</th>
<th>2000</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitiveness</td>
<td>.042</td>
<td>.131</td>
<td>.075</td>
</tr>
<tr>
<td></td>
<td>(.052)** *</td>
<td>(.005)** *</td>
<td>(.003)** *</td>
</tr>
<tr>
<td>Constant</td>
<td>.550</td>
<td>.338</td>
<td>.482</td>
</tr>
<tr>
<td></td>
<td>(.008)** *</td>
<td>(.007)** *</td>
<td>(.005)** *</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.02</td>
<td>.15</td>
<td>.09</td>
</tr>
<tr>
<td>$N$</td>
<td>2212</td>
<td>3637</td>
<td>4049</td>
</tr>
</tbody>
</table>

Note: Robust Standard Errors in parentheses

*** $p \leq .001$, ** $p \leq .01$, * $p \leq .05$

### Figure 2.1: Knowledge Distribution (1997, 2000 and 2004 Canadian Election Studies)
Figure 2.2: Overall Levels of Competitiveness over Time

Figure 2.3: 1997 Learning Trends (Policy and Perceived Chances)\(^{30}\)

\(^{30}\) Please note that the bandwidths for Figures 2.3 – 2.8 are .3.
FIGURE 2.4: 2000 LEARNING (POLICY AND LEADER IDENTIFICATION)

FIGURE 2.5: 2004 LEARNING TRENDS (POLICY, PERCEIVED CHANCES AND LEADERSHIP IDENTIFICATION)
Figure 2.6: Learning Trends (All Policy Knowledge)

![Learning Trends (All Policy Knowledge)](image)

Figure 2.7: Learning Trends (All Perceived Chances Knowledge)

![Learning Trends (All Perceived Chances Knowledge)](image)
FIGURE 2.8: LEARNING TRENDS (ALL LEADER IDENTIFICATION KNOWLEDGE)
CHAPTER 3: FINDINGS AND ANALYSIS

The following chapter investigates the relationship between campaign knowledge and local riding competitiveness. This chapter proceeds in the following manner: First, an analysis of the relationship between competitiveness and the various measures of knowledge is conducted. Following, two hypotheses regarding the relationship between competitiveness and campaign spending are presented and tested. Finally, the chapter concludes with a discussion of the implications of the results.

H1: The intensity of local riding competitiveness drives citizens to become more politically knowledgeable.

H2: Competitiveness has the greatest impact on policy learning since this information allows the voter to make the electoral choice that best suits his preference structure.

H3: Increased spending at the local level leads to an increase in knowledge.

H4: The impact of competitiveness will diminish when the model controls for local riding spending.

AGGREGATE CAMPAIGN KNOWLEDGE

The results for the aggregate analysis are presented in Table 3.1. Using the complete campaign knowledge variable (all three types of questions - disaggregated measures are presented further along), there is little to moderate support for the theory. The expectations for the controls are, for the most part, met; however, the results for competitiveness are less convincing. Indeed, the outcomes for competitiveness vary in significance and intensity. The results for 1997 indicate that competitiveness is both a positive and significant determinant of knowledge. High levels of local competition in the 2000 election appear to detract from knowledge; a puzzling, though statistically
insignificant result. The positive sign for 2004 returns to the expected territory, but remains at a statistically insignificant level.

Though statistically significant, just how much does competition matter to knowledge of policy and perceived chances in 1997? In looking at various samples in the competitiveness distribution, it is obvious how extreme increases in competitiveness alter the course of learning. A riding in the 10\textsuperscript{th} percentile of competitiveness (given a competitiveness score of .405 on the zero to one scale)\textsuperscript{31} indicates that on average the estimated percentage of questions answered correctly would be 59\% (SE: .03). In contrast, the estimate for the same voter in a riding in the 90\textsuperscript{th} percentile is 68\% (SE:. .03). Increasing the competitiveness level of a district provides an, albeit limited, increase in answering more questions correctly; however the positive increase in knowledge levels are encouraging to further study.

There is further evidence that competition is not an overwhelmingly powerful predictor of campaign knowledge. When the values of several of the explanatory variables that are generally strong predictors of knowledge, such as education, strength of party ID and prior political knowledge are substantially increased\textsuperscript{32}, re-simulating a result for a voter in the 90\textsuperscript{th} percentile indicates considerable increases in knowledge levels.\textsuperscript{33} These findings substantiate the claims that interest in politics, education and prior voting

\textsuperscript{31} Gender set at male, all other variables at the mean.
\textsuperscript{32} Education, strength of party ID, prior political knowledge all set to maximum values; age at 42; all other variables set at the mean
\textsuperscript{33} A methodological note should be brought up here. Results that are over or under the 0 to 1 bounds are a drawback of using an OLS regression model. This presents a problem in coefficient interpretation; there will be some error in estimating the percentages when the bounds are pushed to either extreme. However, the amount of cases that fall beyond the 0 to 1 bounds are very few, therefore, the threat to the statistical analysis is minimal. Another possibility would to rerun the regressions using another model type. I estimated the model using logit, but found little difference in the results. Therefore, I chose to keep to OLS for the ease in interpreting OLS coefficients (for a similar justification, see Cutler 2002).
experience may take precedence over competitiveness in terms of predicting campaign knowledge.

Beyond statistical relevance lies substantive significance. These results indicate that there is something unique to the 1997 federal election driving the results of each regression. There are a multitude of possible explanations for this outcome. It may be helpful to examine one or two elements such as the contextual situation of the election and the distribution of competitiveness scores across ridings. Approaching the problem using the context of the three federal elections actually creates more questions than answers. None of the three elections tested saw a change in government. There was a change from majority to minority status for the Liberal government in 2004; however, national competition in 1997 and 2000 was more subdued. From a national perspective, 1997 should have been viewed as the least competitive. A Liberal victory was all but certain. In 2000 and certainly 2004, there was a bit more room for movement in the distribution of seats in the House perhaps owing to growing discontent or ennui with the Liberal government. The success of the 1997 case calls into question the notion that voters are downloading sentiments of national competitiveness onto local riding competition. In fact, the connection between measures of national competitiveness and incentive to learn appears disjointed.

Where context lacks explanatory power, statistical background provides some answer. According to Johnston, Matthews and Bittner (2005), at the local level, 1997 proved to be a more competitive election than 2000 and 2004.\(^\text{34}\) As stated by Johnston et al., there was a perceptible decline in local level competitiveness scores after 1997.

\(^{34}\) The overall level of competitiveness, an average of the total measures of competitiveness, as obtained from Johnston, Matthews and Bittner (2005) is .61 for 1997, and .51 for 2000. I have added in the figure for 2004, which is .59. A visual representation of these figures is included below.
(Recall Figure 2.2). This drop was not consistent across geographical space and, therefore, should not be taken as a uniform drop in competitiveness.\textsuperscript{35} It does indicate however that competitiveness, or the lack thereof, at the local level may have been more easily recognised in 1997 than in 2000 or 2004.

**DISAGGREGATING KNOWLEDGE**

The second hypothesis engenders some surprising results. First, the study addresses the bread and butter policy questions to see if citizens are realising the importance of factual policy information in making an electoral decision. Following this, the results for leadership identification and chances of electoral success questions are examined.

**POLICY KNOWLEDGE**

The second hypothesis finds little support in the data as illustrated by the results presented in Table 3.2. The first notable point is that none of the coefficients for competitiveness reach any conventional level of significance. Second, there is no consistency in the direction of the relationship. The coefficient in 1997 is positive, while 2000 and 2004 take on a negative relationship. A third point obtained from the data is that all three coefficients are of the same magnitude - small. This may provide some information as to how important having knowledge of policy platforms is to the average voter. Even had the coefficients been statistically significant, they would not necessarily have translated into a substantial increase in knowledge.

\textsuperscript{35} Again, to address the possibility that region and riding competitiveness are addressing the same phenomenon, the same regressions were run controlling for region. The results remained relatively similar. There was little in the way of statistical significance for most regions, and there was no consistency in results across time.
While the absence of statistical significance renders these coefficients without much substance, it is useful to ask where relationships are strong and where they are failing. The relationship for all of the other controls remains in the same direction throughout the three cases (save the coefficients on age, which are minute and only statistically significant in one year); yet the positive relationship between competitiveness and campaign knowledge reverses direction in 2000 and remains negative in 2004.

One possible answer is the specifics of the policy questions asked in 2004. When day of campaign is regressed on each individual question, there appears a negative trend in learning for each question. This indicates that there was absolutely no consistent trend in learning policy information during the course of the campaign. If citizens were not taking the rational approach to learning information that directly assists in their electoral choice, what information was taking precedence in the minds of voters?

LEADERSHIP IDENTIFICATION

Returning to the first hypothesis, similarly disappointing results are found for the leadership identification regressions (See Table 3.3). The results do not reach any conventional level of significance, although, in contrast to the previous findings, both cases show positive coefficients, a curious discovery. One would think that if nothing else, increased competition would give more exposure to the personages in the campaign. Learning the name of a leader is not as cognitively demanding a process as is learning information about policy, thus, the problem may lie not with competitiveness, but with the nature of the question. The correct responses to leadership identification questions
may have previously been known making learning during the course of the campaign moot.  

**PERCEIVED CHANCES OF WINNING**

The trend of insignificant results ends here. Surprisingly, a significant relationship is reported between one measure of knowledge and competitiveness (See Table 3.4). The propensity for an individual to know the probabilities of a party’s electoral success appears to be directly correlated with local riding competition. Also of note is the magnitude of the coefficients in comparison to the others in the study. The 1997 case shows that a voter in a riding in the lower bounds of competitiveness (10th percentile) can answer, on average, 25% of the questions correctly (SE: .05). In contrast, the same voter in a riding in the 90th percentile answers 31% (SE: .08) questions correctly. An increase in 6%, though a positive result is of no great magnitude. Furthermore, it demonstrates that even when competition is positively affecting learning, it does so only in moderation. The 2004 case demonstrates a 7% increase in correct responses, which provides support for a weak relationship between knowledge and competition.

When the values of the other knowledge-based explanatory variables are put to their limits (education, party ID and prior knowledge as done previously in the first set of regressions), campaign knowledge increases by 12% over the 10th to 90th percentile range. The values in 2004 are similar. A 7% increase in knowledge is reported when comparing a riding in the 10th to the 90th percentile of competitiveness. Thus is some support for the first hypothesis. Knowledge of a party’s perceived chances of winning is

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36 As an experiment, another set of regressions was run using a dependent measure of knowledge that combined both learning and policy questions to see if, when reducing the probability of measurement error by removing the perceived chances of winning questions, there was a significant relationship between knowledge and competition. The results showed were not significant, but are included in Appendix B.

37 Gender set at male, all other variables at the mean.
positively affected by riding competitiveness and, though a 7% increase is not overwhelmingly large, it still speaks volumes about the type and extent of learning that occurs in Canadian federal ridings.

**CAMPAIGN SPENDING AND CAMPAIGN KNOWLEDGE**

As previously mentioned, competitiveness attracts more spending in local ridings. However, does the result of this relationship necessarily translate into support for spending - on its own - increasing levels of knowledge? Hypotheses three and four address this issue and are tested together. Tables 3.1 through 3.4 present the regression results for each measure of knowledge. To facilitate easy comparison, nested within these tables are the results of the regression when it is run without a control for spending and then including spending.

The data offers little to no support for the conjecture that spending independently drives knowledge, nor does it prove that the effects of competitiveness are simply spending by another name. Adding spending into the regression model makes no significant impact on knowledge, save in the instance to be discussed below. In the first set of regressions (Table 3.1), the varying signs of the coefficients and their lack of statistical significance indicate that campaign spending has no direct impact on aggregate knowledge, contrary to expectations. The same is true of policy knowledge and perceived chances of winning (Tables 3.2 and 3.4). Despite the absence of statistical significance in any of these regressions, it is interesting to note that the direction of the signs differ in each case. Though spending fails to have a positive and significant effect on learning, this indicates that spending is not overpowering the effect of competitiveness on learning. Hypothesis four is therefore disproved.
Testing spending on leadership identification presents a modicum of support for the campaign spending hypothesis in the 2000 case. The statistic suggests that for each dollar per person spent by the local candidate, there is roughly a 3% increase in knowledge of the party leader’s identity. Considering the limited range of per capita spending (between forty five cents and $4.88), this is a relatively small effect. Though the coefficient is statistically significant, spending would have to be dramatically (and illegally, considering the new campaign spending laws in Canada) increased to see any substantial effect.

For a moment though, it is interesting to treat this result as if it were substantively significant. There is some logic to a relationship between spending and knowledge of a party leader’s identity. If campaign spending is concentrated on non-informational measures such as larger lawn signs and flashier campaign materials, then these are precisely the sorts of measures that would increase knowledge of superficial information such as candidate’s and party leader’s names. Take the 2004 election as an example: for the Martin Liberals to dissociate themselves from the Chrétien era, each Liberal sign acknowledged that these candidates were part of Paul Martin’s Liberal team. The same strategy was employed in the 1980 Trudeau campaign. The leader received promotion from each candidate’s personal campaigning, which translates into an increase in the familiarity of a party leader. Yet, the limited success found in the data indicates that local spending is geared specifically toward district-specific material, implying that in SMP systems, there may sometimes be an electoral benefit for the candidate to disassociate from the party leader and concentrate on the incumbent or personal vote.
Despite a glimmer of a relationship in the leadership identification regressions, there is certainly not enough information to sustain any argument that local riding spending increases knowledge of the national political situation. The data implies a few substantive possibilities: first, local politicians are not recognising levels of competition in their district. This assumption is disproved by the strength of the relationship between competitiveness and spending. A second option is that local spending is being directed by the candidate (and with good reason), exclusively to their own race and therefore national information is not prominent in the riding. Third, perhaps a significant portion of politicians do recognise competition, but do not see an electoral benefit of spending on informing citizens, rather, they spend their contributions on less informative measures such as larger lawn signs and the overhead for their campaign office. This creates a new hypothesis for future testing, either campaign spending is inefficient and not targeting the correct areas (too many posters, not enough information distribution) or local politicians are choosing to obfuscate for their own electoral benefit. Whatever the cause, it does suggest that there is much more work to do in the study of competitiveness with respect to the methods and allocation of financial resources in a district.

**DISCUSSION AND IMPLICATIONS**

The results of the study are clear: varying levels of local riding competitiveness have no perceptible difference on the levels of citizen knowledge, save in one instance - perceptions of a party’s chances of winning. The study used three elections that had substantial variation in competition in both local and national campaigns. Yet the results are consistent – knowledge is not profoundly influenced by competition. This outcome speaks volumes about the type of knowledge that campaigns relay to voters. In line with
the enlightenment thesis, voters are functioning in the absence of perfect information. This does not imply that there is a complete lack of attention being paid to campaign information. While competition does not positively affect levels of factual information in a campaign, it does increase the overall impressions of how parties are faring in the contest.

The results of this paper provide support for the argument that the "horserace" element of the campaign increases interest and awareness on the part of voters. Voters appear to be more attuned to the probabilities of a party forming government than any other piece of electoral information. This speaks volumes as to the quality and content of information disseminated during the campaign. Obtaining accurate observations of a party's chances of winning from the newspaper is a simple process. Gaining this knowledge is generally as simple as familiarising oneself with the contents of the front page headlines of any national daily. In fact, the positive relationship between this brand of knowledge and competition is a testimony to the emphasis that the news media places on the horserace as opposed to factual information. A probing study into the content of campaign-time front-page headlines would likely corroborate this finding. Whether it is the sound and fury of a campaign that focuses voter attention on the horserace, or the human proclivity toward watching mud-slinging, local competition sparks knowledge of the party that is most likely to lead government.

Nevertheless, it is unfair to dismiss the principal finding as merely an artefact of attention-getting news headlines. Local competition has observable impacts on perceptions of the national contest; this is a telling finding. Though these results may not extend in any meaningful way to informing the public of the policy goals of a party, they
do give the voter an idea of the potential outcome of the electoral contest. And, in a Single Member Plurality system, where strategic voting is common, knowing the probable outcome of the national competition may very well affect the local vote. By the same token, the attention paid to surface level details of a campaign, such as which party is currently in the lead, also emphasizes to some extent the cognitive burden that voters are willing to shoulder.

An additional substantive finding of the thesis is that local candidate spending appears to have little influence on campaign knowledge of any sort. The data fail to consistently link even one category of knowledge to campaign spending. Distribution of funds and the type of campaigning that candidates pursue are significant indicators of their impressions of the local contest. Not only does this suggest that local spending is having no direct impact on national electoral content, but it also implies that local politicians are not looking strategically at levels of riding competition in terms of their own spending capabilities.

One definitive and powerful conclusion arises from study of the spending/competitiveness relationship. With respect to increases in levels of knowledge, any positive effect on knowledge is coming from competitiveness and not riding spending. Spending may vicariously be related to knowledge through competition; however, to infer that per capita spending on its own has any perceptible influence on campaign knowledge would be an error. Yet, it is more relevant to look at what competitors are spending their money on – measures that give useful information to voters or flashier campaign materials that gloss over policy details and focus on the characteristics of the candidate or the shortcomings of their opponent. A more detailed
look at spending in local ridings may clarify whether candidate choices in spending are addressing the lack of policy information that is distributed in the campaign, or whether money is concentrated on aesthetic improvements to the overall look of the candidate’s campaign.
### TABLE 3.1: AGGREGATE CAMPAIGN KNOWLEDGE

Predictors of Campaign Knowledge

<table>
<thead>
<tr>
<th>Variable</th>
<th>1997</th>
<th>2000</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitiveness</td>
<td>.209 (.076)**</td>
<td>.003 (.047)</td>
<td>-.019 (.048)</td>
</tr>
<tr>
<td>Per Capita</td>
<td>.212 (.076)**</td>
<td>.017 (.060)</td>
<td>.055 (.060)</td>
</tr>
<tr>
<td>Spending</td>
<td>-.005 (.006)</td>
<td>-</td>
<td>.033 (.005)</td>
</tr>
<tr>
<td>Age*</td>
<td>-.003 (.001)</td>
<td>.0002 (.0009)**</td>
<td>-.0003 (.0009)**</td>
</tr>
<tr>
<td>Competitiveness</td>
<td>-.003 (.001)</td>
<td>.0002 (.0009)**</td>
<td>-.0003 (.0009)**</td>
</tr>
<tr>
<td>Highest Level of Education</td>
<td>.053 (.004)***</td>
<td>.026 (.002)**</td>
<td>.025 (.002)**</td>
</tr>
<tr>
<td>Strength of Party ID</td>
<td>.015 (.003)**</td>
<td>.012 (.002)***</td>
<td>.012 (.002)***</td>
</tr>
<tr>
<td>Encyclopaedic Knowledge</td>
<td>.099 (.006)***</td>
<td>.114 (.002)**</td>
<td>.114 (.002)**</td>
</tr>
<tr>
<td>Campaign Day</td>
<td>.010 (.001)***</td>
<td>.007 (.001)***</td>
<td>.007 (.001)***</td>
</tr>
<tr>
<td>Campaign Day²</td>
<td>-.0001 (.0004)***</td>
<td>-.0002 (.0003)**</td>
<td>-.0002 (.0003)**</td>
</tr>
<tr>
<td>Age</td>
<td>.013 (.001)***</td>
<td>.006 (.0009)**</td>
<td>-.0009 (.0009)</td>
</tr>
<tr>
<td>Age²</td>
<td>-.00009 (.00001)**</td>
<td>-.00004 (.00008)**</td>
<td>-.00004 (.00008)**</td>
</tr>
<tr>
<td>Male</td>
<td>.097 (.008)***</td>
<td>.023 (.005)**</td>
<td>.067 (.006)**</td>
</tr>
<tr>
<td>Constant</td>
<td>-.478 (.060)***</td>
<td>-.097 (.032)**</td>
<td>.038 (.043)</td>
</tr>
</tbody>
</table>

| N                          | 3602       | 4017       | 3602       |
| R²                         | .28         | .43         | .40         |

Note: Robust Standard Errors in parentheses

*** p ≤ .001, ** p ≤ .01, * p ≤ .05
### Table 3.2: Policy Knowledge

Predictors of Policy Knowledge

<table>
<thead>
<tr>
<th>Variable</th>
<th>1997</th>
<th>2000</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitiveness</td>
<td>.033 (.107)</td>
<td>-.045 (.052)</td>
<td>-.051 (.050)</td>
</tr>
<tr>
<td>Per Capita Spending</td>
<td>-.014 (.008)</td>
<td>.005 (.006)</td>
<td>-.002 (.006)</td>
</tr>
<tr>
<td>Age*</td>
<td>-.00008 (.002)</td>
<td>.0009 (.001)</td>
<td>.001 (.001)</td>
</tr>
<tr>
<td>Competitiveness</td>
<td>(.002)</td>
<td>(.002)</td>
<td>(.001)</td>
</tr>
<tr>
<td>Highest Level of Education</td>
<td>.051 (.006)**</td>
<td>.050 (.006)**</td>
<td>.007 (.003)*</td>
</tr>
<tr>
<td>Strength of Party ID</td>
<td>.013 (.005)**</td>
<td>.013 (.005)**</td>
<td>.008 (.002)**</td>
</tr>
<tr>
<td>Encyclopaedic Knowledge</td>
<td>.114 (.009)**</td>
<td>.115 (.009)**</td>
<td>.025 (.003)**</td>
</tr>
<tr>
<td>Campaign Day</td>
<td>.023 (.002)**</td>
<td>.023 (.002)**</td>
<td>.006 (.001)**</td>
</tr>
<tr>
<td>Campaign Day²</td>
<td>-.0004 (.0006)**</td>
<td>-.0004 (.0005)**</td>
<td>-.0001 (.0004)**</td>
</tr>
<tr>
<td>Age</td>
<td>.011 (.002)**</td>
<td>.011 (.002)**</td>
<td>-.000022 (.000022)</td>
</tr>
<tr>
<td>Age²</td>
<td>-.00008 (.00001)**</td>
<td>-.00008 (.00001)**</td>
<td>-.000047 (.0000047)</td>
</tr>
<tr>
<td>Male</td>
<td>.092 (.011)**</td>
<td>.092 (.011)**</td>
<td>.017 (.006)**</td>
</tr>
<tr>
<td>Constant</td>
<td>-.601 (.084)**</td>
<td>-.585 (.082)**</td>
<td>.184 (.036)**</td>
</tr>
<tr>
<td>N</td>
<td>2212</td>
<td>2212</td>
<td>3602</td>
</tr>
<tr>
<td>R²</td>
<td>.23</td>
<td>.22</td>
<td>.04</td>
</tr>
</tbody>
</table>

Note: Robust Standard Errors in parentheses

*** p ≤ .001, ** p ≤ .01, * p ≤ .05
### Table 3.3: Leader Identification Knowledge

#### Predictors of Leader Identification Knowledge

<table>
<thead>
<tr>
<th>Variable</th>
<th>2000&lt;sup&gt;38&lt;/sup&gt;</th>
<th>2004&lt;sup&gt;39&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitiveness</td>
<td>.054 (.074)</td>
<td>.016 (.078)</td>
</tr>
<tr>
<td>Per Capita Spending</td>
<td>.029 (.008)**</td>
<td>.06 (.008)</td>
</tr>
<tr>
<td>Age*Competitiveness</td>
<td>-.0004 (.001)</td>
<td>-.0003 (.001)</td>
</tr>
<tr>
<td>Highest Level of Education</td>
<td>.044 (.004)**</td>
<td>.044 (.004)**</td>
</tr>
<tr>
<td>Strength of Party ID</td>
<td>.016 (.003)**</td>
<td>.016 (.003)**</td>
</tr>
<tr>
<td>Encyclopaedic Knowledge</td>
<td>.202 (.002)**</td>
<td>.202 (.002)**</td>
</tr>
<tr>
<td>Campaign Day</td>
<td>.009 (.001)</td>
<td>.009 (.001)</td>
</tr>
<tr>
<td>Campaign Day&lt;sup&gt;2&lt;/sup&gt;</td>
<td>-.0002 (.00006)**</td>
<td>-.0002 (.00006)**</td>
</tr>
<tr>
<td>Age</td>
<td>.013 (.001)**</td>
<td>.013 (.001)**</td>
</tr>
<tr>
<td>Age&lt;sup&gt;2&lt;/sup&gt;</td>
<td>-.0009 (.00009)</td>
<td>-.0009 (.00009)</td>
</tr>
<tr>
<td>Male</td>
<td>.028 (.008)**</td>
<td>.028 (.009)**</td>
</tr>
<tr>
<td>Constant</td>
<td>-.359 (.051)**</td>
<td>-.380 (.051)**</td>
</tr>
<tr>
<td>N</td>
<td>3602</td>
<td>3602</td>
</tr>
<tr>
<td>R&lt;sup&gt;2&lt;/sup&gt;</td>
<td>.48</td>
<td>.48</td>
</tr>
</tbody>
</table>

Note: Robust Standard Errors in parentheses

*** p ≤ .001, ** p ≤ .01, * p ≤ .05

<sup>38</sup> Knowledge Measure: Four Leader Identification Questions (Rescaled from 0-1)
<sup>39</sup> Knowledge Measure: Three Leader Identification Questions (Rescaled from 0-1)
### TABLE 3.4: PERCEIVED CHANCES OF WINNING KNOWLEDGE

Predictors of Perceived Chances of Winning Knowledge

<table>
<thead>
<tr>
<th>Variable</th>
<th>1997&lt;sup&gt;40&lt;/sup&gt;</th>
<th>2004&lt;sup&gt;41&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitiveness</td>
<td>.307</td>
<td>.305</td>
</tr>
<tr>
<td></td>
<td>(.109)**</td>
<td>(.101)**</td>
</tr>
<tr>
<td>Per Capita Spending</td>
<td>.004</td>
<td>.010</td>
</tr>
<tr>
<td></td>
<td>(.008)</td>
<td>(.007)</td>
</tr>
<tr>
<td>Age*Competitiveness</td>
<td>-.006</td>
<td>-.002</td>
</tr>
<tr>
<td></td>
<td>(.002)**</td>
<td>(.002)**</td>
</tr>
<tr>
<td>Highest Level of Education</td>
<td>.050</td>
<td>.024</td>
</tr>
<tr>
<td></td>
<td>(.006)**</td>
<td>(.004)**</td>
</tr>
<tr>
<td>Strength of Party ID</td>
<td>.019</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>(.005)**</td>
<td>(.003)</td>
</tr>
<tr>
<td>Encyclopaedic Knowledge</td>
<td>.042</td>
<td>.15</td>
</tr>
<tr>
<td></td>
<td>(.009)**</td>
<td>(.004)**</td>
</tr>
<tr>
<td>Campaign Day</td>
<td>.0003</td>
<td>.005</td>
</tr>
<tr>
<td></td>
<td>(.002)</td>
<td>(.002)**</td>
</tr>
<tr>
<td>Campaign Day&lt;sup&gt;2&lt;/sup&gt;</td>
<td>-.00001</td>
<td>-.0002</td>
</tr>
<tr>
<td></td>
<td>(.00006)</td>
<td>(.00006)**</td>
</tr>
<tr>
<td>Age</td>
<td>.014</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>(.002)**</td>
<td>(.001)</td>
</tr>
<tr>
<td>Age&lt;sup&gt;2&lt;/sup&gt;</td>
<td>-.00009</td>
<td>.00001</td>
</tr>
<tr>
<td></td>
<td>(.00002)**</td>
<td>(.00001)</td>
</tr>
<tr>
<td>Male</td>
<td>.097</td>
<td>.028</td>
</tr>
<tr>
<td></td>
<td>(.011)**</td>
<td>(.008)**</td>
</tr>
<tr>
<td>Constant</td>
<td>-.204</td>
<td>-.020</td>
</tr>
<tr>
<td></td>
<td>(.086)*</td>
<td>(.064)</td>
</tr>
</tbody>
</table>

| N         | 2212 | 2212 | 4018 | 4017 |
| R<sup>2</sup> | .10  | .10  | .02  | .02  |

Note: Robust Standard Errors in parentheses

*** p ≤ .001, ** p ≤ .01, * p ≤ .05

<sup>40</sup> Knowledge Measure: Three Perceived Chances of a Party Winning Nationally Questions (Rescaled from 0-1)

<sup>41</sup> Knowledge Measure: Three Perceived Chances of a Party Winning Nationally Questions (Rescaled from 0-1)
CONCLUDING REMARKS: KNOWLEDGE AND COMPETITION: A DEAD END OR THE BEGINNING OF FURTHER STUDY?

Are voters becoming more enlightened during election campaigns? The short answer, as obtained from this research, is no. While a significant portion of the literature on campaign learning and common sense would indicate that learning is prevalent during campaigns, there seems to be little ground to substantiate that claim in the 1997, 2000 and 2004 Canadian federal elections.

Three significant conclusions emerge from this thesis – conclusions that may generate more questions than they answer. The first substantive finding is that local riding competitiveness does not have any perceptible influence on increasing policy knowledge during the course of an election campaign. Second, local competitiveness, insofar as it is an incentive to learn, encourages awareness among voters about the intensity of the national competition. Third, local candidate spending has little direct influence on knowledge. Competition - not spending - has a more compelling impact on knowledge. Voters appear to be responding to incentives to gather knowledge. Political parties, on the other hand, are probably not capitalising on information dissemination through spending.

MEASUREMENT ISSUES

An issue that merits further discussion is the reliability of the knowledge measures. Two areas are of particular concern: the alpha scores for various categories of knowledge and the distribution of correct responses on the knowledge scale. Perception questions score highest on the alpha reliability test, indicating that this type of question is the strongest driving force of the knowledge measure. In effect, knowledge of the national horserace is taking a substantial amount of credit for the knowledge levels of
Canadian voters. Indeed, policy questions do have relatively high alpha scores (with the exception of 2004), yet practical campaign knowledge fails to have the most significant impact on the knowledge scale. Also problematic is the reliability of the policy questions for the 2000 study. The 2000 question set has substantially less predictive power in the model than those for 1997 and 2004, yet the alpha score for policy knowledge is highest in 2000. It is almost contradictory that the 2000 policy scale is deemed a very valid measure of knowledge, yet fails to have much explanatory power. The real story may in fact be that statistical measures are failing to demonstrate competitiveness’ impact on knowledge.

Another statistical puzzle is the distribution of correct answers on the knowledge scale. Low levels of information may be the norm, but this does not explain why the distributions of correct answers to policy questions are so varied from year to year. Again, the 2000 policy knowledge scale presents a peculiarity. Nearly two thirds of respondents are answering one policy question correctly. In fact, voters are answering the same question correctly. This indicates that one question in the scale is markedly easier than the others, presenting another problematic measurement issue. All questions are not created equal, even within the same category. If researchers are creating a scale of moderately difficult questions, but then throw in a “freebie”, the distribution of the knowledge scale is artificially inflated. The answers found in this paper do not absolutely disqualify the possibility that learning is occurring. The findings do, however, indicate a need for better measurements with which to accomplish a more accurate analysis.

42 The question is “Do you happen to remember which party is promising a single tax rate for people earning less than one hundred thousand dollars a year?” for which the correct answer is the Canadian Alliance.
POTENTIAL IMPROVEMENTS TO MEASURES

The most pressing issue to this study is the necessity for an improvement in the content, breadth and depth of knowledge questions in the Canadian Election Studies. Allocating three to six policy questions that selectively recognise some political parties and ignore others, barely scratches the surface of what Canadians are learning about party policy during the course of the campaign. Greater consistency across time is also necessary. Six questions in the 2004 are too few to accurately assess the political knowledge of a voter; with only three, as was the case in 1997, it is practically and methodologically impossible to claim a fair assessment of knowledge.

Further study calls for a greater breadth in the types of questions asked by the study. Policy questions are of obvious importance. Questions that determine a voter’s familiarity with principal party figures and perceptions of electoral success are measuring information altogether different from policy concerns. Identification and perception questions are measuring sources of information that encourage voting based on different goals from strictly those of preferred policy. Voters who demonstrate greater knowledge of this type of information, and who pay little attention to policy promises may be less conscious of the implications that voting has on their preferred outcomes. Failing to link knowledge of policies and personal preferences suggests that voters are coming to their decision based on the glamour of the campaign rather than the policy implications. Again this has repercussions for the candidate. If it is confirmed that most voters are making their decision based on party leaders or a party’s chance of winning, there may be reduced benefit to be had from disseminating policy information. In fact, information may do the candidate more harm than good.
Another shortcoming of the CES lies in the measure of prior political knowledge. The factual questions that are currently used ask only an individual's familiarity with political personages. There is no test of institutional knowledge, familiarity with electoral rules or Canadian electoral history. In the case of the 1997 Study, a question asking the respondent to name the American president was more a measure of popular culture than political savvy. Knowing that Bill Clinton was in office is a weak test of a Canadian's political awareness. Introducing questions that address a voter's familiarity with the electoral system and political institutions is a better test of knowledge insofar as it allows a researcher to make inferences about a voter's ability to translate policy information to a meaningful electoral choice. This is of particular relevance in a system that encourages strategic voting.

**VOTERS VERSUS PARTIES: WHOSE INCENTIVES ARE STRONGER?**

The introduction of the spending variable brings to light some interesting conclusions. Controlling for local riding spending makes no perceptible difference for the impact of competitiveness on knowledge. Competitiveness, in and of itself, appears to influence (albeit in a limited capacity) knowledge directly. Voters appear to be clueing into competitiveness and taking it as a cue to become informed about the strategic element of the national competition. The failure of a relationship between spending and knowledge when competitiveness is present in the model indicates that parties are not picking up on their incentives to teach, despite what appears a willing electorate. Further thought should be given to the strategic expenditure of resources on the part of the party.

The incorporation of local candidate spending only looks at one half of the story on candidate resources. Frankly, local candidate spending is not a full measure of party
resources distributed in a riding, but it is a good place to start. Measuring contributions from the national party would establish whether competition in local districts is recognised at the national level and supplemented with extra resources. This would call for a measure of financial contributions made to the riding as well as non-financial measures such as visits from the party leader, a media focus on the riding, and extra personnel sent to help with the campaign. An addition of this variety may clarify the relationship between knowledge and spending and demonstrate whether parties, not just politicians, are recognising competitiveness during the course of the campaign.

**Future Research**

By looking only at three electoral contests, none of which saw a change in government, this study does not speak to all possibilities of competition as a predictor of knowledge. As the data for the 2006 Canadian federal election becomes available, an examination of an election that witnessed a transfer of governing power from one party to another may demonstrate a different trend from that shown above. In addition, expanding the study to multiple countries that experience similar electoral conditions will strengthen the robustness of the argument.

Much is still left to be said about the possibility that local riding competitiveness drives campaign knowledge. If scholars' claims about political interest as one of the most resilient predictors of campaign knowledge are true, then it seems logical that competition would spark interest, thereby increasing all forms of campaign knowledge. Indeed, the preliminary results of what will hopefully be a more comprehensive look at cross-national levels of political knowledge indicate that some campaign learning is occurring. Voters are becoming more aware of the status of the national competition.
The findings of this paper substantiate this claim. This research also addresses some of the voids in the Canadian political literature, makes a strong case for further study and advocates an improvement of the knowledge measures. Competitiveness is clearly affecting electoral behaviour – learning in particular. This paper, in part, tells us how. Now the task set before researchers is to extract in further detail, how much.
REFERENCES


APPENDIX A: VARIABLE OPERATIONALISATION

Campaign Knowledge Measure Questions:

CANADIAN ELECTION STUDY 1997

Policy Questions: Questions f13, f14, f15, l11

Do you happen to remember which party is promising to lower personal income taxes by TEN percent?

Correct if mentioned CONSERVATIVES
*Other Answers, Don’t Know and Refused are Incorrect

Do you happen to remember which party is promising to cut unemployment in half by year 2001?

Correct if mentioned NDP
*Other Answers, Don’t Know and Refused are Incorrect

And do you happen to remember which party is against recognizing Quebec as a distinct society?

Correct if mentioned REFORM
*Other Answers, Don’t Know and Refused are Incorrect

Do you recall the name of the Minister of Finance of Canada?

Correct if mentioned PAUL MARTIN
*Other Answers, Don’t Know and Refused are Incorrect

Perception Questions: Questions i2a, i2b, i2d

What are the CONSERVATIVE/LIBERAL/REFORM party's chances?
...of winning the election IN THE WHOLE COUNTRY?

Correct if mentioned:
Reform ≤20
Conservative ≤20
Liberal ≥50
*Other Answers, Don’t Know and Refused are Incorrect

Dependent variable: 7 Point Scale
CANADIAN ELECTION STUDY 2000

Policy Questions: Questions f13, prom2, prom3, prom4

Do you happen to remember which party is promising a single tax rate for people earning less than one hundred thousand dollars a year?

Correct if mentioned CANADIAN ALLIANCE
*Other Answers, Don’t Know and Refused are Incorrect

Do you remember which party is proposing a national prescription drug plan?

Correct if mentioned NDP
*Other Answers, Don’t Know and Refused are Incorrect

Which party is promising a law to fight criminal biker gangs? In Quebec: Do you happen to recall which party is proposing on anti-gang law?

*Other Answers, Don’t Know and Refused are Incorrect

Correct if mentioned BLOC QUEBECOIS AND/OR CANADIAN ALLIANCE
*Other Answers, Don’t Know and Refused are Incorrect

Do you happen to recall which party is proposing a law to pay back the debt in 25 years?

Correct if mentioned CONSERVATIVES
*Other Answers, Don’t Know and Refused are Incorrect

Leader Identification Questions: Questions lead1, lead2, lead3, lead5

We're wondering how well known the federal party leaders are. Do you happen to recall the name of the leader of the Federal NDP (the New Democratic Party)?

Correct if mentioned ALEXA MCDONOUGH
*Other Answers, Don’t Know and Refused are Incorrect

And the leader of the Federal Conservative Party?

Correct if mentioned JOE CLARK
*Other Answers, Don’t Know and Refused are Incorrect

The leader of the Alliance Party?
Correct if mentioned STOCKWELL DAY
*Other Answers, Don’t Know and Refused are Incorrect
The leader of the Federal Liberal Party?
Correct if mentioned JEAN CHRETIEN

**Please note that the “Perception”
Questions do not exist in the 2000 CES, therefore this is not an equivalent measure
used across all three years. The 2000 survey offers additional “Name the Leader”
questions that are used in the construction of the 2000 dependent variable.

Dependent variable: 8 Point Scale

CANADIAN ELECTION STUDY 2004

Policy Questions: Questions n1, n2, n4, n5, n6, n7

Do you happen to recall which party is promising to get rid of the gun registry?

Correct if mentioned CONSERVATIVES
*Other Answers, Don’t Know and Refused are Incorrect

And which party is promising to do away with the Federal Sales Tax on family essentials?

Correct if mentioned NDP
*Other Answers, Don’t Know and Refused are Incorrect

Which party is promising to increase military spending by 2 billion dollars each year?

Correct if mentioned CONSERVATIVES
*Other Answers, Don’t Know and Refused are Incorrect

Which party is promising to spend 250 million for fighting AIDS in poor countries?

Correct if mentioned LIBERALS
*Other Answers, Don’t Know and Refused are Incorrect

Do you happen to recall which party is promising to spend 4 billion dollars to reduce waiting times for surgeries?

Correct if mentioned LIBERALS
*Other Answers, Don’t Know and Refused are Incorrect

Which party is promising an inheritance tax on estates over 1 million dollars?

Correct if mentioned NDP
Leader Identification Questions: cps_e2, _e3, _e4

We're wondering how well known the federal party leaders are. Do you happen to recall the name of ... 

The leader of the Federal NDP (the New Democratic Party)?
Correct if mentioned JACK LAYTON
*Other Answers, Don’t Know and Refused are Incorrect

The leader of the Federal Conservative Party?
Correct if mentioned STEPHEN HARPER
*Other Answers, Don’t Know and Refused are Incorrect

The leader of the Bloc Quebecois?
Correct if mentioned GILLES DUCEPPE
*Other Answers, Don’t Know and Refused are Incorrect

Perception Questions: Questions ch_c, ch_d, ch_e

What are the LIBERAL/CONSERVATIVE/NDP party's chances of winning the most seats?

Correct if mentioned:
Liberal ≥ 45
Conservative ≥ 40
NDP ≤20
*Other Answers, Don’t Know and Refused are Incorrect

Dependent variable: 12 Point Scale

Factual Knowledge Questions:

CANADIAN ELECTION STUDY 1997

Questions 16, 113

We would like to see how widely known some political figures are. Do you recall the name of the President of the United States?

Correct if mentioned BILL CLINTON
*Other Answers, Don’t Know and Refused are Incorrect
Do you recall the name of the first woman to be Prime Minister of Canada?

Correct if mentioned KIM CAMPBELL
*Other Answers, Don’t Know and Refused are Incorrect

Canadian Election Study 2000

Questions 111, 113, 114

Do you recall the name of the Minister of Finance of Canada?

Correct if mentioned PAUL MARTIN
*Other Answers, Don’t Know and Refused are Incorrect

The Prime Minister of Canada at the time of the Free Trade Agreement with the United States?

Correct if mentioned BRIAN MULRONEY
*Other Answers, Don’t Know and Refused are Incorrect

And do you happen to know the capital of the United States?

Correct if mentioned WASHINGTON, DC
*Other Answers, Don’t Know and Refused are Incorrect

Canadian Election Study 2004

Questions know_2, know_3, know_4

Do you happen to recall the name of the Minister of Finance of Canada?

Correct if mentioned RALPH GOODALE
*Other Answers, Don’t Know and Refused are Incorrect

And the name of the British Prime Minister?

Correct if mentioned TONY BLAIR
*Other Answers, Don’t Know and Refused are Incorrect

The name of the female cabinet minister who ran against Paul Martin?

Correct if mentioned SHIELA COPPS
*Other Answers, Don’t Know and Refused are Incorrect
Education:

1 = High School Diploma or less
2 = Some College/University
3 = Completed College Diploma/University Degree
4 = Competed Graduate Degree

Don’t Know/Refused = recoded to 1

Strength of Party Identification:

0 = None
1 = Not Very Strong
2 = Fairly Strong
3 = Very Strong

Don’t Know/Refused/Missing = 0
APPENDIX B: DEPENDENT VARIABLE: POLICY AND LEADER IDENTIFICATION QUESTIONS ONLY

Predictors of Campaign Knowledge (Policy & Leader Identification Questions)

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Note: Robust Standard Errors in Parentheses

*** p ≤ .001, ** p ≤ .01, * p ≤ .05

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43 Knowledge Measure: Three Party Platform Questions (Rescaled from 0-1)
44 Knowledge Measure: Four Party Platform Questions + Four Name the Party Leader Questions (Rescaled from 0-1)
45 Knowledge Measure: Six Party Platform Questions + Three Name the Party Leader Questions (Rescaled from 0-1)