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The Power of Personality:
Candidate-Centered Voting in Comparative Perspective

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The Power of Personality:
Candidate-Centered Voting in Comparative Perspective

by

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Dedication

I dedicate this dissertation

to my mother, Donna Marie Spencer,

and to my father, John Anthony Slosar, Jr.

This dissertation is very much product of their love for me

and their commitment to instilling in me, in their own unique ways,

a sense of determination and intellectual curiosity.

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The Power of Personality:
Candidate-Centered Voting in Comparative Perspective

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More and more, elections around the world seem to be won or lost on the basis of the candidates' personal qualities rather than their policies. Despite its prevalence in new and established democracies alike, we still know very little about what explains such candidate-centered voting. This study moves our understanding of this issue by examining variation in candidate-centered voting across individuals and electoral contexts in recent presidential elections in the United States, Brazil, and Mexico.

I argue that candidate-centered voting is largely an information problem. At the individual level, I focus on the conditioning role of political sophistication, arguing that voters with higher levels of political sophistication engage in less candidate-centered voting due their increased capacity to manage the more cognitively demanding types of

information related to policy and performance. Moving beyond the individual level, I consider how candidate-centered voting may vary across electoral contexts as well. In particular, I consider how the institutionalization and structure of political competition shape the cognitive demands on voters, making it more or less difficult for voters to evaluate candidates on bases other than their personalities.

To test these arguments, I estimate models of voters' electoral utilities and vote choices using electoral survey data from the U.S. (2008), Brazil (2002), and Mexico (2000 and 2006). Overall, the empirical analysis supports my individual-level argument regarding political sophistication's conditioning role. As political sophistication increases, the dominance of candidate considerations in voters' electoral decisions tends to decrease. Likewise, comparisons in the level of candidate-centered voting across the elections under study suggest that certain aspects of the institutionalization and structure of political competition may help explain contextual variation in candidate-centered voting.

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Chapter 1
Introduction

More and more, elections around the world seem to be won or lost on the basis of the candidates' personal qualities rather than their policies. Such c*andidate-centered voting* has long characterized elections in the United States and other established democracies. Now it appears to be characterizing elections in newer democracies as well. Despite its prevalence, we still know very little about what explains candidate-centered voting.

This study moves our understanding of this issue by examining variation in the extent of candidate-centered voting across individuals and electoral contexts. I argue that candidate-centered voting is largely an information problem. Many voters lack the cognitive ability to process the political information necessary to vote on more substantive bases like policy and performance. In contrast, it does not take much political information or expertise to vote on the basis of candidates' personalities. As a consequence, such candidate considerations often outweigh the more cognitively demanding considerations relating to policy and performance.

At the individual level, I focus on the conditioning role of political sophistication, arguing that voters with higher levels of political sophistication engage in less candidate-centered voting due their increased capacity to manage the more cognitively demanding types of information. Moving beyond the individual level, I consider how electoral contexts vary in the cognitive and information demands on voters, making candidate-centered voting more or less prevalent.

Candidate-Centered Voting and Democracy

Candidate-centered voting has long been of concern in established democracies and is of growing concern in new democracies. As early as *The American Voter* (Campbell 1960), the voting behavior literature recognized candidate considerations as important factors in vote choice. Subsequent research has continued to highlight the importance of these considerations in both the United States (see Bartels 2002) and other established democracies, like Great Britain, France, and Canada (see King 2002).

Despite speculation that they have become increasingly ideological, elections in Latin America's new democracies look similar. Studies of elections in the region have found that candidate considerations – rather than ideology or issues – often stand out as the strongest predictors of vote choice (see Mainwaring and Zoco 2005; Mainwaring and Torcal 2005). For example, Mexican voters weighed candidates' competence more than their policy stands in evaluating the presidential candidates in both 2000 (Zechmeister 2003) and 2006 (Greene 2009). Likewise, candidate personality is one of the most important factors informing Brazilians' vote choices (Silveira 1998; see also Hunter and Power 2005).

The neglect of policies and performance in favor of candidate images poses problems for the quality and functioning of democracy. Candidate-centered voting undermines the potential for democratic representation, defined roughly as the correspondence between the policies citizens want and the policies they get. Representation should be enhanced to the extent that voters focus on policy and

weakened to the extent that they focus on anything else. Candidate images are largely policy-irrelevant, making candidate-centered voting a distraction from the type of voting that would serve representation.

Candidate-centered voting also weakens democratic accountability. Punishing leaders and political parties for performing poorly in office requires attending to what they do and incorporating this information into subsequent evaluations. While candidate images may be more performance- than policy-relevant, they are still a weak and unreliable proxy. In this light, too, they are largely a distraction, an impediment to holding parties and officials accountable.

There have been real reasons to question the extent of representation and accountability in Latin American democracies over the past two decades. Indeed, these concerns have motivated much research on representation in the region (e.g., Hagopian 1998; Stokes 2001; Luna and Zechmeister 2005). They even led O'Donnell (1994) to introduce a new term to refer to many Latin American democracies; rather than representative democracies, many of region's democracies are best described, he argues, as "delegative democracies" in which "whoever wins election to the presidency is thereby entitled to govern as he or she sees fit" (59).

Neglected in most of this research, however, has been consideration of the role played by voters in fostering democratic representation. If elites' democratic responsibility is to govern in a way consistent with the electorate's mandate, it is voters' responsibility to provide such a mandate. Doing so requires that voters base their

electoral decisions on substantive criteria like candidates' policy and performance. To the extent that these types of criteria are outweighed by distractions like candidates' personalities, the potential for democratic representation is undermined.

While candidate-centered voting poses problems for democracy in any context, it can be particularly detrimental in newly democratic ones where political institutions tend to be under-developed, limiting horizontal mechanisms of accountability. Recent history shows how easily leaders whose power rests in their personal appeal among the masses can chip away at democratic institutions and blur the line between democratic and authoritarian rule. Salient examples include leaders like Hugo Chávez in Venezuela and Vladimir Putin in Russia, who won election (and re-election) thanks in large part to their personal appeal among voters (see Mainwaring and Torcal 2005; Mainwaring and Zoco 2005; Shestopal et al. 2005; Hale et al. 2004).

Political Information and Candidate-Centered Voting

Voters' electoral decisions are dominated by policy, performance, and candidate considerations. Most existing work has focused on the question of why candidate considerations matter so much in an *absolute* sense. But this, I shall argue, is the wrong question. The right question is why policy and performance considerations matter so little *relative* to candidate considerations.

Why do candidates' personal qualities so often dominate voters' electoral decisions? In short, I argue that candidate considerations tend to dominate due to voters' unequal abilities to process information relating to personality, policy, and performance.

Because it takes so little cognitive effort, most voters should be able to process information and form opinions about candidates' personalities rather easily. Doing so for policy and performance, however, is much more cognitively demanding, making the influence of these considerations variable.

I develop an argument to explain variation in candidate-centered voting based on voters' varying ability to process information and form opinions relating to personality, policy, and performance as a function of individual-level and context-level variables. At the individual level, I focus on political sophistication's conditioning role on the relative weight of candidate considerations. As political sophistication increases, voters should be better able to process political information and form opinions on policy and performance. Thus, for the more sophisticated, the influence of policy and performance considerations increases, decreasing candidate considerations' dominance in electoral decisions.

Political sophistication stands front and center in most existing studies that examine variation in the extent of candidate-centered voting.[1] The empirical support for the contention that voters' political sophistication conditions the importance of candidate considerations is mixed among these studies.[2] Many studies find no evidence of such a conditioning effect (Glass 1985; Miller et al. 1986; Rahn et al. 1990; Pierce 1993; Sniderman et al. 1991). Others, however, find strong empirical support (Luskin and

[1] Note that studies differ in their terminology for and measures of political sophistication, but all refer to the same underlying concept.

[2] See Luskin and Globetti (2002) for an extended discussion of potential explanations as to why these studies have reached such varied conclusions.

Globetti 2002; Iyengar et al. 2007; Peterson 2005; see also Lavine and Gschwend 2006). Whether the extent of candidate-centered voting is a function of political sophistication thus remains an open question.

This study improves on existing work in at least three respects. First, I clarify the conditioning role of political sophistication – focusing on the *relative* weight of candidate considerations, which is likely to depend on political sophistication, rather than on the absolute weight, which is not. Previous studies, excepting Luskin and Globetti (2002), focus on the latter. Second, I extend the empirical examination of political sophistication's conditioning role in time and space. Nearly all existing studies on this topic rest on empirical evidence from U.S. presidential contests in the 1980s. I look at recent 21st century elections in the U.S., Brazil, and Mexico.

Third, I move beyond the individual level to consider how candidate-centered voting may vary across electoral contexts. While individual cognitive ability certainly plays an important role, context matters too. In particular, I consider how the institutionalization and structure of political competition affect the information and cognitive demands on voters, making it more or less difficult for voters to evaluate candidates on bases other than their personalities.

Elections under Study

I examine candidate-centered voting in the following three presidential elections: the U.S. in 2008, Brazil in 2002, and Mexico in 2000. I included the U.S. in order to build on and speak to existing work on candidate-centered voting. I selected Brazil and

Mexico because, at the time of this study, they were the only Latin American countries with publically available election survey studies that contain items specifically designed to measure voters' perceptions of candidates' personal qualities.

For each country, the election under study is the most recent presidential election for which I have access to appropriate data. In the case of the U.S., appropriate data were available for the most recent 2008 presidential contest. Data for the 2006 and 2010 Brazilian presidential elections were not available while I was carrying out this study, so I focus on the 2002 Brazilian presidential contest. In the case of Mexico, my primary focus is on the 2000 presidential election because the data available for this election provide better measures of voters' policy considerations than the data available for the more recent 2006 election. Given the unique context surrounding the 2000 election, however, I extend the analysis for Mexico to the 2006 election using the less than ideal measures.

Thus, case selection was driven primarily by data concerns for the individual-level analysis. Fortunately, the resulting set of elections represents diversity on context-level factors that might matter, including experience with democracy, the number of candidates competing for election, and party system institutionalization. This diversity is helpful for examining my context-level argument and for considering the generalizability of the individual-level argument across diverse contexts.

The 2008 U.S. Presidential Election

The 2008 U.S. presidential election was a contest between Democrat Barack Obama and Republican John McCain. Obama won with about 53% of the national popular vote; McCain lost with about 46% of the vote. The media and buzz around the election focused on a lot on the candidates' personal qualities. Obama was portrayed as charismatic and intelligent; McCain was a patriot and, infamously, a "maverick."

Policy and performance issues were also a big part of 2008 context. Obama and McCain had real differences in their positions and arguments regarding Iraq, healthcare, energy, and a whole host of issues. Likewise, with polarization over U.S. military involvement in Iraq and an impending economic crisis, there were real debates about how well the incumbent Republican president, George W. Bush, performed in office.

The 2002 Brazilian Presidential Election

The 2002 Brazilian presidential election was a contest among the following four main candidates: Luiz Inácio "Lula" da Silva of the Partido dos Trabalhadores (PT)[3]; José Serra of the Partido da Social Democracia Brasileira (PSDB)[4]; Anthony Garotinho of the Partido Socialista Brasileiro (PSB)[5]; and, Ciro Gomes of the Partido Popular Socialista (PPS)[6]. After the first round of elections in October, Lula and Serra advanced

[3] "Workers' Party."
[4] "Brazilian Social Democratic Party."
[5] "Brazilian Socialist Party."
[6] "People's Socialist Party."

to compete in a second round with about 46% and 23% of the popular vote, respectively.[7] Lula beat Serra in the second round contest with about 61% of the vote.

This election is seen by many as a referendum on the performance of the incumbent PSDB president, Fernando Henrique Cardoso (see Hunter and Power 2005; Nicolau 2007; de Souza Carreirao 2007). Cardoso enjoyed high popularity during the first half of his presidency, but due to poor economic conditions in his second term and questions about corruption, his performance in office was a major issue in the presidential campaign. In the context of abundant and under-institutionalized political parties, Lula and his party, the PT, were the most organized opposition to Serra, the candidate of the incumbent party, PSDB (de Souza Carreirao 2007).

While performance issues laid the backdrop to this election, policies and personalities also seemed to matter. On policy, the candidates fiercely debated economic policy as well as the role of the government in addressing poverty, education, and land reform, among other issues. And, personal qualities were front and center throughout much of the campaign. This is perhaps most notable in the case of Lula whose personal story as a "man of the people" that overcame many life challenges seemed to resonate with voters (Hunter and Power 2005; Varoga and Fornes 2003). Likewise, through changes in his personal appearance (e.g., from wearing jeans to sporting classic suits), Lula seemed able to convince voters that he was competent to govern (Varoga and Fornes 2003).

[7] Garotinho won about 18%, and Gomes won about 12%.

The 2000 Mexican Election (and a look to 2006)

The 2000 Mexican presidential election was a contest among three main candidates: Vicente Fox from the Partido Acción Nacional (PAN)[8], Francisco Labastida from the Partido Revolucionario Institucional (PRI)[9], and Cuauhtémoc Cárdenas from the Partido de la Revolución Democrática (PRD)[10]. The PAN candidate, Vicente Fox, won the election with nearly 43% of the vote. Fox's win was momentous, marking the first time a candidate from a party other than the PRI would assume the presidency in over seventy years. The PRI's candidate finished second with about 36% of the vote, followed by the PRD's Cárdenas with nearly 17%.

The main issue in the 2000 campaign was political change (see Domínguez and Lawson 2004). This theme pervaded every aspect of the campaign, exacerbating attention to personal qualities and overshadowing debates about policy and performance. While the incumbent, President Ernesto Zedillo, was relatively popular, his performance was irrelevant to his co-partisan Labastida's campaign and to the other candidates (Domínguez 2004; Bruhn 2004). Likewise, policy debates were not very prominent in this campaign. With Cárdenas's distinctly "leftist" policy positions, there was some real range in policy positions among the candidates. But, again, these debates were secondary to those about the need for political change and who was best to lead it. Questions (and accusations) about personal qualities and character were front and center as the

[8] "National Action Party."
[9] "Institutional Revolutionary Party."
[10] "Party of the Democratic Revolution."

candidates, particularly the leading ones, debated who was better qualified to lead meaningful political change in Mexico (Klesner 2000).

The campaign leading up to the 2006 Mexican presidential election was quite different. Policy and performance issues reemerged as prominent campaign issues. Again, three candidates competed, one from each of the three main political parties. After a very close election (and contested post-election period), Felipe Calderón (PAN) was declared the winner with just over 35.5% of the vote; Andrés Manuel "AMLO" López Obrador (PRD) was the runner-up with just under 35.5% of the vote, and Roberto Madrazo (PRI) followed with about 22%. The policy differences among these candidates were sharp and wide; this was especially true regarding the two leading candidates, Calderón and AMLO. Likewise, debates about then incumbent President Fox's performance in office played a big part of the campaign (see Moreno 2009). Despite the reemergence of policy and performance in 2006, questions about candidates' personal qualities continued to structure much of the political debate and coverage of the campaign (see Greene 2009).

Dissertation Overview

Chapter 2 presents my argument and hypotheses regarding individual-level and context-level variation in candidate-centered voting. Chapter 2 also introduces a general model of electoral utilities that informs the election-specific models and individual-level analyses in later chapters.

Chapters 3, 4, and 5 test the individual-level argument about political sophistication's conditioning role on candidate-centered voting. Chapter 3 examines the 2008 U.S. presidential election. Chapter 4 examines the 2002 Brazilian presidential election. And, Chapter 5 examines candidate-centered voting in Mexico with a focus on the 2000 presidential election, but with a look at the 2006 election as well.

Overall, the evidence across Chapters 3, 4, and 5 is consistent with my argument regarding political sophistication's conditioning role on candidate-centered voting. Candidate considerations dominate nearly all voters' electoral decisions in all of the elections examined. The extent to which they dominate, however, tends to decrease as political sophistication increases. As Chapters 3 and 4 demonstrate, this pattern is clear across voters in the U.S. and Brazil. Things are less clear in the Mexican elections, particularly in 2000 where candidate considerations are unrivaled by policy and performance considerations for even the most sophisticated. But, moving to the 2006 election, we see that candidate considerations' dominance is threatened by performance considerations among the more politically sophisticated.

Chapter 6 considers contextual variation in candidate-centered voting. This chapter first summarizes patterns in candidate-centered voting across electoral contexts building on observations from the preceding three election-specific chapters. Then, it considers the extent to which these patterns are consistent with those that would be expected based on the institutionalization and structure of political competition in each electoral context. The analysis there provides initial support for the idea that candidate-

centered voting may decrease in contexts with high party system institutionalization, experience with democratic elections, and a small number of candidates. Finally, Chapter 7 concludes the dissertation.

Chapter 2
Political Information and Candidate-Centered Voting

I assume that the vote decision results from a process of voters comparing their electoral utilities for the candidates.[11] While one could focus on any number of explanatory factors at various causal distances from the utilities, I focus on considerations, the psychological, or "inside-the-head," factors that are causally proximate to utilities. This focus is not to say that other types of factors do not matter. Indeed, various aspects of voters' social and demographic profiles, for example, may play an important role in shaping electoral utilities. I assume, however, that the effects of these more causally distant factors work solely through their effects on considerations.

Voters may take a variety of considerations into account when evaluating candidates and making electoral decisions. By *considerations* I mean all sorts of reasons: beliefs, attitudes, perceptions, and values.[12] Policy, performance, and candidate considerations are the primary factors affecting voters' electoral utilities for candidates. *Policy considerations* relate to the candidates' policies. *Performance considerations* relate to the candidates' or their party's record in office. *Candidate considerations* relate to the candidates' traits and demeanors, together forming *candidate images* (Rahn et al. 1990; Luskin and Globetti 2002). Most voters probably take considerations of more than one type into account in their electoral decisions; the question is one of degree, both in an

[11] This starting point is, in a broad sense, consistent with a rational choice approach to decision-making, but not restrictively so. While I assume voters to be rational actors in the sense that they choose the candidate for whom they have the most utility, this assumption in no way dictates how voters arrive at their utilities for the candidates.

[12] The term "considerations" is borrowed from Zaller (1992); note, however, that his use of the term is still broader, not limited to reasons for voting decisions.

absolute sense and relative to other considerations. To the extent that candidate considerations dominate the others, voters engage in *candidate-centered voting*.

Of course, not all voters form their candidate utilities the same way. Differences across individuals and electoral contexts make certain factors matter more, and others less. I focus on the individual and contextual differences that affect the processing and use of political information. At the individual level, voters differ in important ways based on their level of political sophistication. More specifically, I argue that the extent of candidate-centered voting should be a decreasing function of political sophistication. The bulk of this chapter is dedicated to developing this individual-level argument. I then turn to consider variation across electoral contexts. I argue that certain electoral contexts can be more cognitively demanding on voters, increasing information demands and making it all the more difficult to evaluate candidates on bases other than their personalities.

The idea that political sophistication conditions candidate-centered voting is not new (see, for example, Glass 1985; Miller et al. 1986; Rahn et al. 1990; Pierce 1993; Sniderman et al. 1991; Luskin and Globetti 2002; Peterson 2005; Iyengar et al. 2007). Yet we still understand very little about the nature of this conditioning. With the exception of Luskin and Globetti (2002), previous work has focused on the extent to which political sophistication conditions the *absolute* weight of candidate considerations.[13] But as I argue below, political sophistication is unlikely to condition

[13] The term "weight" will be used throughout the dissertation to refer to the magnitude of an effect. The weight is equivalent to the absolute value of the effect.

the absolute weight of candidate considerations to any meaningful degree. It should, however, condition the absolute weights of policy and performance considerations – and thus the *relative* weight of candidate considerations.[14]

Political sophistication leads to increased ability to process political information, allowing voters to form opinions on performance and policy matters and use them for subsequent candidate evaluation tasks. Thus, whereas all voters can evaluate candidates on the basis of personality, it takes the command of some political information to evaluate them on the basis of performance and, especially, policy.

The Conditioning Role of Political Sophistication

Voters are bombarded with information during election campaigns. Nobody can notice, interpret, and store it all. We all have cognitive limits – a fact that has underlain decades of research on information processing in social and political psychology. Voters use schemata – pre-existing cognitive structures, consisting of phenomenal objects and cognitive connections between them – to process new information. Schemata affect what information gets processed, how it is organized and stored in memory, and when and how it may be retrieved (Fiske and Linville 1980; Lau and Sears1986; Conover and Feldman 1984). Schemata may be more or less developed. Borrowing from Luskin's (1987) definition of *political sophistication*, a schema is more or less developed depending on its size, breadth, and interconnectedness.

[14] The phrase "relative weight of candidate considerations" and variations thereof will refer to the weight of candidate considerations relative to policy and performance considerations henceforth unless stated otherwise.

A schema's development affects the *reception* of new relevant information and the *use* of relevant stored information they contain. *Reception* here refers to the process of noticing, interpreting, and storing new information.[15] Note that reception is distinct from exposure. Different people exposed to the same message may receive different amounts and types of information depending – at least in part – on the relevance, development, and accessibility of their existing schemata. *Use* refers to the process of retrieving stored information to evaluate an object (e.g., forming an opinion on an issue or evaluating a candidate). A schema's level of development thus affects how much relevant information is available for evaluation processes. Taken together, all of a person's politically relevant schemata form that person's "political belief system" (Converse 1964). The belief-system-level version of schema development is *political sophistication* (Luskin 1987).

It is important to note that political cognitions are not limited to raw bits of political information. As people process more and more information and they become more politically sophisticated, they make more connections between how the raw information they receive relates to existing stored information as well as their political predispositions. These connections – and any subsequent subjective assessments related to them – are also cognitions.

Most voters follow politics quite distantly if at all, and their political belief systems tend to be poorly developed. During campaigns, these less sophisticated voters

[15] The term *reception* is borrowed from Zaller (1992).

encounter new information without having previously thought much about politics and probably without many developed political opinions. Such voters cannot receive much of the political information in election campaigns, even if exposed to it. Equipped with better developed political belief systems, the more politically sophisticated are better able to manage the new information they encounter.

Their increased ability to process and receive new political information makes the more sophisticated better able to evaluate candidates on policy and performance for at least two reasons. The first relates to quantity. More sophisticated voters simply have more cognitions and information relevant to policy and performance to rely on when evaluating candidates. Additionally, these voters are more likely to have more opinions of their own on such issues and should be better able to connect the new information they receive during campaigns to these predispositions.

The second relates to quality. The cognitions used in evaluating candidates on policy and performance will tend to be of higher quality among the more sophisticated. This matters for questions of fact and for questions of opinion. More sophisticated voters will tend to have a better grasp of objective facts like candidates' policy positions and performance record. That is, their perceptions of such issues will tend to be more factually accurate than less sophisticated voters'. Similarly, more sophisticated voters' perceptions of *their own* policy positions and other politically relevant opinions will tend to be more "accurate" in the sense that they will be more informed and considered (and less random).

These inequalities in the quantity and quality of politically relevant cognitions between the more and less sophisticated should be reflected in the ways they form their electoral utilities for candidates. More specifically, the influence of policy and performance considerations should increase in magnitude as political sophistication increases. This is especially true of policy considerations.

In order to vote on the basis of a policy, voters need to be able to identify their own positions in light of their interests and to identify the candidates' positions on the relevant issue. Previous research shows that voters often have a difficult time identifying candidates' policy positions and that this undermines the influence of policy considerations in electoral decisions (Alvarez et al. 1994; Peterson 2005). While not often (if ever) acknowledged in the issue-voting literature, many voters' also have difficulty identifying their own positions on issues, and this too undermines the influence of policy considerations. As political sophistication increases, however, voters are better able to process policy-relevant information and better able to identify both their own and candidates' policy positions.

Performance considerations are less cognitively demanding than policy considerations. Voters need only know who (or which party) has been in office, what they think of his, her, or its performance, and how this information relates to the current candidates. While such "retrospective voting" is often portrayed as a simple exercise that even uninformed voters can do (Fiorina 1978), it is not always so simple. Performance considerations require some understanding of the political environment, actors, and

developments (see Lau and Redlawsk 2001). Furthermore, voters must be able to relate this information to their own circumstances and predispositions. Determining how performance-relevant information relates to current candidates can be particularly difficult in contexts lacking strong party systems where patterns of electoral competition tend to be volatile across elections. Thus, while I expect political sophistication's conditioning effect to be the most pronounced for policy considerations, it should still condition the effect of performance considerations, especially in under-institutionalized contexts.

Unlike policy and performance, candidate considerations require little (if any) cognitive effort. As a result, political sophistication should not condition the effect of candidate considerations very much – if at all. All voters, regardless of their political sophistication, have well-developed and accessible "personality schemata" – knowledge gained from a lifetime of experience interacting with, observing, and evaluating those around them – that facilitate the reception and use of information related to others' personalities. Indeed, social psychologists have found that people perceive personality traits "automatically," meaning without having to think much at all, upon encountering even the slightest bit of information about others (McCulloch et al. 2007).

Such "automaticity" (Bargh and Chartrand 1999) in person perception means that voters should be more or less equally likely to have assessments of candidates' images and thus equally able to use them in subsequent electoral evaluations of candidates. In this light, we should not be surprised that candidate considerations are often important

determinants of voters' electoral decisions and evaluations. Compared to policy and performance, evaluating candidates on the basis of personality is, after all, easy. As such, the *absolute* weight of these considerations should not concern us too much. The cause for concern is not that candidate considerations matter at all or even a lot. Rather, the cause for concern is that the more substantive bases – like policy and performance – on which voters could (and should) evaluate and choose candidates matter so little, leaving candidate considerations to dominate electoral decisions almost by default. Candidate considerations dominate, and often by extreme degree, simply by virtue of the ease with which voters hold them.

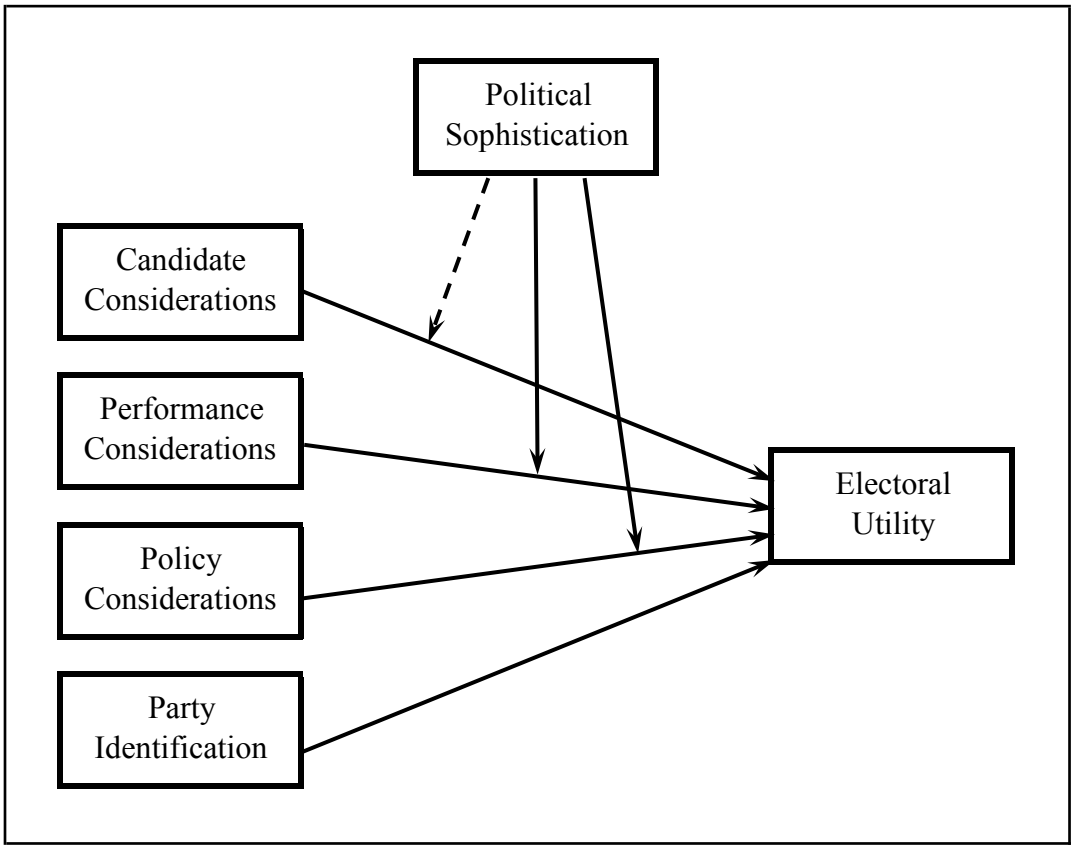
The task, therefore, is to explain variation in the weight of candidate considerations *relative* to the weights of policy and performance considerations. The relative weight of candidate considerations depends on the extent to which a voter has well-developed schemata relating to political matters like policy, political actors, government actions and so forth. The more developed such schemata, the more voters can receive and use political information to form political opinions and evaluate candidates. Thus, as political sophistication increases, policy and performance considerations gain footing as counterparts to candidate considerations in voters' electoral decision-making.

A Politico-Psychological Model of Electoral Utilities

In addition to policy, performance, and candidate considerations, voters' political party identification should also affect their candidate utilities, but somewhat differently.

Considerations are by definition largely cognitive (though not devoid of affect). Party identification is largely affective (though not devoid of cognition). The direct effect of party identification, leaving aside any indirect effects through policy, performance, and candidate considerations, are a matter of emotional or habitual attachment. Given its purely affective role after controlling for the various considerations, I assume party identification's effect to be independent of political sophistication. Illustration 2.1 models the causal process underlying electoral utilities and the conditioning role of political sophistication.

Illustration 2.1
Political Sophistication's Conditioning Role on Electoral Utilities



Arrows leading from candidate, policy, performance considerations and party identification to electoral utilities represent the effects of the former on the latter. Other arrows originating from political sophistication intersect the considerations' effects to indicate political sophistication's conditioning role. Because the extent to which political sophistication conditions the effect of candidate considerations is unclear, the relevant conditioning arrow is represented by a dotted line.

Candidate-Centered Voting across Contexts

I have argued that individual-level variation in candidate-centered voting is a function of voters' varying abilities to process and use cognitively demanding information. I view context-level variation in candidate-centered voting similarly. Contexts can be more or less cognitively demanding, affecting voters' ability to evaluate candidates on the basis of the more complex issues relating to policy and performance. I focus on four contextual characteristics that should shape the extent to which voters are able to consider factors other than candidate image in electoral decisions. These factors relate to the *institutionalization* and *structure* of political competition.

The institutionalization of political competition has two components. The first relates to experience with competitive elections. I call this "democratic experience." The less democratic experience voters have, the slimmer and less wide-ranging their pre-existing stores of political information will tend to be (see Greene 2011). Democratic experience gives voters advantages in the amount and organization of pre-existing stores

of information relating to policy and performance; they will tend to have more and better organized raw material, cognitions, about such matters.

Thus, as a citizenry gains more experience with competitive elections, the more policy and performance considerations should matter.[16] This association is likely not as linear as my language suggests. After some threshold experience level, one more competitive election is not likely to make a difference. The relevant scale is probably an ordinal one that distinguishes between countries with no recent experience, some recent experience, and a lot of recent experience.

The second component is party system institutionalization. A party system is more or less "institutionalized" to the extent that parties tend be ideologically cohesive and interparty competition across elections is stable (see Mainwaring 1999; Mainwaring and Scully 1995). As party systems become more institutionalized, political parties become more "central" cognitions (see Luskin 1987) in voters' political belief systems. Information about specific policies, issues, officials, and government performance gets organized in terms of its association to the political parties, making for more interconnections among more wide-ranging political cognitions in voters' political belief systems (Lodge and Hamill 1986; Rahn 1993). This party-centric cognitive mapping of the political world facilitates voters' efforts to make sense of new information in election campaigns, allowing them to rely on candidates' party labels as cues for inferring more substantive information about the candidates.

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[16] This argument is consistent with Duch's (2001) finding that experience with democracy influences the extent to which economic voting occurs across contexts.

In under-institutionalized party systems, voting on the basis of performance considerations can be difficult. On the one hand, in such systems, the incumbent's political party may not even have a candidate in the subsequent election, making it a rather cognitively demanding exercise to make connections between the incumbent's record and the candidates' proposals. On the other hand, even if the incumbent's party does put forth a candidate for the subsequent election, knowledge of the shared party label may not convey much information. If parties are not recognized as ideologically cohesive groups with consistent approaches to governance, approving or disapproving of the incumbent's performance in office may not have obvious implications for evaluations of the party's candidate.

Likewise, voters' ability to evaluate candidates on the basis of policy is hindered in under-institutionalized party systems. In institutionalized systems like in the U.S., voters can infer a great deal of policy-relevant information about a candidate simply by knowing to which party they belong (Sniderman et al. 1991; Popkin 1991; Lodge and Hamill 1986; Rahn 1993). Where party labels have little meaning, these partisan heuristics are not available to voters, making the processing and use of policy-relevant information all the more difficult (see Renno 2009).

The other aspects I consider relate to the *structure* of political competition. By "structure," I mean the number and range of political choices available to voters. More specifically, the structure of political competition in any given electoral context is characterized by the (1) the number of candidates competing for a given office, and (2)

the extent to which the candidates collectively represent a range of distinct policy options.

The number of candidates affects the ease or difficulty of voting on the basis of policy considerations in a rather straightforward way. As the number of candidates competing in an election increases, information demands on voters increase as well. With every additional candidate, voters have to learn about the policy positions of yet another candidate and assess the similarities and contrasts across a larger set of candidates.

It is not entirely clear how the number of candidates affects voting on the basis of performance considerations. Most of our understanding of performance considerations' influence on electoral decisions comes from the U.S. two-party electoral context where incumbent evaluations have obvious implications for the two candidates (with one being the incumbent or from the incumbent's party and the other being "the" opposition, non-incumbent). In such two-party contexts, incumbent approval increases the likelihood of voting for the incumbent party's candidate and decreases the likelihood of voting for the opposition candidate. Voters simply need to know what they think of the incumbent's performance and whether the candidate they are evaluating is from the incumbent or opposition party.

In multi-candidate elections, things are less clear. Incumbent evaluations should, of course, continue to increase the likelihood of voting for the incumbent party's candidate; determining the implications of these evaluations for each of the opposition

candidates, however, requires more information beyond knowing they are not co-partisans with the incumbent (see Anderson 2000). Thus, evaluating opposition candidates on the basis of performance considerations in multicandidate contests should be more difficult than doing so in two-candidate ones.

The importance of candidates representing a "range of distinct policy options" rests on the idea that, in order to vote on the basis of policy, voters must be able to distinguish candidates' policy positions (Downs 1957; Key 1966). The closer candidates are to one another on policy, more and more (and more specific) information is required to distinguish the candidates on policy. This makes voting on the basis of policy more difficult.[17]

Hypotheses and a General Model

I have made the case that variation in candidate-centered voting is driven by inequalities in voters' information processing abilities. Because information about candidates' personal qualities is so easily processed and used, all voters, regardless of political sophistication, should place similar absolute weights on candidate considerations. It should take some political sophistication, however, to vote on the basis of performance considerations and even more to vote on the basis of policy. Thus, as

[17] Here, I focus on how policy space can make policy-based voting more difficult due to variation in the information demands on voters. Note that others have highlighted the importance of policy (or "issue") space for other reasons, namely that it makes the policy implications of electoral outcomes more or less consequential (see, for example, Alvarez et al. 1998 and Zechmeister 2008).

political sophistication increases, the weight of candidate considerations relative to performance and policy should decrease.

This individual-level argument should hold across contexts. That is, individual-level variation in candidate-centered voting should be a function of political sophistication regardless of context. That said, various aspects of the nature of political competition should help explain context-level variation in candidate-centered voting. More specifically, experience with democracy, party system institutionalization, and the structure of political competition should all shape the ease with which voters can vote on the basis of policy and performance, decreasing the dominance of candidate considerations. Next, I summarize these ideas in the form of hypotheses.

Variation across Voters

Hypothesis 1: Political sophistication conditions the weights of policy and performance considerations. The more sophisticated the voter, the greater the weights carried by policy and performance.

Hypothesis 2: Political sophistication's conditioning effect should be greater on the weight of policy considerations than on the weight of performance considerations.

Hypothesis 3: Political sophistication may or may not condition the weight of candidate considerations. In the case of a non-null conditioning

effect, it is unclear what the direction of the effect should be, but its magnitude should be smaller than that of the conditioning effect on policy and performance considerations.

Hypothesis 4: Political sophistication therefore conditions the weight of candidate considerations *relative* to both policy and performance considerations, and to a greater degree with respect to the former than the latter. The more sophisticated the voter, the less the weight of candidate considerations relative to policy and performance.

These hypotheses can be stated more precisely in mathematical notation. Consider the model in Eq. 2.1 below.[18] This is a general electoral utility model that will be basis of the models to be estimated in later chapters. Let U_{ij} represent the i[th] voter's utility for the j[th] candidate.

(Eq. 2.1)

$$U_{ij} =$$

$$\lambda_0 + \lambda_1 CAND_{1j} + ... + \lambda_{J-1} CAND_{J-1,j} + \beta_1 TRAITS_{ij} + \beta_2 POLICY_{ij} + \alpha_{1j} PERFORM_i + \beta_3 PID_{ij} +$$

$$\alpha_{2j} SOPH_i + \beta_4 (TRAITS_{ij} * SOPH_i) + \beta_5 (POLICY_{ij} * SOPH_i) + \alpha_{3j} (PERFORM_i * SOPH_i) + \varepsilon_{ij}$$

[18] Note that this model is similar to the models presented in Luskin and Globetti (2002) and Iyenger et al. (2007).

where $CAND_{1j}$ through $CAND_{J-1,j}$ are dummy variables indicating which of the J candidates is being evaluated; $TRAITS_{ij}$ is the i[th] voter's evaluation of the j[th] candidate's personal qualities; $POLICY_{ij}$ is a measure of the extent to which the i[th] voter agrees with the j[th] candidate on policy issues; $PERFORM_i$ is the i[th] voter's evaluation of the incumbent party's performance in office; PID_{ij} is a measure of the i[th] voter's identification with the j[th] candidate's political party; and $SOPH_i$ is the i[th] voter's level of political sophistication.[19] Let us assume each explanatory variable runs on a scale from 0 to 1, facilitating the comparison of effect magnitudes which I call "weights."

We can now more clearly specify the relative weight of candidate considerations. Table 2.1 presents the weight of the considerations along with the relative weight of candidate considerations with respect to them. The weight here is simply the effect magnitude, which, of course, is given by taking the absolute value of the effect. The relative weights are given by the ratio of candidate considerations' weight over the weight of the relevant consideration.

We should expect the i[th] voter's utility for the j[th] candidate to be an increasing function of $TRAITS_{ij}$ and $POLICY_{ij}$ such that $(\beta_1 + \beta_4 SOPH_i) > 0$ and $(\beta_2 + \beta_5 SOPH_i) > 0$. Because $PERFORM_i$ is voter-specific (varying across voters, but not across candidates), its effect is allowed to (but not restricted to) affect candidate

[19] Note that this model allows for political sophistication to have a "direct" effect on utilities. Political sophistication is included as an explanatory (in addition to conditioning) variable because more sophisticated voters may be inclined to evaluate certain candidates more positively than others in systematic ways. Thus, I allow political sophistication to have a "direct" effect in order to better ensure the accuracy of the estimates for its conditioning effect.

utilities in different ways. If the candidate being evaluated shares the same party as the incumbent, the i[th] voter's utility for that candidate should increase as $PERFORM_i$ increases such that $(\alpha_{1j} + \alpha_{3j}SOPH_i) > 0$. If the candidate being evaluated does not share the same party as the incumbent, then we should expect the i[th] voter's utility for that candidate to decrease as $PERFORM_i$ increases such that $(\alpha_{1j} + \alpha_{3j}SOPH_i) < 0$.

Table 2.1
Candidate, Policy, and Performance Considerations:
Effects, Weights, and Relative Weights

Consideration	**Effect**	**Weight**	**Relative Weight**
Candidate	$\beta_1 + \beta_4 SOPH_i$	$\lvert\beta_1 + \beta_4 SOPH_i\rvert$	1
Policy	$\beta_2 + \beta_5 SOPH_i$	$\lvert\beta_2 + \beta_5 SOPH_i\rvert$	$\left\lvert\frac{\beta_1 + \beta_4 SOPH_i}{\beta_2 + \beta_5 SOPH_i}\right\rvert$
Performance	$\alpha_{1j} + \alpha_{3j} SOPH_i$	$\lvert\alpha_{1j} + \alpha_{3j} SOPH_i\rvert$	$\left\lvert\frac{\beta_1 + \beta_4 SOPH_i}{\alpha_{1j} + \alpha_{3j} SOPH_i}\right\rvert$

Given hypothesis 1, as political sophistication increases, so too should the weight (or effect magnitude) of policy and performance considerations, such that $\beta_5 > 0$ and $\lvert\alpha_{3j}\rvert > 0$, $\forall_j$. Given hypothesis 2, political sophistication's conditioning effect should be greater for policy considerations than for performance considerations, such that $\beta_5 > \lvert\alpha_{3j}\rvert$, $\forall_j$. Consistent with hypothesis 3, political sophistication should either have

no conditioning effect on the weight of candidate considerations ($\beta_4 = 0$) or its conditioning effect should be minimal and smaller than the conditioning effect on the weights of policy and performance considerations ($|\beta_4| < |\alpha_{3j}| < \beta_5$, $\forall_j$).

These three hypotheses imply hypothesis 4: political sophistication should condition the relative weight of candidate considerations with respect to policy more than it conditions the relative weight with respect to performance. Thus if we compare the least sophisticated voters ($SOPH_i = 0$) with the most sophisticated ($SOPH_i = 1$), we should expect the difference between them to be greatest for the relative weight of candidate versus policy considerations, such that the inequality in Equation 2.2 holds.

(Eq. 2.2) $$\left(\left|\frac{\beta_1}{\beta_2}\right| - \left|\frac{\beta_1 + \beta_4}{\beta_2 + \beta_5}\right|\right) > \left(\left|\frac{\beta_1}{\alpha_{1j}}\right| - \left|\frac{\beta_1 + \beta_4}{\alpha_{1j} + \alpha_{3j}}\right|\right) , \forall_j$$

Variation across Electoral Contexts

Hypothesis 5: Political sophistication conditions the weight of candidate considerations relative to policy and performance regardless of context. That is, *Hypotheses 1 – 4* should hold across contexts.

Hypothesis 6: Lack of experience with democratic political competition decreases the weight of policy and performance considerations, increasing the relative weight of candidate considerations.

Hypothesis 7: Decreases in party system institutionalization decrease the weight of policy and performance considerations, increasing the relative weight of candidate considerations.

Hypothesis 8: Increases in the number of candidates running for a given office decrease the weight of policy and performance considerations, increasing the relative weight of candidate considerations.

Hypothesis 9: Decreases in the distance between candidates' policy positions decrease the weight of policy considerations, increasing the weight of candidate considerations relative to these.

Conclusion

In sum, while candidate considerations play a major role in everyone's voting decisions, the extent to which they dominate should be a decreasing function of voter political sophistication. With increases in the quantity and quality of their political cognitions, the more politically sophisticated are better able to evaluate candidates on the basis of policy and performance.

This individual-level argument should hold across contexts, but we should expect context-level variation in the extent of candidate-centered voting according to the institutionalization and structure of political competition. Democratic experience, party system institutionalization, the number of candidates, and the range of distinct policy

choices should shape the ease with which voters can vote on the basis of policy and performance, shaping the extent to which candidate considerations dominate.

The next four chapters test these hypotheses empirically. Chapters 3, 4 and 5 test the individual-level hypotheses with election survey data for presidential elections in U.S., Brazil, and Mexico, respectively. Chapter 6 then takes a step back to summarize patterns in candidate-centered voting across the three countries and to consider the extent to which they are consistent with the context-level hypotheses.

Chapter 3
Candidate-Centered Voting in the 2008 U.S. Presidential Election

Modeling Electoral Decision-Making

Most models of voting behavior model the vote choice itself. The utilities behind the vote choice lurk in the background, unexamined. The ordinal *comparison* of utilities can be inferred from the vote choice, but we know nothing else of the utilities for individual candidates or the magnitude of the differences among them. This is so even in two-candidate contests. In the 2008 election, all we can say of those who voted for Obama is that they did vote for him and thus presumably attached greater utility to him than to McCain, but we have no idea how great that difference was, nor how much utility they attached to Obama or McCain individually. In multi-candidate contests like those I examine in Brazil and Mexico, even the ordinal comparison may be veiled by strategic calculations. The only thing we learn from the vote choices of Brazilians who voted for Lula in 2002, for example, is that they (say they) voted for Lula; we have no idea of their utilities for Lula, Serra, Garotinho, or Gomes, nor even, in this case, any idea of their sincere preference orderings.

Thus a potentially more revealing approach is to measure and model the utilities directly. True, utilities are psychological, while vote choice is a behavior and thus, in principle, directly observable in a way that utilities are not. But in practice, given the secret ballot, vote choice is also unobservable; we must rely on self-reports of votes already cast or intended to be cast.

In this and the following two chapters, I employ models of both sorts. In Chapters 4 and 5 where I examine the multicandidate elections in Brazil and Mexico, the

utility model will be especially advantageous (see van der Eijk et al. 2006; van der Brug et al. 2003). And, to the extent that the two sorts of models yield consistent results, we can be all the more confident of the conclusions they imply.

The Utility Model

Let U_{ij} represent the i[th] voter's utility for the j[th] candidate. Then we can write the following utility model:

(Eq. 3.1)

$$U_{ij} =$$

$$\lambda_0 + \lambda_1 MCCAIN_j + \beta_1 TRAITS_{ij} + \beta_2 POLICY_{ij} + \alpha_{1j} PERFORM_i + \beta_3 PID_{ij} + \alpha_{2j} SOPH_i +$$

$$\beta_4 (TRAITS_{ij} * SOPH_i) + \beta_5 (POLICY_{ij} * SOPH_i) + \alpha_{3j} (PERFORM_i * SOPH_i) + \varepsilon_{ij}$$

where $MCCAIN_j$ is a dummy variable indicating whether McCain or Obama is the candidate being evaluated; $TRAITS_{ij}$ is the i[th] voter's summary evaluation of the j[th] candidate's personal qualities on various dimensions; $POLICY_{ij}$ is a summary measure of the extent to which the i[th] voter agrees with the j[th] candidate on policy issues; $PERFORM_i$ is the i[th] voter's summary evaluation of the incumbent party's performance in office; PID_{ij} is the extent to which the i[th] voter identifies with the j[th] candidate's political party; and $SOPH_i$ is the i[th] voter's level of political sophistication.

As this model suggests, to estimate voters' utilities for the candidates, I use a single equation for the pooled voter-candidate dyads (numbering 2*n* with 2 candidates

and *n* voters). I estimate the coefficients in Eq. 3.1 using Ordinary Least Squares (OLS). Because the disturbances are likely to be correlated across the candidates for a given voter and heteroskedastic across candidates, I rely on estimated robust standard errors for statistical inferences.

The Vote Choice Model

The utility model above is the basis for its vote choice counterpart, which runs as follows. Let U_{ij}^{*} represent the i[th] voter's *unobserved* utility for the j[th] candidate in the following equation:

(Eq. 3.2)

$$U_{ij}^{*} =$$

$$\lambda_0^{*} + \lambda_1^{*} MCCAIN_j + \beta_1^{*} TRAITS_{ij} + \beta_2^{*} POLICY_{ij} + \alpha_{1j}^{*} PERFORM_i + \beta_3^{*} PID_{ij} + \alpha_{2j}^{*} SOPH_i +$$

$$\beta_4^{*}(TRAITS_{ij} * SOPH_i) + \beta_5^{*}(POLICY_{ij} * SOPH_i) + \alpha_{3j}^{*}(PERFORM_i * SOPH_i) + v_{ij}$$

This can be rewritten more succinctly in matrix notation as:

(Eq. 3.3) $$U_{ij}^{*} = W_j \lambda^{*} + Z_{ij}\beta^{*} + X_i \alpha_j^{*} + v_{ij}$$

where W_j is a $2n \times 2$ matrix containing the dummy variable indicating whether McCain is being evaluated and a vector of 1's; λ^{*} is the corresponding 2×1 coefficient vector; Z_{ij} is a $2n \times 5$ matrix containing the variables that vary across candidates (i.e., $TRAITS_{ij}$,

$POLICY_{ij}$, their products with $SOPH_i$, and PID_{ij}); β^* is the corresponding 5×1 coefficient vector; X_i is a $2n \times 3$ matrix containing the voter-specific variables (i.e., $PERFORM_i$, $SOPH_i$, and their product); and α_j is the corresponding 3×1 coefficient vector for each candidate.

Given Eq. 3.3, we can write the following probability model cast in conditional logit form.[20] Let P_{ij} be the probability that the i[th] individual votes for the j[th] candidate. Then we can write:

(Eq. 3.4) $$P_{ij} = \frac{\exp(W_j\lambda^* + Z_{ij}\beta^* + X_i\alpha_j{}^*)}{\sum_{j=1}^{J}\exp(W_j\lambda^* + Z_{ij}\beta^* + X_i\alpha_j{}^*)}$$

where, for the purpose of estimation, Obama ($j = 1$) serves as the base outcome with the elements in the α_j vector corresponding to him normalized to zero. This probability equation is the basis for the Maximum Likelihood Estimator (MLE) used to estimate the coefficients.[21]

There are two alternatives to the chosen conditional logit specification worth mentioning. One would be to use the more conventional binary logit specification with independent variables cast as differences between the two candidates. While this

[20] Note that what I call "conditional logit" is sometimes referred to as "mixed logit" because it allows for a combination of individual-specific and alternative-specific variables.

[21] With the following log likelihood equation: $\log L = \sum_i \sum_j y_{ij} P_{ij}$, where $y_{ij} = 1$ if the i[th] individual votes for the j[th] candidate.

specification would be perfectly appropriate for the two-candidate context examined in this chapter, it has the important disadvantage of not being readily generalizable to the multicandidate contexts examined later in the dissertation. Another would be to use a probit specification instead of logit. Indeed, probit is likely more appropriate (especially in the multi-candidate contexts) given its relaxation of the assumption regarding the independence of irrelevant alternatives (IIA). Attempts to use probit were unsuccessful; as is often the case, convergence was not achieved, making estimation impossible. Fortunately, the results between the probit and logit should not be too different (Dow and Endersby 2004).

Data and Measurements

I employ survey data from the American National Election Studies 2008 Time Series Study. All of the data employed here come from a sample of 2,323 voting age citizens interviewed during the two months preceding the presidential election on November 4, 2008. Analysis is limited to voters'[22] preferences and views relating to the presidential candidates from the two main political parties – Barack Obama (Democratic Party) and John McCain (Republican Party) – who between them won nearly 99% of the national vote.

[22] For convenience, I refer to respondents as "voters" throughout this and the next chapters. It is possible, of course, that not all respondents did in fact vote in the election.

Utilities. Utilities are measured with responses to "feeling thermometer" items in which respondents are asked to indicate how "warm/favorable" or "cold/unfavorable" they feel towards the candidates on a scale from 0 to 100.

Vote Choice. Vote choice is measured with responses to a question asking respondents for whom they think they would vote in the November election. Obama serves as the base category ($j = 1$) for the purposes of estimating the coefficients for the individual-specific variables (i.e., performance evaluations, political sophistication, and their product) in the vote choice model.

Candidate Considerations. I measure voters' summary evaluations of the candidates' personal qualities, $TRAITS_{ij}$, with items asking respondents how well they think the following characteristics describe each candidate: "moral," "really cares about people like you," "knowledgeable," "intelligent," "honest," "optimistic," and "provides strong leadership." The original scales were transformed to range from 0 to 1, resulting in the following scale: "not well at all" (0), "not too well" (.33), "quite well" (.66), and "extremely well" (1). $TRAITS_{ij}$ is the i^{th} voter's mean response to these items for the j^{th} candidate. To avoid losing too many observations due to missing values, respondents were retained in the sample if they gave a substantive answer (i.e., not "don't know" or no response at all) for at least five of these seven trait items.

Policy Considerations. Measures of voters' summary policy agreement with the candidates, $POLICY_{ij}$, are based on items in which respondents place themselves and the candidates on issue scales relating to spending on social services, defense spending,

healthcare, and aid to minorities. The original scales were transformed to range from 0 to 1, resulting in a seven-point scale ranging, in left-right terminology, from the most "left" position (0) to the most "right" position (1). If R_{ik} is the i[th] respondent's position on the k[th] issue, and C_{jk} is the j[th] candidate's position on that issue, then my measure of policy agreement between the i[th] voter and the j[th] candidate is given by Equation 3.5:

$$\text{(Eq. 3.5)} \qquad POLICY_{ij} = (-1)\left(\frac{\sum_{n_i}(C_{jk} - R_{ik})^2}{n_i}\right)^{1/2},$$

where n_i is the number of issues for which the i[th] respondent gives substantive answers regarding their own position (i.e., not "don't know" or no response). To avoid losing too many cases due to missing values, respondents are included so long as $N_i \geq 2$.[23] The measure for candidates' issue positions, C_{jk}, is "objective," measured by the sample mean placement of the j[th] candidate on the k[th] issue. The mean Euclidean distance is multiplied by -1 so that increasing values represent increasing policy agreement or proximity.

Performance Considerations. The measure for evaluations of the incumbent party's performance, $PERFORM_i$, comes from a series of items tapping into voters' approval of George W. Bush's performance as president. More specifically, $PERFORM_i$

[23] It is precisely for this reason that I use "mean" Euclidean distance rather than the more straightforward and common simple Euclidean distance (or quadratic distance measure). Because n_i is not constant across respondents, we must rescale the measure to be comparable across all respondents (which I do by weighting the Euclidean distance by n_i). Luskin and Globetti (2002) use a similar measurement strategy.

is based on the extent to which voters approve or disapprove of the way George W. Bush was handling the economy, relations with foreign countries, the environment, health care, and the war in Iraq. The original scales were transformed to range from 0 to 1, resulting in the following scale: "strong disapproval" (0), disapproval" (.25), "approval" (.75), and "strong approval" (1). $PERFORM_i$ is the i^{th} voter's mean response to these items. To avoid losing too many observations, respondents were retained in the sample if they gave a substantive answer for at least two of the five approval items.

Political Party Identification. PID_{ij} measures the extent to which the i^{th} voter identifies with the j^{th} candidate's political party. The original scale was transformed to range from 0 to 1, resulting in a four-point scale ranging from no identification with the candidate's party (0) to strong identification with the candidate's party (1).

Political Sophistication. Political sophistication, $SOPH_i$, is based on responses to items asking respondents to place each candidate on an ideological scale and four issue scales, for a total of ten items. For each item, responses were coded as correct (1) if respondents placed the candidates on the correct side of the scale; they were coded as incorrect (0) if they placed the candidates on the incorrect side, at the midpoint, or if they offered no response at all. $SOPH_i$ is the i^{th} voter's proportion of correct responses for these ten items. Being a proportion, $SOPH_i$ naturally runs from 0 to 1.

Descriptive statistics pertaining to all the dependent and independent variables described here can be found in Table A1.1 in Appendix 1. Additional descriptive

statistics are provided for the items used to construct the $TRAITS_{ij}$, $POLICY_{ij}$, and $PERFORM_i$ measures in Table A1.2, also in Appendix 1.

Expectations

Expectations for the effects of the candidate-specific variables are rather straightforward. They should all have positive influences on the utilities and probabilities of voting for the candidates. For instance, as the i^{th} voter's trait evaluations of the j^{th} candidate become more favorable, the utility and probability of voting for that candidate should increase. Likewise, the more agreement on policy between the i^{th} voter and the j^{th} candidate, the higher the utility and probability of voting for that candidate should be. Finally, as the i^{th} voter's identification with the j^{th} candidate's political party, the utility and probability of voting for that candidate should increase. In sum, as $TRAITS_{ij}$, $POLICY_{ij}$, and PID_{ij} each increase, so too should U_{ij} and P_{ij}.

Expectations for the effect of performance evaluations are less straightforward. Since this variable is voter-specific (varying across voters, but not across candidates), it can (but is not required to) affect candidate utilities in different ways. Evaluations of the incumbent Republican president should have a positive effect on utilities for McCain and a negative effect on utilities for Obama. Likewise, more positive evaluations should increase the probability of voting for McCain over Obama in the vote choice model.

My interest in political sophistication centers on its potential to condition the weights – i.e., effect magnitudes – of policy, performance, and candidate considerations. In accordance with my argument, the weight of policy considerations should increase as

political sophistication increases. That is, the effect of $POLICY_{ij}$ should become increasingly positive as political sophistication increases. We should expect the weight of performance considerations to increase as political sophistication increases as well. More specifically, as political sophistication increases, the effect of $PERFORM_i$ should become increasingly positive on the utility and probability of voting for McCain and increasingly negative in the case of Obama.

I do not expect political sophistication to condition the absolute weight of candidate considerations very much if at all. As discussed above, candidate considerations should matter more or less equally for voters regardless of level of political sophistication. What should vary is the weight of these considerations *relative* to the more substantive considerations involving policy and performance. Thus, as political sophistication increases, the weight of candidate considerations relative to policy and performance should decrease. And, the conditioning role of political sophistication on candidate considerations' weight relative to policy should be greater than it is on the weight relative to performance.

Results: Utility Model

Estimates for the utility model are presented in Table 3.1. As expected, the extent to which a voter identifies with a candidate's political party has a positive effect on the utility for that candidate. From its coefficient estimate, which represents its maximum potential effect, we see that party identification can increase utilities by about 16.5 points on the 0-100 utility scale. Strong Democrats' utilities for Obama will average about 16.5

higher than those of voters not identifying with the Democratic Party at all. The same could be said about utilities for McCain among strong Republicans compared to voters not identifying with the Republican Party at all.

Table 3.1
Model of Candidate Utilities in the 2008 U.S. Presidential Election

Independent Variables	Common Coefficients		Candidate-Specific Coefficients			
			Obama		McCain	
Intercept	22.781 (4.59)	p<.001				
McCain Dummy	-6.54 (2.68)	p=.015				
Political Party Identification	16.527 (1.32)	p<.001				
Trait Perception	47.346 (5.17)	p<.001				
Trait Perception * Political Sophistication	-13.519 (8.20)	p=.100				
Policy Agreement	-4.156 (6.99)	p=.552				
Policy Agreement * Political Sophistication	44.958 (11.23)	p<.001				
Bush Evaluation			-7.517 (4.62)	p=.104	15.529 (3.86)	p<.001
Bush Evaluation * Political Sophistication			-26.946 (6.98)	p<.001	6.090 (5.99)	p=.310
Political Sophistication			32.20 (7.78)	p<.001	16.289 (6.59)	p=.014
N	2181					
R-Squared	0.550					

p-values are based on two-tailed tests.
Estimated robust standard errors are in parentheses.

Given the interactions of candidate, policy, and performance considerations with political sophistication in the model, interpretation of their effects is not straightforward.

Table 3.2 presents the estimated effects for each of these on candidate utilities by level of political sophistication. The results are largely consistent with my expectations regarding political sophistication's conditioning role. The estimated effect magnitudes for policy and performance considerations are increasing functions of political sophistication. Consider the estimated effects of policy agreement. In the utility model results presented in Table 3.2, we see that moving from the minimum level of policy agreement ($POLICY_{ij}$ = -1) to the maximum ($POLICY_{ij}$= 0) has an effect indistinguishable from zero among the least sophisticated ($SOPH_i$= 0) voter's utility for a candidate. In contrast, this same shift increases the most sophisticated ($SOPH_i$= 1) voter's utility by about 41 points.

The results regarding political sophistication's conditioning role on performance considerations follow a similar pattern for Obama utilities. Moving from the most negative ($PERFORM_i$= 0) to the most positive ($PERFORM_i$= 1) evaluations of President Bush decreases the least sophisticated voter's utility for Obama by about 7.5 points; this same shift decreases utilities for Obama by about 34.5 among the most sophisticated.

Table 3.2
Effects on Candidate Utilities,
by Level of Political Sophistication

Level of Political Sophistication	Trait Perception		Policy Agreement		Bush Evaluation			
					Obama		McCain	
Minimum	47.346 (5.17)	p<.001	-4.156 (6.99)	p=.552	-7.517 (4.62)	p=.104	15.529 (3.86)	p<.001
1 Standard Deviation Below Mean	43.426 (3.20)	p<.001	8.881 (4.26)	p=.037	-15.331 (2.95)	p<.001	17.295 (2.48)	p<.001
Mean	39.843 (2.27)	p<.001	20.795 (2.94)	p<.001	-22.472 (2.08)	p<.001	18.909 (1.84)	p<.001
1 Standard Deviation Above Mean	36.260 (3.08)	p<.001	32.709 (4.10)	p<.001	-29.612 (2.60)	p<.001	20.523 (2.38)	p<.001
Maximum	33.827 (4.22)	p<.001	40.802 (5.69)	p<.001	-34.463 (3.52)	p<.001	21.619 (3.18)	p<.001

p-values are based on two-tailed tests.
Estimated effects based on results presented in Table 3.1.

The conditioning role of political sophistication on the effect of performance consideration is smaller for McCain utilities. While $PERFORM_i$'s effect clearly increases as political sophistication increases, the magnitude of the difference between the least and most sophisticated voters is not nearly as dramatic as the differences we observe in the case of Obama. Moving from the most negative ($PERFORM_i = 0$) to the most positive ($PERFORM_i = 1$) evaluations of Bush increases the least sophisticated voter's utility for McCain by about 15.5 points; this same shift increases utilities for McCain by about 21.6 among the most sophisticated.

One possible explanation for this asymmetry in political sophistication's conditioning effect across the two candidates is that it is probably relatively easy to link one's assessment of Bush to McCain given their shared political party. Indeed, it should take more effort and information to determine how such assessments should reflect on Obama, making political sophistication play a larger conditioning role on performance considerations when Obama is the object of evaluation.

The results regarding political sophistication's conditioning effect on candidate considerations are somewhat mixed. On the one hand, political sophistication appears to condition the effect of candidate considerations to some extent; the effect of candidate considerations decreases as political sophistication increases. On the other hand, its conditioning role appears to be relatively modest. Moving from the minimum trait perception ($TRAITS_{ij} = 0$) to the maximum ($TRAITS_{ij} = 1$) increases the least sophisticated voter's utility for a candidate by about 47 points, nearly half of utility's range. Among

the most sophisticated voters, the same shift results in a smaller increase of about 34 points, still nearly one-third of the range. The magnitude of the difference in effects between the least and most sophisticated is dwarfed by the differences we observe for policy and performance considerations.[24]

Results: Vote Choice Model

The vote choice model results are presented in Table 3.3. They are largely consistent with the utility model results. As expected, voters that strongly identify with a given party are about 8.1 times more likely to vote for that party's candidate, all else equal, than someone who does not identify with that party at all. For example, a strong Democrat is about 8.1 times more likely to vote for Obama than someone who does not identify with the Democratic Party at all.

Interpretation of the effects of candidate, policy, and performance considerations is not straightforward due to the nonlinearity in the variables from the interactions with political sophistication and the nonlinearity in the parameters due to the logit specification. To ease interpretation of these results, I have calculated the change in the predicted probability of voting for Obama as each variable of interest moves from its minimum to its maximum for five distinct voter profiles: "Pro-McCain", "Leaning McCain", "Middle of the Road", "Leaning Obama", and "Pro-Obama." The variable values for each profile can be found in Table A1.3 in Appendix 1.

[24] Regarding performance considerations, I am referring to the differences observed for the case of Obama.

Table 3.3
Model of Vote Choice in the 2008 U.S. Presidential Election

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients	
			McCain vs. Obama	
McCain Dummy	0.519 (0.20)	p=.086		
Political Party Identification	8.116 (1.80)	p<.001		
Trait Perception	631.252 (885.89)	p<.001		
Trait Perception * Political Sophistication	0.086 (0.19)	p=.269		
Policy Agreement	1.869 (2.98)	p=.695		
Policy Agreement * Political Sophistication	104.897 (284.68)	p=.086		
Bush Evaluation			2.763 (3.23)	p=.384
Bush Evaluation * Political Sophistication			431.254 (961.10)	p=.006
Political Sophistication			0.256 (0.18)	p=.050
N	1899			
Pseudo R-Squared	0.723			

p-values are based on two-tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

The predicted probabilities and effects[25] for the "Middle of the Road" voters are presented by level of political sophistication in Table 3.4. With the exception of whichever variable whose effects are of interest (which will be set at its minimum and maximum values), the "Middle of the Road" voter profile is given by the following

[25] "Effect" here is taken as the difference between the predicted probability when the variable of interest is at its maximum value and the predicted probability when it is at its minimum value.

characteristics: no identification with either political party; sample mean policy agreement levels with each candidate; sample mean trait perception for each candidate; and, sample mean level of approval for George W. Bush. This voter profile is, of course, the one for which all variables will have their largest potential effect. The predicted probabilities and effects for the other four profiles are presented in Tables A1.4, A1.5, and A1.6 in Appendix 1.

In Table 3.4, we see that the effect of $POLICY_{ij}$ on the probability of voting for Obama is nearly four times greater for the most sophisticated voters than for the least sophisticated. For example, the least sophisticated voters who *disagree* maximally ($POLICY_{ij}$= -1) with Obama on policy (but are otherwise "middle of the road") have a 50% chance of voting for him anyway; if these voters maximally *agree* with him ($POLICY_{ij}$= 0), this probability increases to 65%, making the effect of $POLICY_{ij}$ on the probability of voting for Obama among this group of voters about 15%. In contrast, this shift in $POLICY_{ij}$ among the most sophisticated produces a change of about 60% in the predicted probability of voting for Obama (from about 0.8% when $POLICY_{ij}$= -1 to about 61% when $POLICY_{ij}$= 0).

Political sophistication plays a similar conditioning role with performance considerations. Moving from the most negative ($PERFORM_i$= 0) to the most positive ($PERFORM_i$= 1) evaluations of Bush decreases one's probability of voting for Obama by about 24%. In contrast, this change in Bush evaluations decreases the predicted probability of voting for Obama by more than 84% among the most sophisticated.

Table 3.4
Effects on the Predicted Probability of Voting for Obama,
by Level of Political Sophistication

Level of Political Sophistication	Obama Trait Perception			Obama Policy			Bush Evaluation		
	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**
Minimum	0.023	0.937	**0.914**	0.500	0.652	**0.151**	0.715	0.476	**-0.239**
1 Standard Deviation Below Mean	0.034	0.957	**0.923**	0.197	0.639	**0.442**	0.901	0.361	**-0.540**
Mean	0.049	0.970	**0.921**	0.064	0.627	**0.563**	0.967	0.268	**-0.699**
1 Standard Deviation Above Mean	0.069	0.979	**0.910**	0.019	0.616	**0.597**	0.990	0.191	**-0.799**
Maximum	0.087	0.984	**0.896**	0.008	0.609	**0.601**	0.995	0.150	**-0.845**

Predicted probabilities are for "Middle of the Road" voters, based on the results presented in Table 3.3.
"Effect" here is the difference between the predicted probabilities when the variable of interest is at its minimum and at its maximum.

In the utility model, we saw that political sophistication had a small conditioning effect on the weight of candidate considerations. Political sophistication's role is even less important in the vote choice model. Moving from the minimum trait perception ($TRAITS_{ij} = 0$) to the maximum ($TRAITS_{ij} = 1$) increases the least sophisticated voter's probability of voting for Obama by about 91%; the same shift in $TRAITS_{ij}$ results in an increase of about 90% among the most sophisticated. Consistent with my expectations, candidate considerations appear to have a very substantial effect on utilities for all voters regardless of political sophistication.

The Relative Weight of Candidate Considerations

It seems, then, that political sophistication conditions voters' considerations in ways consistent with my argument. First, as political sophistication increases, so too do the weights of policy and performance considerations. Second, political sophistication appears to condition the weight of candidate considerations, slightly decreasing their effect. The conditioning effect on candidate considerations, however, is minimal compared with that on policy and performance considerations; trait perceptions matter a great deal regardless of level of sophistication. Third (it follows), the *relative weight* of candidate considerations decreases as political sophistication increases.

Tables 3.5 and 3.6 shed more light on political sophistication's conditioning effect on the relative weight of candidate considerations in the utility and vote choice models, respectively. The "relative weight" here is simply the absolute value of the ratio given by dividing the effect of *TRAITS* by the effect of *POLICY* or *PERFORMANCE*. A

relative weight greater than one indicates that candidate considerations are more important than the other consideration of interest; the extent to which it exceeds one reflects the extent to which candidate considerations dominate. A relative weight less than one indicates that the effect of candidate considerations is outweighed by the effect of the other consideration of interest. The closer the relative weight is to a value of one, the more equal the effect (magnitude) of candidate considerations is to the effect (magnitude) of the other consideration.

Table 3.5
Relative Weight of Candidate Considerations on Candidate Utilities, by Level of Political Sophistication

Level of Political Sophistication	Trait Perception vs. Policy Agreement	Trait Perception vs. Bush Evaluation	
		Obama	McCain
Minimum	--[a]	6.30	3.05
1 Standard Deviation Below Mean	4.89	2.83	2.51
Mean	1.92	1.77	2.11
1 Standard Deviation Above Mean	1.11	1.22	1.77
Maximum	0.83	0.98	1.56

Relative weights are calculated by taking the absolute value of the ratio of the effect of *Trait Perception* over the effects of *Policy Agreement* and *Bush Evaluation*.
Calculations based on estimated effects reported in Table 3.2
a/ *Policy Agreement*'s estimated effect for the least sophisticated voters is indistinguishable from zero.

Table 3.6
Relative Weight of Candidate Considerations on the
Predicted Probability of Voting for Obama,
by Level of Political Sophistication

Level of Political Sophistication	Trait Perception vs. Policy Agreement	Trait Perception vs. Bush Evaluation
Minimum	6.04	3.82
1 Standard Deviation Below Mean	2.09	1.71
Mean	1.64	1.32
1 Standard Deviation Above Mean	1.52	1.14
Maximum	1.49	1.06

Relative weights are calculated by taking the absolute value of the ration of the effect of *Trait Perception* over the effects of *Policy Agreement* and *Bush Evaluation*.
Calculations based on estimated effects reported in Table 3.4.

In both tables, it is clear that as political sophistication increases, candidate considerations become less dominant. Consider the weight of candidate considerations relative to policy. In Table 3.5, we see that candidate considerations enjoy unrivaled dominance among the least sophisticated as policy considerations have essentially no effect on utilities for this group of voters. Moving to the most sophisticated, the weight of candidate considerations relative to policy considerations decreases to about .83, indicating that policy considerations are actually *more* influential than candidate considerations for this group of sophisticated voters. In the vote choice model, the weight of candidate considerations relative to policy considerations decreases

substantially as well, from about 6.0 for the least sophisticated to about 1.5 for the most sophisticated (see Table 3.6).

Turning to the weight of candidate considerations relative to performance, we see a similar, though, as expected, less pronounced pattern. Among the least sophisticated, the relative weight of candidate considerations is about 6.3 for Obama utilities. This decreases to about .98 for the most sophisticated, indicating that performance considerations actually matter more than candidate considerations for these voters. While the pattern for McCain is similar, the relative weight of candidate considerations decreases at much slower rate as a function of political sophistication. This is due, of course, to political sophistication's relatively weak conditioning effect on performance considerations for McCain utilities observed above. Table 3.6 shows a similar pattern for the predicted probability of voting for Obama. Candidate considerations' relative weight decreases from about 3.8 for the least sophisticated to about 1.1 for the most sophisticated. Figures 3.1 and 3.2 show all of these relationships graphically.

Figure 3.1
Relative Weight of Candidate Considerations on Candidate Utilities,
by Level of Political Sophistication

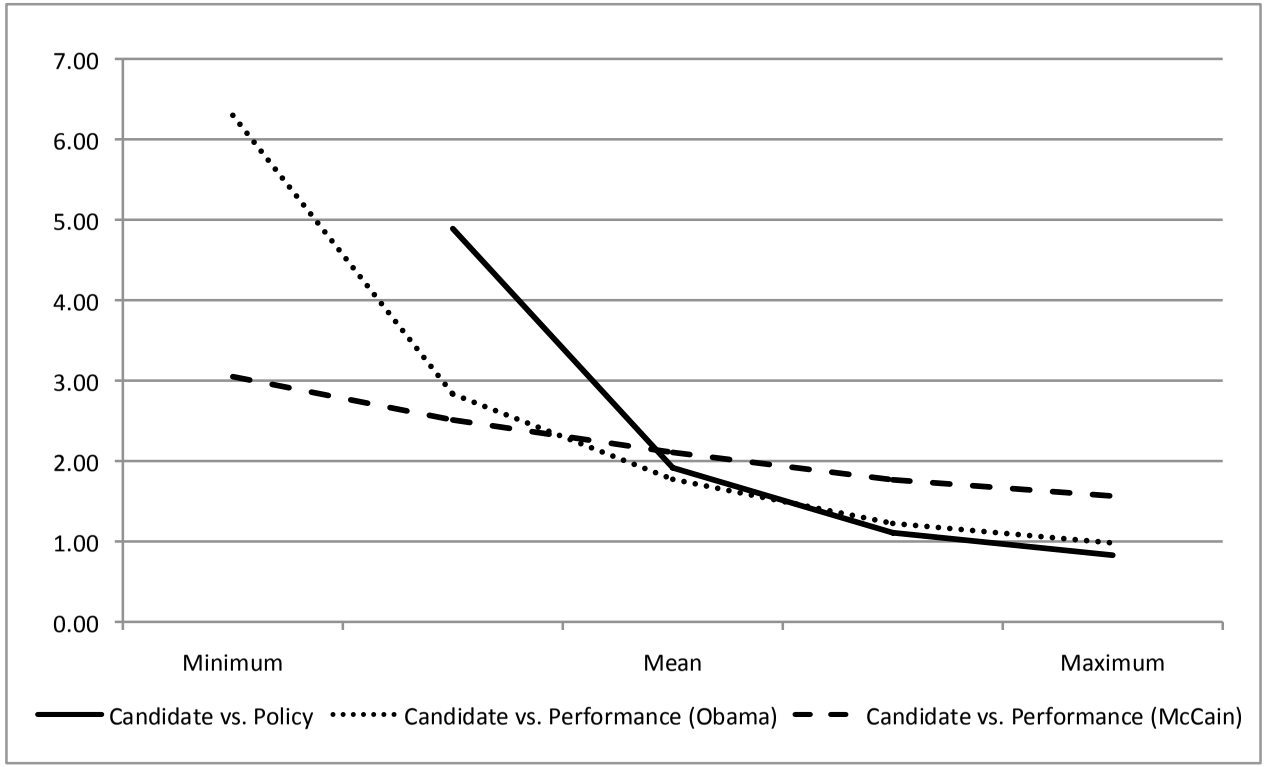
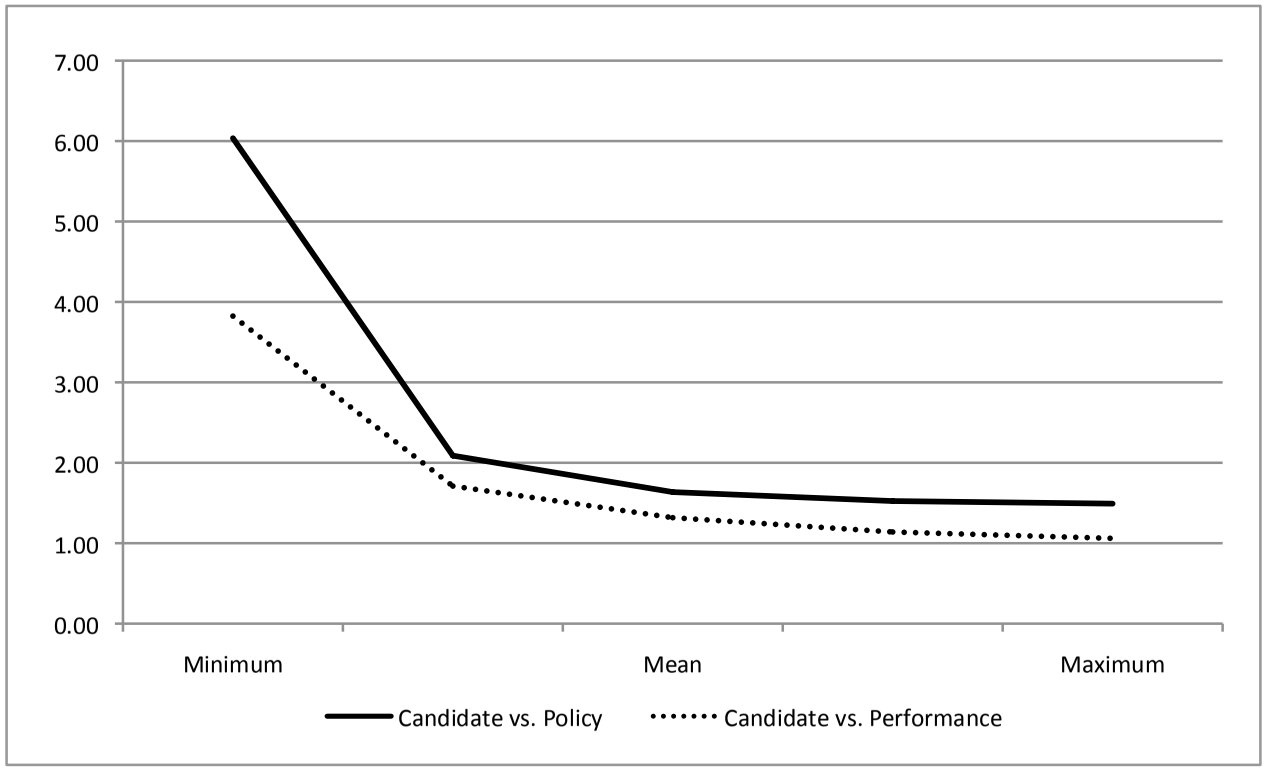


Figure 3.2
Relative Weight of Candidate Considerations on the Predicted Probability
of Voting for Obama, by Level of Political Sophistication



Alternative Measures

To be sure that these results are not artifacts of the measures I have employed, I re-estimated the models above with alternative measures for policy and performance considerations. As an alternative measure for performance considerations, I use respondents' "pocketbook" economic assessments over the preceding year in place of their summary approval rating of George W. Bush. The results of estimating the model with this measure are even more supportive of my argument (see Tables A2.1 and A2.2 in Appendix 2). Political sophistication appears to condition the impact of performance considerations (and to a greater extent than in the results presented above) for *both* Obama and McCain with this measure.

One alternative measure for policy considerations takes the same formula used to calculate $POLICY_{ij}$, but uses the most sophisticated voters' mean placement of candidates' policy positions, rather than the whole-sample mean, to determine the candidates' "objective" policy positions.[26] Another alternative is the negative Euclidean distance between the ith voter and jth candidate on a traditional seven-point "liberal-conservative" (in the U.S. sense of the terms) ideological scale. The final alternative measure considered is the proportion of issues for which the voter and candidate are on

[26] Recall that $POLICY_{ij} = (-1)\left(\frac{\sum_{n_i}(C_{jk} - R_{ik})^2}{n_i}\right)^{1/2}$; in this alternative measure, C_{jk} is given by the most sophisticated voters' mean placement of the jth candidate on the kth issue which may be a more accurate measure of candidates' policy positions (Alvarez and Franklin 1994).

the same side of the issue scale. The first two measures should be slightly more demanding of voters' in terms of sophistication and the final "directional" measure should be less so than the original measure used above.

Estimating the models with these alternative measures for policy considerations produces results consistent with those presented above; they can be referenced in Tables A2.3 – A2.8 in Appendix 2. There are very slight changes in the magnitudes of the coefficients for the more demanding policy consideration measures. The overall effect of candidate considerations decreases a good amount when the "directional" measure is used (likely due to less variation in this measure). But the substantive story regarding political sophistication's conditioning role on the weight of policy considerations maintains for these three alternative measures.

Alternative Specification

Some might question whether the results from estimating a model including only politico-psychological variables suffer from omitted variable bias. To guard against such concerns, I estimated a model including socio-demographic variables that we might think to have mattered in the 2008 presidential election. These additional variables are education, income, a dummy variable for self-identification as black, a dummy variable for females, and a dummy variable for those under 35 years of age.

As was the case with the alternative measures, estimating models with this alternative specification produces results consistent with those above (see Tables A2.9 and A2.10 in Appendix 2). The effect magnitudes for the various considerations change

slightly,[27] but the pattern regarding their relative weights as political sophistication increases maintains. Candidate considerations continue to dominate, and the patterns concerning the extent to which they dominate maintain: the weight of candidate considerations relative to policy and performance decreases as political sophistication increases.

Conclusion

Candidate-centered voting seems to be a function of voter political sophistication in the U.S. 2008 presidential contest between Barack Obama and John McCain. Whether looking at utilities or vote choice, voters give candidate considerations less weight relative to policy and performance considerations as political sophistication increases. This pattern is robust to alternative measures for policy and performance and an alternative model specification.

[27] The only substantive change is that political sophistication's conditioning effect on performance considerations for McCain utilities disappears completely. Its conditioning effect on these considerations for Obama, however, remains quite strong.

Chapter 4
Candidate-Centered Voting in the 2002 Brazilian Presidential Election

In this chapter, I examine political sophistication's conditioning role in Brazilians' electoral decisions in the presidential election held in October 2002. Using the general utility model presented in Chapter Two, I estimate two models. One takes voters' utilities for Luis Inácio "Lula" da Silva, José Serra, Ciro Ferreira Gomes, and Anthony Garotinho as the dependent variables. The other takes vote choice from among these four candidates as the dependent variable.

The Utility Model

Let U_{ij} represent the i[th] voter's utility for the j[th] candidate. Then we can write the following utility model:

(Eq. 4.1)

$$U_{ij} =$$

$$\lambda_0 + \lambda_1 SERRA_j + \lambda_2 GOMES_j + \lambda_3 GARO_j + \beta_1 TRAITS_{ij} + \beta_2 POLICY_{ij} + \alpha_{1j} PERFORM_i + \beta_3 PID_{ij} +$$

$$\alpha_{2j} SOPH_i + \beta_4 (TRAITS_{ij} * SOPH_i) + \beta_5 (POLICY_{ij} * SOPH_i) + \alpha_{3j} (PERFORM_i * SOPH_i) + \varepsilon_{ij}$$

where $SERRA_j$, $GOMES_j$, $GARO_j$, are dummy variables indicating which candidate is being evaluated; $TRAITS_{ij}$ is the i[th] voter's summary evaluation of the j[th] candidate's personal qualities on various dimensions; $POLICY_{ij}$ is a summary measure of the extent to which the i[th] voter agrees with the j[th] candidate on policy issues; $PERFORM_i$ is the i[th] voter's summary evaluation of the incumbent party's performance in office; PID_{ij} is a

dummy variable indicating whether the i[th] voter identifies with the j[th] candidate's political party; and $SOPH_i$ is the i[th] voter's level of political sophistication.

As in the previous chapter, I use a single equation for the pooled voter-candidate dyads to estimate voters' utilities for the candidates. Here, of course, there are 4*n* dyads with 4 candidates and *n* voters. I estimate the coefficients in Eq. 4.1 using Ordinary Least Squares (OLS) and rely on estimated robust standard errors for statistical inferences.

The Vote Choice Model

The utility model above is the basis for its vote choice counterpart, which runs as follows. Let U_{ij}^* represent the i[th] voter's *unobserved* utility for the j[th] candidate in the following equation:

(Eq. 4.2)

$$U_{ij}^* =$$

$$\lambda_0^* + \lambda_1^* SERRA_j + \lambda_2^* GOMES_j + \lambda_3^* GARO_j + \beta_1^* TRAITS_{ij} + \beta_2^* POLICY_{ij} + \alpha_{1j}^* PERFORM_i + \beta_3^* PID_{ij} +$$

$$\alpha_{2j}^* SOPH_i + \beta_4^* (TRAITS_{ij} * SOPH_i) + \beta_5^* (POLICY_{ij} * SOPH_i) + \alpha_{3j}^* (PERFORM_i * SOPH_i) + v_{ij}$$

This can be rewritten more succinctly in matrix notation as:

(Eq. 4.3) $$U_{ij}^* = W_j\lambda^* + Z_{ij}\beta^* + X_i\alpha_j^* + v_{ij}$$

where W_j is a $4n \times 4$ matrix containing the dummy variables for Serra, Gomes, and Garotinho and a vector of 1's; λ^* is the corresponding 4×1 coefficient vector; Z_{ij} is a $4n \times 5$ matrix containing the variables that vary across candidates (i.e., $TRAITS_{ij}$, $POLICY_{ij}$, their products with $SOPH_i$, and PID_{ij}); β^* is the corresponding 5×1 coefficient vector; X_i is a $4n \times 3$ matrix containing the voter-specific variables (i.e., $PERFORM_i$, $SOPH_i$, and their product); and α_j are the corresponding 3×1 coefficient vectors for each of the 4 candidates.

Given Eq. 4.3, we can write the following probability model cast in conditional logit form. Let P_{ij} be the probability that the i[th] individual votes for the j[th] candidate. Then we can write:

(Eq. 4.4) $$P_{ij} = \frac{\exp(W_j\lambda^* + Z_{ij}\beta^* + X_i\alpha_j{}^*)}{\sum_{j=1}^{J}\exp(W_j\lambda^* + Z_{ij}\beta^* + X_i\alpha_j{}^*)}$$

where, for the purpose of estimation, Lula (j = 1) serves as the base vote choice with the elements in the α_j vector corresponding to him normalized to zero. This probability equation is the basis for the Maximum Likelihood Estimator (MLE) used to estimate the coefficients.[28]

[28] With the following log likelihood equation: $\log L = \sum_i \sum_j y_{ij} P_{ij}$, where $y_{ij} = 1$ if the i[th] individual votes for the j[th] candidate.

Data and Measurements

The data employed to estimate these models come from Baker et al.'s (2006) 2002 panel study of eligible Brazilian voters in Caxias do Sul, in the southern state of Rio Grande do Sul, and Juiz de Fora, in Brazil's second largest state, Minas Gerais. Nearly all the data employed here are drawn from the study's third wave, conducted in October 2002 immediately after the first round of elections. The dependent variables are utilities for and vote choice from among the top four vote-getters in the first round vote. This includes Lula (winning 46.4%), Serra (23.2%), Garotinho (17.9%), and Gomes (12%) who, taken together, won over 99% of the total first round votes.

Utilities. Utilities are measured with responses to "feeling thermometer" items in which respondents are asked to indicate how much they like each candidate. Utilities range from 0 to 100.

Vote Choice. Vote choice is measured with responses to a question asking respondents for whom they would cast their vote if elections were held the day of the interview. The reported vote proportions for each candidate in the sample correspond well to actual election results: 56.9% for Lula, 23.4% for Serra, 8.5% for Gomes, and 11.2% for Garotinho. Lula serves as the base category ($j = 1$) for the purposes of estimating the coefficients for the individual-specific variables (i.e., economic retrospective evaluations, political sophistication, and their product) in the vote choice model.

Candidate Considerations. I measure voters' summary perceptions of the candidates' personal qualities, $TRAITS_{ij}$, by averaging the extent to which a given voter perceives a candidate to be "honest," "compassionate," "decisive," and "intelligent." The original scales were transformed to range from 0 to 1. The transformed scales follow the following example with the "intelligent" trait: "not intelligent" (0), "a little intelligent" (.33), "intelligent" (.66), and "very intelligent" (1). To avoid losing too many observations, if a respondent gave a substantive answer (i.e., not "don't know" or no response at all) for at least three of these four trait items, they were retained in the sample with their mean trait perceptions adjusted accordingly.

Policy Considerations. Measures of voters' summary policy agreement with the candidates, $POLICY_{ij}$, are based on answers to questions asking respondents to place themselves and the candidates on three issue scales relating to land reform, social spending, and privatization. These are all of the issue areas for which respondents were asked to place both themselves and the candidates in the survey instrument. The original scales were transformed to range from 0 to 1, resulting in a five-point scale ranging from the most "left" position (0) to the most "right" position (1). If R_{ik} is the i^{th} respondent's position on the k^{th} issue, and C_{jk} is the j^{th} candidate's position on that issue, then my measure of policy agreement between the i^{th} voter and the j^{th} candidate is given by Equation 4.5:

$$\text{(Eq. 4.5)} \qquad POLICY_{ij} = (-1)\left(\frac{\sum_{n_i}(C_{jk} - R_{ik})^2}{n_i}\right)^{1/2},$$

where n_i is the number of issues for which the i[th] respondent gives substantive answers regarding their own position (i.e., not "don't know" or no response). To avoid losing too many cases due to missing values, respondents are included so long as $n_i \geq 2$. The measures for candidates' issue positions, C_{jk}, are "objective," measured by the sample mean placement of the j[th] candidate on the k[th] issue. The mean Euclidean distance is multiplied by -1 so that increasing values represent increasing policy agreement.

Performance Considerations. Voters' evaluations of the incumbent party's performance, $PERFORM_i$, are measured by their retrospective evaluations about the national economy. The original scale was transformed to run from 0 to 1. The resulting scale indicates views of the national economic situation having "worsened a lot" (0), "worsened a little" (.25), "stayed the same" (.5), "improved a little" (.75), or "improved a lot" (1) over the preceding twelve months. While not a perfect measure of the incumbent party's performance, this measure should at least tap into the extent to which voters view President Fernando Henrique Cardoso's administration to have performed well in office.

Political Party Identification. Identification with a political party, PID_{ij}, is measured by a dummy variable indicating whether a given voter identifies with a given candidate's political party.

Political Sophistication. Political sophistication, $SOPH_i$, is based on responses to factual items – following Luskin (1987), Zaller (1992), and Delli Carpini and Keeter (1993). $SOPH_i$ is measured as the proportion of correct answers given out of nine factual knowledge questions relating to domestic politics and leaders. Six of these items come from the survey instrument used in the first wave and three come from the instrument used in the third wave. Being a proportion, $SOPH_i$ naturally runs from 0 to 1.

Table A1.7 in Appendix 1 presents descriptive statistics for all the dependent and independent variables described here. Table A1.8, also in Appendix 1, presents descriptive statistics for the original items used to construct the $TRAITS_{ij}$ and $POLICY_{ij}$ measures.

Expectations

Expectations for the effects of the variables in this analysis for the 2002 Brazilian election correspond to the expectations laid out in the previous chapter for the 2008 election in the U.S. The candidate-specific variables (i.e., $TRAITS_{ij}$, $POLICY_{ij}$, and PID_{ij}) should all have positive effects on the utilities and probabilities of voting for the candidates. That is, as the i^{th} voter's trait perceptions of the j^{th} candidate become more favorable, the utility and probability of voting for that candidate should increase. Similarly, the more agreement on policy between the i^{th} voter and the j^{th} candidate, the higher the utility and probability of voting for that candidate should be. Finally, voters that identify with the j^{th} candidate's political party should have higher utilities and

probabilities of voting for that candidate than voters who do not identify with that candidate's party.

Because $PERFORM_i$ is individual-specific (varying across voters, but not across candidates), it can affect the utilities and probability of voting for the candidates in different ways. We should expect these retrospective evaluations to have the greatest effect for Serra, the candidate representing the incumbent president's party, the Brazilian Social Democratic Party (PSDB). The effect of these evaluations should be positive for Serra; as retrospective evaluations become more positive, the utility of voting for Serra and the probability of voting for Serra should increase.

In contrast, retrospective evaluations should have negative effects on the utilities and probabilities of voting for Lula, Gomes, and Garotinho. As retrospective evaluations become more positive, the utility and probability of voting for these candidates should decrease. Of all the non-incumbent party candidates, we might expect this effect to be most pronounced for Lula since he was the leading opposition candidate.

My interest in political sophistication centers on its potential to condition the weights of policy and performance considerations and the weight of candidate considerations relative to these. Expectations for the conditioning role of political sophistication correspond, of course, to those laid out in the previous chapter. The weight of policy considerations should increase as political sophistication increases. That is, the effect of $POLICY_{ij}$ should become increasingly positive as political sophistication increases. The weight of performance considerations should increase as political

sophistication increases as well. In other words, the effect of $PERFORM_i$ should become increasingly positive for Serra and increasingly negative for Lula, Gomes, and Garotinho.

Candidate considerations should matter more or less equally for voters regardless of level of political sophistication. Thus, I do not expect political sophistication to condition the weight of $TRAITS_{ij}$. What should vary is the weight of these considerations *relative* to the more substantive considerations involving policy and performance. As political sophistication increases, the weight of candidate considerations relative to policy and performance should decrease. Additionally, the rate at which the relative weight of candidate traits decreases should be greater for policy than for performance.

Results: Utility Model

Estimates for the utility model are presented in Table 4.1. There we see that identifying with a candidate's political party increases one's utility for the candidate by almost 17 points on the 0-100 utility scale. Utilities for Lula, for example, average about 17 points higher for voters identifying with the Partido dos Trabalhadores (PT) compared Lula utilities for other voters. The same could be said for Serra utilities among identifiers with the Partido da Social Democracia Brasileira (PSDB), Gomes utilities among identifiers with the Partido Popular Socialista (PPS), or Garotinho utilities among identifiers with the Partido Socialista Brasileiro (PSB).

Table 4.1
Model of Candidate Utilities in the 2002 Brazilian Presidential Election

Independent Variables	Common Coefficients		Candidate-Specific Coefficients							
			Lula		Serra		Gomes		Garotinho	
Intercept	25.477 (2.41)	p<.001								
Serra Dummy	-11.870 (1.73)	p<.001								
Gomes Dummy	-17.469 (1.57)	p<.001								
Garotinho Dummy	-11.325 (1.62)	p<.001								
Political Party Identification	16.887 (0.59)	p<.001								
Trait Perception	74.730 (2.40)	p<.001								
Trait Perception * Political Sophistication	-1.167 (3.32)	p=.725								
Policy Agreement	6.316 (3.35)	p=.060								
Policy Agreement * Political Sophistication	11.490 (4.58)	p=.012								
Retrospective Evaluation			1.373 (2.68)	p=.608	9.887 (3.23)	p=.002	4.778 (2.96)	p=.107	4.900 (3.04)	p=.107
Retrospective Evaluation * Political Sophistication			-10.364 (3.80)	p=.006	14.219 (4.42)	p=.001	-2.980 (4.07)	p=.464	-5.607 (4.15)	p=.176
Political Sophistication			-2.887 (3.37)	p=.391	-10.276 (3.46)	p=.003	2.288 (3.18)	p=.473	-5.855 (3.10)	p=.059
N					4761					
R-Squared					0.366					

p-values are based on two-tailed tests.
Estimated robust standard errors are in parentheses.

Interpreting the effects of candidate, policy, and performance considerations is not straightforward due to their interactions with political sophistication. Table 4.2 presents the estimated effects for each of these variables on candidate utilities by level of political sophistication. The results largely support my argument regarding political sophistication's conditioning role. Consider the effects of policy agreement. As political sophistication increases, the effect of policy agreement also increases. From Table 4.2, we see that the effect of $POLICY_{ij}$ on electoral utilities for the least politically sophisticated is about one-third of the effect for the most politically sophisticated. Moving from the minimum level of policy agreement ($POLICY_{ij}$= -1) to the maximum ($POLICY_{ij}$= 0) increases the least sophisticated ($SOPH_i$= 0) voter's utility for a candidate by about 6.3 points. This same shift increases the most sophisticated ($SOPH_i$= 1) voter's utility by about 17.8 points.

The results regarding political sophistication's conditioning effect on performance considerations follow a similar pattern – at least for the incumbent party's candidate, Serra, and the lead opposition candidate, Lula. For example, as political sophistication increases, the effect of retrospective evaluations becomes increasingly positive on Serra utilities as expected. Moving from the most negative ($PERFORM_i$= 0) to the most positive ($PERFORM_i$= 1) retrospective evaluation increases the least sophisticated voter's utility for Serra increase by about 9.9 points; this same shift increases utilities for Serra by about 24.1 points among the most politically sophisticated.

Table 4.2
Effects on Candidate Utilities,
by Level of Political Sophistication

Level of Political Sophistication	Trait Perception		Policy Agreement		Retrospecive Evaluation							
					Lula		Serra		Gomes		Garotinho	
Minimum	74.730 (2.41)	p<.001	6.316 (3.35)	p=.060	1.373 (2.68)	p=.608	9.887 (3.23)	p=.002	4.778 (2.96)	p=.107	4.900 (3.04)	p=.107
1 Standard Deviation Below Mean	74.497 (1.87)	p<.001	8.614 (2.59)	p=.001	-0.700 (2.06)	p=.734	12.731 (2.49)	p<.001	4.182 (2.28)	p=.067	3.779 (2.35)	p=.107
Mean	74.068 (1.24)	p<.001	12.842 (1.66)	p<.001	-4.514 (1.37)	p=.001	17.964 (1.56)	p<.001	3.085 (1.45)	p=.034	1.715 (1.48)	p=.245
1 Standard Deviation Above Mean	73.638 (1.61)	p<.001	17.070 (2.13)	p<.001	-8.328 (1.84)	p<.001	23.197 (1.99)	p<.001	1.989 (1.87)	p=.288	-0.349 (1.87)	p=.853
Maximum	73.563 (1.75)	p<.001	17.805 (2.32)	p<.001	-8.991 (2.02)	p<.001	24.107 (2.18)	p<.001	1.798 (2.05)	p=.380	-0.707 (2.05)	p=.731

p-values are based on two-tailed tests.
Estimated effects based on results presented in Table 4.1.

While retrospective evaluations do not seem to have much of an effect on utilities for Gomes or Garotinho (regardless of political sophistication levels), they do seem to matter at least slightly for Lula utilities. And they matter in ways consistent with my argument regarding political sophistication. The estimated effect of economic evaluations on Lula utilities is statistically indistinguishable from zero for voters with sophistication levels at or below one standard deviation below the sample mean level of sophistication. Starting with voters at the mean level of sophistication, the effect of economic evaluations becomes increasingly negative on Lula utilities as political sophistication increases. Moving from the most negative to the most positive retrospective evaluation decreases Lula utilities among "average sophisticates" by about 4.5 points. This same shift decreases the most sophisticated voters' Lula utilities by about 9 points.

Political sophistication does not seem to have a conditioning role on the effect of candidate considerations. The difference in effects between the least and most sophisticated voters is statistically indistinguishable from zero as the coefficient (and associated estimated standard error and p-value) for the interaction between $TRAITS_{ij}$ and $SOPH_i$ in Table 4.1 indicates. Moving from the minimum trait evaluation ($TRAITS_{ij} = 0$) to the maximum ($TRAITS_{ij} = 1$) has a very large effect on candidate utilities regardless of political sophistication. This shift corresponds to an increase of about 74.7 points for the least sophisticated and to an increase of about 73.6 for the most sophisticated.

Results: Vote Choice Model

The odds ratios based on the vote choice model coefficient estimates are presented in Table 4.3. There we see that political party identification continues to have an important effect. More specifically, voters that identify with a candidate's political party are about 7.9 times more likely to vote for that candidate than voters who do not identify with that party.

To ease interpretation of the effects for candidate, policy, and performance considerations, I have calculated the change in the predicted probability of voting for Lula when each consideration moves from its minimum to its maximum for five voter profiles: "Pro-Serra," "Leaning Serra," "Middle of the Road," "Leaning Lula," "Pro-Lula." This change in probability is taken as the effect for the corresponding consideration. Descriptions (i.e., variable values) for the five profiles are given in Table A1.9 in Appendix 1.[29]

[29] For the purposes of generating the predicted probabilities, variables specific to Gomes and Garotinho are set to their minimum values for all five voter profiles.

Table 4.3
Model of Vote Choice in the 2002 Brazilian Presidential Election

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients					
			Serra vs. Lula		Gomes vs. Lula		Garotinho vs. Lula	
Serra Dummy	0.460 (0.07)	p<.001						
Gomes Dummy	0.196 (0.05)	p<.001						
Garotinho Dummy	0.603 (0.10)	p=.003						
Political Party Identification	7.852 (0.85)	p<.001						
Trait Perception	2679.587 (1570.24)	p<.001						
Trait Perception * Political Sophistication	6.154 (5.62)	p=.046						
Policy Agreement	2.696 (1.30)	p=.039						
Policy Agreement * Political Sophistication	6.975 (4.86)	p=.005						
Retrospective Evaluation			1.017 (0.38)	p=.964	0.697 (0.41)	p=.535	0.662 (0.29)	p=.349
Retrospective Evaluation * Political Sophistication			3.564 (2.02)	p=.025	1.375 (1.09)	p=.687	1.769 (1.26)	p=.422
Political Sophistication			1.336 (0.31)	p=.209	2.727 (0.84)	p=.001	0.606 (0.16)	p=.053
N			4129					
Pseudo R-squared			0.500					

p-values are based on two-tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

The predicted probabilities and effects for the "Middle of the Road" voters are presented by level of political sophistication in Table 4.4. With the important exception of whichever variable whose effects are of interest (this variable will be at its minimum or maximum value), "Middle of the Road" voters have the following characteristics: no identification with any of the candidates' political parties; sample mean policy agreement levels with Serra and Lula; sample mean trait perception for Serra and Lula; and, the sample mean retrospective economic evaluation. Of the five profiles, this is, of course, the one for which all variables will have their largest potential effect. The predicted probabilities and effects for the other four voter profiles are presented in Tables A1.10, A1.11, and A1.12 in Appendix 1.

Table 4.4 reveals patterns consistent with both the utility model results and my expectations regarding political sophistication's conditioning role. The effect of $POLICY_{ij}$ on the probability of voting for Lula is more than three times greater for the most sophisticated voters than it is for the least sophisticated. A voter with the minimum level of sophistication that disagrees maximally with Lula on policy ($POLICY_{ij}$= -1), but is otherwise "middle of the road," has a 63.7% probability of voting for him anyway. This probability increases to 82.5% for a voter with the same sophistication level that agrees maximally with him on policy ($POLICY_{ij}$= 0). The effect of policy considerations for the least sophisticated voters is thus about 19%. The same shift in $POLICY_{ij}$ among the most sophisticated results in a change in probabilities of about 61%, from 26% when $POLICY_{ij}$= -1 to 86.8% when $POLICY_{ij}$= 0.

Table 4.4
Effects on the Predicted Probability of Voting for Lula,
by Level of Political Sophistication

Level of Political Sophistication	Lula Trait Perception			Lula Policy Agreement			Retrospective Evaluation		
	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**
Minimum	0.022	0.984	**0.962**	0.637	0.825	**0.188**	0.766	0.763	**-0.003**
1 Standard Deviation Below Mean	0.017	0.985	**0.968**	0.560	0.835	**0.275**	0.765	0.713	**-0.052**
Mean	0.009	0.986	**0.977**	0.413	0.851	**0.438**	0.762	0.605	**-0.157**
1 Standard Deviation Above Mean	0.005	0.988	**0.983**	0.280	0.866	**0.586**	0.759	0.486	**-0.273**
Maximum	0.005	0.988	**0.983**	0.260	0.868	**0.608**	0.759	0.465	**-0.294**

Predicted probabilities are for "Middle of the Road Voters" based on results presented in Table 4.3.
"Effect" here is the difference between the predicted probabilities when the variable of interest is at its minimum and at its maximum.

Political sophistication also conditions the effect of performance considerations in expected ways. As is apparent in the last column of Table 4.4, the effect of these retrospective evaluations becomes increasingly negative on the probability of voting for Lula as political sophistication increases. The effect is non-existent among the least sophisticated, but rises to about 29% among the most sophisticated. If a voter in this sophisticated group has the most negative retrospective evaluation possible ($PERFORM_i = 0$), they are 75.9% likely to vote for Lula. In contrast, a voter in the same sophistication group that has the most positive economic evaluation ($PERFORM_i = 1$) is 46.5% likely to vote Lula.

As we saw in the results for the utility model, here too, political sophistication's conditioning role on the effect of candidate considerations is minimal to non-existent. The effect of trait perceptions on the probability of voting for Lula is about 96% for the least sophisticated and about 98% for the most sophisticated. We see again here that candidate considerations matter a great deal regardless of one's level of political sophistication.

The Relative Weight of Candidate Considerations

Whether examining utilities or vote choice, political sophistication seems to play an important conditioning role on the politico-psychological determinants of the vote decision process. As political sophistication increases, so too do the absolute weights of policy and performance considerations. And, political sophistication does not appear to

condition the absolute weight of candidate considerations. It follows, then, that the relative weight of candidate considerations decreases as political sophistication increases.

Tables 4.5 and 4.6 present the relative weights of candidate considerations by political sophistication for the utility and vote choice models, respectively.

Table 4.5
Relative Weight of Candidate Considerations on Candidate Utilities, by Level of Political Sophistication

Level of Political Sophistication	Trait Perception vs. Policy Agreement	Trait Perception vs. Retrospective Evaluation	
		Lula	Serra
Minimum	11.83	--[a]	7.56
1 Standard Deviation Below Mean	8.65	--[a]	5.85
Mean	5.77	16.41	4.12
1 Standard Deviation Above Mean	4.31	8.84	3.17
Maximum	4.13	8.18	3.05

Relative weights are calculated by taking the absolute value of the ratio of the effect of *Trait Perception* over the effects of *Policy Agreement* and *Retrospective Evaluation*.
Calculations based on estimated effects reported in Table 4.2.
a/ *Retrospective Evaluation*'s estimated effect for these groups of voters is indistinguishable from zero, making the relative effect here approach infinity.

Table 4.6
Relative Weight of Candidate Considerations on the
Predicted Probability of Voting for Lula,
by Level of Political Sophistication

Level of Political Sophistication	Trait Perception vs. Policy Agreement	Trait Perception vs. Retrospective Evaluation
Minimum	5.12	320.67
1 Standard Deviation Below Mean	3.52	18.62
Mean	2.23	6.22
1 Standard Deviation Above Mean	1.68	3.60
Maximum	1.62	3.34

Relative weights are calculated by taking the absolute value of the ration of the effect of *Trait Perception* over the effects of *Policy Agreement* and *Retrospective Evaluation*.
Calculations based on changes in the predicted probabilities for "Middle of the Road Voters" reported in Table 4.4.

As before, the "relative weight" is simply the absolute value of the ratio given by dividing the effect of $TRAITS_{ij}$ by the effect of $POLICY_{ij}$ or $PERFORM_i$. To the extent that the relative weight of candidate considerations exceeds one, candidate considerations dominate the other consideration. Conversely, to the extent that it is smaller than one, the other consideration dominates candidate considerations. Of course, as the relative weight approaches one, the closer the weights of candidate considerations and the other consideration are to one another.

It is clear that as political sophistication increases, the dominance of candidate considerations diminishes. Consider, for example, the effect of candidate considerations relative to policy. Moving from the least sophisticated to the most sophisticated in the utility model, the weight of candidate considerations relative to policy considerations decreases from about 11.8 to 4.1. In the vote choice model, the relative weight decreases from about 5.1 to 1.6.

The weight of candidate considerations relative to performance considerations follows a similar pattern. In Table 4.5, we see the relative weight of candidate considerations to performance decreases from about 7.6 to 3.1 for Serra utilities. Looking at Lula utilities, we see that the weight of candidate considerations is unrivaled by that of performance for the least sophisticated (i.e., the relative weight approaches infinity) and then decreases to about 8.2 for the most sophisticated. This decreasing pattern holds in Table 4.6 where we see that the weight of candidate considerations relative to performance drops from over 300 to about 3.3 when looking at the predicted probability of voting for Lula.

Figures 4.1 and 4.2 illustrate the patterns in the relative weights of candidate considerations for candidate utilities and the predicted probability of voting for Lula, respectively, as a function of political sophistication.

Figure 4.1
Relative Weight of Candidate Considerations on Candidate Utilities,
by Level of Political Sophistication

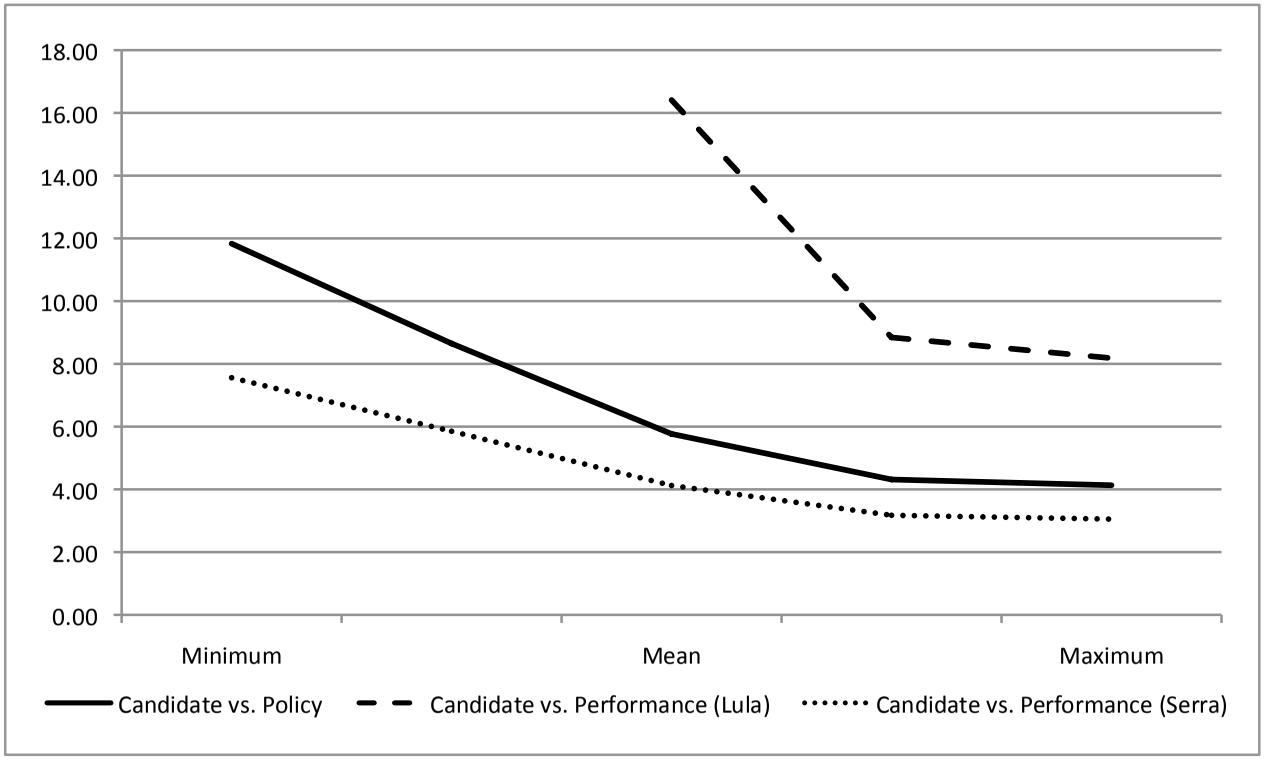
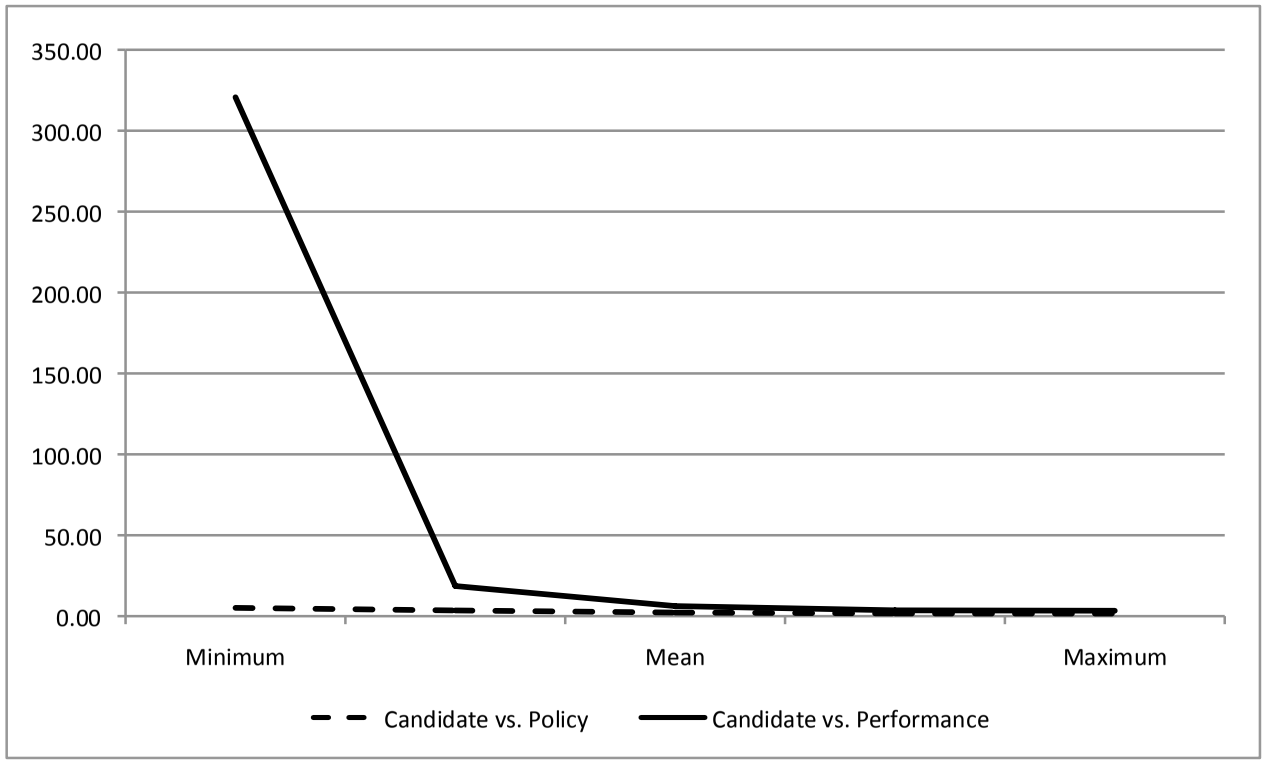


Figure 4.2
Relative Weight of Candidate Considerations on the
Predicted Probability of Voting for Lula,
by Level of Political Sophistication



These results are consistent with what we found for the 2008 U.S. election in previous chapter with one interesting exception. In the U.S. election, political sophistication's conditioning role on relative weights concerning policy was more substantial than on relative weights concerning performance. This is not the case, however, in the 2002 Brazilian election. Here, relative weights concerning performance seem to depend on sophistication even more than the weights concerning policy. This finding is likely due in part by the difficulty of determining how the incumbent's performance reflects on the opposition candidates in Brazil's multi-candidate election with under-institutionalized parties.

Alternative Measures

As in the previous chapter for the U.S. election, I re-estimate the models here using alternative measures for policy and performance considerations. As an alternative for performance considerations, I use respondents' retrospective economic assessments about their personal (rather than the national) economic situation. While the magnitude of the estimated coefficients change slightly, the results with this measure do not differ in any substantive way from the results presented above (see Tables A2.11 and A2.12 in Appendix 2).

I re-estimate the models using three alternative measures of policy considerations. The first takes the same formula used to calculate $POLICY_{ij}$ above, but uses the most

sophisticated voters' mean placement of candidates' policy positions.[30] The second is the negative Euclidean distance between the i[th] voter and the j[th] candidate on a five-point "left-right" ideological scale. The final alternative measure for policy considerations is the proportion of issues for which the voter and candidate are on the same side of the issue scale.

The results for the models with these alternative measures (shown in Tables A2.13 – A2.16 in Appendix 2) are largely consistent with those above. Political sophistication plays an even bigger conditioning role on the weight of policy considerations in models with the first two alternative measures. When using the third alternative measure (the proportion of issues in agreement on direction), the overall effect of policy considerations decreases substantially (most likely due, at least in part, to less variation across the candidates). That said, to the extent policy considerations matter, they matter much more for the most sophisticated voters.

Alternative Specification

I estimate an additional model to help guard against any concerns that the results above are affected by the exclusion of socio-demographic factors that might have mattered (independently of the politico-psychological factors in the model) in the 2002 Brazilian presidential election. The alternative model includes education, the natural log

[30] Recall that $POLICY_{ij} = (-1)\left(\frac{\sum_{n_i}(C_{jk} - R_{ik})^2}{n_i}\right)^{1/2}$; in this alternative measure, C_{jk} is given by the most sophisticated voters' mean placement of the j[th] candidate on the k[th] issue.

of income, and a dummy variable for Catholic voters. Results from estimating utility and vote choice models with these additional variables can be found in Tables A2.19 and A2.20, respectively, in Appendix 2. Not surprisingly, the magnitudes of the estimated effects change for most of the variables included in the original model, decreasing slightly. That said, the pattern regarding political sophistication's conditioning role continues to hold under this specification.

Conclusion

Candidate-centered voting seems to be a function of voter political sophistication in the 2002 Brazilian presidential election. Utilities for Lula, Serra, Gomes, and Garotinho and the ultimate vote decision are highly influenced by voters' perceptions of the candidates' traits. The extent to which such candidate considerations dominate the electoral decisions, however, depends on voter political sophistication. As sophistication increases, candidate considerations carry less weight relative to policy and performance considerations. This pattern is robust to alternative measures for policy and performance and an alternative model specification. The results in this chapter are consistent with those for the U.S. 2008 election in Chapter 3 with the interesting exception that voting on the basis of performance considerations seems to require a lot more political sophistication in the Brazilian political context.

Chapter 5
Candidate-Centered Voting in Mexico's Presidential Election in 2000 (and Beyond)

In this chapter, I examine candidate-centered voting and the role of political sophistication in Mexico. The bulk of the chapter focuses on the 2000 presidential election, for which I estimate utility and vote choice models based on the general utility model presented in Chapter Two. After analyzing the data for the 2000 election in several different ways, I extend the analysis to examine patterns in candidate-centered voting in the 2006 presidential election.

The Utility Model

Let U_{ij} represent the i[th] voter's utility for the j[th] candidate. Then we can write the following utility model:

(Eq. 5.1)

$$U_{ij} =$$

$$\lambda_0 + \lambda_1 LAB_j + \lambda_2 CARD_j + \beta_1 TRAITS_{ij} + \beta_2 POLICY_{ij} + \alpha_{1j} PERFORM_i + \beta_3 PID_{ij} +$$

$$\alpha_{2j} SOPH_i + \beta_4 (TRAITS_{ij} * SOPH_i) + \beta_5 (POLICY_{ij} * SOPH_i) + \alpha_{3j} (PERFORM_i * SOPH_i) + \varepsilon_{ij}$$

where LAB_j and $CARD_j$ are dummy variables indicating which candidate is being evaluated; $TRAITS_{ij}$ is the i[th] voter's summary evaluation of the j[th] candidate's personal qualities; $POLICY_{ij}$ is a summary measure of the extent to which the i[th] voter agrees with the j[th] candidate on policy issues; $PERFORM_i$ is the i[th] voter's summary evaluation of the incumbent party's performance in office; PID_{ij} is a measure indicating the extent to

which the i[th] voter identifies with the j[th] candidate's political party; and $SOPH_i$ is a measure of the i[th] voter's level of political sophistication.

As in the previous chapters, I use a single equation for the pooled voter-candidate dyads to estimate voters' utilities for the candidates. In the analysis for the 2000 Mexican presidential election, there are 3*n* dyads with 3 candidates and *n* voters. I estimate the coefficients in Eq. 5.1 using Ordinary Least Squares (OLS) and rely on estimated robust standard errors for statistical inferences.

The Vote Choice Model

The utility model above is the basis for its vote choice counterpart, which runs as follows. Let U_{ij}^* represent the i[th] voter's *unobserved* utility for the j[th] candidate in Equation 5.2:

(Eq. 5.2)

$$U_{ij}^* =$$

$$\lambda_0^* + \lambda_1^* LAB_j + \lambda_2^* CARD_j + \beta_1^* TRAITS_{ij} + \beta_2^* POLICY_{ij} + \alpha_{1j}^* PERFORM_i + \beta_3^* PID_{ij} +$$

$$\alpha_{2j}^* SOPH_i + \beta_4^* (TRAITS_{ij} * SOPH_i) + \beta_5^* (POLICY_{ij} * SOPH_i) + \alpha_{3j}^* (PERFORM_i * SOPH_i) + v_{ij}$$

This can be rewritten more succinctly in matrix notation as:

(Eq. 5.3) $$U_{ij}^* = W_j \lambda^* + Z_{ij} \beta^* + X_i \alpha_j^* + \nu_{ij}$$

where W_j is a $3n \times 3$ matrix containing the dummy variables for Labastida and Cárdenas and a vector of 1's; λ^* is the corresponding 3×1 coefficient vector; Z_{ij} is a $3n \times 5$ matrix containing the variables that vary across candidates (i.e., $TRAITS_{ij}$, $POLICY_{ij}$, their products with $SOPH_i$, and PID_{ij}); β^* is the corresponding 5×1 coefficient vector; X_i is a $3n \times 3$ matrix containing the voter-specific variables (i.e., $PERFORM_i$, $SOPH_i$, and their product); and α_j^* are the corresponding 3×1 coefficient vectors for each of the three candidates.

Given Eq. 5.3, we can write the following probability model cast in conditional logit form. Let P_{ij} be the probability that the i[th] individual votes for the j[th] candidate. Then we can write:

(Eq. 5.4) $$P_{ij} = \frac{\exp(W_j\lambda^* + Z_{ij}\beta^* + X_i\alpha_j^*}{\sum_{j=1}^{J}\exp(W_j\lambda^* + Z_{ij}\beta^* + X_i\alpha_j^*)}$$

where, for the purpose of estimation, Fox (j = 1) serves as the base vote choice with the elements in the α_j vector corresponding to him normalized to zero. This probability equation is the basis for the Maximum Likelihood Estimator (MLE) used to estimate the coefficients.[31]

[31] With the following log likelihood equation: $\log L = \sum_i \sum_j y_{ij} P_{ij}$, where $y_{ij} = 1$ if the i[th] individual votes for the j[th] candidate.

Data and Measurements

The data employed to estimate these models come from the Mexico 2000 Panel Study. More specifically, I use data from the study's "post-election cross-section" survey, conducted during the week immediately following the July 2nd election. The dependent variables are utilities for and vote choice from among the three main presidential candidates: Vicente Fox from the Partido Acción Nacional (PAN), Francisco Labastida from the Partido Revolucionario Institucional (PRI), and Cuauhtémoc Cárdenas from the Partido de la Revolución Democrática (PRD). Collectively, these three candidates won about 95% of total valid votes cast, with Fox winning 42.5%, Labastida winning 36.1%, and Cárdenas coming in third with 16.6%.

Utilities. Utilities are measured with responses to items in which respondents are asked to indicate the extent to which their opinion of each candidate is bad or good. Utilities range from 0 to 100 with increasing values corresponding to more positive opinions of the candidates.

Vote Choice. Vote choice is measured with responses to a question asking respondents for whom they cast their vote on July 2nd, 2000. The reported vote proportions for each candidate correspond well to actual election results, with a slight underrepresentation of votes for the losing candidates: 42% for Fox, 26% for Labastida, and 11% for Cárdenas. Fox serves as the base category ($j = 1$) for the purposes of estimating the coefficients for the individual-specific variables (i.e., $PERFORM_i$, $SOPH_i$, and their product) in the vote choice model.

Candidate Considerations. I measure voters' summary perceptions of the candidates' personal qualities, $TRAITS_{ij}$, with survey items that tap into the extent to which voters view the candidates to be "competent" and "honest." I build a competence scale for the j^{th} candidate by averaging the extent to which the i^{th} voter perceives the candidate to be capable of managing the economy, combating crime, and improving the education system. The scales for these original items were transformed to range from "not at all" (0), "a little" (.33), "some" (.66), and "very" (1). The voters were also asked to indicate how honest they perceived each candidate to be. The original scale was transformed as well, resulting in the same range as the competency scale. $TRAITS_{ij}$ is given by averaging the competency and honesty scales.

Policy Considerations. Measures of voters' summary policy agreement with the candidates, $POLICY_{ij}$, are based on items in which respondents place themselves and the candidates on two issue scales. The original ten-point scales were transformed to run from 0 to 1. One issue dealt with crime; respondents were asked how they thought crime should be combated. They placed themselves and the candidates on an issue scale ranging from "by creating jobs and opportunities for people" (0) to " with a strong hand and severe punishment for delinquents" (1). The other issue dealt with privatization; respondents were asked how they thought the country's electricity industry should be handled. They placed themselves and the candidates on an issue scale ranging from "the electricity industry should be completely government-owned" (0) to "the electricity industry should be completely in the hands of private investment" (1).

If R_{ik} is the i[th] respondent's position on the k[th] issue, and C_{jk} is the j[th] candidate's position on that issue, then my measure of policy agreement between the i[th] voter and the j[th] candidate is given by Equation 5.5:

(Eq. 5.5) $$POLICY_{ij} = (-1)\left(\frac{\sum_{k=1}^{2}(C_{jk} - R_{ik})^2}{2}\right)^{1/2},$$

where C_{jk} is an "objective" measure of the j[th] candidate's position on the k[th] issue, measured by the sample mean placement of that candidate on that issue. The mean Euclidean distance is multiplied by -1 so that increasing values represent increasing policy agreement.

Performance Considerations. Evaluations of the incumbent party's performance, $PERFORM_i$, are measured by the extent to which voters' approve of the incumbent president, Ernesto Zedillo (PRI). The original scale was transformed to run from 0 to 1, resulting in the following scale: "disapprove a lot" (0), "disapprove a little" (.25), "neither disapprove nor approve" (.5), "approve a little" (.75), and "approve a lot" (1).

Political Party Identification. PID_{ij} measures the extent to which the i[th] voter identifies with the j[th] candidate's political party. The original scale was transformed to

range from 0 to 1, resulting in a four-point scale ranging from no identification (0) to strong identification (1) with the candidate's party.

Political Sophistication. Political sophistication, $SOPH_i$, is measured by the proportion of correct answers given out to four factual knowledge questions about Mexican governmental institutions. Being a proportion, $SOPH_i$ naturally runs from 0 to 1.

Table A1.13 in Appendix 1 presents descriptive statistics for all the dependent and independent variables described here. Table A1.14, also in Appendix 1, presents descriptive statistics for the original items used to construct the $TRAITS_{ij}$ and $POLICY_{ij}$ measures.

Expectations

Expectations for the effects in Mexico do not differ in any substantive way from the expectations laid out for the U.S. and Brazil. The candidate-specific variables (i.e., $TRAITS_{ij}$, $POLICY_{ij}$, and PID_{ij}) should all have positive effects on the utilities and probabilities of voting for the candidates. That is, as the i^{th} voter's trait perceptions of the j^{th} candidate become more favorable, the utility and probability of voting for that candidate should increase. Similarly, the more agreement on policy between the i^{th} voter and the j^{th} candidate, the higher the utility and probability of voting for that candidate should be. Finally, as the i^{th} voter's identification with the j^{th} candidate's political party, the utility and probability of voting for that candidate should increase.

Because $PERFORM_i$ is individual-specific (varying across voters, but not across candidates), it can affect the utilities and probability of voting for the candidates in different ways. Approval of the incumbent Zedillo of the PRI should have a positive effect on the utilities and probability of voting for Labastida, also of the PRI. In contrast, incumbent evaluations should have negative effects on the utilities and probabilities of voting for Fox and Cárdenas.

My interest in political sophistication is, of course, in its potential to condition the weights of policy and performance considerations and the weight of candidate considerations relative to these. The weight of policy considerations should increase as political sophistication increases. That is, the effect of $POLICY_{ij}$ should become increasingly positive as political sophistication increases. The weight of performance considerations should increase as political sophistication increases as well. In other words, the effect of $PERFORM_i$ should become increasingly positive for Labastida and increasingly negative for Fox and Cárdenas.

I do not expect political sophistication to condition the weight of $TRAITS_{ij}$. Candidate considerations should matter more or less equally for voters regardless of level of political sophistication. But the weight of these considerations *relative* to the more substantive considerations involving policy and performance should vary with political sophistication. As political sophistication increases, the weight of candidate considerations relative to policy and performance should decrease.

Results: Utility Model

Results for the utility model are presented in Table 5.1.

Table 5.1
Politico-Psychological Model of Candidate Utilities
in the 2000 Mexican Presidential Election

Independent Variables	Common Coefficients		Candidate-Specific Coefficients					
			Fox		Labastida		Cárdenas	
Intercept	20.271 (4.41)	p<.001						
Labastida Dummy	-9.414 (4.37)	p<.032						
Cárdenas Dummy	-2.941 (3.79)	p<.437						
Political Party Identification	23.880 (1.69)	p<.001						
Trait Perception	55.907 (2.92)	p<.001						
Trait Perception * Political Sophistication	2.506 (4.92)	p=.611						
Policy Agreement	5.475 (6.36)	p=.039						
Policy Agreement * Political Sophistication	-5.934 (11.82)	p=.616						
Zedillo Evaluation			7.506 (4.69)	p=.011	9.223 (4.78)	p=.054	5.698 (4.62)	p=.217
Zedillo Evaluation * Political Sophistication			-12.209 (8.40)	p=.146	4.874 (9.01)	p=.589	-7.030 (8.35)	p=.400
Political Sophistication			1.445 (7.96)	p=.856	-9.405 (7.81)	p=.229	2.287 (7.30)	p=.754
N			1016					
R-Squared			0.492					

p-values are based on two-tailed tests.
Estimated robust standard errors are in parentheses.

As expected, the extent to which a voter identifies with a candidate's political party has a positive effect on the utility for that candidate. Party identification can increase utilities by almost 24 points on the 0-100 utility scale. For example, Fox utilities

among strong *panistas* average about 23.9 points higher than Fox utilities among voters not identifying with the PAN at all.

Table 5.2 presents the estimated effects for candidate, policy, and performance considerations by level of political sophistication. The results are mixed, at best, with regard to my expectations. First, we see that policy agreement does not seem to play a role in anyone's candidate utilities. Regardless of political sophistication, $POLICY_{ij}$'s effect is statistically indistinguishable from zero. This finding is consistent with others' observations that policy did not matter in the 2000 election (see Klesner 2000; Domínguez 2004).[32] Specific policy debates were overshadowed by the larger political change issue that centered on ending the PRI's tenure in the presidency (Bruhn 2004).

The results regarding performance considerations are more consistent with my expectations, but not entirely. As expected, evaluations of the PRI incumbent have a positive effect on utilities for the PRI candidate, Labastida. And, also in line with expectations, this effect becomes more positive (if slightly) as political sophistication increases. Among the least sophisticated voters, moving from the most negative ($PERFORM_i = 0$) to the most positive ($PERFORM_i = 1$) incumbent evaluation increases Labastida utilities by about 9.2 points on average; this same shift increases utilities for Labastida by about 14.1 points among the most politically sophisticated.

[32] Note that Greene (2007) finds that policy did matter at least for the propensity to vote for Fox. His finding that policy mattered is based on voters' *subjective* policy agreement with the candidate in contrast to the objective measure I use here.

Table 5.2
Effects on Candidate Utilities,
by Level of Political Sophistication
(Politico-Psychological Model)

Level of Political Sophistication	Trait Perception		Policy Agreement		Zedillo Evaluation					
					Fox		Labastida		Cárdenas	
Minimum	55.907 (2.92)	p<.001	5.475 (6.36)	p=.390	7.506 (4.69)	p=.110	9.223 (4.78)	p=.054	5.698 (4.62)	p=.217
1 Standard Deviation Below Mean	55.939 (2.88)	p<.001	5.398 (6.24)	p=.388	7.348 (4.61)	p=.111	9.286 (4.69)	p=.048	5.606 (4.54)	p=217
Mean	56.844 (2.22)	p<.001	3.255 (4.16)	p=.434	2.940 (2.97)	p=.323	11.045 (3.21)	p=.001	3.068 (3.09)	p=.321
1 Standard Deviation Above Mean	57.749 (2.81)	p<.001	1.113 (5.66)	p=.844	-1.467 (3.85)	p=.706	12.805 (4.44)	p=.004	0.530 (4.09)	p=.897
Maximum	58.413 (3.75)	p<.001	-0.459 (8.13)	p=.955	-4.702 (5.56)	p=.398	14.096 (6.33)	p=.026	-1.333 (5.79)	p=.818

p-values are based on two-tailed tests.
Estimated effects based on results presented in Table 5.1.

When it comes to the utilities for the opposition candidates, it seems that performance considerations do not matter much. Incumbent evaluations' null effect on utilities for Fox and Cárdenas is consistent across levels of political sophistication. Again, this finding is in line with others' observations of the dynamics of incumbent approval in the unique 2000 electoral context. More specifically, Magaloni and Poiré (2004) find that many *priistas* abandoned Labastida in favor of the opposition candidates after the PRI's divisive primary contest between Labastida and Roberto Madrazo. Of course, these *priistas* are the voters most likely to hold positive evaluations of the incumbent PRI president, Zedillo. With these voters turning their interest to the opposition candidates, it is not surprising that the incumbent evaluations' effect is null for these candidates.

The results for candidate considerations are consistent with my expectations. First, as trait perceptions of the candidates become more positive, candidate utilities increase. Indeed, they increase a lot – by about 56.8 points for the average voter. Second, political sophistication does not seem condition this effect. The difference in effects between the least and most sophisticated voters is statistically indistinguishable from zero as the coefficient (and associated estimated standard error and p-value) for the interaction between $TRAITS_{ij}$ and $SOPH_i$ in Table 5.1 indicates. Moving from the minimum trait evaluation ($TRAITS_{ij} = 0$) to the maximum ($TRAITS_{ij} = 1$) has a very large effect on candidate utilities regardless of political sophistication. This shift corresponds

to an increase of about 55.9 points for the least sophisticated and to an increase of about 58.4 for the most sophisticated.

While these results are not entirely surprising given the unique context surrounding the 2000 election, the finding that policy nor performance mattered much at all for anyone prompts further exploration. To ensure these findings are not influenced by omitted variable bias, I estimate an expanded model of candidate utilities that includes additional factors that may have mattered in this election. These additional factors include a dummy variable for those who think Mexico is a democracy[33]; a dummy variable indicating whether the i^{th} voter agrees more with the sentiment "no risk, no gain" over "better the devil you know than the saint you don't"; a dummy variable for female voters; a dummy variable for Catholic voters; the i^{th} voter's age in years; and, a dummy variable for voters living in urban areas.[34]

The results from estimating this expanded model are presented in Table 5.3, and the corresponding estimated effects for candidate, policy, and performance considerations are in Table 5.4.

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[33] Note that I estimated this expanded model with several alternative measures tapping into the "democracy issue," including whether voters indicated democracy/political issues as one of the most important issues facing the next president and a measure of voters' views about whether enough political reform had been made to allow real political competition. All seemed to matter a little, but none seemed to matter a lot. This is consistent with other work that finds that while this issue drove the campaign, it was not a very salient determinant of vote choice in the end (see Domínguez 2004).

[34] Details on this expanded model can be referenced in Appendix 3. Descriptives for the additional variables are presented alongside the descriptives for the politico-psychological variables in Table A1.13 in Appendix 1.

Table 5.3
Expanded Model of Candidate Utilities in the 2000 Mexican Presidential Election

Independent Variables	Common Coefficients		Candidate-Specific Coefficients					
			Fox		Labastida		Cárdenas	
Intercept	19.007 (5.63)	p=.001						
Labastida Dummy	3.131 (6.10)	p=.608						
Cárdenas Dummy	7.188 (5.22)	p=.169						
Political Party Identification	21.840 (1.81)	p<.001						
Trait Perception	53.786 (3.09)	p<.001						
Trait Perception * Political Sophistication	4.672 (5.04)	p=.354						
Policy Agreement	5.017 (6.75)	p=.457						
Policy Agreement * Political Sophistication	1.402 (11.97)	p=.907						
Zedillo Evaluation			6.553 (5.01)	p=.191	3.720 (4.91)	p=.449	5.439 (4.88)	p=.265
Zedillo Evaluation * Political Sophistication			-14.014 (8.78)	p=.111	8.010 (9.20)	p=.384	-9.037 (8.84)	p=.307
Political Sophistication			3.324 (8.19)	p=.684	-8.249 (7.92)	p=.298	6.099 (7.44)	p=.413
Democracy			4.133 (1.82)	p=.024	2.282 (1.82)	p=.211	-0.988 (1.74)	p=.571
Risk			3.384 (2.15)	p=.116	-9.323 (2.05)	p<.001	-1.852 (1.93)	p=.337
Female			-0.479 (1.76)	p=.785	0.353 (1.74)	p=.839	-0.272 (1.66)	p=.870
Catholic			2.512 (2.94)	p=.394	5.910 (3.01)	p=.050	-0.861 (2.81)	p=.760
Age			-4.304 (5.31)	p=.418	-15.909 (5.39)	p=.003	-2.867 (5.57)	p=.607
Urban			-1.083 (2.10)	p=.607	0.667 (2.13)	p=.754	-5.879 (1.92)	p=.002
N			926					
R-Squared			0.506					

p-values are based on two-tailed tests.
Estimated robust standard errors are in parentheses.

Table 5.4
Effects on Candidate Utilities,
by Level of Political Sophistication
(Expanded Model)

Level of Political Sophistication	Trait Perception		Policy Agreement		Zedillo Evaluation					
					Fox		Labastida		Cárdenas	
Minimum	53.786 (3.09)	p<.001	5.017 (6.75)	p=.457	6.553 (5.01)	p=.191	3.720 (4.91)	p=.449	5.439 (4.88)	p=.265
1 Standard Deviation Below Mean	53.846 (3.05)	p<.001	5.035 (6.63)	p=.448	6.371 (4.92)	p=.196	3.824 (4.82)	p=.428	5.321 (4.79)	p=.276
Mean	55.533 (2.36)	p<.001	5.541 (4.27)	p=.195	1.312 (3.20)	p=.682	6.716 (3.33)	p=.044	2.059 (3.27)	p=.529
1 Standard Deviation Above Mean	57.219 (2.90)	p<.001	6.047 (5.48)	p=.270	-3.747 (4.04)	p=.354	9.607 (4.57)	p=.036	-1.203 (4.33)	p=.781
Maximum	58.457 (3.84)	p<.001	6.419 (7.90)	p=.416	-7.461 (5.80)	p=.198	11.730 (6.49)	p=.071	-3.598 (6.13)	p=.558

p-values are based on two-tailed tests.
Estimated effects based on results presented in Table 5.3.

These results are, by and large, consistent with the results from the pure politico-psychological model in Tables 5.1 and 5.2. The estimated effects of political party identification and candidate considerations remain positive and large, and the estimated effect of policy considerations remains null for all levels of political sophistication. Likewise, the effect of performance considerations on opposition candidate utilities remains null for all levels of political sophistication.

There is, however, one important change regarding the estimated effect of performance considerations on Labastida utilities. Incumbent evaluations' positive effect on utilities for Labastida is limited to voters with at least the mean level of political sophistication. Among voters with below average sophistication, the estimated effect of incumbent evaluations is indistinguishable from zero. The estimated effect is about 6.7 for average sophisticates and increases to about 11.7 for the most sophisticated.

Results: Vote Choice Model

I have estimated vote choice models corresponding to both the pure politico-psychological and the expanded models of utilities.[35] The odds ratios for the politico-psychological vote choice model and the expanded vote choice model are presented in Tables 5.5 and 5.6, respectively. As expected, political party identification has a positive influence on vote choice. Based on the politico-psychological model results, voters that strongly identify with a candidate's political party are nearly 23 times more likely to vote for that candidate than voters who do not identify with that party. Similarly, based on the

[35] Details for the latter can be referenced in Appendix 3.

expanded model results, these strong identifiers are nearly 20 times more likely to vote for their party's candidate than voters that do not identify with that party.

Table 5.5
Politico-Psychological Model of Vote Choice in the 2000 Mexican Presidential Election

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients			
			Labastida vs. Fox		Cárdenas vs. Fox	
Labastida Dummy	0.523 (0.38)	p=.374				
Cárdenas Dummy	0.427 (0.38)	p=.333				
Political Party Identification	22.815 (6.60)	p<.001				
Trait Perception	47.406 (44.84)	p<.001				
Trait Perception * Political Sophistication	0.663 (1.12)	p=.808				
Policy Agreement	0.004 (0.01)	p=.125				
Policy Agreement * Political Sophistication	12960.200 (87845.01)	p=.162				
Zedillo Evaluation			1.574 (1.55)	p=.646	1.073 (1.45)	p=.958
Zedillo Evaluation * Political Sophistication			0.088 (0.18)	p=.237	0.078 (0.18)	p=.276
Political Sophistication			3.024 (4.25)	p=.431	2.410 (3.71)	p=.568
N			791			
Pseudo R-squared			0.705			

p-values are based on two-tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

Table 5.6
Expanded Model of Vote Choice in the 2000 Mexican Presidential Election

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients			
			Labastida vs. Fox		Cárdenas vs. Fox	
Labastida Dummy	0.428 (0.41)	p=.373				
Cárdenas Dummy	0.155 (0.20)	p=.147				
Political Party Identification	19.937 (6.10)	p<.001				
Trait Perception	48.916 (47.52)	p<.001				
Trait Perception * Political Sophistication	0.620 (1.05)	p=.777				
Policy Agreement	0.001 (0.00)	p=.094				
Policy Agreement * Political Sophistication	379147.400 (2925611.00)	p=.096				
Zedillo Evaluation			1.035 (1.05)	p=.973	0.811 (1.20)	p=.888
Zedillo Evaluation * Political Sophistication			0.132 (0.29)	p=.350	0.175 (0.44)	p=.490
Political Sophistication			2.209 (3.27)	p=.593	1.524 (2.54)	p=.801
Democracy			1.178 (0.41)	p=.639	0.913 (0.34)	p=.805
Risk			0.896 (0.33)	p=.764	1.815 (0.79)	p=.169
Female			0.987 (0.34)	p=.970	1.325 (0.53)	p=.482
Catholic			0.611 (0.37)	p=.416	1.076 (0.63)	p=.901
Age			7.850 (8.66)	p=.062	13.733 (17.70)	p=.042
Urban			1.054 (0.43)	p=.899	0.606 (0.24)	p=.199
N			728			
Pseudo R-squared			0.703			

p-values are based on two-tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

To ease interpretation of the effects for candidate considerations, I have calculated the change in the predicted probability of voting for Fox when moving from the minimum to the maximum trait perception for Fox. This is done for five voter profiles: "Pro-Labastida," "Leaning Labastida," "Middle of the Road," "Leaning Fox," "Pro-Fox." This change in probability is taken as the effect of candidate considerations. Descriptions of the five profiles are given in Table A1.15 in Appendix 1.[36]

Table 5.7 presents the predicted probabilities and effects corresponding to changes in candidate considerations by level of political sophistication for "Middle of the Road" voters for both models. With the exception of $TRAITS_{ij}$ (which is either at its minimum or maximum value), "Middle of the Road" voters have the following characteristics: no identification with any of the candidates' political parties; sample mean policy agreement levels with Fox and Labastida; sample mean trait perception for Fox and Labastida; and, the sample mean level of incumbent approval.[37] Of the five profiles, this is, of course, the one for which all variables will have their largest potential effect. The predicted probabilities and effects corresponding to changes in candidate considerations for the other four profiles are presented in Tables A1.16 and A1.17 in Appendix 1.

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[36] For the purposes of generating the predicted probabilities, variables specific to Cárdenas are set to their minimum values for all five voter profiles.

[37] For the predicted probabilities based on the expanded results, Middle of the Road Voters also have the following characteristics: they do not live in urban areas, are male, view Mexico as a democracy, agree with the statement "no risk, no gain," are of sample mean age, and are Catholic with sample mean Church attendance.

Table 5.7
Effect of Candidate Considerations on the
Predicted Probability of Voting for Fox,
by Level of Political Sophistication

Level of Political Sophistication	Politico-Psychological Model			Expanded Model		
	Min	Max	**Effect**	Min	Max	**Effect**
Minimum	0.055	0.734	**0.679**	0.032	0.614	**0.582**
1 Standard Deviation Below Mean	0.059	0.746	**0.687**	0.035	0.635	**0.600**
Mean	0.176	0.897	**0.721**	0.166	0.891	**0.725**
1 Standard Deviation Above Mean	0.239	0.917	**0.678**	0.224	0.909	**0.685**
Maximum	0.264	0.919	**0.655**	0.246	0.908	**0.662**

Predicted probabilities are for "Middle of the Road Voters" based on results presented in Table 5.6.
"Effect" here is the difference between the predicted probabilities when the variable of interest is at its minimum and at its maximum.

The results with regard to candidate considerations are consistent with my expectations. As trait perceptions of Fox increase, the probability of voting for him increases. While there are slight changes in this effect as political sophistication increases, the differences are statistically indistinguishable from zero. Looking at the probabilities from the expanded model, the effect of trait perceptions on the probability of voting for Fox is about 58% for the least sophisticated, increasing slightly to about 66% for the most sophisticated. We see again here that candidate considerations matter a great deal regardless of one's level of political sophistication.

The results regarding performance considerations are consistent with the null effects observed in the utility results discussed above. Looking at Tables 5.5 and 5.6, we see that the standard errors and p-values associated with incumbent evaluations indicate that the estimates for the associated coefficients are imprecise and indistinguishable from zero. The same is true for the coefficient on the interaction between these evaluations and political sophistication. Performance considerations seem to have a null effect on vote choice regardless of political sophistication in both the politico-psychological and the expanded models.

The story that emerges for policy considerations is not consistent with the story that emerged from the utility results. There, policy considerations seemed to have no effect. Here, policy considerations seem to matter, but in counterintuitive ways. Consider the results for the least sophisticated. The odds ratios for policy agreement are less than one in Tables 5.5 and 5.6; this indicates that as policy agreement with a candidate increases, the odds of voting for that candidate *decrease substantially* for the least sophisticated. More troubling, the estimated coefficients producing this pattern approach statistical significance, with p=.125 and p=.094 in the politico-psychological model and expanded models, respectively. As political sophistication increases, this counterintuitive pattern seems to disappear; moving from the least sophisticated to the most sophisticated, there is a substantial increase in the odds of voting for a candidate as policy agreement increases.

The finding that policy agreement substantially *decreases* the odds of voting among some voters demands further exploration. This counterintuitive and unexpected result is likely due to high levels of strategic voting in the 2000 election.[38] More specifically, it is probably driven by a high proportion of voters who are inclined to vote for Cárdenas (i.e., they have the highest utility for him), but cast their vote for one of the leading candidates, Fox or Labastida, instead. Indeed, only 50% of voters who have the highest utility for Cárdenas end up casting their vote for him (i.e., voted "sincerely"[39]). Incidentally, sincere Cárdenas supporters also tend to have higher levels of political sophistication,[40] which helps explain the reversal in policy considerations' effect for the more sophisticated.

Vote Choice among Sincere Voters

I re-estimated the expanded model with a sample restricted to sincere voters. Table 5.8 presents the corresponding results. Of course, most notable in these results is the disappearance of the policy agreement's counterintuitive negative effect. Among sincere voters, policy agreement seems to have no effect regardless of political sophistication levels.

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[38] For more on strategic voting in this election, see Magaloni and Poiré (2004)

[39] I consider a voter to have voted "sincerely" if they report casting a vote for the candidate for whom they have the highest utility (as measured by the feeling thermometer scores).

[40] The mean level of political sophistication for sincere Cárdenas supporters is about .44; the mean level of sophistication for strategic Cárdenas supporters is about .35.

Table 5.8
Expanded Model of Vote Choice in the 2000 Mexican Presidential Election, Sincere Voter Subsample

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients			
			Fox vs. Labastida		Fox vs. Cárdenas	
Labastida Dummy	0.186 (0.41)	p=.442				
Cárdenas Dummy	0.071 (0.15)	p=.204				
Political Party Identification	84.528 (71.88)	p<.001				
Trait Perception	163527.300 (331017.00)	p<.001				
Trait Perception * Political Sophistication	0.018 (0.08)	p=.375				
Policy Agreement	589.977 (7380.45)	p=.610				
Policy Agreement * Political Sophistication	14.928 (243.11)	p=.868				
Zedillo Evaluation			0.092 (0.16)	p=.164	0.061 (0.15)	p=.249
Zedillo Evaluation * Political Sophistication			188.188 (929.91)	p=.289	67.247 (346.71)	p=.414
Political Sophistication			0.028 (0.09)	p=.277	0.434 (1.59)	p=.820
Democracy			1.260 (1.03)	p=.777	0.684 (0.59)	p=.658
Risk			0.305 (0.31)	p=.240	0.791 (0.69)	p=.787
Female			2.703 (2.59)	p=.300	1.242 (1.03)	p=.793
Catholic			7.938 (11.15)	p=.140	1.245 (1.35)	p=.840
Age			36.561 (96.52)	p=.173	2026.528 (6528.67)	p=.018
Urban			0.486 (0.53)	p=.506	0.152 (0.14)	p=.048
N			511			
Pseudo R-Squared			0.923			

p-values are based on two-tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

Consistent with the results above, performance considerations remain unimportant (regardless of political sophistication) and political party identification remains very important. Indeed, political party identification seems to have an even bigger effect among this sincere voter subsample. A voter that strongly identifies with a candidate's party is more than 84 times more likely to vote for that candidate than a voter that does not identify with that party at all. Like political party identification, the effect of candidate considerations appears to be even bigger in the sincere subsample. Table 5.9 presents the predicted probabilities and effects corresponding to changes in candidate considerations based on the "sincere" estimates.

Table 5.9
Effect of Candidate Considerations on the Predicted Probability of Voting for Fox among Sincere Voters, by Level of Political Sophistication

Level of Political Sophistication	Min	Max	**Effect**
Minimum	0.021	1.000	**0.979**
1 Standard Deviation Below Mean	0.022	1.000	**0.978**
Mean	0.047	0.999	**0.953**
1 Standard Deviation Above Mean	0.099	0.999	**0.900**
Maximum	0.165	0.998	**0.833**

Predicted probabilities are for "Middle of the Road Voters" based on results presented in Table 5.6.
"Effect" here is the difference between the predicted probabilities when the variable of interest is at its minimum and at its maximum.

Moving from the minimum to the maximum trait perception for Fox increases the probability of voting for him by about 95% for the average voter. The effect decreases slightly as political sophistication increases, from about 98% for the least sophisticated to about 83% for the most sophisticated. But here again, this difference is not statistically significant.

Alternative Measures

As in previous chapters, I re-estimate the utility and vote choice models using alternative measures for policy and performance considerations to ensure the observed results are not artifacts of the measures chosen. I estimated the models with three alternatives for performance considerations. One uses respondents' retrospective assessments about their personal economic situation. Another uses retrospective assessments about the national economy. The final alternative is i^{th} voter's mean response to items asking them to indicate their views about how the national economic, public security, and government corruption situations have changed over the preceding twelve months. While the magnitude of the estimated coefficients change slightly, the results from estimating models with these measures are consistent with those discussed above (see Tables A2.21 – A2.26 in Appendix 2).[41]

I re-estimate the models using two alternative measures of policy considerations. The first takes the same formula used to calculate $POLICY_{ij}$ above, but uses the most

[41] Tables A2.21 – A2.30 in Appendix 1 only present results with the alternative measures for the entire sample; for the sake of space, I have opted not to include results for the sincere subsample.

sophisticated voters' mean placement of candidates' policy positions.[42] The results with this measure are consistent with the results discussed above; these can be referenced in Tables A2.27 and A2.28 in Appendix 2.

The second alternative measure for policy considerations is the negative Euclidean distance between the i^{th} voter and the j^{th} candidate's political party[43] on an eleven-point "left-right" ideological scale. Results with this measure differ from the results above (see Tables A2.29 and A2.30 in Appendix 2). Interestingly, while policy agreement with the candidates did not seem to matter, ideological agreement with the candidates' political parties seem to matter, slightly increasing utilities and the odds of voting for a candidate. I have no concrete explanation for this difference in results. This result may be related to the fact that this is a measure of ideological agreement with the *parties* rather than *candidates*. This may also (or instead) be because ideology somehow taps into the "political change" dimension of Mexican politics during this period.

The 2006 Presidential Election

The electoral context surrounding the 2000 election was unique. Debates about the need for political change overshadowed debates on policy and performance that typically characterize elections. Thus, I extend the analysis for the Mexican case to the

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[42] Recall that $POLICY_{ij} = (-1)\left(\frac{\sum_{k=1}^{2}(C_{jk} - R_{ik})^2}{2}\right)^{1/2}$; in this alternative measure, C_{jk} is given by the most sophisticated voters' mean placement of the j^{th} candidate on the k^{th} issue.

[43] Unfortunately, the instrument does not include a measure of *candidates'* ideological positions.

2006 presidential election to see whether policy and performance matter in another electoral context and, if so, whether political sophistication plays its expected conditioning role. I use data from the third wave of the Mexico 2006 Panel Study to estimate utilities for and vote choice from among the top three candidates: Felipe Calderón (PAN), Andrés Manuel "AMLO" López Obrador (PRD), and Roberto Madrazo (PRI).

The form and estimation of the utility and vote choice models follow the same general set up as their counterparts for the 2000 election presented earlier in this chapter.[44] Given changes in the 2006 instrument, the measures used for candidate, policy, and performance considerations differ slightly from those used to estimate the models for the 2000 election. Overall, the measures available in 2006 are not as good as those in 2000, but they suffice.

The measure for candidate considerations for the 2006 analysis is based on the single personality item available: the extent to which the i^{th} voter perceives the j^{th} candidate to be "honest." As in 2000, performance considerations are measured by the extent to which voters approve of the incumbent president. Of course, in 2006, the incumbent president is Vicente Fox (PAN), the winner of the 2000 election. Evaluations of Fox should have a positive effect on the utility and probability of voting for his co-partisan, Calderón, and a negative effect for AMLO and Madrazo.

[44] Details of the models and estimation can be referenced in Appendix 3.

The measure for policy considerations is based on issue items relating to the privatization of the electricity sector and commercial relations with the United States. Respondents were asked to place themselves on seven-point scales to indicate their position on these issues; the issue scales were recoded to range from the most "left" position (0) to the most "right" position (1). In terms of candidates' positions, respondents were only asked to indicate which side of the issue the candidates were on. Thus, while the 2006 measure uses the same basic formula used in 2000 (see Eq. 5.5), the measure of the j^{th} candidate's position on k^{th} issue, C_{jk}, used to calculate policy agreement is different. For the 2006 measure, C_{jk} is measured by the sample proportion of respondents placing the candidate on the "right" (in ideological terms) side of that issue. The mean Euclidean distance is multiplied by -1 so that increasing values represent increasing policy agreement.

To guard against worries about omitted variable bias, I estimate models with the usual politico-psychological factors and some additional socio-demographic factors. The additional variables include a dummy for voters from Mexico City (where AMLO was the incumbent Mayor), respondents' age in years, and a dummy variable for female respondents.[45] Table 5.10 presents the utility model results for 2006. Table 5.11 presents the corresponding estimated effects for candidate, policy, and performance considerations by level of political sophistication. The results are largely consistent with the results for

[45] Descriptives for the relevant dependent and independent variables are presented in Table A1.18 in Appendix 1; additional descriptives for the original policy are presented in Table A1.19 in the same appendix.

the 2000 election. As in 2000, candidate considerations and political party identification play very important roles in voters' 2006 electoral decisions. Likewise, policy considerations remain unimportant in this election.

Table 5.10
Expanded Model of Candidate Utilities in the 2006 Mexican Presidential Election

Independent Variables	Common Coefficients		Candidate-Specific Coefficients					
			Calderón		Madrazo		AMLO	
Intercept	18.430 (4.84)	p<.001						
Madrazo Dummy	12.491 (5.34)	p=.002						
AMLO Dummy	22.941 (5.74)	p<.001						
Political Party Identification	18.301 (1.32)	p<.001						
Trait Perception	47.761 (2.60)	p<.001						
Trait Perception * Political Sophistication	2.682 (3.28)	p=.413						
Policy Agreement	3.139 (4.95)	p=.526						
Policy Agreement * Political Sophistication	-2.483 (6.53)	p=.704						
Fox Evaluation			21.243 (5.15)	p<.001	4.852 (4.52)	p=.283	-6.742 (5.07)	p=.184
Fox Evaluation * Political Sophistication			0.779 (6.28)	p=.901	7.433 (5.50)	p=.177	-14.147 (6.11)	p=.021
Political Sophistication			-0.906 (5.39)	p=.867	-6.687 (4.80)	p=.164	3.171 (5.81)	p=.585
Mexico City Resident			-5.601 (1.39)	p<.001	-7.645 (1.42)	p<.001	-1.248 (1.46)	p=.394
Age			1.037 (4.30)	p=.810	-17.900 (4.57)	p<.001	-5.712 (4.67)	p=.221
Female			-0.873 (1.26)	p=.489	-0.037 (1.32)	p=.978	-3.184 (1.38)	p=.021
N			1243					
R-Squared			0.517					

p-values are based on two-tailed tests.
Estimated robust standard errors are in parentheses.

Table 5.11
Effects on Candidate Utilities in 2006,
by Level of Political Sophistication

Level of Political Sophistication	Trait Perception		Policy Agreement		Fox Evaluation					
					Calderón		Madrazo		AMLO	
Minimum	47.761 (2.60)	p<.001	3.139 (4.95)	p=.526	21.243 (5.15)	p<.001	4.852 (4.52)	p=.283	-6.742 (5.07)	p=.184
1 Standard Deviation Below Mean	47.796 (2.57)	p<.001	3.000 (4.55)	p=.519	21.286 (4.86)	p<.001	5.269 (4.26)	p<.216	-7.535 (4.77)	p=.115
Mean	48.764 (1.66)	p<.001	1.871 (2.87)	p=.515	21.641 (2.94)	p<.001	8.651 (2.62)	p=.001	-13.971 (2.82)	p<.001
1 Standard Deviation Above Mean	49.732 (1.66)	p<.001	0.746 (3.53)	p=.833	21.994 (3.17)	p<.001	12.018 (2.85)	p<.001	-20.380 (2.92)	p<.001
Maximum	50.443 (2.04)	p<.001	0.657 (3.68)	p=.858	22.022 (3.29)	p<.001	12.285 (2.95)	p<.001	-20.889 (3.04)	p<.001

p-values are based on two-tailed tests.
Estimated effects based on results presented in Table 5.10.

Looking at Table 5.11, we see that moving from the minimum to the maximum trait perception for a candidate increases the average voter's utility for that candidate by about 48.8 points. There is little change in this effect as political sophistication levels change. The effect is estimated to be about 47.8 for the least sophisticated and about 50.4 for the most sophisticated. In the same table, we see that the estimated effect of policy considerations is statistically indistinguishable from zero across all sophistication levels. Moving from maximum disagreement to maximum agreement with a candidate on policy does not change utilities for that candidate in any consistent way across voters (be they sophisticated or not).

In contrast to the results for candidate utilities in 2000, however, performance considerations seem to play an important role in utilities in 2006. And, political sophistication appears to play its expected conditioning role – at least for the opposition candidates. While the effect of incumbent evaluations on AMLO (PRD) utilities is indistinguishable from zero for the least sophisticated, it becomes increasingly negative and increasingly statistically significant as political sophistication increases. Moving from the minimum to the maximum incumbent evaluation decreases the average sophisticate's AMLO utility by about 14 points. This same shift decreases the most sophisticated's AMLO utilities by nearly 21 points.

Incumbent evaluations seem to affect utilities for Madrazo (PRI) in unexpected ways. Among the two least sophisticated groups, the effect is essentially non-existent. Starting with voters with a mean level of sophistication, however, the effect is estimated

to be positive and increasingly so as political sophistication increases. This may be a residual effect from the dynamics of the 2000 election when many voters that would usually vote for the PRI cast their vote Fox for reasons specific to that electoral context (e.g., the desire for regime change above all other concerns). Having voted for him in 2000, these voters may approve of Fox's performance as president, but voting more in line with their "normal" political preferences in 2006.

Finally, incumbent evaluations have an expected positive effect on utilities for the incumbent party's candidate, Felipe Calderón (PAN). Moving from the most negative to the most positive evaluation of Fox increases the average voter's utility for Calderón by about 21.6 points. Inconsistent with my argument, however, this effect is not conditioned by political sophistication.

The results for the 2006 vote choice model are largely consistent with the utility results. First, as was the case with utilities, in addition to party identification, candidate considerations dominate vote choice; and they do so without regard to political sophistication. Second, policy considerations continue to be unimportant regardless of political sophistication. Third, performance considerations matter, and political sophistication conditions the extent to which it matters. Table 5.12 presents the estimated odds ratios for the 2006 vote choice model.

Table 5.12
Expanded Model of Vote Choice in the 2006 Mexican Presidential Election

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients			
			Calderón vs. Madrazo		Calderón vs. AMLO	
Madrazo Dummy	2.899 (2.37)	p=.192				
AMLO Dummy	3.645 (2.94)	p=.109				
Political Party Identification	43.391 (12.73)	p<.001				
Trait Perception	85.804 (49.13)	p<.001				
Trait Perception * Political Sophistication	3.632 (3.59)	p=.192				
Policy Agreement	0.583 (0.49)	p=.520				
Policy Agreement * Political Sophistication	2.745 (3.15)	p=.380				
Fox Evaluation			0.375 (0.30)	p=.221	0.474 (0.39)	p=.363
Fox Evaluation * Political Sophistication			0.204 (0.26)	p=.219	0.107 (0.13)	p=.058
Political Sophistication			1.394 (1.30)	p=.722	3.408 (3.02)	p=.167
Mexico City Resident			0.731 (0.31)	p=.466	2.371 (0.69)	p=.003
Age			0.579 (0.56)	p=.570	0.682 (0.61)	p=.670
Female			0.819 (0.24)	p=.050	0.548 (0.14)	p=.021
N			1144			
Pseudo R-squared			0.699			

p-values are based on two-tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

The information in Table 5.13 is perhaps more informative. It presents the predicted probabilities and effects corresponding to changes in candidate and performance considerations by level of political sophistication for 2006 “Middle of the

Road" voters. With the exception of the variable of interest (which will either be at its minimum or maximum value), "Middle of the Road" voters have the following characteristics: no identification with any of the candidates' political parties; sample mean policy agreement levels with Calderón and AMLO; sample mean trait perceptions for Calderón and AMLO; sample mean level of incumbent approval; and, they are males of sample mean age that do not live in Mexico City.[46]

Table 5.13
Effects of Candidate and Performance Considerations on the Predicted Probability of Voting for Calderón in 2006, by Level of Political Sophistication

Level of Political Sophistication	Candidate Considerations			Performance Considerations		
	Min	Max	**Effect**	Min	Max	**Effect**
Minimum	0.063	0.852	**0.789**	0.300	0.478	**0.178**
1 Standard Deviation Below Mean	0.062	0.859	**0.797**	0.287	0.493	**0.206**
Mean	0.054	0.904	**0.850**	0.193	0.611	**0.418**
1 Standard Deviation Above Mean	0.046	0.935	**0.889**	0.124	0.717	**0.593**
Maximum	0.046	0.937	**0.891**	0.119	0.725	**0.606**

Predicted probabilities are for "Middle of the Road Voters" based on results presented in Table 5.12.
"Effect" here is the difference between the predicted probabilities when the variable of interest is at its minimum and at its maximum.

[46] Descriptions for the other profiles are given in Table A1.20 in Appendix 1. The predicted probabilities and effects corresponding to changes in candidate considerations for the other four profiles are presented in Tables A1.21 and A1.22. Note that for the purposes of generating the predicted probabilities, variables specific to Madrazo are set to their minimum values for all five voter profiles.

From this table, we can see that candidate considerations seem to matter a great deal for all levels of political sophistication, with a slight increase in their effect as political sophistication increases. Moving from the minimum trait perception ($TRAITS_{ij}$= 0) of Calderón to the maximum ($TRAITS_{ij}$= 1), the probability of voting for him is estimated to increase by about 79% among the least sophisticated and by about 89% for the most sophisticated.

In contrast to the results for the 2000 vote choice, the 2006 results indicate that performance considerations have an important influence on Mexicans' vote choice. Furthermore, the magnitude of the effect increases as political sophistication increases. Indeed, the effect is more than three times as large among the most sophisticated compared to the least sophisticated. Moving from the most negative ($PERFORM_i$= 0) to the most positive ($PERFORM_i$= 1) incumbent evaluation increases the least sophisticated's probability of voting for Calderón by about 18%. This same shift increases the most sophisticated's probability of voting for Calderón by more than 60%.

The Relative Weight of Candidate Considerations in 2000 and 2006

Overall, political sophistication seems to play a smaller conditioning role in electoral decision-making in Mexico compared to the U.S. and Brazil. In Mexico, the relative weight of candidate considerations does not reliably decrease as political sophistication increases. This is especially true in the 2000 election. Political sophistication's minor role in that election is driven in large part by an electoral context in which policy and performance considerations were not important determinants of

electoral preferences for most voters. Indeed, policy considerations did not seem to matter for anyone. Likewise, while performance considerations had an effect on utilities for Labastida for the more sophisticated, this effect was rather small and not nearly big enough to rival the influence of candidate considerations. Thus, whether looking at utilities or vote choice in 2000, the dominance of candidate considerations was not threatened by the other considerations regardless of political sophistication.

In 2006, we see the reemergence of performance considerations as important factors in electoral decisions. And, importantly, political sophistication is estimated to play an important role conditioning the effect of these considerations. As shown in Tables 5.14 and 5.15, the weight of candidate considerations relative to performance decreases as political sophistication increases.

Consider, for example, candidate considerations' relative effects on utilities for the opposition candidates (see Table 5.14). Performance considerations' effect is statistically indistinguishable from zero for the two lowest sophistication groups, leaving candidate considerations' influence unrivaled for these voters. This dominance erodes as political sophistication increases, decreasing to about 2.4 and about 4.1 for AMLO and Madrazo utilities, respectively. Interestingly, however, Table 5.14 also shows how the relative weight does not change with political sophistication when it comes to utilities for the incumbent candidate, Calderón. Figure 5.1 displays these patterns graphically.

Table 5.14
Relative Weight of Candidate Considerations on Candidate Utilities in 2006, by Level of Political Sophistication

Level of Political Sophistication	Trait Perception vs. Fox Evaluation		
	Calderón	Madrazo	AMLO
Minimum	2.25	--[a]	--[a]
1 Standard Deviation Below Mean	2.25	--[a]	--[a]
Mean	2.25	5.64	3.49
1 Standard Deviation Above Mean	2.26	4.14	2.44
Maximum	2.29	4.11	2.41

Relative weights are calculated by taking the absolute value of the ratio of the effect of *Trait Perception* over the effect of *Fox Evaluation*.
Calculations based on estimated effects reported in Table 5.11.
a/ *Fox Evaluation*'s estimated effect for these groups of voters is indistinguishable from zero, making the relative effect here approach infinity.

When considering the weight of candidate considerations relative to performance on vote choice, political sophistication continues to play an important conditioning role (see Table 5.15). The relative effect is nearly three times as large among the least sophisticated compared to the most sophisticated. Among the least sophisticated, the relative effect is about 4.4; among the most sophisticated, it decreases to about 1.4. Figure 5.2 displays this pattern graphically.

Table 5.15
Relative Weight of Candidate Considerations on the Predicted Probability of Voting for Calderón in 2006, by Level of Political Sophistication

Level of Political Sophistication	Trait Perception vs. Fox Evaluation
Minimum	4.43
1 Standard Deviation Below Mean	3.87
Mean	2.03
1 Standard Deviation Above Mean	1.50
Maximum	1.47

Relative weights are calculated by taking the absolute value of the ratio of the effect of *Trait Perception* over the effect of *Fox Evaluation*.
Calculations based on changes in the predicted probabilities for "Middle of the Road Voters" reported in Table 5.13.

Figure 5.1
Relative Weight of Candidate Considerations vs.
Performance Considerations on 2006 Candidate Utilities,
by Level of Political Sophistication

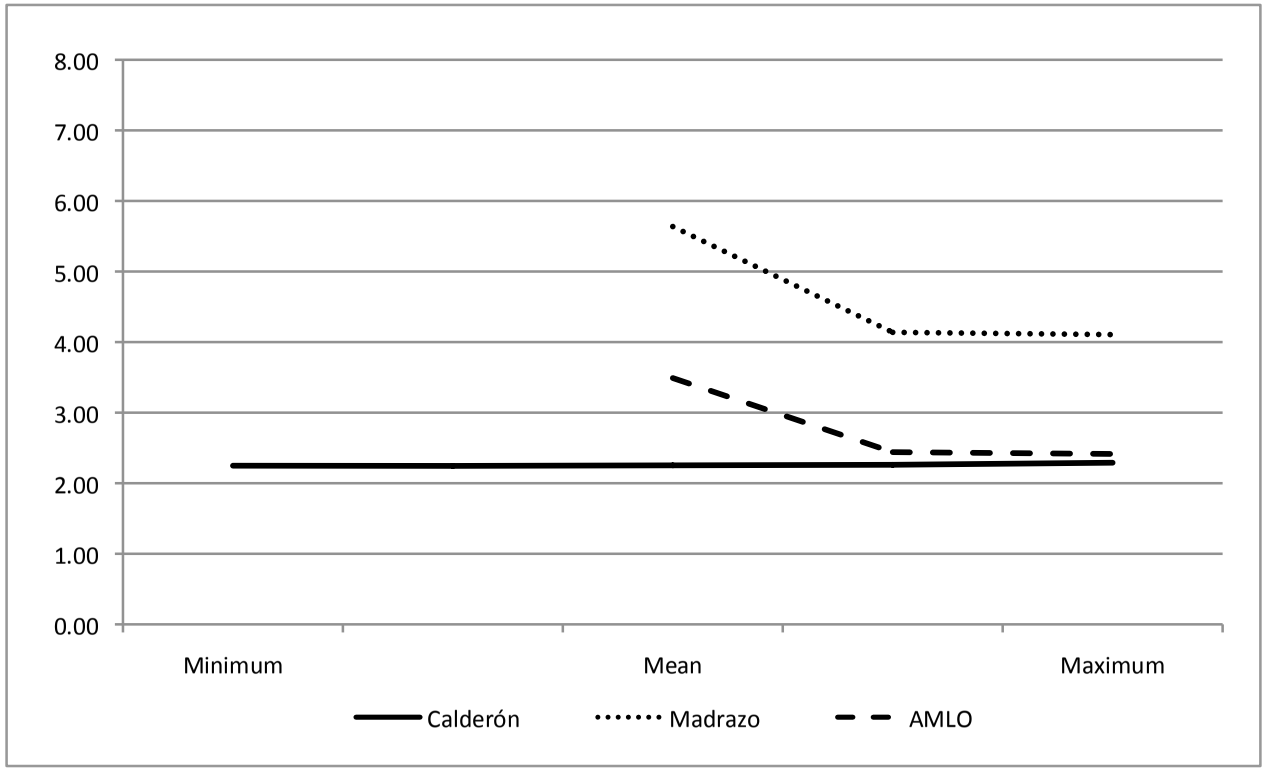
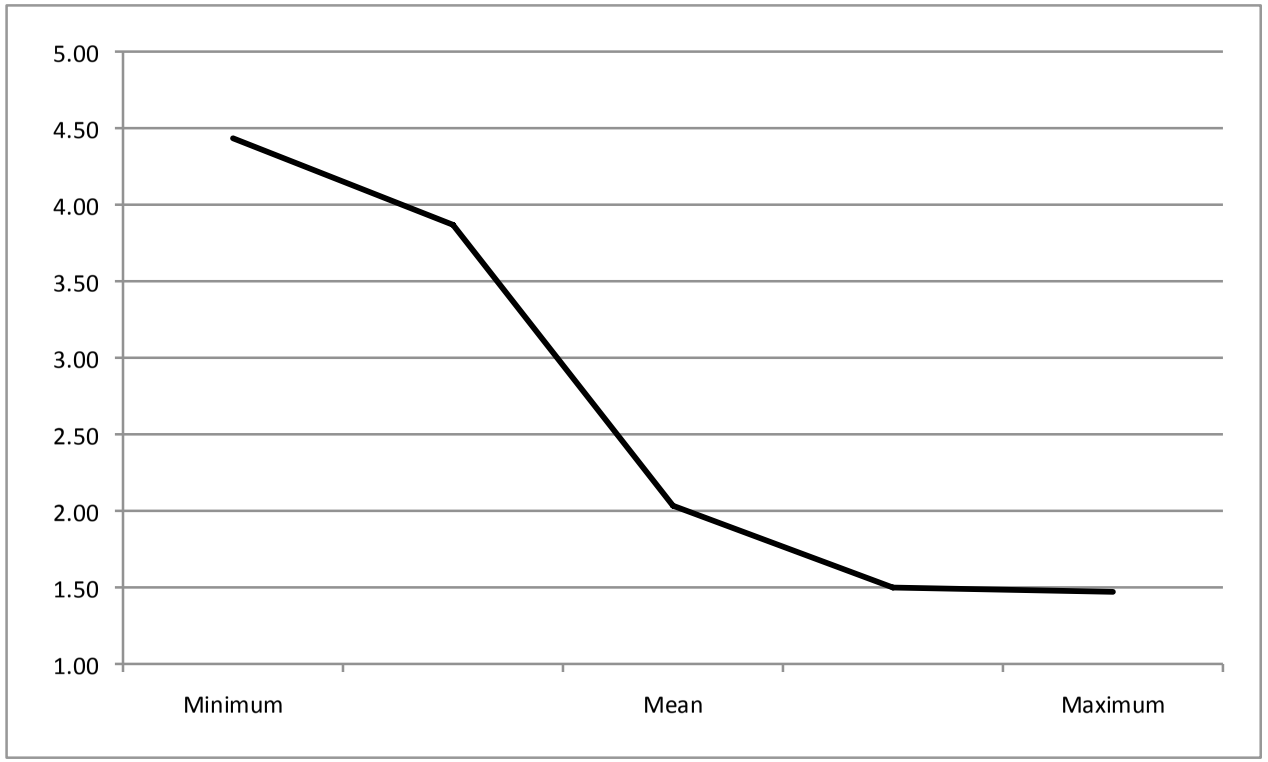


Figure 5.2
Relative Weight of Candidate Considerations vs. Performance Considerations
on the Predicted Probability of Voting for Calderón in 2006,
by Level of Political Sophistication



Conclusion

Against the backdrop of many Mexicans' desire for political change in 2000, candidate considerations' dominance was unrivaled in that election. This finding is consistent across estimation of models with alternative measures, specifications, and even subsamples of the data. As politics return to some "normalcy" in 2006, performance considerations re-emerge as important influences in Mexicans' electoral decision-making. And, the weight of these considerations increases with political sophistication, making the weight of candidate considerations relative to performance decrease with political sophistication.

Interestingly, the patterns of political sophistication's conditioning role across the candidates is more similar to the patterns in the U.S. than those in Brazil. In Brazil 2002, political sophistication conditions candidate considerations' relative weight concerning performance even for voters' utilities for the incumbent candidate. In Mexico 2006, as in the U.S. 2008, political sophistication's conditioning role seems to be limited to utilities for the opposition. This may be related to the fact that Mexico and the U.S. enjoy rather stable party systems compared to Brazil. With the help of meaningful party labels in these systems, it is probably relatively easy for most voters to see how an incumbent's performance might relate to his co-partisan competing in the election, requiring little additional political information to evaluate the incumbent candidate on this basis.

Based on the models and results presented in this chapter, it seems that policy considerations did not play much of a role in voters' candidate utilities and electoral

decisions in 2000 and 2006. This finding may be due to many things other than policy simply not mattering at all to Mexicans (which is doubtful). For example, it might be that policy considerations' independent contribution to explaining variation in utilities and choice is minimal after controlling for other factors like party identification and performance considerations. Or, perhaps, this finding might simply be an artifact of the policy items included in the survey instruments; that is, we might have a different finding if the survey instrument had asked about people's positions on other policy issues. It will be interesting to revisit this question with data from future elections, with a special interest in examining any differences across levels of political sophistication.

Chapter 6
Candidate-Centered Voting across Contexts: Patterns in the Institutionalization and Structure of Political Competition

In the three preceding chapters, I examined the conditioning role of political sophistication on candidate-centered voting in the U.S., Brazil, and Mexico. Overall, the findings from these examinations offer support for my argument regarding political sophistication's role. I summarize these findings below. I then consider contextual variation in the institutionalization and structure of political competition, focusing the following four factors: experience with democratic political competition; party system institutionalization; the number of candidates; and, the structure of the policy space.

Summary of Individual-Level Results

Tables 6.1 and 6.2 summarize the findings across the elections in the U.S., Brazil, and Mexico. Table 6.1 presents the estimated effects on candidate utilities for each election. Table 6.2 presents the changes in the predicted probabilities of voting for the winning candidate in each election.

Candidate considerations mattered a great deal for all voters in all three countries. Candidate considerations moved the average voter's candidate utilities by about 40 points in the 2008 U.S. election, 74 points in the 2002 Brazilian election, and 56 and 49 points for Mexico's 2000 and 2006 elections, respectively (see Table 6.1). Candidate considerations played an important role in vote choice as well. Candidate considerations moved the predicted probability of voting for Obama in the U.S. 2008 election by about 91 percentage points, for Lula in the 2002 Brazilian election by about 96 points, and by about 98 and 79 points for Fox in 2000 and Calderón in 2006, respectively, in Mexico (see Table 6.2).

Table 6.1
Estimated Effects of Considerations on Candidate Utilities across Elections,
by Level of Political Sophistication

Level of Political Sophistication	Candidate Considerations				Policy Considerations				Performance Considerations (Incumbent)				Performance Considerations (Lead Opposition)			
	U.S. 2008	Brazil 2002	Mexico		U.S. 2008	Brazil 2002	Mexico		U.S. 2008	Brazil 2002	Mexico		U.S. 2008	Brazil 2002	Mexico	
			2000	2006			2000	2006			2000	2006			2000	2006
Minimum	47.3	74.73	53.8	47.8	--	6.3	--	--	15.5	9.9	--	21.2	--	--	--	--
1 Standard Deviation Below Mean	43.4	74.5	53.8	47.8	8.9	8.6	--	--	17.3	12.7	--	21.3	-15.3	--	--	--
Mean	39.8	74.1	55.5	48.7	20.8	12.8	--	--	18.9	18.0	6.7	21.6	-22.5	-4.5	--	-14.0
1 Standard Deviation Above Mean	36.2	73.6	57.2	49.7	32.7	17.1	--	--	20.5	23.2	9.6	22.0	-29.6	-8.3	--	-20.4
Maximum	33.8	73.6	58.5	50.4	40.8	17.8	--	--	21.6	24.1	11.7	22.0	-34.5	-9.0	--	-20.9

Reported effects come from Table 3.2 for the U.S. 2008, Table 4.2 for Brazil 2002, Table 5.4 for Mexico 2000, and Table 5.11 for Mexico 2006.
All effects reported are statistically significant at the p=.100 level (two-tailed).

Table 6.2
Effects on the Predicted Probability of Voting for the Winning Candidate across Elections, by Level of Political Sophistication

Level of Political Sophistication	Candidate Considerations				Policy Considerations				Performance Considerations			
	U.S. 2008	Brazil 2002	Mexico		U.S. 2008	Brazil 2002	Mexico		U.S. 2008	Brazil 2002	Mexico	
			2000	2006			2000	2006			2000	2006
Minimum	0.91	0.96	0.98	0.79	0.15	0.19	--	--	-0.24	--	--	0.18
1 Standard Deviation Below Mean	0.92	0.97	0.98	0.80	0.44	0.28	--	--	-0.54	--	--	0.21
Mean	0.92	0.98	0.95	0.85	0.56	0.44	--	--	-0.70	-0.16	--	0.42
1 Standard Deviation Above Mean	0.91	0.98	0.90	0.89	0.60	0.59	--	--	-0.80	-0.27	--	0.59
Maximum	0.90	0.98	0.83	0.89	0.60	0.61	--	--	-0.85	-0.29	--	0.61

Reported effects come from Table 3.4 for the U.S. 2008, Table 4.4 for Brazil 2002, Table 5.7 (Expanded Model) for Mexico 2000, and Table 5.13 for Mexico 2006.

As expected, political sophistication does not seem to have much of a conditioning role on the weight of candidate considerations. There are slight differences between the least and most sophisticated for candidate utilities in the U.S. and for the probability of voting for the winning candidates in Mexico. The overall pattern across the utility and vote choice models, however, is that candidate considerations matter a lot regardless of political sophistication.

The findings paint a very different picture for the role of policy considerations in at least two respects. First, policy considerations' influence is variable across the cases. Indeed, while policy considerations did not seem to matter for anyone in the two Mexican elections, they did matter in the U.S. and Brazilian elections. For the average voter, policy considerations moved candidate utilities by about 21 points in the U.S. and by about 13 points in Brazil. Similarly, they moved probabilities for Obama by about 56 percentage points in the U.S. and probabilities for Lula by about 44 percentage points in Brazil.

Second, to the extent that policy considerations mattered in the U.S. and Brazil, they mattered a lot more for the more politically sophisticated. In the U.S., the difference in the effect of policy considerations between the least and most sophisticated is more than 40 points for utilities and more than 45 percentage points for the probability of voting for Obama. In Brazil, the difference between these sophistication groups is about 11 points for utilities and about 40 percentage points for the probability of voting for Lula.

The story of performance considerations' influence and dependence on sophistication is not straightforward due to the variable effects on utilities across candidates. Let us first consider the effect of performance considerations on utilities for "incumbent candidates" (i.e., candidates that share the same party label as the incumbent president). Saving the unique electoral context in Mexico 2000, performance considerations had a similar effect on utilities for incumbent candidates across the cases. For the average voter in each context, performance considerations moved incumbent candidate utilities by about 19 points in the U.S. 2008, 18 points in Brazil 2002, and 22 points in Mexico 2006.[47]

The effect of performance considerations on utilities for opposition candidates is much more variable across the cases. Table 6.1 presents these patterns for the lead opposition candidate in each election. Whereas performance considerations are estimated to decrease the average U.S. voter's utility by nearly 23 points for Obama, they decrease the average Brazilian voter's utilities for Lula by less than 5 points. In Mexico, they have no effect on utilities for Fox in 2000, but are estimated to move the average Mexican voter's utility for AMLO by about 14 points in 2006.

Political sophistication's conditioning role on performance considerations also varies across the contexts. In the U.S. 2008 and Mexico 2006, we see the biggest differences between the least and most sophisticated in the weight of performance considerations on utilities for the opposition candidates. For the least sophisticated, the

[47] In Mexico 2000, performance considerations moved the average voter's utility for the incumbent candidate, Labastida, by less than 7 points.

effect of performance considerations is indistinguishable from zero in both the U.S. 2008 and Mexico 2006 elections; for the most sophisticated, the effect magnitude increases to nearly 35 in the U.S. and to nearly 21 points in Mexico. The differences across levels of political sophistication are much less pronounced for the incumbent candidate utilities in these elections.

The patterns are much different in Brazil, where political sophistication plays an important conditioning role even when it comes to performance considerations' effect on utilities for the incumbent candidate, Serra. These differences in political sophistication's conditioning role are likely related to differences in the extent to which party labels are meaningful to voters across the contexts. Given its under-institutionalized party system, it probably takes much more information for Brazilian voters to evaluate candidates – even the incumbent's co-partisan – on the basis of performance.

Turning to the effects of performance considerations on the probability of voting for the winning candidate, the results are again variable across the cases. They moved the average U.S. voter's probability of voting for Obama by about 70 percentage points; in contrast, they only moved the average Brazilian voter's probability of voting for Lula by about 16 percentage points. Performance considerations did not seem to affect Mexicans' probability of voting for Fox in 2000. They did matter, however, in 2006 – moving the average Mexican voter's probability of voting for Calderón by about 42 percentage points in that election. Political sophistication matters here, too; the differences in effects between the least and most sophisticated in each context amount to

about 60 percentage points in the U.S., about 30 in Brazil, and a little more than 40 in Mexico 2006.

Overall, these findings are consistent with my expectations. First, candidate considerations matter (a lot) regardless of political sophistication. Second, to the extent that policy and performance considerations matter, they matter more as political sophistication increases. Third, these patterns hold pretty well across the elections under study (with the exception of the unique 2000 election in Mexico where neither policy nor performance mattered for anyone). The evidence for my expectation that political sophistication should condition the weight of policy more than that of performance is less clear. While it may be relatively easy to connect incumbent performance to the incumbent, it seems to require some political sophistication (even in the U.S.) to determine how incumbent performance should reflect on opposition candidates.

Patterns across Electoral Contexts

I now turn to examine variation across electoral contexts. In line with the argument developed in Chapter 2, I consider how contextual factors may shape the information and cognitive demands on voters, making it more or less difficult for voters to evaluate candidates on bases other than their personalities. More specifically, I compare the electoral contexts according to various aspects of the institutionalization and structure of political competition.

Of course, assessing the impact of any contextual factor is impossible given the multitude of factors that likely matter (the four I examine here plus any others

unexamined here) and the small number of cases (four elections and three countries). That said, we can at least compare observed patterns with those generated by expectations regarding each contextual factor's theoretical role. Such comparisons do not allow definitive conclusions about factors' influences, and I do not pretend that they do. They do provide, however, a helpful starting point for considering the role played by context-level factors.

Table 6.3 presents the observed ordinal ranking of the U.S. 2008, Brazil 2002, Mexico 2000, and Mexico 2006 electoral contexts according to the weights of policy and performance considerations in each context. The rankings are based on the estimated effects for voters with average sophistication levels in each election (see Tables 6.1 and 6.2). Overall, performance considerations had the greatest weight in the U.S. 2008, followed (in decreasing order) by Mexico 2006, Brazil 2002, and Mexico 2000. The pattern is somewhat different with regard to the weight of policy considerations. The U.S. 2008 is again ranked as the highest, followed by Brazil 2002, and then the two Mexican elections (where policy considerations did not seem to matter).

I compare these observed ordinal rankings to the rankings we should expect based on the democratic experience, party system institutionalization, number of candidates, and structure of the policy space in each context. The expected ordinal patterns (discussed below) are presented alongside the observed patterns in Table 6.3.

Table 6.3
Comparative Patterns in Weights of Performance and Policy Considerations

	Low			High
Observed Ordinal Patterns in Weight of Performance Considerations				
Weight of Performance Considerations on Utility for Incumbent Candidate	Mexico 2000	Brazil 2002	U.S. 2008	Mexico 2006
Weight of Performance Considerations on Utility for Lead Opposition Candidate	Mexico 2000	Brazil 2002	Mexico 2006	U.S. 2008
Weight of Performance Considerations on Probability of Voting for Winner	Mexico 2000	Brazil 2002	Mexico 2006	U.S. 2008
Observed Ordinal Patterns in Weight of Policy Considerations				
Weight of Policy Considerations on Candidate Utilities	Mexico 2000, Mexico 2006		Brazil 2002	U.S. 2008
Weight of Policy Considerations on Probability of Voting for Winner	Mexico 2000, Mexico 2006		Brazil 2002	U.S. 2008
Expected Ordinal Patterns in Weights Based on Nature of Political Competition				
Democratic Experience	Mexico 2000	Mexico 2006	Brazil 2002	U.S. 2008
Party System Institutionalization	Brazil 2002	Mexico 2000	Mexico 2006	U.S. 2008
Number of Candidates	Brazil 2002	Mexico 2000	Mexico 2006	U.S. 2008
Policy Space (range)	Mexico 2000	U.S. 2008	Brazil 2002	Mexico 2006
Policy Space (dispersion)	Mexico 2000	Brazil 2002	Mexico 2006	U.S. 2008

Democratic Experience

Ranking the cases according to experience with democracy is rather straightforward. The U.S. clearly has the longest record of competitive elections, followed by Brazil and Mexico (in that order). After a long period of military rule (1964 – 1985), Brazil's political system became increasingly competitive in the mid-1980s,

culminating in a new constitution and the first direct election for president in 1989. In Mexico, the 2000 election marked the end of over seventy years of one-party rule. Prior to Vicente Fox's win, the Mexican presidency had been occupied by someone from the PRI since 1929. Beginning in the 1980s, politics became increasingly competitive (especially at the local, regional, and legislative levels), picking up speed in the 1997 mid-term elections and the 2000 presidential election.

Experience with democracy should increase the influence of policy and performance considerations on electoral decisions. Thus, based on their relative democratic experience, we should expect the following ordinal pattern, from lowest to highest: (1) Mexico 2000, (2) Mexico 2006, (3) Brazil 2002, and (4) U.S. 2008. This expected pattern is consistent with the observed pattern for policy considerations. Thus, there is some initial support for the contention that the more experience an electorate has with democratic political competition, the better able they will be to evaluate candidates on the basis of policy.

The expected pattern is not consistent, however, with the observed pattern for performance considerations. Performance considerations seem to have mattered more in the 2006 Mexican election (relative to the other cases, particularly Brazil 2002) than expected based on experience with democratic political competition. That performance considerations mattered more in Mexico 2006 than in Brazil 2002 suggests that other factors like party system institutionalization and the number of candidates may matter more than experience with democracy.

Party System Institutionalization

The U.S. leads Brazil and Mexico in terms of party system institutionalization. The same two parties, the Democratic Party and the Republican Party, have dominated political competition for most of the U.S.'s modern political history. Mexico has the next highest level of party system institutionalization, even in 2000. The PRI, PAN, and PRD have been the three main political parties at all levels of politics and government since at least 1991.

Brazil has the lowest level of party system institutionalization. It has often been highlighted as having one of the weakest party systems in Latin America (and beyond) (Mainwaring 1998) with electoral volatility averaging 31.94 between 1982 and 1998 (compared to Mexico's average of 14.93 between 1979 and 2000) (see Madrid 2005). Going into the 2002 election, there were signs of increased stabilization in the sense that the parties of the two leading candidates, the PT (Lula's party) and the PSDB (Serra's party), seemed to be more or less established players with reputations (see Hagopian 2004). The PT had a programmatic reputation based on a cohesive socially progressive platform and a record in local governments, and the PSDB had a reputation based on incumbent president Cardoso's eight years in office (Hunter and Power 2005; see also Hagopia 2004). That said, overall, the party system was still very under-institutionalized during this period and party labels were not likely effective cues for voters (Encarnación 2003). Indeed, in a poll of Brazilians in four cities in 1999, only 36% of respondents could identify the incumbent president's political party (Baker et al. 2006).

Party system institutionalization should increase the influence of policy and performance considerations on electoral decisions. Thus, based on their relative levels of party system institutionalization, we should expect the following ordinal pattern, from lowest to highest: (1) Brazil 2002, (2) Mexico 2000, (3) Mexico 2006, and (4) U.S. 2008. With the exception of the U.S. 2008 context's position at the top of the ordinal scale, the observed patterns with regard to policy considerations do not mirror the expected pattern.

There are, however, some important consistencies worth noting with regard to performance considerations. Performance considerations seem to matter more for the Mexico 2006 and U.S. 2008 elections compared to Brazil 2002. This is consistent with expectations based on party system institutionalization. Inconsistent with expectations, however, is the finding that performance considerations mattered more in Brazil 2002 than in Mexico 2000. This, of course, is likely due to the fact that the regime change issues overshadowed debates about the performance of the incumbent Mexican president, Ernesto Zedillo, in 2000.

Number of Candidates

By "number of candidates," I mean the number of candidates that had a reasonable chance of winning a sizeable number of votes (at least at the beginning of the campaign). The 2002 election in Brazil had the most candidates, four.[48] Next are

[48] Note that Roseana Sarney was also a (very) viable candidate at the beginning of the campaign, but she ended her campaign months before the election.

Mexico's two elections in 2000 and 2006 with three candidates dominating both elections. Lastly, there is the U.S. 2008 election with two candidates.

As the number of candidates increases, the influence of policy considerations on electoral decisions should decrease. Expectations for performance considerations are more nuanced. The number of candidates should not have any effect on the weight of performance considerations on voters' utilities for incumbent candidates. It should, however, matter for opposition candidate utilities and the vote choice overall. As the number of candidates increases, it should become more difficult (i.e., more cognitively demanding) to determine how evaluations of the incumbent should reflect on the various opposition candidates. Thus, the more candidates competing for president, the less the weight of performance considerations should be on vote choice and utilities for opposition candidates.

Based on the number of candidates in each election, then, we should expect the following ordinal pattern, from lowest to highest: (1) Brazil 2002, (2) Mexico 2006 and Mexico 2000, and (3) U.S. 2008. The observed pattern in the weight of policy considerations is not really consistent with this expected pattern. The U.S. is ranked in the highest position as expected, but policy considerations mattered more in Brazil 2002 than in either of the Mexican elections; indeed, recall (from Chapter Five) that policy considerations did not seem to have any effect in the Mexican elections. These results are consistent, however, with the alternative but related idea that the number of

candidates may matter, but that the relevant distinction is an election with two candidates versus an election with more than two candidates.

When it comes to the weight of performance considerations on opposition utilities and vote choice, the observed pattern is rather consistent with the expected pattern. The only outlier is Mexico 2000 which we already understand to be a unique context and particularly so with regard to the role of performance considerations. Apart from this exception, the remaining elections are ranked in the expected order. Performance considerations mattered the most for vote choice and opposition utilities in the U.S. 2008, followed by Mexico 2006 and, finally, Brazil 2002.

Policy Space

I use two measures to rank the cases according to the extent to which the candidates collectively represent a range of distinct policy choices. The first looks at the maximum distance between any two candidates in a given election; this represents the range of choice available to voters. Using sample mean placements of the candidates' policy positions, I calculated the average distance between the candidates with the most "left" and most "right" (in ideological terms) policy positions for each election.[49]

Comparing the four elections on this measure of policy space range, the 2002 Brazilian election has the most range, followed by Mexico 2006 and the U.S. 2008. There is not much difference among these three cases, however; their levels of policy space range are relatively similar with distances between .32 and .36 on the 0-1 range

[49] The specific scores and the information for calculating them are presented in Table A1.23.

scale. This contrasts sharply with the extremely low level of policy space range in the 2000 Mexican election where the average maximum policy distance between any two candidates was less than .10 on the 0-1 scale.

The second way of ranking the cases considers the dispersion of candidates across the policy space. For example, while there was substantial range in the 2002 Brazilian election, there were also four candidates that occupied this space. Serra and Lula anchored the poles and Gomes and Garotinho divided up the space between them. Thus, while Brazilians may have had a relatively wide range of choice, it may have been relatively difficult to distinguish candidates adjacent to one another in the policy space. To get at this aspect of the policy space, I calculate the average distance between all adjacent pairs of candidates in a given election. Comparing the cases on this simple measure of dispersion, the 2008 U.S. election has the highest level of dispersion (given the two-candidate contest), followed – in order of decreasing dispersion – by Mexico 2006, Brazil 2002, and Mexico 2000.[50]

Overall, the observed ranking of cases on the weight of policy considerations is not consistent with the patterns expected on the basis of the range or dispersion of the policy space. This seems driven primarily by the position of Mexico 2006. Based on the range and dispersion of the policy space in Mexico 2006, policy considerations should have mattered a lot in voters' electoral decisions in that election. From Chapter Six, we

[50] The specific scores and the information for calculating them are presented in Table A1.23.

know, however, that policy considerations did not seem to play a role in voters' utilities or vote decisions in this election.

Conclusion

The analysis in this chapter suggests that contextual factors may indeed make it more or less difficult for voters to evaluate candidates on bases other than their personalities. For example, the patterns across the four elections considered are consistent with the hypothesis that the weight of performance considerations decreases with the number of candidates and increases with party system institutionalization. The patterns are also consistent with the hypothesis that experience with democratic political competition increases the weight of policy considerations. Given the "small N" problem here, these findings are far from conclusive, but nonetheless provide some interesting starting points for future research on context-level variation in candidate-centered voting.

Chapter 7
Conclusion

Voters' neglect of policies and performance in favor of candidate images poses problems for the quality of democracy. Such candidate-centered voting undermines the potential for democratic representation and accountability. Given its prevalence and the hazards it poses for the quality of democracy, this dissertation aimed to better understand individual-level and context-level variation in the extent to which voters engage in candidate-centered voting.

I have argued that candidate-centered voting is largely an information problem. Many voters lack the cognitive ability to process the political information necessary to vote on more substantive bases like policy and performance. In contrast, it does not take much political information or expertise to vote on the basis of candidates' personalities. As a consequence, such candidate considerations often outweigh the more cognitively demanding considerations relating to policy and performance.

At the individual level, I focused on the conditioning role of political sophistication, arguing that voters with higher levels of political sophistication engage in less candidate-centered voting due to their increased capacity to manage the more cognitively demanding types of information. At the context-level, I focused on factors relating to the institutionalization and structure of political competition that may make it more difficult for voters to evaluate candidates on bases other than their personalities.

Candidate-Centered Voting and Political Sophistication

Chapters 3, 4, and 5 focused on testing the individual-level argument about political sophistication's conditioning role in recent presidential elections in the U.S.,

Brazil, and Mexico. Whether looking at electoral utilities or vote choice, the findings from these analyses are rather consistent with my expectations. First, candidate considerations matter (a lot) regardless of political sophistication. Second, to the extent that policy and performance considerations matter, they matter more as political sophistication increases. Third, it follows, the extent to which candidate considerations dominate electoral decisions seems to be a decreasing function of political sophistication. Importantly, these patterns hold across the elections under study (with the possible exception of the 2000 election Mexico[51]).

There are some interesting unanticipated findings with regard to political sophistication's conditioning role on performance considerations. While it may be relatively easy to connect incumbent performance to the incumbent's co-partisan, it seems to require some political sophistication to determine how incumbent performance should reflect on opposition candidates. In Mexico 2006 and the U.S. 2008, for example, political sophistication is rather inconsequential in conditioning the weight of performance on the incumbent candidate utilities (Calderón and McCain), but very consequential when utilities for the lead opposition candidates (AMLO and Obama) are concerned.

Interestingly, however, voting on the basis of performance considerations seems to require a lot more political sophistication in the Brazilian political context. Indeed, in Brazil 2002, political sophistication is highly consequential even for the weight of

[51] In the unique 2000 election in Mexico, concerns about political change seemed to overshadow other concerns, making neither policy nor performance matter in any systematic way for voters.

performance considerations on incumbent candidate utilities. I attribute this difference between Brazil, on the one hand, and the U.S. and Mexico, on the other, to the fact that the latter two countries enjoy rather stable party systems compared to the former. With the help of meaningful party labels in these systems, it is probably relatively easy for most voters to see how an incumbent's performance might relate to his co-partisan competing in the election, requiring little additional political information to evaluate the incumbent candidate on this basis.

As with all empirical work, the individual-level analyses have their limitations. For one, the measures used are imperfect. This is a function of both the inherent difficulty (indeed, impossibility!) of accurately measuring "inside-the-head" constructs (like considerations and utilities) and a function of the limitations of the specific survey data used. Recognizing this, I estimated the utility and vote choice models using alternative measures wherever possible. I take comfort in the fact that the substantive conclusions implied by the results were quite consistent across the various measures for each country.

It is also important to consider the extent to which the individual-level findings are generalizable to the populations in question (i.e., all voters in the presidential elections in the U.S. 2008, Brazilian 2002, and Mexican 2000 and 2006.). This is a particular concern for the analysis of the 2002 Brazilian presidential election. The data used to estimate the utility and vote choice models for this election come from a survey study whose sample was based on two cities in Brazil. Thus, there are legitimate

questions about how generalizable the findings in Chapter 4 are to the broader Brazilian population. Hopefully, researchers will conduct survey studies with national samples and the necessary question items to examine the generalizability of these findings in future elections.

Of course, there is a broader generalizability concern (for all the elections under study) driven by the common problem of missing data. Indeed, while the U.S. and Mexico analyses are based on data from national samples, the representativeness of the samples ultimately used for estimation is questionable due to missing data. While this problem is not easily dismissed, I take comfort in knowing that to the extent the results are biased by missing data, they should be biased in a way that undermines my argument. Indeed, because the less politically sophisticated are the most likely to offer "don't know" responses, the samples used for estimation should be more politically sophisticated, on average, than the original national sample. This would bias estimates of political sophistication's conditioning effect downward.

Candidate-Centered Voting across Contexts

Chapter 6 considered patterns in the extent to which policy and performance considerations challenge candidate considerations' dominance across the electoral contexts. I focused on contextual factors expected to affect the information and cognitive demands on voters, making it more or less difficult for voters to evaluate candidates on bases other than their personalities. There is initial support for two hypotheses. The cross-context patterns are consistent with the hypothesis that the weight of performance

considerations decreases with the number of candidates and increases with party system institutionalization. The patterns are also consistent with the hypothesis that experience with democratic political competition increases the weight of policy considerations.

Of course, these findings are far from conclusive given the "small N" problem underlying the analysis of several context-level factors across so few cases. Likewise, context-level factors other than those discussed here are likely to explain additional variation across electoral contexts. One set of factors worth exploring in future research includes the "issue context" surrounding the election. For example, certain issues and policy debates are more cognitively demanding than others; indeed, some might be considered "easy" issues, (e.g., abortion), while others are viewed as "hard" (e.g., foreign policy) (Carmines and Stimson 1980). Thus, depending on which type(s) of issues dominate a certain election, policy considerations may challenge candidate considerations' influence to varying degrees. It would be interesting to examine variation of this sort across elections in a given country.

Another interesting avenue for further research would be to explore variation in the extent of candidate-centered voting for various types of elections. The focus of this dissertation has been on presidential elections. On the one hand, these elections are unique in the extent to which attention is paid to the candidates, perhaps exacerbating voters' attention to candidate images. On the other hand, these elections also tend to be information-rich with long campaign periods filled with debates and nonstop media coverage. It would be interesting to examine variation in the information contexts and

candidate-centered voting in other elections like those for legislators, state- or region-level offices like governor, and even local offices like mayor.

Conclusion

This study improves our understanding of candidate-centered voting in at least two respects. First, it has contributed to debates on the conditioning effect of political sophistication by clarifying its role. As I have argued and demonstrated empirically, political sophistication should not condition the absolute weight of candidate considerations to any meaningful degree. It conditions the absolute weights of policy and performance considerations – and thus the *relative* weight of candidate considerations. Second, I have broken with the tradition to focus solely on the U.S. for empirical examinations of candidate-centered voting. In addition to permitting a broader test of political sophistication's role, the analysis of the Mexican and Brazilian elections also highlighted interesting variation across contexts. Indeed, comparisons across the cases suggest that factors like the institutionalization and structure of political competition may affect voters' ability to evaluate candidates on bases other than personality.

Appendix 1
Supporting Tables for Individual and Context-Level Analyses

Table A1.1
Descriptive Statistics for Dependent and Independent Variables,
U.S. 2008 Analysis

Measures[a]	Voter-Specific	Candidate-Specific	
		Obama	McCain
Vote		0.557	0.420
Utility		57.872 (28.42)	51.807 (25.47)
Trait Perception		0.644 (0.24)	0.603 (0.24)
Policy Agreement[b]		-0.343 (0.14)	-0.341 (0.14)
Political Party Identification		0.346 (0.39)	0.253 (0.37)
Bush Evaluation	0.288 (0.31)		
Political Sophistication	0.555 (0.26)		

Sample means are reported with standard deviations in parentheses.
a/ All measures run from 0 to 1 with the exception of *Utility* (range: 0-100) and *Policy Agreement* (see next note).
b/ *Policy Agreement* runs, in theory, from -1 to 0. In contrast to all other measures included in the models, neither its theoretical minimum nor its maximum are observed in the sample. The observed minima and maxima for *Policy Agreement* are (-.706, -.030) for Obama and (-.708, -.026) for McCain.

Table A1.2
Descriptive Statistics for Original Trait, Policy, and Bush Approval Items, U.S. 2008 Analysis

Measures[a]	Voter-Specific	Candidate-Specific	
		Obama	McCain
Trait Items			
Moral		0.629	0.621
		(0.32)	(0.32)
Provides Strong Leadership		0.593	0.622
		(0.34)	(0.32)
Really Cares about People Like You		0.584	0.463
		(0.34)	(0.32)
Knowledgeable		0.671	0.672
		(0.31)	(0.30)
Intelligent		0.755	0.688
		(0.30)	(0.29)
Honest		0.578	0.569
		(0.33)	(0.33)
Optimistic		0.697	0.587
		(0.32)	(0.31)
Policy Items[b]			
Spending on Services	0.433	0.291	0.553
	(0.30)	(0.27)	(0.26)
Spending on Defense	0.500	0.382	0.716
	(0.28)	(0.27)	(0.24)
Universal Healthcare	0.432	0.258	0.701
	(0.37)	(0.28)	(0.27)
Government Assistance to Blacks	0.637	0.335	0.653
	(0.31)	(0.29)	(0.25)
Bush Approval Items			
Economy	0.200		
	(0.33)		
International Relations	0.311		
	(0.40)		
Environment	0.365		
	(0.40)		
Iraq	0.268		
	(0.37)		
Healthcare	0.297		
	(0.42)		

Sample means are reported with standard deviations in parentheses.
a/ All measures run from 0 to 1.
b/ Increases in policy items correspond to increasingly "rightist" positions.

Table A1.3
Voter Profiles for Predicted Probabilities, U.S. 2008 Analysis

Voter Profile	Variables	Values when Changing Trait Perceptions for Obama		Values when Changing Policy Agreement with Obama		Values when Changing Performance Evaluations of Bush	
		McCain	Obama	McCain	Obama	McCain	Obama
Pro-McCain	Traits	Max	Min to Max	Max	Min	Max	Min
	Policy	Max	Min	Max	Min to Max	Max	Min
	Party	Strong Rep	Min	Strong Rep	Min	Strong Rep	Min
	Performance	Max		Max		Min to Max	
Leaning McCain	Traits	Mean+1SD	Min to Max	Mean+1SD	Mean-1SD	Mean+1SD	Mean-1SD
	Policy	Mean+1SD	Mean-1SD	Mean+1SD	Min to Max	Mean+1SD	Mean-1SD
	Party	Mean Rep	Min	Mean Rep	Min	Mean Rep	Min
	Performance	0.75		0.75		Min to Max	
Middle of the Road	Traits	Mean	Min to Max	Mean	Mean	Mean	Mean
	Policy	Mean	Mean	Mean	Min to Max	Mean	Mean
	Party	Min	Min	Min	Min	Min	Min
	Performance	0.5		0.5		Min to Max	
Leaning Obama	Traits	Mean-1SD	Min to Max	Mean-1SD	Mean+1SD	Mean-1SD	Mean+1SD
	Policy	Mean-1SD	Mean+1SD	Mean-1SD	Min to Max	Mean-1SD	Mean+1SD
	Party	Min	Mean Dem	Min	Mean Dem	Min	Mean Dem
	Performance	0.25		0.25		Min to Max	
Pro-Obama	Traits	Min	Min to Max	Min	Max	Min	Max
	Policy	Min	Max	Min	Min to Max	Min	Max
	Party	Min	Strong Dem	Min	Strong Dem	Min	Strong Dem
	Performance	Min		Min		Min to Max	

Table A1.4
Effect of Candidate Considerations on the Predicted Probability of Voting for Obama, by Level of Political Sophistication and for Various Voter Profiles (U.S. 2008 Analysis)

Level of Political Sophistication	Pro-McCain Voters			Leaning McCain Voters			Middle of the Road Voters			Leaning Obama Voters			Pro-Obama Voters		
	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**
Minimum	0.000	0.044	**0.044**	0.001	0.335	**0.334**	0.023	0.937	**0.914**	0.412	0.998	**0.586**	0.967	1.000	**0.033**
1 Standard Deviation Below Mean	0.000	0.023	**0.023**	0.001	0.325	**0.324**	0.034	0.957	**0.923**	0.622	0.999	**0.377**	0.994	1.000	**0.006**
Mean	0.000	0.013	**0.013**	0.001	0.316	**0.315**	0.049	0.970	**0.921**	0.783	1.000	**0.217**	0.999	1.000	**0.001**
1 Standard Deviation Above Mean	0.000	0.007	**0.007**	0.001	0.305	**0.305**	0.069	0.979	**0.910**	0.887	1.000	**0.113**	1.000	1.000	**0.000**
Maximum	0.000	0.005	**0.005**	0.001	0.299	**0.298**	0.087	0.984	**0.896**	0.931	1.000	**0.069**	1.000	1.000	**0.000**

Table A1.5
Effect of Policy Considerations on the Predicted Probability of Voting for Obama, by Level of Political Sophistication and for Various Voter Profiles (U.S. 2008 Analysis)

Level of Political Sophistication	Pro-McCain Voters			Leaning McCain Voters			Middle of the Road Voters			Leaning Obama Voters			Pro-Obama Voters		
	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**
Minimum	0.000	0.000	**0.000**	0.008	0.014	**0.006**	0.500	0.652	**0.151**	0.992	0.996	**0.004**	1.000	1.000	**0.000**
1 Standard Deviation Below Mean	0.000	0.000	**0.000**	0.001	0.010	**0.009**	0.197	0.639	**0.442**	0.977	0.997	**0.020**	1.000	1.000	**0.000**
Mean	0.000	0.000	**0.000**	0.000	0.007	**0.007**	0.064	0.627	**0.563**	0.938	0.997	**0.059**	1.000	1.000	**0.000**
1 Standard Deviation Above Mean	0.000	0.000	**0.000**	0.000	0.006	**0.005**	0.019	0.616	**0.597**	0.844	0.998	**0.153**	1.000	1.000	**0.000**
Maximum	0.000	0.000	**0.000**	0.000	0.004	**0.004**	0.008	0.609	**0.601**	0.730	0.998	**0.268**	1.000	1.000	**0.000**

Table A1.6
Effect of Performance Considerations on the Predicted Probability of Voting for Obama,
by Level of Political Sophistication and for Various Voter Profiles
(U.S. 2008 Analysis)

Level of Political Sophistication	Pro-McCain Voters			Leaning McCain Voters			Middle of the Road Voters			Leaning Obama Voters			Pro-Obama Voters		
	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**
Minimum	0.000	0.000	**0.000**	0.022	0.008	**-0.014**	0.715	0.476	**-0.239**	0.996	0.990	**-0.006**	1.000	1.000	**0.000**
1 Standard Deviation Below Mean	0.000	0.000	**0.000**	0.058	0.005	**-0.053**	0.901	0.361	**-0.540**	0.999	0.984	**-0.015**	1.000	0.999	**-0.001**
Mean	0.000	0.000	**0.000**	0.205	0.003	**-0.202**	0.967	0.268	**-0.699**	1.000	0.976	**-0.023**	1.000	0.996	**-0.004**
1 Standard Deviation Above Mean	0.000	0.000	**0.000**	0.451	0.002	**-0.449**	0.990	0.191	**-0.799**	1.000	0.964	**-0.036**	1.000	0.979	**-0.021**
Maximum	0.000	0.000	**0.000**	0.643	0.002	**-0.642**	0.995	0.150	**-0.845**	1.000	0.953	**-0.047**	1.000	0.939	**-0.061**

Table A1.7
Descriptive Statistics for Dependent and Independent Variables,
Brazil 2002 Analysis

Measures[a]	Voter-Specific	Candidate-Specific			
		Lula	Serra	Gomes	Garotinho
Vote		0.569	0.234	0.850	0.112
		(0.50)	(0.42)	(0.28)	(0.32)
Utility		69.432	50.257	45.241	47.040
		(31.82)	(32.18)	(27.13)	(28.80)
Trait Perception		0.628	0.586	0.550	0.555
		(0.20)	(0.18)	(0.18)	(0.19)
Policy Agreement[b]		-0.374	-0.459	-0.395	-0.373
		(0.17)	(0.12)	(0.10)	(0.12)
Political Party Identification		0.334	0.021	0.003	0.002
		(0.47)	(0.14)	(0.05)	(0.05)
Retrospective Evaluation	0.278				
	(0.26)				
Political Sophistication	0.568				
	(0.37)				

Sample measures are reported with standard deviations in parentheses.
a/ All measures run from 0 to 1 with the exception of *Utility* (range 0-100) and *Policy Agreement* (see next note).
b/ *Policy Agreement* runs, in theory, from -1 to 0. In contrast to all other measures included in the models, neither its theoretical minimum nor its maximum are observed in the sample. The observed minima and maxima for *Policy Agreement* are (-.793, -.012) for Lula; (-.697, -.046) for Serra; (-.597, -.031) for Gomes; and (-.681, -.084) for Garotinho.

Table A1.8
Descriptive Statistics for Original Trait and Policy Items,
Brazil 2002 Analysis

Measures[a]	Voter-Specific	Candidate-Specific			
		Lula	Serra	Gomes	Garotinho
Trait Items					
Honest		0.600	0.49	0.621	0.621
		(0.32)	(0.32)	(0.32)	(0.32)
Intelligent		0.593	0.622	0.622	0.622
		(0.34)	(0.32)	(0.32)	(0.32)
Compassionate		0.641	0.519	0.484	0.553
		(0.26)	(0.26)	(0.25)	(0.26)
Decisive		0.656	0.614	0.589	0.576
		(0.27)	(0.24)	(0.25)	(0.25)
Policy Items[b]					
Privatization	0.357	0.234	0.769	0.488	0.380
	(0.39)	(0.35)	(0.35)	(0.40)	(0.39)
Social Spending	0.225	0.242	0.384	0.353	0.275
	(0.37)	(0.37)	(0.42)	(0.39)	(0.37)
Land Reform	0.372	0.180	0.563	0.456	0.365
	(0.41)	(0.32)	(0.41)	(0.40)	(0.39)

Sample means are reported with standard deviations in parentheses.
a/ All measures run from 0 to 1.
b/ Increases in policy items correspond to increasingly "rightist" positions.

Table A1.9
Voter Profiles for Predicted Probabilities, Brazil 2002 Analysis

Voter Profile	Variables	Values when Changing Trait Perceptions for Lula		Values when Changing Policy Agreement with Lula		Values when Changing Performance Evaluations	
		Serra	Lula	Serra	Lula	Serra	Lula
Pro-Serra	Traits	Max	Min to Max	Max	Min	Max	Min
	Policy	Max	Min	Max	Min to Max	Max	Min
	Party	PSDB	Min	PSDB	Min	PSDB	Min
	Performance	Max		Max		Min to Max	
Leaning Serra	Traits	Mean+1SD	Min to Max	Mean+1SD	Mean-1SD	Mean+1SD	Mean-1SD
	Policy	Mean+1SD	Mean-1SD	Mean+1SD	Min to Max	Mean+1SD	Mean-1SD
	Party	PSDB	Min	PSDB	Min	PSDB	Min
	Performance	0.75		0.75		Min to Max	
Middle of the Road	Traits	Mean	Min to Max	Mean	Mean	Mean	Mean
	Policy	Mean	Mean	Mean	Min to Max	Mean	Mean
	Party	Min	Min	Min	Min	Min	Min
	Performance	0.5		0.5		Min to Max	
Leaning Lula	Traits	Mean-1SD	Min to Max	Mean-1SD	Mean+1SD	Mean-1SD	Mean+1SD
	Policy	Mean-1SD	Mean+1SD	Mean-1SD	Min to Max	Mean-1SD	Mean+1SD
	Party	Min	PT	Min	PT	Min	PT
	Performance	0.25		0.25		Min to Max	
Pro-Lula	Traits	Min	Min to Max	Min	Max	Min	Max
	Policy	Min	Max	Min	Min to Max	Min	Max
	Party	Min	PT	Min	PT	Min	PT
	Performance	Min		Min		Min to Max	

Variables specific to Gomes and Garotinho are set to their minimum values for all five voter profiles.

Table A1.10
Effect of Candidate Considerations on the Predicted Probability of Voting for Lula,
by Level of Political Sophistication and for Various Voter Profiles
(Brazil 2002 Analysis)

Level of Political Sophistication	Pro-Serra Voters			Leaning Serra Voters			Middle of the Road Voters			Leaning Lula Voters			Pro-Lula Voters		
	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**
Minimum	0.000	0.092	**0.092**	0.001	0.586	**0.585**	0.022	0.984	**0.962**	0.491	1.000	**0.509**	0.944	1.000	**0.056**
1 Standard Deviation Below Mean	0.000	0.048	**0.048**	0.000	0.539	**0.539**	0.017	0.985	**0.968**	0.475	1.000	**0.525**	0.961	1.000	**0.039**
Mean	0.000	0.014	**0.014**	0.000	0.452	**0.452**	0.009	0.986	**0.977**	0.445	1.000	**0.555**	0.979	1.000	**0.021**
1 Standard Deviation Above Mean	0.000	0.004	**0.004**	0.000	0.368	**0.368**	0.005	0.988	**0.983**	0.414	1.000	**0.586**	0.989	1.000	**0.011**
Maximum	0.000	0.004	**0.004**	0.000	0.354	**0.354**	0.005	0.988	**0.983**	0.421	1.000	**0.579**	0.990	1.000	**0.010**

Table A1.11
Effect of Policy Considerations on the Predicted Probability of Voting for Lula,
by Level of Political Sophistication and for Various Voter Profiles
(Brazil 2002 Analysis)

Level of Political Sophistication	Pro-Serra Voters			Leaning Serra Voters			Middle of the Road Voters			Leaning Lula Voters			Pro-Lula Voters		
	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**
Minimum	0.000	0.000	**0.000**	0.009	0.025	**0.016**	0.637	0.825	**0.188**	0.997	0.999	**0.002**	1.000	1.000	**0.000**
1 Standard Deviation Below Mean	0.000	0.000	**0.000**	0.005	0.021	**0.016**	0.560	0.835	**0.275**	0.977	0.999	**0.022**	1.000	1.000	**0.000**
Mean	0.000	0.000	**0.000**	0.002	0.015	**0.013**	0.413	0.851	**0.438**	0.996	1.000	**0.004**	1.000	1.000	**0.000**
1 Standard Deviation Above Mean	0.000	0.000	**0.000**	0.001	0.011	**0.010**	0.280	0.866	**0.586**	0.996	1.000	**0.004**	1.000	1.000	**0.000**
Maximum	0.000	0.000	**0.000**	0.005	0.010	**0.005**	0.260	0.868	**0.608**	0.996	1.000	**0.004**	1.000	1.000	**0.000**

Table A1.12
Effect of Performance Considerations on the Predicted Probability of Voting for Lula,
by Level of Political Sophistication and for Various Voter Profiles
(Brazil 2002 Analysis)

Level of Political Sophistication	Pro-Serra Voters			Leaning Serra Voters			Middle of the Road Voters			Leaning Lula Voters			Pro-Lula Voters		
	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**
Minimum	0.000	0.000	**0.000**	0.015	0.015	**0.000**	0.766	0.763	**-0.003**	1.000	0.990	**-0.010**	1.000	1.000	**0.000**
1 Standard Deviation Below Mean	0.000	0.000	**0.000**	0.012	0.009	**-0.003**	0.765	0.713	**-0.052**	0.999	0.999	**0.000**	1.000	1.000	**0.000**
Mean	0.000	0.000	**0.000**	0.007	0.003	**-0.004**	0.762	0.605	**-0.157**	0.999	0.999	**-0.001**	1.000	1.000	**0.000**
1 Standard Deviation Above Mean	0.000	0.000	**0.000**	0.004	0.001	**-0.003**	0.759	0.486	**-0.273**	1.000	0.999	**-0.001**	1.000	1.000	**0.000**
Maximum	0.000	0.000	**0.000**	0.004	0.001	**-0.003**	0.759	0.465	**-0.294**	1.000	0.999	**-0.001**	1.000	1.000	**0.000**

Table A1.13
Descriptive Statistics for Dependent and Independent Variables,
Mexico 2000 Analysis

Measures[a]	Voter-Specific	Candidate-Specific		
		Fox	Labastida	Cárdenas
Vote		0.421	0.260	0.108
		(0.49)	(0.44)	(0.31)
Utility		63.614	46.932	47.160
		(32.77)	(36.68)	(29.89)
Trait Perception		0.627	0.495	0.463
		(0.29)	(0.31)	(0.28)
Policy Agreement[b]		-0.384	-0.362	-0.348
		(0.13)	(0.13)	(0.13)
Political Party Identification		0.231	0.291	0.085
		(0.38)	(0.37)	(0.24)
Zedillo Evaluation	0.624			
	(0.27)			
Political Sophistication	0.374			
	(0.36)			
Democracy	0.656			
	(0.48)			
Risk	0.719			
	(0.45)			
Female	0.496			
	(0.50)			
Urban	0.752			
	(0.40)			
Catholic	0.559			
	(0.29)			
Age	0.375			
	(0.16)			

Sample means are reported with standard deviations in parentheses.
a/ All measures run from 0 to 1 with the exception of *Utility* (range: 0-100) and *Policy Agreement* (see next note).
b/ *Policy Agreement* runs, in theory, from -1 to 0. In contrast to all other measures included in the models, neither its theoretical minimum nor its maximum are observed in the sample. The observed minima and maxima for *Policy Agreement* are (-.518, -.038) for Fox; (-.544, -.040) for Labastida; and (-.592, -.023) for Cárdenas.

Table A1.14
Descriptive Statistics for Original Trait and Policy Items,
Mexico 2000 Analysis

Measures[a]	Voter-Specific	Candidate-Specific		
		Fox	Labastida	Cárdenas
Trait Items				
Honest		0.602	0.47	0.462
		(0.33)	(0.34)	(0.32)
Competent (Economy)		0.654	0.513	0.451
		(0.32)	(0.35)	(0.32)
Competent (Crime)		0.640	0.485	0.451
		(0.32)	(0.35)	(0.33)
Competent (Education)		0.675	0.559	0.495
		(0.31)	(0.36)	(0.33)
Policy Items[b]				
Crime	0.424	0.478	0.499	0.474
	(0.40)	(0.35)	(0.36)	(0.32)
Privatization	0.264	0.513	0.416	0.349
	(0.33)	(0.37)	(0.38)	(0.32)

Sample means are reported with standard deviations in parentheses.
a/ All measures run from 0 to 1.
b/ Increases in policy items correspond to increasingly "rightist" positions.

Table A1.15
Voter Profiles for Predicted Probabilities, Mexico 2000 Analysis

Voter Profile	Variables	Values when Changing Trait Perceptions of Fox		Values when Changing Policy Agreement with Fox		Values when Changing Performance Evaluations of Zedillo	
		Labastida	Fox	Labastida	Fox	Labastida	Fox
Pro-Labastida	Traits	Max	Min to Max	Max	Min	Max	Min
	Policy	Max	Min	Max	Min to Max	Max	Min
	Party	Strong PRI	Min	Strong PRI	Min	Strong PRI	Min
	Performance	Max		Max		Min to Max	
Leaning Labastida	Traits	Mean+1SD	Min to Max	Mean+1SD	Mean-1SD	Mean+1SD	Mean-1SD
	Policy	Mean+1SD	Mean-1SD	Mean+1SD	Min to Max	Mean+1SD	Mean-1SD
	Party	Mean PRI	Min	Mean PRI	Min	Mean PRI	Min
	Performance	Mean+1SD		Mean+1SD		Min to Max	
Middle of the Road	Traits	Mean	Min to Max	Mean	Mean	Mean	Mean
	Policy	Mean	Mean	Mean	Min to Max	Mean	Mean
	Party	Min	Min	Min	Min	Min	Min
	Performance	Mean		Mean		Min to Max	
Leaning Fox	Traits	Mean-1SD	Min to Max	Mean-1SD	Mean+1SD	Mean-1SD	Mean+1SD
	Policy	Mean-1SD	Mean+1SD	Mean-1SD	Min to Max	Mean-1SD	Mean+1SD
	Party	Min	Mean PAN	Min	Mean PAN	Min	Mean PAN
	Performance	Mean-1SD		Mean-1SD		Min to Max	
Pro-Fox	Traits	Min	Min to Max	Min	Max	Min	Max
	Policy	Min	Max	Min	Min to Max	Min	Max
	Party	Min	Strong PAN	Min	Strong PAN	Min	Strong PAN
	Performance	Min		Min		Min to Max	

Variables specific to Cárdenas are set to their minimum values for all five voter profiles.
For the predicted probabilities based on the expanded model, all five voter profiles also have the following characteristics: they do not live in urban areas; are male; view Mexico as a democracy; agree with the statement “no risk, no gain” over “better the devil you know than the saint you don't”; are of sample mean age; and are Catholic with sample mean Church attendance.

Table A1.16
Effect of Candidate Considerations on the Predicted Probability of Voting for Fox,
by Level of Political Sophistication and for Various Voter Profiles
(Mexico 2000 Analysis, Politico-Psychological Model)

Level of Political Sophistication	Pro-Labastida Voters			Leaning Labastida Voters			Middle of the Road Voters			Leaning Fox Voters			Pro-Fox Voters		
	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**
Minimum	0.193	0.919	**0.726**	0.065	0.766	**0.701**	0.055	0.734	**0.679**	0.073	0.789	**0.716**	0.091	0.827	**0.736**
1 Standard Deviation Below Mean	0.180	0.912	**0.732**	0.066	0.770	**0.704**	0.590	0.746	**0.156**	0.079	0.801	**0.722**	0.101	0.841	**0.740**
Mean	0.014	0.376	**0.362**	0.072	0.754	**0.682**	0.176	0.897	**0.721**	0.379	0.961	**0.582**	0.704	0.989	**0.285**
1 Standard Deviation Above Mean	0.001	0.031	**0.030**	0.048	0.641	**0.593**	0.239	0.917	**0.678**	0.676	0.987	**0.311**	0.981	0.999	**0.018**
Maximum	0.000	0.004	**0.004**	0.036	0.537	**0.501**	0.264	0.919	**0.655**	0.797	0.992	**0.195**	0.970	0.999	**0.029**

Table A1.17
Effect of Candidate Considerations on the Predicted Probability of Voting for Fox,
by Level of Political Sophistication and for Various Voter Profiles
(Mexico 2000 Analysis, Expanded Model)

Level of Political Sophistication	Pro-Labastida Voters			Leaning Labastida Voters			Middle of the Road Voters			Leaning Fox Voters			Pro-Fox Voters		
	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**
Minimum	0.456	0.976	**0.520**	0.059	0.757	**0.698**	0.032	0.614	**0.582**	0.029	0.601	**0.572**	0.017	0.462	**0.445**
1 Standard Deviation Below Mean	0.432	0.974	**0.542**	0.063	0.765	**0.702**	0.035	0.635	**0.600**	0.033	0.628	**0.595**	0.020	0.500	**0.480**
Mean	0.018	0.431	**0.413**	0.072	0.759	**0.688**	0.166	0.891	**0.725**	0.349	0.956	**0.607**	0.626	0.986	**0.360**
1 Standard Deviation Above Mean	0.000	0.011	**0.011**	0.036	0.561	**0.525**	0.224	0.909	**0.685**	0.714	0.988	**0.274**	0.993	1.000	**0.007**
Maximum	0.000	0.000	**0.000**	0.020	0.388	**0.368**	0.246	0.908	**0.662**	0.853	0.994	**0.141**	0.991	1.000	**0.009**

Table A1.18
Descriptive Statistics for Dependent and Independent Variables,
Mexico 2006 Analysis

Measures[a]	Voter-Specific	Candidate-Specific		
		Calderón	Madrazo	AMLO
Vote		0.376	0.165	0.367
		(0.48)	(0.37)	(0.48)
Utility		61.718	44.268	54.599
		(30.56)	(29.62)	(34.60)
Trait Perception (Honesty)		0.532	0.343	0.458
		(0.31)	(0.29)	(0.35)
Policy Agreement[b]		-0.389	-0.400	-0.452
		(0.19)	(0.09)	(0.09)
Political Party Identification		0.134	0.180	0.134
		(0.30)	(0.32)	(0.30)
Fox Evaluation	0.679			
	(0.29)			
Political Sophistication	0.510			
	(0.45)			
Age	0.404			
	(0.16)			
Mexico City Resident	0.228			
	(0.42)			
Female	0.417			
	(0.49)			

Sample means are reported with standard deviations in parentheses.
a/ All measures run from 0 to 1 with the exception of *Utility* (range: 0-100) and *Policy Agreement* (see next note).
b/ Policy Agreement runs, in theory, from -1 to 0. In contrast to all other measures included in the models, neither its theoretical minimum nor its maximum are observed in the sample. The observed minima and maxima for Policy Agreement are (-.777, -.164) for Calderón; (-.636, -.281) for Madrazo; and (-.568, -.270) for AMLO.

Table A1.19
Descriptive Statistics for Original Policy Items,
Mexico 2006 Analysis

Measures[a,b]	Voter-Specific	Candidate-Specific		
		Calderón	Madrazo	AMLO
Commercial Relations with U.S.	0.683	0.780	0.668	0.487
	(0.31)	(0.31)	(0.36)	(0.41)
Privatization	0.600	0.774	0.602	0.382
	(0.49)	(0.42)	(0.49)	(0.49)

Sample means are reported with standard deviations in parentheses.
a/ All measures run from 0 to 1.
b/ Increases in policy items correspond to increasingly "rightist" positions.

Table A1.20
Voter Profiles for Predicted Probabilities, Mexico 2006 Analysis

Voter Profile	Variables	Values when Changing Trait Perceptions of Calderón		Values when Changing Policy Agreement with Calderón		Values when Changing Performance Evaluations of Fox	
		AMLO	Calderón	AMLO	Calderón	AMLO	Calderón
Pro-AMLO	Traits	Max	Min to Max	Max	Min	Max	Min
	Policy	Max	Min	Max	Min to Max	Max	Min
	Party	Strong PRD	Min	Strong PRD	Min	Strong PRD	Min
	Performance	Min		Min		Min to Max	
Leaning AMLO	Traits	Mean+1SD	Min to Max	Mean+1SD	Mean-1SD	Mean+1SD	Mean-1SD
	Policy	Mean+1SD	Mean-1SD	Mean+1SD	Min to Max	Mean+1SD	Mean-1SD
	Party	Mean PRD	Min	Mean PRD	Min	Mean PRD	Min
	Performance	Mean-1SD		Mean-1SD		Min to Max	
Middle of the Road	Traits	Mean	Min to Max	Mean	Mean	Mean	Mean
	Policy	Mean	Mean	Mean	Min to Max	Mean	Mean
	Party	Min	Min	Min	Min	Min	Min
	Performance	Mean		Mean		Min to Max	
Leaning Calderón	Traits	Mean-1SD	Min to Max	Mean-1SD	Mean+1SD	Mean-1SD	Mean+1SD
	Policy	Mean-1SD	Mean+1SD	Mean-1SD	Min to Max	Mean-1SD	Mean+1SD
	Party	Min	Mean PAN	Min	Mean PAN	Min	Mean PAN
	Performance	Mean+1SD		Mean+1SD		Min to Max	
Pro-Calderón	Traits	Min	Min to Max	Min	Max	Min	Max
	Policy	Min	Max	Min	Min to Max	Min	Max
	Party	Min	Strong PAN	Min	Strong PAN	Min	Strong PAN
	Performance	Max		Max		Min to Max	

Variables specific to Madrazo are set to their minimum values for all five voter profiles.
All five voter profiles also have the following characteristics: they do not live in Mexico City; are male; and are of sample mean age.

Table A1.21
Effect of Candidate Considerations on the Predicted Probability of Voting for Calderón,
by Level of Political Sophistication and for Various Voter Profiles
(Mexico 2006 Analysis)

Level of Political Sophistication	Pro-AMLO Voters			Leaning AMLO Voters			Middle of the Road Voters			Leaning Calderón Voters			Pro-Calderón Voters		
	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**
Minimum	0.000	0.004	**0.004**	0.001	0.120	**0.119**	0.063	0.852	**0.789**	0.712	0.995	**0.283**	0.969	1.000	**0.031**
1 Standard Deviation Below Mean	0.000	0.004	**0.004**	0.001	0.121	**0.120**	0.062	0.859	**0.797**	0.717	0.996	**0.279**	0.969	1.000	**0.031**
Mean	0.000	0.004	**0.004**	0.001	0.127	**0.126**	0.054	0.904	**0.850**	0.755	0.998	**0.243**	0.971	1.000	**0.029**
1 Standard Deviation Above Mean	0.000	0.003	**0.003**	0.001	0.133	**0.132**	0.046	0.935	**0.889**	0.790	0.999	**0.209**	0.972	1.000	**0.028**
Maximum	0.000	0.003	**0.003**	0.000	0.134	**0.134**	0.046	0.937	**0.891**	0.792	0.999	**0.207**	0.972	1.000	**0.028**

Table A1.22
Effect of Performance Considerations on the Predicted Probability of Voting for Calderón,
by Level of Political Sophistication and for Various Voter Profiles
(Mexico 2006 Analysis)

Level of Political Sophistication	Pro-AMLO Voters			Leaning AMLO Voters			Middle of the Road Voters			Leaning Calderón Voters			Pro-Calderón Voters		
	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**	Min	Max	**Effect**
Minimum	0.000	0.000	**0.000**	0.003	0.007	**0.004**	0.300	0.478	**0.178**	0.980	0.999	**0.019**	0.999	1.000	**0.001**
1 Standard Deviation Below Mean	0.000	0.000	**0.000**	0.003	0.007	**0.004**	0.287	0.493	**0.206**	0.979	0.992	**0.013**	0.999	1.000	**0.001**
Mean	0.000	0.000	**0.000**	0.001	0.009	**0.008**	0.193	0.611	**0.418**	0.974	0.996	**0.022**	0.999	1.000	**0.001**
1 Standard Deviation Above Mean	0.000	0.000	**0.000**	0.001	0.011	**0.010**	0.124	0.717	**0.593**	0.967	0.998	**0.031**	0.998	1.000	**0.002**
Maximum	0.000	0.000	**0.000**	0.000	0.011	**0.011**	0.119	0.725	**0.606**	0.967	0.998	**0.031**	0.998	1.000	**0.002**

Table A1.23
Calculations for the Range and Dispersion of the Policy Space across Electoral Contexts

Policy Area	Candidate Positions				Maximum Distance	Distance between Adjacent Candidates		
2008 U.S. Presidential Election	Obama	McCain				Obama vs. McCain		
Spending on Services	0.28	0.54			0.26	0.26		
Spending on Defense	0.42	0.71			0.29	0.29		
Universal Healthcare	0.27	0.69			0.42	0.42		
Government Assistance to Minorities	0.35	0.66			0.31	0.31		
		Avg. Max Distance (Range)			**0.32**			
	Avg. Distance between Adjacent Candidates (Dispersion)					**0.32**		
2002 Brazilian Presidential Election	Lula	Serra	Garo	Gomes		Lula vs. Garotinho	Serra vs. Gomes	Garotinho vs. Gomes
Privatization	0.23	0.77	0.38	0.49	0.53	0.15	0.28	0.11
Social Spending	0.24	0.38	0.28	0.35	0.14	0.03	0.03	0.08
Land Reform	0.18	0.56	0.37	0.46	0.38	0.19	0.10	0.09
		Avg. Max Distance (Range)			**0.35**			
	Avg. Distance between Adjacent Candidates (Dispersion)						**0.12**	
2000 Mexican Presidential Election	Fox	Labastida	Cardenas			Fox vs. Cárdenas	Labastida vs. Fox	Labastida vs. Cárdenas
Crime	0.48	0.50	0.47		0.02	0.00	0.02	
Privatization	0.51	0.42	0.35		0.16		0.09	0.07
		Avg. Max Distance (Range)			**0.09**			
	Avg. Distance between Adjacent Candidates (Dispersion)						**0.05**	
2006 Mexican Presidential Election	Calderon	Madrazo	AMLO				Calderón vs. Madrazo	Madrazo vs. AMLO
Commercial Relations with U.S.	0.78	0.67	0.49		0.29		0.11	0.18
Privatization	0.77	0.60	0.38		0.39		0.17	0.22
		Avg. Max Distance (Range)			**0.34**			
	Avg. Distance between Adjacent Candidates (Dispersion)						**0.17**	

Appendix 2
Tables for Models with Alternative Measures and Specifications

Table A2.1
Model of Candidate Utilities in the 2008 U.S. Presidential Election,
with Pocketbook Retrospection Alternative Measure

Independent Variables	Common Coefficients		Candidate-Specific Coefficients			
			Obama		McCain	
Intercept	16.919 (4.65)	p<.001				
McCain Dummy	0.228 (2.21)	p=.918				
Political Party Identification	23.606 (1.22)	p<.001				
Trait Perception	47.547 (5.12)	p<.001				
Trait Perception * Political Sophistication	-6.531 (8.04)	p=.417				
Policy Agreement	-10.933 (7.18)	p=.128				
Policy Agreement * Political Sophistication	73.097 (11.43)	p<.001				
Pocketbook Retrospections			3.740 (6.48)	p=.564	-5.966 (6.08)	p=.327
Pocketbook Retrospections * Political Sophistication			-17.744 (10.36)	p=.087	18.641 (9.88)	p=.059
Political Sophistication			28.32 (8.00)	p<.001	21.318 (4.65)	p=.002
N	2183					
R-Squared	0.516					

p-values are based on two tailed tests.
Estimated robust standard errors are in parentheses.

Table A2.2
Model of Vote Choice in the 2008 U.S. Presidential Election,
with Pocketbook Retrospection Alternative Measure

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients	
			McCain vs. Obama	
McCain Dummy	0.408 (0.17)	p=.086		
Political Party Identification	13.676 (2.85)	p<.001		
Trait Perception	961.688 (1352.97)	p<.001		
Trait Perception * Political Sophistication	0.099 (0.21)	p=.269		
Policy Agreement	1.869 (2.98)	p=.695		
Policy Agreement * Political Sophistication	104.897 (284.68)	p=.086		
Pocketbook Retrospections			2.763 (3.23)	p=.384
Pocketbook Retrospections * Political Sophistication			431.254 (961.10)	p=.006
Political Sophistication			0.256 (0.18)	p=.050
N	1899			
Pseudo R-Squared	0.723			

p-values are based on two tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

Table A2.3
Model of Candidate Utilities in the 2008 U.S. Presidential Election,
with Alternative "Sophisticated" Measure of Candidates' Objective Policy Positions

Independent Variables	Common Coefficients		Candidate-Specific Coefficients			
			Obama		McCain	
Intercept	24.610 (4.75)	p<.001				
McCain Dummy	-7.841 (2.67)	p=.918				
Political Party Identification	15.180 (1.34)	p<.001				
Trait Perception	48.632 (5.17)	p<.001				
Trait Perception * Political Sophistication	-16.824 (8.11)	p=.038				
Policy Agreement (soph)	0.298 (5.54)	p=.957				
Policy Agreement (soph) * Political Sophistication	39.913 (8.97)	p<.001				
Bush Evaluation			-9.068 (4.64)	p=.051	18.826 (3.88)	p<.001
Bush Evaluation * Political Sophistication			-21.082 (7.07)	p=.003	-3.687 (6.13)	p=.548
Political Sophistication			35.303 (7.85)	p<.001	22.603 (7.07)	p=.001
N			2181			
R-Squared			0.556			

p-values are based on two tailed tests.
Estimated robust standard errors are in parentheses.

Table A2.4
Model of Vote Choice in the 2008 U.S. Presidential Election,
with Alternative "Sophisticated" Measure of Candidates' Objective Policy Positions

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients	
			McCain vs. Obama	
McCain Dummy	0.520 (0.20)	p=.089		
Political Party Identification	7.848 (1.74)	p<.001		
Trait Perception	688.855 (981.45)	p<.001		
Trait Perception * Political Sophistication	0.072 (0.16)	p=.247		
Policy Agreement (soph)	1.059 (1.10)	p=.956		
Policy Agreement (soph) * Political Sophistication	49.265 (89.97)	p=.033		
Bush Evaluation			2.978 (3.50)	p=.353
Bush Evaluation * Political Sophistication			351.982 (791.42)	p=.009
Political Sophistication			0.229 (0.16)	p=.038
N	1899			
Pseudo R-Squared	0.725			

p-values are based on two tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

Table A2.5
Model of Candidate Utilities in the 2008 U.S. Presidential Election,
with Ideological Agreement Alternative Measure

Independent Variables	Common Coefficients		Candidate-Specific Coefficients			
			Obama		McCain	
Intercept	22.796 (4.66)	p<.001				
McCain Dummy	-6.557 (2.75)	p=.017				
Political Party Identification	16.609 (1.34)	p<.001				
Trait Perception	46.064 (5.24)	p<.001				
Trait Perception * Political Sophistication	-8.322 (8.30)	p=.316				
Ideological Agreement	-6.786 (5.40)	p=.128				
Ideological Agreement * Political Sophistication	31.126 (8.27)	p<.001				
Bush Evaluation			-6.727 4.45	p=.131	16.136 3.81	p<.001
Bush Evaluation * Political Sophistication			-29.110 6.86	p<.001	5.950 5.99	p=.321
Political Sophistication			22.74 7.63	p=.003	6.007 5.47	p=.273
N			2154			
R-Squared			0.546			

p-values are based on two tailed tests.
Estimated robust standard errors are in parentheses.

Table A2.6
Model of Vote Choice in the 2008 U.S. Presidential Election,
with Ideological Agreement Alternative Measure

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients	
			McCain vs. Obama	
McCain Dummy	0.502 (0.18)	p=.053		
Political Party Identification	8.212 (1.82)	p<.001		
Trait Perception	578.017 (798.30)	p<.001		
Trait Perception * Political Sophistication	0.186 (0.40)	p=.430		
Ideological Agreement	0.135 (0.11)	p=.016		
Ideological Agreement * Political Sophistication	271.230 (397.62)	p<.001		
Bush Evaluation			3.023 (3.58)	p=.350
Bush Evaluation * Political Sophistication			375.636 (825.87)	p=.007
Political Sophistication			0.244 (0.15)	p=.026
N	1888			
Pseudo R-Squared	0.713			

p-values are based on two tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

Table A2.7
Model of Candidate Utilities in the 2008 U.S. Presidential Election,
with Policy Direction Agreement Alternative Measure

Independent Variables	Common Coefficients		Candidate-Specific Coefficients			
			Obama		McCain	
Intercept	25.296 (4.21)	p<.001				
McCain Dummy	-5.818 (3.06)	p=.057				
Political Party Identification	16.412 (1.36)	p<.001				
Trait Perception	44.982 (4.95)	p<.001				
Trait Perception * Political Sophistication	-6.829 (7.86)	p=.385				
Policy Direction Agreement	2.417 (5.02)	p=.631				
Policy Direction Agreement * Political Sophistication	16.376 (7.69)	p=.033				
Bush Evaluation			-6.548 (4.46)	p=.142	14.522 (3.72)	p<.001
Bush Evaluation * Political Sophistication			-26.552 (7.11)	p<.001	13.543 (5.88)	p=.021
Political Sophistication			5.69 (7.05)	p=.420	-5.404 (4.46)	p=.225
N			2236			
R-Squared			0.543			

p-values are based on two tailed tests.
Estimated robust standard errors are in parentheses.

Table A2.8
Model of Vote Choice in the 2008 U.S. Presidential Election,
with Policy Direction Agreement Alternative Measure

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients	
			McCain vs. Obama	
McCain Dummy	0.356 (0.18)	p=.042		
Political Party Identification	8.762 (1.96)	p<.001		
Trait Perception	590.904 (791.17)	p<.001		
Trait Perception * Political Sophistication	0.126 (0.27)	p=.326		
Policy Direction Agreement	0.609 (0.66)	p=.645		
Policy Direction Agreement * Political Sophistication	42.351 (76.30)	p=.038		
Bush Evaluation			3.939 (4.58)	p=.239
Bush Evaluation * Political Sophistication			197.093 (419.99)	p=.013
Political Sophistication			1.311 (1.17)	p=.762
N	1938			
Pseudo R-Squared	0.712			

p-values are based on two tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

Table A2.9
Model of Candidate Utilities in the 2008 U.S. Presidential Election,
with Alternative Specification

Independent Variables	Common Coefficients		Candidate-Specific Coefficients			
			Obama		McCain	
Intercept	25.050 (6.14)	p<.001				
McCain Dummy	-12.207 (5.62)	p=.030				
Political Party Identification	15.121 (1.71)	p<.001				
Trait Perception	43.361 (6.31)	p<.001				
Trait Perception * Political Sophistication	-9.924 (10.00)	p=.321				
Policy Agreement	-11.916 (8.48)	p=.160				
Policy Agreement * Political Sophistication	55.856 (1.71)	p<.001				
Bush Evaluation			-9.133 (5.93)	p=.124	19.858 (4.98)	p<.001
Bush Evaluation * Political Sophistication			-19.682 (8.65)	p=.023	-0.230 (7.56)	p=.976
Political Sophistication			34.984 (9.38)	p<.001	19.450 (7.86)	p=.013
Black			14.165 (1.54)	p<.001	-0.962 (1.44)	p=.506
Female			-0.796 (1.23)	p=.518	-0.466 (1.12)	p=.676
Income			-3.681 (3.01)	p=.221	-2.148 (2.62)	p=.413
Education			-4.912 (4.79)	p=.305	5.524 (4.57)	p=.227
Youth			3.75 (1.30)	p<.004	-0.413 (1.25)	p=.742
N			1351			
R-Squared			0.567			

p-values are based on two tailed tests.
Estimated robust standard errors are in parentheses.

Table A2.10
Model of Vote Choice in the 2008 U.S. Presidential Election,
with Alternative Specification

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients	
			McCain vs. Obama	
McCain Dummy	0.328 (0.32)	p=.026		
Political Party Identification	7.989 (2.16)	p<.001		
Trait Perception	337.606 (664.38)	p=.003		
Trait Perception * Political Sophistication	0.211 (0.64)	p=.608		
Policy Agreement	0.578 (1.37)	p=.817		
Policy Agreement * Political Sophistication	364.946 (1456.91)	p=.139		
Bush Evaluation			3.109 (5.05)	p=.485
Bush Evaluation * Political Sophistication			437.277 (1326.47)	p=.045
Political Sophistication			0.112 (0.10)	p=.015
Black			0.120 (0.09)	p=.005
Female			0.761 (0.23)	p=.356
Income			0.988 (0.86)	p=.989
Education			5.521 (7.34)	p=.199
Youth			0.435 (0.15)	p=.015
N	1898			
Pseudo R-Squared	0.734			

p-values are based on two tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

Table A2.11
Model of Candidate Utilities in the 2002 Brazilian Presidential Election,
with Pocketbook Retrospection Alternative Measure

Independent Variables	Common Coefficients		Candidate-Specific Coefficients							
			Lula		Serra		Gomes		Garotinho	
Intercept	25.505 (2.53)	p<.001								
Serra Dummy	-10.791 (2.09)	p<.001								
Gomes Dummy	-18.618 (1.87)	p<.001								
Garotinho Dummy	-10.123 (1.87)	p<.001								
Political Party Identification	17.120 (0.59)	p<.001								
Trait Perception	74.507 (2.40)	p<.001								
Trait Perception * Political Sophistication	0.562 (3.32)	p=.866								
Policy Agreement	6.508 (3.36)	p=.053								
Policy Agreement * Political Sophistication	12.040 (4.62)	p=.009								
Pocketbook Retrospections			1.095 (2.54)	p=.667	5.556 (3.23)	p=.085	6.355 (2.89)	p=.028	0.422 (2.99)	p=.888
Pocketbook Retrospections * Political Sophistication			-6.279 (3.54)	p=.076	3.243 (4.43)	p=.464	-7.144 (3.95)	p=.071	-2.055 (4.08)	p=.615
Political Sophistication			-3.857 (3.54)	p=.275	-9.416 (3.78)	p=.013	3.662 (3.41)	p=.283	-7.161 (3.32)	p=.031
N			4785							
R-Squared			0.361							

p-values are based on two tailed tests.
Estimated robust standard errors are in parentheses.

Table A2.12
Model of Vote Choice in the 2002 Brazilian Presidential Election,
with Pocketbook Retrospection Alternative Measure

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients					
			Serra vs. Lula		Gomes vs. Lula		Garotinho vs. Lula	
Serra Dummy	0.592 (0.12)	p=.008						
Gomes Dummy	0.236 (0.07)	p<.001						
Garotinho Dummy	0.689 (0.14)	p=.065						
Political Party Identification	8.000 (0.86)	p<.001						
Trait Perception	2593.222 (1508.86)	p<.001						
Trait Perception * Political Sophistication	6.823 (6.18)	p=.034						
Policy Agreement	2.976 (1.42)	p=.022						
Policy Agreement * Political Sophistication	6.331 (4.38)	p=.008						
Pocketbook Retrospections			0.566 (0.22)	p=.136	0.459 (0.29)	p=.221	0.524 (0.23)	p=.137
Pocketbook Retrospections * Political Sophistication			5.381 (3.04)	p=.003	3.118 (2.64)	p=.179	3.562 (2.40)	p=.060
Political Sophistication			0.948 (0.27)	p=.851	1.945 (0.76)	p=.089	0.423 (0.13)	p=.007
N			4151					
Pseudo R-squared			0.500					

p-values are based on two tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

Table A2.13
Model of Candidate Utilities in the 2002 Brazilian Presidential Election,
with Alternative "Sophisticated" Measure of Candidates' Objective Policy Positions

Independent Variables	Common Coefficients		Candidate-Specific Coefficients							
			Lula		Serra		Gomes		Garotinho	
Intercept	24.742 (2.31)	p<.001								
Serra Dummy	-12.035 (1.73)	p<.001								
Gomes Dummy	-17.660 (1.57)	p<.001								
Garotinho Dummy	-11.437 (1.62)	p<.001								
Political Party Identification	16.730 (0.59)	p<.001								
Traits	74.785 (2.41)	p<.001								
Traits * Political Sophistication	-1.440 (3.32)	p=.665								
Policy Agreement (soph)	4.299 (2.79)	p=.123								
Policy Agreement (soph) * Political Sophistication	12.775 (3.85)	p=.001								
Economic Evaluation			1.399 (2.68)	p=.602	9.941 (3.23)	p=.002	4.774 (2.96)	p=.107	4.902 (3.04)	p=.107
Economic Evaluation * Political Sophistication			-10.211 (3.79)	p=.007	13.996 (4.42)	p=.002	-2.760 (4.07)	p=.498	-5.320 (4.14)	p=.199
Political Sophistication			-2.213 (3.23)	p=.493	-8.997 (3.32)	p=.007	2.764 (2.98)	p=.353	-5.336 (2.92)	p=.068
N			4761							
R-Squared			0.367							

p-values are based on two tailed tests.
Estimated robust standard errors are in parentheses.

Table A2.14
Model of Vote Choice in the 2002 Brazilian Presidential Election,
with Alternative "Sophisticated" Measure of Candidates' Policy Positions

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients					
			Serra vs. Lula		Gomes vs. Lula		Garotinho vs. Lula	
Serra Dummy	0.454 (0.07)	p<.001						
Gomes Dummy	0.191 (0.05)	p<.001						
Garotinho Dummy	0.596 (0.10)	p=.002						
Political Party Identification	7.895 (0.85)	p<.001						
Traits	2682.125 (1570.37)	p<.001						
Traits * Political Sophistication	6.319 (5.76)	p=.043						
Policy Agreement (soph)	1.994 (0.77)	p=.075						
Policy Agreement (soph) * Political Sophistication	5.458 (3.05)	p=.002						
Economic Evaluation			1.020 (0.38)	p=.959	0.697 (0.41)	p=.535	0.663 (0.29)	p=.351
Economic Evaluation * Political Sophistication			3.548 (2.01)	p=.026	1.394 (1.10)	p=.673	1.785 (1.27)	p=.415
Political Sophistication			1.364 (0.31)	p=.177	2.660 (0.82)	p=.001	0.601 (0.16)	p=.048
N			4129					
Pseudo R-squared			0.500					

p-values are based on two tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

Table A2.15
Model of Candidate Utilities in the 2002 Brazilian Presidential Election,
with Ideological Agreement Alternative Measure

Independent Variables	Common Coefficients		Candidate-Specific Coefficients							
			Lula		Serra		Gomes		Garotinho	
Intercept	23.694 (2.74)	p<.001								
Serra Dummy	-13.342 (2.15)	p<.001								
Gomes Dummy	-16.443 (2.05)	p<.001								
Garotinho Dummy	-13.075 (2.01)	p<.001								
Political Party Identification	14.321 (0.68)	p<.001								
Traits	79.037 (3.02)	p<.001								
Traits * Political Sophistication	-7.590 (3.96)	p=.055								
Ideological Agreement	3.197 (2.15)	p=.137								
Ideological Agreement * Political Sophistication	16.332 (2.92)	p<.001								
Economic Evaluation			2.731 (3.40)	p=.422	7.847 (4.13)	p=.058	3.027 (3.77)	p=.423	9.795 (3.82)	p=.010
Economic Evaluation * Political Sophistication			-10.426 (4.52)	p=.021	15.001 (5.27)	p=.004	0.476 (4.89)	p=.922	-8.866 (4.97)	p=.074
Political Sophistication			0.485 (3.63)	p=.894	-4.203 (3.54)	p=.235	3.205 (3.26)	p=.325	-1.981 (3.21)	p=.537
N					3342					
R-Squared					0.399					

p-values are based on two tailed tests.
Estimated robust standard errors are in parentheses.

Table A2.16
Model of Vote Choice in the 2002 Brazilian Presidential Election,
with Ideological Agreement Alternative Measure

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients					
			Serra vs. Lula		Gomes vs. Lula		Garotinho vs. Lula	
Serra Dummy	0.277 (0.06)	p<.001						
Gomes Dummy	0.128 (0.04)	p<.001						
Garotinho Dummy	0.424 (0.10)	p<.001						
Political Party Identification	6.454 (0.83)	p<.001						
Traits	2860.518 (2411.57)	p<.001						
Traits * Political Sophistication	5.335 (6.57)	p=.174						
Ideological Agreement	1.988 (0.53)	p=.011						
Ideological Agreement * Political Sophistication	3.195 (1.21)	p=.002						
Economic Evaluation			0.999 (0.51)	p=.998	0.770 (0.63)	p=.749	0.915 (0.51)	p=.873
Economic Evaluation * Political Sophistication			2.986 (2.24)	p=.145	0.798 (0.83)	p=.828	1.070 (0.91)	p=.936
Political Sophistication			2.042 (0.62)	p=.019	4.458 (1.88)	p<.001	0.945 (0.31)	p=.862
N			2988					
Pseudo R-squared			0.535					

p-values are based on two tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

Table A2.17
Model of Candidate Utilities in the 2002 Brazilian Presidential Election,
with Policy Direction Agreement Alternative Measure

Independent Variables	Common Coefficients		Candidate-Specific Coefficients							
			Lula		Serra		Gomes		Garotinho	
Intercept	21.683 (2.05)	p<.001								
Serra Dummy	-11.824 (1.71)	p<.001								
Gomes Dummy	-17.293 (1.56)	p<.001								
Garotinho Dummy	-10.953 (1.60)	p<.001								
Political Party Identification	17.244 (0.58)	p<.001								
Trait Perception	75.175 (2.35)	p<.001								
Trait Perception * Political Sophistication	-1.042 (3.26)	p=.749								
Policy Direction Agreement	1.357 (1.53)	p=.374								
Policy Direction Agreement * Political Sophistication	5.790 (2.07)	p=.005								
Economic Evaluation			0.895 (2.64)	p=.734	9.828 (3.18)	p=.002	4.805 (2.90)	p=.097	4.788 (2.98)	p=.108
Economic Evaluation * Political Sophistication			-10.166 (3.75)	p=.007	14.051 (4.37)	p=.001	-2.262 (4.00)	p=.572	-5.218 (4.08)	p=.201
Political Sophistication			-10.356 (2.88)	p<.001	-17.976 (2.59)	p<.001	-5.776 (2.68)	p=.031	-13.628 (2.64)	p<.001
N					4841					
R-Squared					0.365					

p-values are based on two tailed tests.
Estimated robust standard errors are in parentheses.

Table A2.18
Model of Vote Choice in the 2002 Brazilian Presidential Election,
with Policy Direction Agreement Alternative Measure

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients					
			Serra vs. Lula		Gomes vs. Lula		Garotinho vs. Lula	
Serra Dummy	0.478 (0.07)	p<.001						
Gomes Dummy	0.181 (0.04)	p<.001						
Garotinho Dummy	0.593 (0.10)	p=.002						
Political Party Identification	8.029 (0.85)	p<.001						
Trait Perception	2594.820 (1500.47)	p<.001						
Trait Perception * Political Sophistication	6.621 (5.95)	p=.035						
Policy Direction Agreement	2.080 (0.46)	p=.001						
Policy Direction Agreement * Political Sophistication	1.719 (0.56)	p=.095						
Economic Evaluation			0.969 (0.36)	p=.932	0.770 (0.44)	p=.649	0.658 (0.28)	p=.331
Economic Evaluation * Political Sophistication			3.972 (2.22)	p=.014	1.264 (0.97)	p=.761	1.769 (1.23)	p=.411
Political Sophistication			1.164 (0.26)	p=.498	2.916 (0.90)	p<.001	0.625 (0.16)	p=.064
N			4180					
Pseudo R-squared			0.499					

p-values are based on two tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

Table A2.19
Model of Candidate Utilities in the 2002 Brazilian Presidential Election,
with Alternative Specification

Independent Variables	Common Coefficients		Candidate-Specific Coefficients							
			Lula		Serra		Gomes		Garotinho	
Intercept	41.278 (4.92)	p<.001								
Serra Dummy	-29.064 (6.19)	p<.001								
Gomes Dummy	-29.798 (5.72)	p<.001								
Garotinho Dummy	-7.568 (5.55)	p=.173								
Political Party Identification	17.117 (0.74)	p<.001								
Trait Perception	72.562 (3.18)	p<.001								
Trait Perception * Political Sophistication	6.537 (4.40)	p=.137								
Policy Agreement	6.826 (4.23)	p=.107								
Policy Agreement * Political Sophistication	6.020 (6.02)	p=.318								
Economic Evaluation			0.188 (3.43)	p=.956	7.654 (4.13)	p=.064	3.125 (3.91)	p=.424	3.892 (3.85)	p=.312
Economic Evaluation * Political Sophistication			-7.671 (4.89)	p=.117	14.730 (5.85)	p=.012	2.104 (5.47)	p=.701	-1.326 (5.38)	p=.805
Political Sophistication			-7.423 (4.44)	p=.095	-16.012 (4.69)	p=.001	-6.187 (4.26)	p=.147	-10.463 (4.11)	p=.011
Education			-0.764 (0.52)	p=.014	-2.553 (0.59)	p<.001	-1.085 (0.56)	p=.052	-2.360 (0.55)	p<.001
Income			-2.454 (0.63)	p<.001	1.078 (0.72)	p=.135	0.351 (0.68)	p=.606	-1.282 (0.66)	p=.051
Catholic			4.185 (1.03)	p<.001	2.725 (1.21)	p=.025	0.363 (1.12)	p=.747	-5.550 (1.12)	p<.001
N			2788							
R-Squared			0.380							

p-values are based on two tailed tests.
Estimated robust standard errors are in parentheses.

Table A2.20
Model of Vote Choice in the 2002 Brazilian Presidential Election,
with Alternative Specification

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients					
			Serra vs. Lula		Gomes vs. Lula		Garotinho vs. Lula	
Serra Dummy	0.068 (0.05)	p<.001						
Gomes Dummy	0.172 (0.15)	p=.050						
Garotinho Dummy	8.173 (6.21)	p=.006						
Political Party Identification	8.062 (1.16)	p<.001						
Trait Perception	2923.304 (2311.08)	p<.001						
Trait Perception * Political Sophistication	8.061 (10.22)	p=.100						
Policy Agreement	2.161 (1.44)	p=.246						
Policy Agreement * Political Sophistication	6.264 (6.17)	p=.063						
Economic Evaluation			1.094 (0.57)	p=.863	0.757 (0.63)	p=.737	1.112 (0.64)	p=.855
Economic Evaluation * Political Sophistication			3.454 (2.72)	p=.116	1.729 (1.96)	p=.629	1.111 (1.03)	p=.910
Political Sophistication			1.111 (0.37)	p=.742	2.501 (1.17)	p=.051	0.938 (0.34)	p=.862
Education			1.040 (0.09)	p=.632	1.061 (0.12)	p=.593	0.781 (0.08)	p=.013
Income			1.259 (0.13)	p=.031	1.027 (0.14)	p=.841	0.858 (0.10)	p=.202
Catholic			1.204 (0.24)	p=.359	0.752 (0.16)	p=.178	0.104 (0.02)	p<.001
N			2448					
Pseudo R-squared			0.540					

p-values are based on two tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

Table A2.21
Expanded Model of Candidate Utilities in the 2000 Mexican Presidential Election, with Pocketbook Retrospection Alternative Measure

Independent Variables	Common Coefficients		Candidate-Specific Coefficients					
			Fox		Labastida		Cárdenas	
Intercept	24.313 (5.25)	p=.001						
Labastida Dummy	-2.832 (5.94)	p=.634						
Cárdenas Dummy	3.371 (5.12)	p=.510						
Political Party Identification	22.260 (1.79)	p<.001						
Trait Perception	52.886 (3.12)	p<.001						
Trait Perception * Political Sophistication	6.828 (5.07)	p=.179						
Policy Agreement	4.188 (6.64)	p=.528						
Policy Agreement * Political Sophistication	1.193 (11.90)	p=.920						
Pocketbook Retrospections			-3.273 (5.75)	p=.570	6.006 (5.31)	p=.258	4.478 (5.36)	p=.404
Pocketbook Retrospections * Political Sophistication			-0.890 (9.76)	p=.927	-6.386 (10.42)	p=.540	-13.682 (9.87)	p=.166
Political Sophistication			-6.723 (7.45)	p=.367	-1.782 (7.09)	p=.802	6.450 (6.84)	p=.346
Democracy			4.236 (1.82)	p=.020	2.615 (1.83)	p=.153	-0.770 (1.74)	p=.658
Risk			3.260 (2.16)	p=.131	-9.486 (2.07)	p<.001	-1.957 (1.92)	p=.309
Female			-1.039 (1.79)	p=.561	-0.088 (1.77)	p=.960	-0.170 (1.68)	p=.920
Catholic			2.409 (3.06)	p=.432	6.833 (3.07)	p=.027	-0.742 (2.87)	p=.796
Age			-3.992 (5.49)	p=.467	-16.323 (5.61)	p=.004	-3.421 (5.60)	p=.542
Urban			-0.431 (2.10)	p=.838	1.038 (2.15)	p=.629	-6.112 (1.92)	p=.001
N			926					
R-Squared			0.506					

p-values are based on two tailed tests.
Estimated robust standard errors are in parentheses.

Table A2.22
Expanded Model of Vote Choice in the 2000 Mexican Presidential Election,
with Pocketbook Retrospection Alternative Measure

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients			
			Labastida vs. Fox		Cárdenas vs. Fox	
Labastida Dummy	0.392 (0.37)	p=.325				
Cárdenas Dummy	0.102 (0.11)	p=.036				
Political Party Identification	19.741 (5.74)	p<.001				
Trait Perception	44.183 (40.75)	p<.001				
Trait Perception * Political Sophistication	0.600 (1.00)	p=.760				
Policy Agreement	0.002 (0.01)	p=.118				
Policy Agreement * Political Sophistication	506348.8 (4024744.0)	p=.098				
Pocketbook Retrospections			1.666 (1.76)	p=.629	2.288 (2.94)	p=.520
Pocketbook Retrospections * Political Sophistication			0.108 (0.25)	p=.339	0.079 (0.19)	p=.285
Political Sophistication			1.901 (2.37)	p=.607	1.720 (2.23)	p=.676
Democracy			1.039 (0.36)	p=.911	0.882 (0.32)	p=.725
Risk			0.885 (0.35)	p=.757	1.593 (0.71)	p=.296
Female			1.031 (0.37)	p=.933	1.440 (0.56)	p=.352
Catholic			0.634 (0.38)	p=.451	1.015 (0.57)	p=.978
Age			6.948 (8.02)	p=.093	12.895 (16.84)	p=.050
Urban			0.993 (0.42)	p=.986	0.637 (0.25)	p=.244
N			718			
Pseudo R-squared			0.703			

p-values are based on two tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

Table A2.23
Expanded Model of Candidate Utilities in the 2000 Mexican Presidential Election, with Sociotropic Retrospection Alternative Measure

Independent Variables	Common Coefficients		Candidate-Specific Coefficients					
			Fox		Labastida		Cárdenas	
Intercept	24.313 (5.25)	p=.001						
Labastida Dummy	-2.832 (5.94)	p=.634						
Cárdenas Dummy	3.371 (5.12)	p=.051						
Political Party Identification	22.260 (1.79)	p<.001						
Trait Perception	52.886 (3.12)	p<.001						
Trait Perception * Political Sophistication	6.828 (5.07)	p=.179						
Policy Agreement	4.188 (6.64)	p=.528						
Policy Agreement * Political Sophistication	1.193 (11.90)	p=.920						
Sociotropic Retrospections			-3.273 (5.75)	p=.570	6.006 (5.31)	p=.258	4.478 (5.36)	p=.404
Sociotropic Retrospections * Political Sophistication			-0.890 (9.76)	p=.927	-6.386 (10.42)	p=.540	-13.682 (9.87)	p=.166
Political Sophistication			-6.723 (7.45)	p=.367	-1.782 (7.09)	p=.802	6.450 (6.84)	p=.346
Democracy			4.236 (1.82)	p=.02	2.615 (1.83)	p=.153	-0.770 (1.74)	p=.658
Risk			3.260 (2.16)	p=.131	-9.486 (2.07)	p<.001	-1.957 (1.92)	p=.309
Female			-1.039 (1.79)	p=.561	-0.088 (1.77)	p=.960	-0.170 (1.68)	p=.920
Catholic			2.409 (3.06)	p=.432	6.833 (3.07)	p=.027	-0.742 (2.87)	p=.796
Age			-3.992 (5.49)	p=.467	-16.323 (5.61)	p=.004	-3.421 (5.60)	p=.542
Urban			-0.431 (2.10)	p=.838	1.038 (2.15)	p=.629	-6.112 (1.92)	p=.001
N			909					
R-Squared			0.504					

p-values are based on two tailed tests.
Estimated robust standard errors are in parentheses.

Table A2.24
Expanded Model of Vote Choice in the 2000 Mexican Presidential Election, with Sociotropic Retrospection Alternative Measure

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients			
			Labastida vs. Fox		Cárdenas vs. Fox	
Labastida Dummy	0.392 (0.37)	p=.325				
Cárdenas Dummy	0.102 (0.11)	p=.036				
Political Party Identification	19.741 (5.74)	p<.001				
Trait Perception	44.183 (40.75)	p<.001				
Trait Perception * Political Sophistication	0.600 (1.00)	p=.760				
Policy Agreement	0.002 (0.01)	p=.118				
Policy Agreement * Political Sophistication	506348.8 (4024744.0)	p=.098				
Sociotropic Retrospection			1.666 (1.76)	p=.629	2.288 (2.94)	p=.520
Sociotropic Retrospection * Political Sophistication			0.108 (0.25)	p=.339	0.079 (0.19)	p=.285
Political Sophistication			1.901 (2.37)	p=.607	1.720 (2.23)	p=.676
Democracy			1.039 (0.36)	p=.911	0.882 (0.32)	p=.725
Risk			0.885 (0.35)	p=.757	1.593 (0.71)	p=.296
Female			1.031 (0.37)	p=.933	1.440 (0.56)	p=.352
Catholic			0.634 (0.38)	p=.451	1.015 (0.57)	p=.978
Age			6.948 (8.02)	p=.093	12.895 (16.84)	p=.050
Urban			0.993 (0.42)	p=.986	0.637 (0.25)	p=.244
N			718			
Pseudo R-squared			0.703			

p-values are based on two tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

Table A2.25
Expanded Model of Candidate Utilities in the 2000 Mexican Presidential Election, with Summary Retrospection Alternative Measure

Independent Variables	Common Coefficients		Candidate-Specific Coefficients					
			Fox		Labastida		Cárdenas	
Intercept	23.170 (5.74)	p<.001						
Labastida Dummy	-4.688 (6.76)	p=.488						
Cárdenas Dummy	3.050 (5.68)	p=.592						
Political Party Identification	22.376 (1.80)	p<.001						
Trait Perception	52.715 (3.08)	p<.001						
Trait Perception * Political Sophistication	7.162 (5.04)	p=.156						
Policy Agreement	4.798 (6.61)	p=.468						
Policy Agreement * Political Sophistication	0.404 (11.82)	p=.973						
Summary Retrospection			-0.128 (7.75)	p=.987	11.519 (7.91)	p=.146	6.960 (7.02)	p=.322
Summary Retrospection * Political Sophistication			-2.315 (13.74)	p=.866	-9.454 (14.35)	p=.510	-9.834 (13.37)	p=.462
Political Sophistication			-5.736 (8.66)	p=.508	-0.635 (8.22)	p=.938	4.091 (7.82)	p=.601
Democracy			4.124 (1.79)	p=.022	2.641 (1.80)	p=.143	-1.159 (1.71)	p=.498
Risk			3.247 (2.13)	p=.128	-9.503 (2.04)	p<.001	-1.735 (1.90)	p=.361
Female			-0.405 (1.77)	p=.819	-0.177 (1.74)	p=.919	-0.389 (1.66)	p=.815
Catholic			2.543 (3.00)	p=.397	6.624 (3.01)	p=.028	-0.595 (2.82)	p=.833
Age			-3.836 (5.42)	p=.480	-14.048 (5.49)	p=.011	-1.100 (5.50)	p=.841
Urban			-1.330 (2.10)	p=.527	0.852 (2.13)	p=.866	-6.508 (1.88)	p=.001
N			929					
R-Squared			0.506					

p-values are based on two tailed tests.
Estimated robust standard errors are in parentheses.

Table A2.26
Expanded Model of Vote Choice in the 2000 Mexican Presidential Election, with Summary Retrospection Alternative Measure

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients			
			Labastida vs. Fox		Cárdenas vs. Fox	
Labastida Dummy	0.333 (0.34)	p=.279				
Cárdenas Dummy	0.110 (0.14)	p=.073				
Political Party Identification	19.622 (5.69)	p<.001				
Trait Perception	48.296 (44.48)	p<.001				
Trait Perception * Political Sophistication	0.555 (0.94)	p=.728				
Policy Agreement	0.001 (0.01)	p=.104				
Policy Agreement * Political Sophistication	1197302.0 (9319326.0)	p=.072				
Summary Retrospection			2.017 (2.72)	p=.604	1.984 (3.51)	p=.698
Summary Retrospection * Political Sophistication			0.192 (0.49)	p=.516	0.334 (1.10)	p=.739
Political Sophistication			1.227 (1.56)	p=.873	0.824 (1.36)	p=.906
Democracy			0.972 (0.33)	p=.934	0.851 (0.30)	p=.648
Risk			0.907 (0.36)	p=.805	1.647 (0.72)	p=.256
Female			0.998 (0.35)	p=.996	1.436 (0.54)	p=.336
Catholic			0.657 (0.41)	p=.504	0.946 (0.51)	p=.918
Age			9.084 (10.56)	p=.058	13.896 (18.11)	p=.043
Urban			1.054 (0.44)	p=.900	0.656 (0.26)	p=.286
N			723			
Pseudo R-squared			0.703			

p-values are based on two tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

Table A2.27
Expanded Model of Candidate Utilities in the 2000 Mexican Presidential Election, with Alternative "Sophisticate" Measure of Candidates' Objective Policy Positions

Independent Variables	Common Coefficients		Candidate-Specific Coefficients					
			Fox		Labastida		Cárdenas	
Intercept	20.719 (5.75)	p=.001						
Labastida Dummy	2.189 (6.04)	p=.717						
Cárdenas Dummy	7.216 (5.19)	p=.165						
Political Party Identification	21.947 (1.77)	p<.001						
Trait Perception	53.039 (3.09)	p<.001						
Trait Perception * Political Sophistication	6.054 (5.00)	p=.226						
Policy Agreement (soph)	6.528 (6.44)	p=.311						
Policy Agreement (soph) * Political Sophistication	-0.063 (11.23)	p=.996						
Zedillo Evaluation			5.685 (5.05)	p=.261	5.301 (4.83)	p=.273	5.366 (4.78)	p=.262
Zedillo Evaluation * Political Sophistication			-12.395 (8.81)	p=.160	5.630 (9.11)	p=.537	-8.968 (8.72)	p=.304
Political Sophistication			0.490 (8.14)	p=.952	-8.377 (7.78)	p=.282	3.655 (7.31)	p=.617
Democracy			3.823 (1.81)	p=.035	1.835 (1.79)	p=.305	-1.380 (1.72)	p=.422
Risk			3.557 (2.16)	p=.100	-9.637 (2.02)	p<.001	-1.737 (1.90)	p=.361
Female			-0.383 (1.76)	p=.827	0.494 (1.72)	p=.774	-0.292 (1.66)	p=.860
Catholic			2.383 (2.97)	p=.423	5.376 (2.93)	p=.067	-1.768 (2.81)	p=.530
Age			-5.050 (5.29)	p=.340	-15.521 (5.19)	p=.003	-3.552 (5.48)	p=.517
Urban			-0.366 (2.10)	p=.862	0.716 (2.08)	p=.731	-5.044 (1.91)	p=.009
N			954					
R-Squared			0.505					

p-values are based on two tailed tests.
Estimated robust standard errors are in parentheses.

Table A2.28
Expanded Model of Vote Choice in the 2000 Mexican Presidential Election, with Alternative "Sophisticated" Measure of Candidates' Objective Policy Positions

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients			
			Labastida vs. Fox		Cárdenas vs. Fox	
Labastida Dummy	0.371 (0.35)	p=.294				
Cárdenas Dummy	0.220 (0.28)	p=.230				
Political Party Identification	19.204 (5.75)	p<.001				
Trait Perception	48.060 (45.73)	p<.001				
Trait Perception * Political Sophistication	0.592 (0.98)	p=.750				
Policy Agreement (soph)	0.014 (0.03)	p=.068				
Policy Agreement (soph) * Political Sophistication	894.397 (3691.59)	p=.100				
Zedillo Evaluation			1.070 (1.06)	p=.946	0.752 (1.06)	p=.840
Zedillo Evaluation * Political Sophistication			0.142 (0.30)	p=.363	0.191 (0.47)	p=.497
Political Sophistication			2.623 (3.90)	p=.516	1.799 (2.90)	p=.716
Democracy			1.151 (0.39)	p=.681	0.866 (0.31)	p=.685
Risk			0.834 (0.30)	p=.616	1.510 (0.63)	p=.325
Female			1.010 (0.35)	p=.977	1.467 (0.57)	p=.327
Catholic			0.726 (0.45)	p=.602	0.854 (0.51)	p=.793
Age			7.844 (8.64)	p=.061	13.073 (16.64)	p=.043
Urban			1.012 (0.41)	p=.976	0.543 (0.21)	p=.107
N			746			
Pseudo R-squared			0.702			

p-values are based on two tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

Table A2.29
Expanded Model of Candidate Utilities in the 2000 Mexican Presidential Election, with Party Ideological Agreement Alternative Measure

Independent Variables	Common Coefficients		Candidate-Specific Coefficients					
			Fox		Labastida		Cárdenas	
Intercept	22.441 (5.11)	p=.001						
Labastida Dummy	3.476 (5.87)	p=.554						
Cárdenas Dummy	7.992 (5.08)	p=.116						
Political Party Identification	20.874 (1.75)	p<.001						
Trait Perception	51.723 (3.15)	p<.001						
Trait Perception * Political Sophistication	5.332 (5.21)	p=.306						
Ideological Agreement	9.980 (2.98)	p=.001						
Ideological Agreement * Political Sophistication	-1.804 (5.31)	p=.734						
Zedillo Evaluation			5.376 (5.04)	p=.286	5.445 (4.79)	p=.256	5.135 (4.77)	p=.282
Zedillo Evaluation * Political Sophistication			-10.654 (8.75)	p=.224	5.280 (9.04)	p=.559	-7.411 (8.67)	p=.393
Political Sophistication			-0.621 (7.34)	p=.933	-8.399 (7.07)	p=.235	2.268 (6.92)	p=.743
Democracy			3.628 (1.79)	p=.043	1.437 (1.76)	p=.414	-1.441 (1.70)	p=.398
Risk			3.670 (2.14)	p=.086	-9.322 (1.99)	p<.001	-1.921 (1.90)	p=.313
Female			-0.262 (1.75)	p=.881	0.092 (1.71)	p=.957	-0.352 (1.65)	p=.831
Catholic			2.545 (2.93)	p=.386	5.307 (2.91)	p=.069	-1.454 (2.83)	p=.607
Age			-4.661 (5.23)	p=.373	-15.954 (5.14)	p=.002	-4.007 (5.39)	p=.458
Urban			-0.479 (2.08)	p=.817	0.367 (2.08)	p=.860	-4.993 (1.91)	p=.009
N			958					
R-Squared			0.509					

p-values are based on two tailed tests.
Estimated robust standard errors are in parentheses.

Table A2.30
Expanded Model of Vote Choice in the 2000 Mexican Presidential Election, with Party Ideological Agreement Alternative Measure

Independent Variables	Odds Ratios Based on Common Coefficients		Odds Ratios Based on Candidate-Specific Coefficients			
			Labastida vs. Fox		Cárdenas vs. Fox	
Labastida Dummy	0.259 (0.27)	p=.190				
Cárdenas Dummy	0.249 (0.32)	p=.284				
Political Party Identification	18.360 (5.79)	p<.001				
Trait Perception	35.970 (33.39)	p<.001				
Trait Perception * Political Sophistication	1.029 (1.58)	p=.985				
Ideological Agreement	2.785 (1.74)	p=.101				
Ideological Agreement * Political Sophistication	0.166 (0.17)	p=.087				
Zedillo Evaluation			1.500 (1.65)	p=.713	0.845 (1.24)	p=.909
Zedillo Evaluation * Political Sophistication			0.129 (0.28)	p=.351	0.178 (0.44)	p=.481
Political Sophistication			3.117 (4.92)	p=.471	2.701 (4.48)	p=.549
Democracy			1.091 (0.37)	p=.767	0.812 (0.30)	p=.567
Risk			0.924 (0.34)	p=.829	1.323 (0.55)	p=.500
Female			1.062 (0.37)	p=.862	1.390 (0.55)	p=.402
Catholic			0.757 (0.48)	p=.660	0.799 (0.47)	p=.705
Age			5.480 (6.12)	p=.128	10.486 (12.74)	p=.053
Urban			1.158 (0.47)	p=.720	0.473 (0.18)	p=.043
N			751			
Pseudo R-squared			0.700			

p-values are based on two tailed tests.
Estimated robust standard errors (in parentheses) are for the estimated coefficients (not shown).

Appendix 3
Details for the Additional Utility and Vote Choice Models for the Mexican Presidential Elections

Details for the Expanded Models for the 2000 Presidential Election

The expanded utility model that includes the additional variables is presented in Equation A3.1 below:

(Eq. A3.1)

$$U_{ij} =$$

$$\lambda_0 + \lambda_1 LAB_j + \lambda_2 CARD_j + \beta_1 TRAITS_{ij} + \beta_2 POLICY_{ij} + \alpha_{1j} PERFORM_i + \beta_3 PID_{ij} + \alpha_{2j} SOPH_i +$$

$$\beta_4 (TRAITS_{ij} * SOPH_i) + \beta_5 (POLICY_{ij} * SOPH_i) + \alpha_{3j} (PERFORM_i * SOPH_i) +$$

$$\alpha_{4j} DEM_i + \alpha_{5j} RISK_i + \alpha_{6j} FEMALE_i + \alpha_{7j} CATH_i + \alpha_{8j} AGE_i + \alpha_{9j} URBAN_i + \omega_{ij}$$

where LAB_j, $CARD_j$, $TRAITS_{ij}$, $POLICY_{ij}$, $PERFORM_{ij}$, PID_{ij}, and $SOPH_i$ are the same as in Eq. 5.1 in the text; DEM_i is a dummy variable for those who think Mexico is a democracy; $RISK_i$ is a dummy variable indicating whether the ith voter agrees more with the sentiment that "no risk, no gain" over "better the devil you know than the saint you don't"; $FEMALE_i$ is a dummy variable for female voters; $CATH_i$ is a dummy variable for Catholic voters; AGE_i is the ith voter's age in years; and, $URBAN_i$ is a dummy variable for voters living in urban areas.

The utility model in Equation A3.1 is the basis for its vote choice counterpart, which is as follows. Let U^*_{ij} represent the ith voter's *unobserved* utility for the jth candidate in Equation A3.2:

(Eq. A3.2)

$$U^*_{ij} =$$

$$\lambda^*_0 + \lambda^*_1 LAB_j + \lambda^*_2 CARD_j + \beta^*_1 TRAITS_{ij} + \beta^*_2 POLICY_{ij} + \alpha^*_{1j} PERFORM_i + \beta^*_3 PID_{ij} + \alpha^*_{2j} SOPH_i +$$

$$\beta^*_4 (TRAITS_{ij} * SOPH_i) + \beta^*_5 (POLICY_{ij} * SOPH_i) + \alpha^*_{3j} (PERFORM_i * SOPH_i) +$$

$$\alpha^*_{4j} DEM_i + \alpha^*_{5j} RISK_i + \alpha^*_{6j} FEMALE_i + \alpha^*_{7j} CATH_i + \alpha^*_{8j} AGE_i + \alpha^*_{9j} URBAN_i + \omega^*_{ij}$$

This can be rewritten more succinctly in matrix notation as:

(Eq. A3.3) $$U^*_{ij} = W_j \lambda^* + Z_{ij} \beta^* + X_i \alpha^*_j + \omega^*_{ij}$$

where W_j is a $3n \times 3$ is a matrix containing the dummy variables for Labastida and Cárdenas and a vector of 1's; λ^* is the corresponding 3×1 coefficient vector; Z_{ij} is a $3n \times 5$ matrix containing the variables that vary across candidates (i.e., $TRAITS_{ij}$, $POLICY_{ij}$, their products with $SOPH_i$, and PID_{ij}); β^* is the corresponding 5×1 coefficient vector; X_i is a $3n \times 9$ matrix containing the voter-specific variables (i.e., $PERFORM_i, SOPH_i$, their product, and all the additional variables); and α_j are the corresponding 9×1 coefficient vectors for each of the three candidates.

Given Equation A3.3, we can write the following probability model cast in conditional logit form. Let P_{ij} be the probability that the ith individual votes for the jth candidate. Then we can write:

(Eq. A3.4) $$P_{ij} = \frac{\exp(W_j\lambda^* + Z_{ij}\beta^* + X_i\alpha^*_j)}{\sum_{k=1}^{J}\exp(W_j\lambda^* + Z_{ij}\beta^* + X_i\alpha^*_j)}$$

where, for the purpose of estimation, Fox (j = 1) serves as the base outcome with the elements in the α_j vector corresponding to him normalized to zero. This probability equation is the basis for the Maximum Likelihood Estimator (MLE) used to estimate the coefficients.

Details for the Expanded Models for the 2006 Presidential Election

The expanded utility model for the 2006 analysis is presented in Equation A3.5 below:

(Eq. A3.5)

$$U_{ij} =$$

$$\lambda_0 + \lambda_1 AMLO_j + \lambda_2 MADRAZO_j + \beta_1 TRAITS_{ij} + \beta_2 POLICY_{ij} + \alpha_{1j} PERFORM_i + \beta_3 PID_{ij} + \alpha_{2j} SOPH_i +$$

$$\beta_4 (TRAITS_{ij} * SOPH_i) + \beta_5 (POLICY_{ij} * SOPH_i) + \alpha_{3j} (PERFORM_i * SOPH_i) +$$

$$\alpha_{4j} DF_i + \alpha_{5j} AGE_i + \alpha_{6j} FEMALE_i + \omega_{ij}$$

where $AMLO_j$ and $MADRAZO_j$ are dummy variables indicating which candidate is being evaluated; $TRAITS_{ij}$ is the ith voter's summary evaluation of the jth candidate's personal qualities; $POLICY_{ij}$ is a summary measure of the extent to which the ith voter agrees with the jth candidate on policy issues; $PERFORM_{ij}$ is the ith voter's summary

evaluation of the incumbent party's performance in office; PID_{ij} is a measure indicating the extent to which the i[th] voter identifies with the j[th] candidate's political party; $SOPH_i$ is a measure of the i[th] voter's level of political sophistication; DF_i is a dummy variable indicating whether the i[th] voter lives in Mexico City; AGE_i is the i[th] voter's age in years; and, $FEMALE_i$ is a dummy variable for female voters.

The utility model in Equation A3.5 is the basis for its vote choice counterpart, which is as follows. Let U^*_{ij} represent the i[th] voter's *unobserved* utility for the j[th] candidate in Equation A3.6:

(Eq. A3.6)

$$U^*_{ij} =$$

$$\lambda^*_0 + \lambda^*_1 AMLO_j + \lambda^*_2 MADRAZO_j + \beta^*_1 TRAITS_{ij} + \beta^*_2 POLICY_{ij} + \alpha^*_{1j} PERFORM_i + \beta^*_3 PID_{ij} + \alpha^*_{2j} SOPH_i +$$

$$\beta^*_4 (TRAITS_{ij} * SOPH_i) + \beta^*_5 (POLICY_{ij} * SOPH_i) + \alpha^*_{3j} (PERFORM_i * SOPH_i) +$$

$$\alpha^*_{4j} DF_i + \alpha^*_{5j} AGE_i + \alpha^*_{6j} FEMALE + \omega^*_{ij}$$

This can be rewritten more succinctly in matrix notation as:

(Eq. A3.7) $\quad U^*_{ij} = W_j \lambda^* + Z_{ij} \beta^* + X_i \alpha^*_j + \omega^*_{ij}$

where W_j is a $3n \times 3$ is a matrix containing the dummy variables for Labastida and Cárdenas and a vector of 1's; λ^* is the corresponding 3×1 coefficient vector; Z_{ij} is a

$3n \times 5$ matrix containing the variables that vary across candidates (i.e., $TRAITS_{ij}$, $POLICY_{ij}$, their products with $SOPH_i$, and PID_{ij}); β^* is the corresponding 5×1 coefficient vector; X_i is a $3n \times 9$ matrix containing the voter-specific variables (i.e., $PERFORM_i$, $SOPH_i$, their product, DF_i, AGE_i, and $FEMALE_i$); and α_j are the corresponding 6×1 coefficient vectors for each of the three candidates.

Given Eq. A3.3, we can write the following probability model cast in conditional logit form. Let P_{ij} be the probability that the i[th] individual votes for the j[th] candidate. Then we can write:

(Eq. A3.8) $$P_{ij} = \frac{\exp(W_j\lambda^* + Z_{ij}\beta^* + X_i\alpha^*_j)}{\sum_{k=1}^{J}\exp(W_j\lambda^* + Z_{ij}\beta^* + X_i\alpha^*_j)}$$

where, for the purpose of estimation, Calderón ($j = 1$) serves as the base outcome with the elements in the α_j vector corresponding to him normalized to zero. This probability equation is the basis for the Maximum Likelihood Estimator (MLE) used to estimate the coefficients.

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