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THE EFFECTS OF INSTITUTIONS ON CORRECT VOTING

by

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ABSTRACT OF THE DISSERTATION

The Effect of Institutions on Correct Voting

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Previous research in Political Science has focused on individual and institutional factors that increase voter turnout within democratic countries. Voter turnout is seen as an indicator to measure the health of a democracy, therefore increasing voter turnout will lead to a healthier democracy. I argue that voter turnout is an inadequate measure because it only represents the percentage of eligible citizens who cast their vote on election day. By definition, a democracy is a form of government that allows citizens to elect officials that best represent their views, which is not successfully measured by voter turnout. Accordingly, a better measure for the health of a democracy should also include whether citizens choose the right candidate or party based on their views and preferences. Correct voting, a binary individual level indicator, compares citizen preferences to the vote choice. Citizens whose preferences match their vote choice are said to vote correctly, and citizens whose preferences do not match their vote choice are said to vote incorrectly. This dissertation examines which democratic institutional factors increase the levels of correct voting using surveys from eight established democracies and fifteen different elections. Various individual and institutional level hypotheses are tested using hierarchical generalized linear modeling for a dichotomous dependent variable. In order to test the reliability of the correct voting measure and the findings, the same hypotheses are tested using two

different measures of correct voting. These two correct voting measures are extracted from two different surveys for each election. The findings show, for both measures of correct voting, that a smaller number of parties increases levels of correct voting in majority/plurality systems. In proportional representation systems, an increase of ideological differences among political parties and an increase in party age increase the likelihood of voting correctly.

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CHAPTER I

Introduction

The simplest definition of democracy is ‘a form of government by the people or their elected officials.’ This common definition has been expanded by several scholars especially in political science literature. Lipset (1963) defines democracy as “a political system which supplies regular constitutional opportunities for changing the governing officials, and a social mechanism which permits the largest possible part of the population to influence major decisions by choosing among contenders for political office” (page 27). Lipset’s definition of democracy places a heavy emphasis on elections and citizens participating in these elections to choose a representative. Similar to Lipset (1963), Dahl (1956) also emphasizes the election process in his definition of democracy. These two definitions, among others, place emphasis on the political involvement and participation of citizens in the electoral process or political participation.

In addition to political participation, a democratic country must fit certain minimum requirements including (1) universal, adult suffrage, (2) recurring free and fair elections, and (3) some sort of political competition. Almost all scholars agree that democracies around the world must offer citizens an opportunity to elect officials that represent the will of the people through fair and free recurring elections (Dahl, 1972; Bollen, 1980; Coppedge and Reinecke, 1991; Hadenius, 1992; Diamond and Morlino,

2004). It is through elections that citizens choose representatives that best represent their interest. Fair and recurring elections allow citizens to hold the leader or party accountable, and give the citizens an opportunity to elect a different leader/party if they are not satisfied with the incumbent's performance.

For this reason, political democracy is often measured using voter turnout (Smith, 1969; Jackman, 1973, 1975; Coulter, 1975; Stack, 1979, and more). Voter turnout is seen as a valuable measure for several reasons. First, voter turnout is a rough indicator of political participation. Second, high political participation leads to elected officials who are more representative of the general population within a country (Stack, 1979). Lastly, voter turnout measures the degree to which citizens are active within a democracy (Stack, 1979). Because voter turnout plays such an important role in defining a democracy in political science scholarship, research has also focused on predicting what accounts for the variation in voter turnout between different democracies. Scholars often examine the variables that cause higher turnout rates in some countries and not others. These studies have found that individual factors such as age, education, socioeconomic status, and political interest all affect whether a citizen exercises their duty to vote within democracies (Franklin, 2002). Research has also found that institutional factors such as the number of electoral contests, percentage of wasted votes,¹ and linkage between election outcome and policy output also explain the differences in voter turnout rates between countries (Franklin, 2002; Blais and Dobrzynska, 1990; Jackman, 1987). Comparative turnout rates and their differences are studied so frequently that they are often used to measure the health of a democracy (Franklin, 1996).

Since all definitions of democracy emphasize political participation and citizen involvement in the electoral process, it comes as no surprise why past literature has placed such an importance on voter turnout. For Dahl, however, participation is

¹Wasted votes are defined as votes that were cast for a losing candidate, or a candidate that did not win a seat.

not enough, there has to be informed political participation among citizens. As Bollen states, “Dahl suggests, among other things, that a democracy should have elections in which each vote is weighted equally, each individual possesses identical information about the alternatives presented for decision...” (Bollen, 1980, p. 371). Unfortunately, voter turnout does not really measure whether a citizen has made an informed decision, or if citizens’ vote choice coincide with their preferences. This is quite problematic since political participation, political democracy, and the health of a democracy, all involve more than just casting a vote on election day. Voter turnout is the minimal form of political participation (Dahl, 1972; Bollen, 1980), and is strongly influenced by certain political institutions (Franklin, 2002). A democracy can increase voter turnout by instituting compulsory voting, automatic registration, voting by mail, or weekend voting (Franklin, 2002). Voter turnout, although influenced by institutional factors, is not a great indicator for political participation or the health of a democracy.

Democracies should not only engage their citizens in casting a vote on election day, but must also provide citizens with information they need to choose candidates/parties that are consistent with their preferences. Healthy democracies should encourage not simply voting, but voting for the correct party/candidate—that is, the one that most closely accords with their preferences and values. This correct party/candidate is idiosyncratic to each individual voter based on their own subjective personal preferences. A healthy democracy is not one that has political institutions that increase voter turnout but one where the political institutions promote higher levels of correct voting. Correct voting, a concept first introduced by Lau and Redlawsk (1997), measures whether or not the voter’s choice on election day is consistent with his/her preferences. The main purpose of measuring voter turnout is to determine the percentage of citizens that are participating in a democracy. The act of voting is exercised by citizens so they can directly or indirectly elect government

officials that have similar views on issues. Unlike correct voting, voter turnout does not evaluate voters' choice on election day, nor does it measure if the vote choice is consistent with the voters' preferences the way that correct voting does.

Correct voting is a measure that evaluates whether the choices of voters on election day are consistent with their preferences. A previous study on correct voting, which uses both experimental and survey data, finds that many voters make the right choices even with incomplete information (Lau and Redlawsk, 1997). The notion of correct voting is better than voter turnout for two reasons: (1) it measures whether vote choice is consistent with voters' preferences, and (2) experimentation has shown that voters use certain tools or heuristics such as party and group identification to make correct voting decisions even with incomplete information. For these reasons, we need to study correct voting in similar ways that voter turnout has been studied in the past. Previous studies have looked at longitudinal and cross-sectional levels of correct voting (Lau and Redlawsk, 1997; Lau et al., 2008a,b). The longitudinal analyses examined various elections within the United States, and the comparative study examined correct voting levels in 33 democracies. In the longitudinal analysis, Lau and Redlawsk (1997) and Lau et al. (2008a) use experimental and survey data to show that citizens have capabilities of choosing the right candidate that are consistent with their beliefs even with incomplete information. The findings in all of the previous correct voting literature show that both individual and institutional level factors affect correct voting levels. Furthermore Lau et al. (2008b) argue that correct voting is also a better indicator of a healthy democracy than voter turnout.

Correct voting is arguably as important, if not more important, than voter turnout, since it better measures how well citizens' vote choice is consistent with their beliefs on issues and other dimensions of judgement. Similar to the way that voter turnout has been analyzed, we need to find the institutional variables that increase correct voting. The emphasis needs to turn away from what institutions make voters more

likely to vote, and towards a more important question—what institutions make voters more likely to vote correctly? If the purpose of casting a vote is to influence policy, which is done by voting for the candidate or party with similar views, we need to examine whether voters actually vote for the candidate/party that is consistent with their preferences. Correct voting can be used in addition to voter turnout in future studies as an indicator of the health of a democracy. Furthermore, recognizing the institutional predictors that promote higher levels of correct voting will be an important tool for policy makers in understanding a healthy electoral system.

This dissertation will focus on explaining, defining, operationalizing, and testing the determinants of correct voting. The first purpose of this dissertation is to examine which institutions make correct voting more likely. Similar to Lau et al. (2008b), this study will closely examine the relationship between institutional predictors such as the number of political parties, the average party age, and ideological distinctiveness. Which of these institutional factors is the most influential in predicting correct voting? Under what conditions are these institutional predictors influential? The second purpose of this dissertation is to compare the minimalist measures of correct voting reported in Lau et al. (2008b) with a more comprehensive measure of correct voting across different countries. These measures will be compared by testing the same models and hypotheses first using the minimalist measure and then again with the more comprehensive measure. The reason for testing the same hypotheses using both the minimalist and more comprehensive measure is to see if research using the minimalist measure provides accurate results. Do the same institutional factors that predict correct voting with the more comprehensive measure also predict correct voting using the minimalist measure?

Chapter 2 reviews past literature and discusses the basis of how individuals make decisions, including voting correctly, and the relationship between political institutions and voting. Chapter 3 discusses the operationalization of correct voting and

proposes some hypotheses that predict it. This chapter will also discuss the differences and similarities among aggregate correct voting measures across countries. Chapter 4 will briefly summarize the elections used in this dissertation. This chapter will review the electoral system, the major issues, the important details leading up to each election, and the election outcome. Chapter 5 will test the hypotheses proposed in the latter half of Chapter 3 using the minimalist version of correct voting, which is the measure used in the comparative study performed by Lau et al. (2008b). Chapter 6 will test the same hypotheses using the more comprehensive measure of correct voting (Lau and Redlawsk, 1997; Lau et al., 2008a). Chapter 7 will conclude with some highlights of the main findings from the statistical tests, and a brief discussion of their implications.

CHAPTER II

Theory

Lau and Redlawsk (1997) state that “classic democracy theory prescribes active attention and close scrutiny of government policy because, logically, it seems the only way that citizens can make correct decisions” (p. 586). In order for citizens to choose the party/candidate that best represents their views, they must be politically informed. Evidence indicates, however, that in fact citizens are often uninterested and uninformed in politics. Campbell et al. (1960) found that voters could not recall the names of current politicians, place candidates correctly on issue scales, or make reliable statements of political opinion on most issues. Downs (1957a) stated that voters are ignorant because they have no real incentives to acquire political information. Studies also show that the common person has inconsistent and unknowledgeable views on politics (Lane, 1962). This literature also maintains that people are not interested in politics, not knowledgeable about the issues, they do not know how government works, or who the major players are (Converse, 1964; Zaller, 1992). In fact, for most citizens, political involvement and interest extend no further than casting a vote. It is unclear if the vote decision is based on rational evaluations of candidates, parties, and issues (Dalton, 2000). If citizens are uninterested and uninformed then how can we ensure that they are voting for the party or candidate that best fits their interests? In order to understand if full and complete information is needed to make

the right or “correct” decision, I turn to the decision-making literature.

2.1 Decision Making Explanations

Rational choice and psychological/behavioral explanations offer two conflicting views about how decisions are made. Rational choice focuses on “the normative question of how decision makers should” make choices (see Hastie and Dawes, 2001, p. 21). On the other hand, behavioral explanations are considered descriptive theories that discuss how individuals actually make these choices. Most psychologists agree that all individuals want to make rational decisions (Hastie and Dawes, 2001); however, cognitive limitations such as limited computational capacity (or brain power) play a role in how decisions are actually made. Simply stated, even though all individuals should make choices that fit with rational choice theory, they cannot due to limitations of the brain and how it processes information. This section explores how decisions are made according to these theories and discusses the advantages and disadvantages of each.

There are two models found within both the rational choice and two models within psychological explanations of decision-making. This section discusses these four models, including how individuals collect and process information, and how decisions are made with the collected information. The fifth and final model of decision making combines elements from both rational choice and psychology. This model offers the most realistic approach to the way decision makers collect, process, and make decisions.

2.1.1 Rational Choice

Rational choice posit that human beings act with rationality when making decisions, or choose the best action after anticipating the outcomes of all alternative courses of action. Individuals also seek to choose the alternative that optimizes profit,

gives them the greatest satisfaction, or maximizes the benefits while minimizing the costs (Heath, 1976). Decisions are made based on how they should act, given the cost and benefits of the outcomes of all alternative courses of action. An individual who uses this model to make a decision on which party/candidate to vote for will seek out information on all possible candidates/parties, and choose the option that provides him/her the most pleasure, benefit, or utility.

Within the rational choice model, voters still attempt to gather as much information as possible on all the candidates/parties. The voters must continue to seek out information until the benefits no longer outweigh the costs incurred of obtaining new information. Here, voters act in order to ensure value-maximizing decisions by choosing the candidate/party that best fits his or her own self interest (Neumann and Morgenstern, 1947; Arrow, 1951, among others). Once voters gather all the information, they must integrate the information, recording the strengths and weaknesses of each candidate/party. Voters will then use this integrated information to choose the candidate/party that best fits their own preferences. Under rational choice theory, voters are expected to care enough about politics to be willing to spend a large amount of time gathering the necessary information needed about all candidates/parties in order to make an informed decision. In addition to the time spent, the ‘rational’ voter must also be able to retain all of the information gathered and have little trouble keeping track of it (Lau and Redlawsk, 2006).

Not all voters like to gather as much information as possible about all candidates/parties in order to make a decision. Voters can still act rationally when making decisions without gathering all the information, Lau and Redlawsk (2006) refer to this as constrained rational choice. Individuals using constrained rationality will only do a limited information search, and/or they will find a way to decide when to stop looking for information. Constraints are placed on the amount of time for gathering information because decision makers have limited resources, such as time, knowledge,

attention, and/or money, to use when making certain decisions. Even though the constrained model accounts for human limitations, it still expects decision makers to calculate the benefits and costs of searching for more information and stop the search when the cost of more information outweighs the benefits (Anderson and Milson, 1989; Sargent, 1993; Stigler, 1961). Suppose an individual employing constrained rational choice was trying to make a decision on whether or not to buy a car. He would list the consequences of each alternative; in other words, he would have to formulate reasons for why he should buy a car and reasons for why he should not buy a car. Once he comes up with consequences (reasons) for each alternative (why to buy and why not to buy), he must then estimate the probabilities and utilities for each consequence. Next, he would calculate the benefits of continuing the information search and would only continue if the benefits outweighed the costs. The car buyer would continue these steps until the new information has no added value, or until the benefits do not outweigh the costs. Once this occurs, the decision maker will choose the alternative that has the highest expected utility. With the constrained rational choice model, the decision maker now not only has to compute the expected utility of the alternatives, but also must compute the expected utility of acquiring additional information.

Voters can use information provided by the media (limited information search), and convert it into political preferences before reaching a decision (Zaller, 1992). Here, the information they use to make their decision is coming from another source, but the voter is acting in a rational manner because he/she will use the information to choose the party/candidate that best represents his/her views. There may even be instances where voters will gather information until the cost of new information does not increase the benefit, or does not have any added value. Once the voter believes they have enough information to make a decision, they will stop looking for additional information, and choose the candidate/party based on the information

they have already gained (Gigerenzer and Todd, 1999; Gigerenzer and Selten, 2001). The problem with constrained rationality is that the individuals have to do added calculations in order to determine when to stop gathering new information.

Rational choice provides an optimal way of making decisions, especially when determining which candidate/party to vote for in an upcoming election. Both of these rational choice decision making models are ideal for an individual who has the ability and time to weigh every alternative as well as the consequences for every alternative. However, one of the biggest problems with rational choice is that it is nearly impossible for most voters to gather, keep track, and remember all information about all the candidates/parties because they either cannot or because they are uninterested in politics. This shows that rational choice is a normative theory that provides an optimal way of how decisions should be made. In order to discuss how decisions are actually made by individuals, we have to turn to the psychological or behavioral explanations.

2.1.2 Behavioral Explanations

Unlike the rational choice models, the behavioral or psychological models do not focus on individuals obtaining as much information as possible, or making decisions based on calculations; instead, decisions are made using information gathered as a result of human limitations. The behavioral/psychological explanations discussed below focus on individuals making decisions based on memory or attributes such as party identification or political issues. Individuals employ these factors because they do not have the ability or resources to process large amounts of information as required by the rational choice models.

There are two major psychological explanations that discuss how voters make decisions based on memory and cognitive shortcuts. The first explanation, called biased decision making (Lau and Redlawsk, 2006), holds that party identification,

the primary determinant of voter decision making, is developed at an early age. This explanation differs from rational choice in the way information is gathered, the type of information gathered, and how that information is used to make a decision. Under the rational choice explanation, information is gathered by using unbiased sources to gather every piece of information (or almost everything) concerning all candidates/parties. In addition to being partial towards a particular party at an early age, the biased decision-making model states that an individual will often get the information unintentionally and learn only the basics provided by the media. Unlike the ‘rational’ voter, the ‘biased’ voter does not spend much time gathering information on the alternatives; instead, the biased voter will get biased information from the media that confirms or conditions his or her beliefs (Sears, 1975). The rational voter analyzes the information gathered and makes a decision that maximizes his/her own self interests by gathering the same information for all candidates/parties. On the other hand, the biased voter will gather information primarily for the candidate/party he/she favors and use that information to maintain his/her prior convictions with little or no consideration of alternatives.

Similar to how the biased voter is mainly concerned with party identification, a single issue voter is only concerned with one main issue. A single issue voter is also similar to the constrained rational voter in that he/she understands that it is impossible to gather all possible information on all candidates/parties. Unlike the constrained rational voter, single issue voters only look for limited information involving a single issue or a couple of ‘easy’ issues (Carmines and Stimson, 1980). Carmines and Stimson (1980) argue that easy issues are more symbolic than technical, they deal with policy ends and not means, they allow voters to make reflexive decisions, and do not require much reasoning. Since the single issue voter does not want to know everything, or as much as possible about a candidate/party, and only cares about knowing about one or two ‘easy’ issues, it is quite different from the rational model.

Also, the single issue voter does not spend enough time weighing the information and prefers “fast and frugal decision making,” which does not involve much computation because the information search is limited by what is available (Gigerenzer and Todd, 1999; Lau and Redlawsk, 2006).

2.1.3 Bounded Rationality

As discussed earlier, most empirical evidence shows that individuals are generally uninterested and unknowledgeable about politics. If this is the case, then how can they make informed decisions according to the rational choice model? Rational choice requires individuals to collect and process as much information as they can. If individuals do not care about politics, then why would they actually go out and gather information? This depicts that rational choice is not always adequate in explaining observed behavior and it does not recognize the limitations of the human mind. The psychological explanations, on the other hand, do not provide a discussion of rationality, which is important in the political decision making process since everyone ideally would like to make rational decisions.

Simon (1956) attempts to combine aspects of rational choice with some aspects of psychological limitations through the notion of “satisficing” and “bounded rationality.” Simon argues that individuals attempt to be rational in their decision making, however, they do not always make the correct decision. This is not due to the fact that the individual is irrational, but a result of the limitations of the human mind and the structure of the environment that the mind operates within (Gigerenzer and Todd, 1999). The limitations of the human mind result in humans using approximate methods when making decisions (Simon, 1990). The environment is also important because it can explain better performing simple heuristics (or problem solving strategies). Simon (1956) gives an example of an organism looking for food in two different environments. If an organism is living in an environment where food is randomly

distributed in heaps, the organism can use the heuristic of running around randomly until the food is found. The organism in this environment does not need to learn anything, but only needs the ability to move about and the ability to see. A second organism lives in a different environment where the food is in hidden places whose locations are inferred by hints or cues. The second organism needs to apply a more complicated heuristic, which incorporates the association between the cues and the food, and also needs memory to store the information. Unlike rational choice, which is mainly concerned with the outcome, bounded rationality combines outcome with the process of decision making.

Various limitations of the human mind and the structure of the environment result in individuals not attempting to find the optimal choice, but a choice that “permit(s) satisfaction” to the individuals (Simon, 1956). Individuals tend to choose a satisficing option instead of the optimal one because they are limited by cognitive ability and the complexity of the world. “Satisficing is a method for making a choice from a set of alternatives encountered sequentially when one does not know much about the possibilities ahead of time” (Gigerenzer and Todd, 1999). With satisficing, there is no way to decide when to stop searching for alternatives or information. A good example of satisficing would be the mates that individuals choose for themselves, or who they decide to marry. How do individuals know when to stop looking for a suitable partner to settle down with? How do individuals decide if a particular person is the one they would like to spend the rest of their lives with? With satisficing, an individual first sets an “aspiration level,” or requirements that individuals have to meet in order to be considered a potential life long mate. Once a prospective partner comes along that exceeds the aspiration level, an individual will stop looking for alternatives.

A bounded rationality or satisficing model is, like the single issue model, based on the view that humans process limited amounts of information due to cognitive deficiencies. The single issue voter and the satisficing voter also make decisions based

on intuition instead of calculations, like the rational or constrained rational voter. The satisficing voter makes decisions based on “two competing motivations: the desire to make a good decision and the desire to make an easy decision” (Lau and Redlawsk, 2006). Unlike the rational voter, who is primarily interested in every different characteristic associated with each candidate/party, the satisficing voter is primarily interested in the importance of the decision. The more important a decision, the more consideration it is given in order to ensure the right decision is made. Similar to the single issue voter and the rational voter, the satisficing voter also actively seeks out information. The difference is that the rational voter seeks out as much information as he/she can, the single issue voter only seeks out information on the issue that he/she is interested in, and the satisficing voter seeks out as much information they need in order to make a choice, with the amount of information depending on the importance of the issue.

2.2 Dealing with Cognitive Limitations

The way humans process information has numerous limitations this makes it difficult for them to make the right decisions. One of these cognitive limitations deals with short term memory, which is the part of memory where direct processing of information is possible. When we learn new information, it is automatically stored in our short-term memory, but our short-term memory can only retain 5 to 9 pieces of information at any given time (Miller, 1956). Information usually only becomes part of the long-term memory if “perceptions are activated strongly enough or rehearsed often enough” (Lau and Redlawsk, 2006).

Citizens receive information about an upcoming election’s parties/candidates through different sources, such as television, radio, through contact with political parties, etc. Citizens usually do not care enough about politics, or sufficiently pay attention to politics, for them to build long term memory links. Storing information in long-term

memory links and being able to recall the information from memory is very time consuming. Combining the time of retaining information into long-term memory with people generally being uninterested in politics results in the fact that most individuals are not “rational voters.” Since most people do not care about politics, why would they spend the time to process and retain political information? It also seems implausible that an interested or motivated voter, who pays close attention to politics and is knowledgeable, would try to learn everything about all candidates/parties; however, an interested voter would make more of an effort to learn and process information in an attempt to overcome their cognitive limits.

Even if interested or motivated citizens cannot make the rational or optimal choice due to the constraints of human limitations and the complexity of the environment, they use “cognitive heuristics,” or problem solving strategies, which makes it easier for them to process limited information so they can make the right or reasonable choice (Abelson and Levi, 1985; Kahneman et al., 1982). The literature on the shortcuts, or cognitive heuristics, explains the low levels of political information and how voters end up making the correct choice even without full information. These cognitive shortcuts are used by individuals in their everyday lives, therefore it is not a stretch to assume that individuals also use these shortcuts when making political decisions, such as who to vote for. The use of heuristics “at least partially (also) compensates for a lack of knowledge about and attention to politics, so that citizens who are largely unaware of events (in Washington) can make reasonably accurate political judgments” (see Lau and Redlawsk, 2001, p. 3). These shortcuts or cues may only play an important role in the decision making process for most voters, not all voters.

Even when voters are uninformed, they are still capable of making inferences about candidates, policies, and issues using heuristics based on political parties, social groups, familiarity, and established leaders. These heuristics should work for most individuals most of the time, and help voters process information in order to make a

decision as if they were informed. Group membership is a common cognitive heuristic that voters use in making their decision. The group could be political, social, or even racial. Regardless of the type of group an individual is associated with or likes, voters will often use this factor to determine which party or candidate to vote for by using and emulating the knowledge of the group's preferences. In fact, groups can also give out accessible signals, which voters can readily use to make their vote choice decision. In fact Campbell et al. (1960) argue that party identification is a classic voting cue that American voters use in making their decisions. It is through party identification that voters can compensate their lack of information about the candidates and issues. Party identification can signal to a voter the position of a candidate (Downs, 1957a), form perceptions of opposing candidates, and determine how opinions are formed (Campbell et al., 1960).

Research also shows that party identification has similar effects in countries other than the United States. Cross-nationally, political parties are essential to the democratic process. In fact, "partisanship, or feelings of party identification, provides a framework for evaluating and interpreting political information; partisanship provides a cue for making political choices; and partisanship stimulates involvement in the institution and processes of representative democracy" (Dalton et al., 2002). Dalton et al. (2002) argue that political party trends are similar throughout all advanced industrial societies. A cross-national study, which compares the levels of closeness to political parties among voters, shows that voters in the United States are not more or less likely to be affiliated with a political party (Barnes et al., 1988). Party membership among citizens has always been less important in the United States relative to most European countries; however, in most countries there has been an increase in party volatility, which means that voters' loyalties to parties are weaker and more voters make their decisions based on the issues and candidates (Dalton et al., 2002). Regardless of the declining attachment to parties, individuals can use party identifica-

tion to reduce the transaction cost for learning new information. Given the problems of bounded rationality, party identification also reduces the information costs because it provides voters with an optimal number of signals about candidates, including their policy position (Jones and Hudson, 1998).

Although there is a decrease in party attachment cross-nationally, individuals can still employ other forms of group attachment cues to make decisions without having complete information. Instead of using party identification, individuals can also use their likability and association to certain racial groups to make their decisions on which party or candidate they prefer, or even where they stand on the issues. Brady and Sniderman (1985) argue that people often use political or racial groups—blacks, whites, liberals, conservatives, or even interest groups—to formulate judgments on where they stand on policy. In order to use this cue, individuals must have sentimental attachment toward a group or groups. Lupia (1994) argues that individuals can determine their own position on policies by considering the position of an interest group that has similar views. Interest groups usually send signals of where they stand on the issues to their members. Individuals can use interest groups to determine, not only their policy stance, but also which party or candidate to vote for.

A second heuristic that individuals use when making decisions involve taking cues from other individuals. If individuals have very little information, they look to trusted political officials or close acquaintances for cues about where to stand on issues or who to vote for (Carmines and Kuklinski, 1990; Mondak, 1993). Sometimes voters will take their cues from their previous actions, individuals will vote for the candidate or party that they voted for in the previous election (Quadrel et al., 1993). If there is already a candidate that a voter is familiar with and formed an opinion on, then prior cues can help the voter decide which party or candidate to vote for (Wright, 1975). If a decision maker only has knowledge of and a better than average opinion of one party or candidate, then the decision maker will vote for that party

or candidate (Goldstein and Gigerenzer, 1999). Voters also base their decisions on candidate appearance, which assesses the quality of the candidate instead of the issue positions (Rosenberg et al., 1986). The race and gender of a candidate do not serve as voting cues, but do serve as policy cues. Voters often use a candidate's race and gender to infer policy positions by using the stereotype that females and African Americans are liberals, or more liberal than the average white male (Sanbonmatsu, 2003; McDermott, 1998). Voters often use this stereotype to infer whether to vote for a female or African American candidate based on how much they (the voters) agree with the liberal ideological position they attribute to the candidate.¹

According to democratic theory, democracies must hold free and fair elections and the citizens must be informed so they can vote for the candidate or party that best represents their interests. In reality, most individuals do not have much political knowledge or political interest. If these individuals are so apathetic towards politics, then how can they uphold their duties as citizens and choose the party or candidate that best represents their interest? There are numerous decision making models that explain different ways that individuals make choices. Politically uninterested individuals would not act according to rational choice models when deciding on who to vote for because they would not want to calculate the probabilities of all consequences and alternatives, especially since this requires gathering more political information. Furthermore, it is impossible for an individual, due to limited cognitive capacities, to process and retain the amount of information required by rational choice models. Therefore, in order to deal with the cognitive deficiencies, individuals use heuristics (or cues) to determine their own position on issues and which candidate or party to vote for in an upcoming election. Do these heuristics work? Do these cues help voters make the right choices that are consistent with their ideological and political views? As democratic theory suggests, are citizens choosing the candidate or party that best

¹Voters assume that females and African-Americans have a liberal ideology, and therefore assume that a female or African American candidate is also liberal.

represents their views? In other words, are voters voting correctly?

2.3 Correct Voting

2.3.1 Voting Correctly in the United States

Lau and Redlawsk (1997) questioned if “people can make reasonably good decisions, most of the time, without all the motivation and attention and knowledge that is required by classic (democratic) theory.” Democratic theory requires citizens to be informed in order to choose the party or candidate that best represents their views and requires an active, informed participation in politics. If citizens can reach the same decisions based on less than full information, then it should not matter if citizens are informed. Correct voting is defined as the “likelihood that citizens, under conditions of incomplete information, nonetheless vote for the candidate or party they would have voted for had they had full information about those same candidates and/or parties” (see Lau et al., 2008a, p. 396). Correct voting empirically measures what percent of the population is making informed decisions assuming incomplete information; this helps prove that individuals are fulfilling their civic duties, as prescribed by democratic theory, of voting in elections. The findings show that regardless of the amount or type of information that voters have, a large majority seem to make the same choice they would have made had they had complete information.

In order to formulate a measure of correct voting, Lau and Redlawsk (1997) conducted an experiment whose goal was to overwhelm the subjects with information, forcing the subjects to choose which information they would retain, and subsequently determine if the subjects made what for them was the correct choice. All of the subjects met two requirements: eligible voters and not currently enrolled in college. The subjects first completed a survey on political attitudes, knowledge, ideology, political interests, and preferences. This allowed the authors to understand each subjects’ po-

litical knowledge, interest, and position on various policy issues. Next, the subjects were given information on two to four candidates in the two parties for the primaries, and details about a general election involving one candidate from each party. In both the simulated primary and general election, subjects were allowed access to all different types of information about all the candidates. Subjects had access to approximately 212 different pieces of information on all the candidates, including background information, 26 individual policy stands, personality description, televised political advertisements, etc. After the subject's party primary election, they were asked to cast a vote for one candidate. The experiment provided an overwhelming amount of information in a short amount of time, making it impossible for the subject to retain or learn all of it.

Following the mock simulation and vote choice, subjects were presented with complete written information of two candidates side by side and were asked to review the material carefully. The first candidate was the one that they placed a vote for in the simulated election and a second candidate was the closest candidate to the candidate that they voted for. Once the subjects finished reviewing the material, they were asked if they would have still voted for the same candidate or if their vote choice had now changed with complete information. If the subject stated that after reviewing the complete information, they would have voted for the same candidate, this was recorded as a correct vote; if candidates changed their mind, this was recorded as an incorrect vote. The experimental findings show that 70% of the subjects (206 out of 239) would not have changed their mind after learning everything that there was to learn about the candidates. Therefore, 70% of the individuals voted correctly.

In addition to basing correct vote on whether subjects would change their minds about a candidate if they had full information, the authors also came up with another measure of correct voting, which they called a normative naive measure. This normative naive measure represented the candidate the authors thought each subject

should have voted for based on the subject's political and ideological views. Even though the authors did not know how each of the subjects processed information, they made informed guesses as to which candidate the subject would favor based on the subject's preferences, which were recorded before the mock election. This normative naive measure of correct vote is based on three factors: (1) agreement with a candidate's issue stands using the directional method (Rabinowitz and MacDonald, 1989), (2) group endorsement learned by a subject and how the subject felt about the group, and (3) favorableness of personality descriptions and attractiveness of each candidate. These three attributes were weighted according to each subject's judgment of importance. The authors find that this normative naive measure of correct voting is better at predicting a fully informed vote choice than the actual vote choice because it also includes objectivity. The objectivity allows the authors to use expert ratings on where the party/candidate actually lie on a certain issue, as opposed to an individual's belief of the ideological, political, and policy stance of parties/candidates. Without objectivity it would be hard to determine if the voter was making the correct choice with accurate information, since a voter can have misperceptions or the wrong information about a candidate and party, which would not be accounted for without some sort of objectivity. Lau and Redlawsk (1997) find that this normative naive measure did just as well as predicting the most optimal vote choice as asking the subjects themselves who they were going to vote for.

The normative naive measure of correct voting was developed by the authors to be used outside of the experimental setting with survey data. Lau and Redlawsk (1997) apply the normative naive measure to data from the 1972 to 1988 American National Election Study (ANES) to determine who a survey respondent should vote for based on his/her views. With these survey studies, Lau and Redlawsk calculate the normative measure of voting using four criteria: party identification, agreement with candidate policy stands, candidate social group linkages and endorsements, and

incumbent job performance. Unlike the experiment's normative measure, this measure does not include the importance weight because the authors failed to find any difference between the weighted and unweighted (or equally weighted) version. A second difference between the experiment and survey is that the authors had no way of measuring what information the respondents of the survey were exposed to. Lau and Redlawsk overcome this problem by using the survey respondent's willingness to answer a question as an indirect indicator of whether or not the respondent was exposed to certain information; this is based on the assumption that if a respondent has information about a particular candidate, group, or policy, regardless of whether the information is accurate or inaccurate, the respondent will answer the question.

Using the ANES data, the authors compare the normative naive voting measure to the actual vote choice of all respondents. If the normative naive voting measure, which indicates who the respondent should vote for, is the same as the actual vote placed by the respondent, then it is recorded as a correct vote. If the normative naive vote is different from the actual vote, then it is recorded as an incorrect vote. The results show that the percentage of correct voting varies from approximately 68% to 79% in the American presidential elections from 1972-1988. Lau and Redlawsk also test the effects that certain factors have on correct voting, given individuals limited cognitive abilities. They argue since people usually have a hard time processing information, they would make correct choices when there are fewer candidates, when the candidates (or parties) are more ideologically distinct, and when campaign resources are reasonably balanced between candidates. The findings show strong support that these factors do have an effect on the percentage of Americans that vote correctly. In the Presidential election years with fewer candidates, higher ideological difference, and balanced campaign resources had a higher percentage of respondents voted correctly.

Lau et al. (2008a) test the effects of individual, state, and year level variables on correct voting using the ANES surveys for presidential elections starting in 1988. The

individual level variables that lead to an increase in correct voting are motivation, intelligence and political knowledge, and use of political heuristics. The state level variables examined are the amount candidates spend on their campaign, and the number of high profile elections. The more money spent on campaigns will lead to an increase in information availability, which was hypothesized to result in higher levels of correct voting. On the other hand, as the number of seats up for election increases should result in information overload and more confusion among the voters, it was hypothesized to result in lower level of correct voting. The year level variables include the number of candidates or alternatives and the ideological difference between the candidates or parties. The year level factors are similar to the hypotheses tested in the 1997 Lau and Redlawsk correct voting article. The logic is that the more candidates the lower the levels of correct voting, and greater differences among candidates result in higher levels of voting correctly. This is because fewer candidates and a greater ideological difference among parties/candidates makes the decision making process of which party or candidate to choose from easier for the voter. In order to test these hypotheses, the authors use nonlinear hierarchical modeling with a dichotomous dependent variable (correct or incorrect vote), in which individual and state-level variables are clustered within election year. To determine correct voting, Lau et al. (2008a) first establish a normative measure of who they thought the respondents should have voted based on their own views and ideological stance for using the same criteria used by Lau and Redlawsk in 1997. Next Lau et al. (2008a) compare the normative naive measure to the intended or actual vote choice for each respondent. Again, a respondent is considered to have voted correctly if the normative vote is the same as the intended or actual vote choice, and the respondent voted incorrectly if the normative naive vote is different from the intended or actual vote choice.

The results show that, for the most part, the individual level variables have a significant affect on correct voting. Political motivation, political knowledge, and

strength of party identification (which is the heuristic measure) all have a positive statistical significant effect (with $p < 0.05$) on correct voting. Controlling for political knowledge, the years of education, which indirectly measures an individual's intelligence, does not statistically affect correct voting. The state level predictors—campaign intensity, number of statewide referenda—have an affect on whether an individual votes correctly. Finally, the number of candidates and ideological differences affect correct voting, as expected. Some of the more interesting findings show that, all else equal, people are 24% more likely to vote correctly when there are large distinctions in policy stands among the candidates than when there are none, caring about the outcome increases correct voting by 11%, respondents with a post graduate degree are 10% more likely to vote correctly, and the use of political heuristic (party id) increases the likelihood of a correct vote by 22%.

2.3.2 Comparative Correct Voting

There have been two attempts to understand the nature of correct voting in countries other than the United States. The first attempt by Lau et al. (2008b) sought to see the effects of individual and institutional variables on correct voting by looking at over 58 elections in 33 countries. Lau et al. (2008b) use the Comparative Electoral Study of Election Systems dataset, which includes identical cross national questions. The cases included elections in countries from Europe, Eastern Europe, Asia, North America, and South America between 1996 and 2006. The advantage to using the CSES data is to formulate a comparable cross-national measure of correct voting. The disadvantage is that the normative naive voting measure, the candidate or party the respondent should vote for, can only be based on three factors—party identification, ideology, and economic considerations. This differs from the ANES dataset, which used 23 different factors on policies, candidate traits and group endorsements to calculate the normative naive correct voting measure.

Using generalized linear hierarchical modeling with a dichotomous dependent variable (correct vote), Lau et al. (2008b) test three individual level and six state level predictors to examine the cross national differences in correct voting. The three individual level predictors include (1) cognitive ability, which is measured by political knowledge, (2) motivation, indirectly measured by political efficacy, and (3) age of respondents. The three individual hypotheses state that these three predictors are positively associated with correct voting. The six country and year level predictors include (1) economic performance, (2) electoral system, (3) information availability, and (4) number and distinctiveness of alternatives. The results show that political efficacy and age have a positive effect on correct voting, as hypothesized by the authors. The country and year level results show that correct voting increases by 8% in single member districts than in other electoral systems. As information availability increases, measured by the number of newspapers, radios, and television sets per 1,000 inhabitants, correct voting increases by 17%.

The second attempt at cross national correct voting was performed by Hines (2006), who looked at correct voting levels in the United Kingdom, Netherlands, and the European Parliament across numerous years. Unlike Lau et al. (2008b), Hines used the national election surveys (NES) for each of these cases, and measured correct voting similar to the way that Lau and Redlawsk (1997) measured correct voting. In addition to the differences in the data operationalization of the dependent variable, Hines also analyzes multiple election years from the British Election Study, the Dutch Election Study, and the European Election Study.

For the Great Britain case, Hines (2006) looks at the 1983, 1987, 1992, 1997, 2001, and 2005 election years, and average correct voting rates of 70%, which are similar to the rates found in the United States by Lau and Redlawsk (1997). Performing a logistic regression, he finds that income, education, political knowledge, extreme ideology, strength of party affiliation, the number of parties, and ideological distinctiveness

have an effect on correct voting measures in Great Britain. In the Netherlands case, Hines analyzes the 1981, 1982, 1986, 1994, 1998 election years, and finds that the percentage of correct voting is on a decline, however the average is higher in the Netherlands (89.09%) than the average in both the United States and Great Britain. In the Netherlands, using logistic regression, he finds that the same variables, with the exception of income, had an effect on correct voting in Great Britain, also have an effect on correct voting in Netherlands.

For his final case, the European Parliament (EP), Hines used the 1999 election, and computes the percentage of correct voting by respondents in 15 European countries. His findings show that on average, 70.57% of the respondents in the 15 different countries voted correctly in the 1999 EP elections. For this case, Hines includes more predictors in his model and finds that age, gender, strength of partisanship, extreme ideology, political interest, number of political parties, number of constituencies, ideological distinctiveness, STV, and media availability have an effect on correct voting measures. As age increases, correct voting decreases by 4.6%, and correct voting is 6.2% more likely for females than males. As attachment to a party and ideological differences increase, correct voting increases by 15.2% and 22.2% respectively.

Hines (2006) concludes that institutions do matter for correct voting behavior because they offer clarity and stability. One of the puzzling results from his measures of correct voting was that the PR system had higher levels of correct voting than the first-past-the post (FPTP) systems. This is puzzling because if individuals have limited capacity for information, then intuitively they should make more correct choices in a system that promotes two major parties, or a FPTP system. They should vote less correctly in a system that promotes more than two parties, as seen in a PR system the like Netherlands. However, upon closer inspection of these political institutions, Hines finds that PR systems, like the Netherlands have higher rates of correct voting because voters are presented with clear choices of political parties rather than

candidates, which enable them to more easily make correct choices. A proportional representation system with closed list² allows for an environment where choices are more limited, thus promoting higher levels of correct voting. His findings show that closer inspection of the different political institutions may have an impact on levels of correct voting. The next section will discuss the impact of political institutions on voting behavior to gain a better understanding of how institutions have an effect on the level of correct voting.

2.4 Voting and Institutions

There is a clear consensus in the political science literature that institutions do matter. Institutions have the ability to affect many factors, including the number of parties (Duverger, 1955; Sartori, 1968; Lijphart, 1990, among others), voter turnout (G. Bingham Powell, 1986), satisfaction with democracy (Anderson and Guillory, 1997), how votes translate into seats Cox (1997), and the ability of laws to be passed (Tsebelis, 1995). Existing research also shows that distinct institutions affect the way citizens make vote choice decisions. The literature focuses on two different types of voting: strategic (also referred to as tactical) and sincere. Even though scholars agree that electoral systems affect voting behaviors for individuals, they do not unanimously agree about the determinants of strategic or sincere voting.

In the comparative politics literature, strategic and sincere voting are often seen as a dichotomy: if a voter is voting strategically, then s/he is not voting sincerely, and if a voter is voting sincerely, then s/he is not voting strategically. Furthermore, an insincere vote is often labeled as a strategic vote, and a vote that is not strategic is labeled as a sincere vote. The next section will discuss how institutions affect citizens' vote choice and the types of electoral institutions that promote strategic voting

²In closed list PR systems individuals vote for the party, and the party determines the candidates, and the ordering of the candidates. In open list PR systems individuals place their vote for candidates.

and sincere voting. In addition to discussing the types of voting that is predominant in the comparative politics literature, this section will first include a discussion of the similarities and differences between correct voting and both sincere and strategic voting. In analyzing the differences, this section will also discuss the types of institutions that promote the three types of voting as well as how correct voting fits into the strategic/sincere dichotomy.

2.4.1 Correct and Sincere Voting

Sincere voting is defined as choosing the most preferred or top option without any regards to a party's or candidate's chance of winning (Clark et al., 2009; Klingemann and Wessels, 2002; Drummond, 2006). Citizens who are voting sincerely go into the voting booth and cast the vote for the party or candidate that they most prefer. Citizens will choose their vote choice based on either their top preferred party, their top preferred candidate, or the party/candidate that is closest to them ideologically, which is the party or candidate that has the least amount of ideological distance to the citizen's own ideological stance (Klingemann and Wessels, 2002).

Sincere voting is most likely in electoral systems where voting for the most preferred candidate will result in the citizen not wasting a vote or having their vote influence the result. To some degree, sincere voting is promoted in electoral systems with preferential voting, like alternative voting and single transferable voting systems that are employed in countries such as Australia and Ireland, respectively. The difference between alternative voting (AV) and single transferable voting (STV) is that AV is used in single member districts (SMD) where there is only one seat per district, while STV is employed in multi-member districts (MMD) where there are more than one seat per district. In both AV and STV systems, citizens will give a preferential vote, which involves ranking one or more of the candidates or parties in order of preference. In these types of systems, any candidate who receives an absolute majority

is elected, and if no candidate wins an absolute majority, then the candidate with the fewest votes is eliminated and his votes are reallocated until one candidate/party has a majority of the valid votes. With preferential voting, the voter is more likely to engage in sincere voting because they know their vote will not be wasted. If their most preferred candidate is not popular, then their vote will be transferred to their second most popular candidate³ (Clark et al., 2009).

Sincere voting is also more likely in proportional representation (PR) systems because the discrepancy between votes and seats is reduced. Under PR systems, the proportion of seats allocated to a party approximates the proportion of votes, which is not the case in majority or plurality systems. In majority (or plurality) systems, smaller parties often do not win any seats. Therefore, in order to avoid wasting their votes, individuals who support smaller parties cast their vote for a party that has a better chance of winning. PR systems, on the other hand, allow smaller parties to win seats, so voting for a most preferred smaller party is less likely to result in a “wasted” vote. This is not to say that all citizens in a PR system vote sincerely. There are factors within a PR system that may discourage a voter from voting sincerely. For instance, all PR systems, regardless of their type (block vote, party block vote, open list, closed list), have a minimum threshold⁴ imposed by a quota/divisor or written into the electoral law, which determines the minimum amount of votes a party needs in order to win a seat (Clark et al., 2009). This threshold may discourage citizens who favor very small parties from voting sincerely because they know that their most preferred party may be unable to overcome the threshold.

³This does not mean that voters can not engage in strategic voting. Some voters may decide not to rank the candidates according to preferences because they may want to influence the elimination order, which will determine who wins the district. In order to avoid this type of strategic voting, parties hand out “how to vote” cards at polling stations, which shows them the order in which to vote for candidates.

⁴These thresholds can be either natural, determined by the quota or divisor, or it can be formal and written into the electoral law. Natural thresholds are present in all PR systems, unlike formal thresholds, which state the percentage a party needs in order to win a vote. An example is Germany, where a party needs either 5% of the vote or three constituency seats before being eligible to win seats.

Sincere voting is voting for the party or candidate that a voter favors the most (Drummond, 2006; Klingemann and Wessels, 2002). Sincere voting scholars want to see what types of factors have an effect on sincere voting use survey data and operationalize sincere voting as a dichotomous variable. If the respondents voted for the party or candidate that they liked the most, then it is considered a sincere vote, and if they did not vote for the party or candidate that they liked the most, then it is not a sincere vote. Sincere voting is a simple vote choice model that automatically assumes the individual preferences are correct; if an individual most prefers party or candidate A, then voting sincerely means choosing party or candidate A.

Correct voting is different from sincere voting because it neither assumes that individuals' preferences are correct nor that individuals should vote for the party or candidate they most like or prefer. Instead, correct voting calculates which party or candidate each individual (in this case the survey respondents) should vote for based on their individual preferences and perceptions on political parties, candidate traits, issues, ideological stance, economy, and job approval. Correct voting, unlike sincere voting, does not assume that individuals can correctly identify the right party or candidate. Instead, it includes an objective measure of where each party/candidate lies and uses this in conjunction with the survey respondent's own views in an attempt to empirically test whether individuals are identifying the right candidate/party.

The conceptualization of correct voting began over a decade ago in an attempt to see if individuals do in fact make the right decisions even with their limited cognitive abilities . Past literature has found that correct voting is more likely when there are fewer candidates and there is more of an ideological distance between them (Lau and Redlawsk, 1997; Lau et al., 2008a,b). Naturally, proportional representation systems have more candidates and parties than a majority or plurality systems. In these types of systems, would there be lower levels of correct voting? How can we explain the discrepancies that find higher levels of correct voting in PR systems such as the

Netherlands (Hines, 2006)? One explanation is that in addition to the number of candidates and ideological differences, political parties also help determine the level of correct voting.

In electoral systems where political parties are more predominant than candidates, one would expect, for many reasons, to see higher levels of correct voting, regardless of the number of parties/candidates and ideological differences. In countries where parties play a strong centralized role, such as closed list PR systems, individuals can use various different heuristics to help them make the right choice, even if there are 5 or 10 parties that are running during an election. In closed list PR systems, citizens do not have to familiarize themselves with a new candidate every election. They place votes for a political party and the political party chooses the candidate. Citizens in closed list PR systems, or any other political system where the party chooses the candidate, know that the candidate will follow the party line faithfully, unlike other electoral systems where the candidate has lower levels of party discipline (Hazan, 2002). In these types of electoral systems, the voters can successfully employ two heuristics that will allow them to make “correct” decisions—party identification and familiarity.

The two heuristics, party identification and familiarity, work together in a centralized party system where the party selects the candidates and helps citizens make informed decisions with incomplete information. In instances such as a closed list PR system, citizens place their vote for a party instead of a candidate. Here, the party chooses the candidate, and the candidate will be one that is faithful to the party. The citizens in countries with this type of electoral system do not have to learn much new information in elections unless there is a new political party or the party that they preferred dissolved.⁵ In these systems, citizens make vote choice by familiarizing

⁵Citizens in closed list PR systems may have to learn new information if there is a new political party, if there is a major shift within political parties, if their own views change, or if the political party they supported no longer exists. If there are no major changes in political parties, then individuals can continue to use information they have already acquired without working too hard

themselves with the political parties and choosing the political party that best fits their views. Once a citizen does this, s/he can use this information for every future election without having to learn more information about the candidates. The citizens within these types of electoral systems know that the candidates will truly represent their respective political parties, and therefore only need to learn about the positions of the different political parties and determine which political party best fits their views, which will lead to higher levels of correct voting. There should be higher levels of correct voting in any electoral system that not only has a closed list system, but also in those where parties hand out “how to vote” cards to their constituents, which tell the constituents which candidates to vote for and the order of preferences. In these systems political parties play a major role of distributing information to its members, making it easier for the citizens to make decisions on election day.

Sincere voting deals with individuals choosing the most preferred candidate/party without any regard to whether or not that candidate/party has a chance of winning. On the other hand, correct voting deals with individuals choosing the “correct” candidate/party even with their innate inability to process lots of information. Even though the two types of voting (sincere and correct) are very different, there are institutions that can promote both sincere and correct voting. In PR systems and AV systems, where there are high levels of sincere voting, there can also be high levels of correct voting. In these systems, candidates can choose their most preferred choice without wasting their vote, which results in high levels of sincere voting, and parties provide the citizens with information on how to vote or the order in which to choose candidates, which results in high levels of correct voting.

to obtain more information during every election.

2.4.2 Strategic and Correct Voting

Most voters are motivated by their desire to affect the outcome of an election and therefore may cast a vote for a candidate/party that is not their most preferred. Strategic voting is defined as voting for the party or candidate that has the best chance of winning (Cox, 1997). In order for a vote to be strategic, two conditions must be met: (1) the voter must vote for a party/candidate that is not most preferred, and (2) the voter must come to this decision based on his/her perceptions of the election outcome (Blais et al., 2005). Instead of an individual wasting his/her vote by picking their most preferred party/candidate, voters will choose the party/candidate that the greatest chance of winning and that is most preferred over any other alternative that they believe has a better chance of winning.

There are incentives to voting strategically in all types of electoral systems (Gibbard, 1973; Satterthwaite, 1975). However, this type of behavior is more likely in some types of electoral systems than others. There is the most incentive to vote strategically in single member district plurality systems (SMDP), such as Great Britain and the United States.⁶ In these types of systems, there is only one candidate elected per district, and in order to win the seat the candidate must win more votes than all other alternatives. When more than two candidates compete in SMDP systems, voters are better off voting strategically in order to avoid the most unfavorable outcome. In Great Britain, for instance, there are two main parties—Labour and Conservative—and a fairly large third party—Liberal Democrat. Voters in Great Britain know that there can only be one winning party per district, and there is a high probability that the winning party will be either Labour or Conservative. The voters that support the Liberal Democrat know that they will very likely waste their vote by voting sincerely and will therefore end up voting for the Labour Party in order to influence

⁶There are incentives to vote strategically more in the United Kingdom than in the United States because the United Kingdom has a fairly popular third party, unlike the United States, which has two major parties and rarely has a major third party candidate.

the outcome. Voters will vote for Labour over the Conservative Party because the Labour Party is closer to the Liberal Democrats Party and the Labour Party has a better chance of winning the seat than the Liberal Democrats. The Liberal Democrat supporter, by placing a vote for the Labour candidate and not the Conservative candidate, is indicating that the Labour candidate is the lesser of two evils, and would rather see the Labour candidate win over the Conservative candidate.

There is a clear consensus among scholars that voters in SMDP, which have more than two parties, have the greatest incentives to engage in strategic voting. However, there is a debate about the amount of strategic voting that occurs in proportional representation (PR) systems. Duverger (1955) argued that there are three characteristics that allow voters in PR systems to vote sincerely instead of strategically. First, voters cast votes for a list of candidates, not individuals, in a PR system. Second, multi-member districts (MMD) allow for more than one seat per district. Third, seats are divided by proportion. All of these conditions make it difficult for voters to vote strategically and make sincere voting more likely because even smaller parties have a chance of winning seats. Leys (1959) and Sartori (1968) argue that strategic voting is more likely in PR systems with low district magnitudes, or districts with a few number of seats. Low district magnitudes make it hard to allocate seats proportionally, therefore making voting behavior similar to that seen in single member districts (SMD), which create a higher incentive for strategic voting. For instance, a PR system that has a district with 2 or 3 seats and 5 or 6 parties running would not be able to allocate the seats proportionally to all of the parties running. Since the number of seats is small, voters have an incentive to vote strategically if they favor a party that does not have a reasonable chance of winning and if they want to try to influence the outcome of the election. Cox and Shugart (1996) argue that voters have a strong incentive to vote strategically in PR systems that have a district magnitude less than or equal to five.

The main difference between correct voting and strategic voting deals with perceptions of outcome and preferences. Strategic voting assumes (like sincere voting) that individual perceptions of parties/candidates are accurate, that is voters know which party most agrees with their views, and that individual perceptions of the possible election outcome are accurate. Correct voting, on the other hand, formulates the party/candidate that most agrees with an individual's views using objective measures and does not deal with outcome perceptions. Despite this difference, the same type of institutions that promote strategic voting can also promote higher levels of correct voting. There is the highest incentive to vote strategically in majoritarian or plurality systems due to the lower amounts of proportionality and the fact that there is only one seat per district. At the same time in most majoritarian or plurality system, by their very nature, there are also a fewer number of candidates, which also supports higher levels of correct voting. As Lau and Redlawsk (1997) showed in the United States, there were higher levels of correct voting when there were fewer candidates running because the fewer the candidates the less information the voters had to learn, causing them to make right decisions more often. In addition, with fewer candidates, there is a higher probability of picking the right choice when there are more candidates, even if the voter did not know anything about any of the candidates. For instance, if there are two candidates, there is a 50% chance that the voter will choose the candidate that best fits his views, even if he had no information before going into the voting booth. If a person with no information goes into the voting booth and there are five candidates, there is only a 20% chance of the individual making the right choice. With fewer choices, the decision making process becomes easier and more manageable for individuals, resulting in a higher probability of them making the right choice.

One major difference between strategic voting and correct voting is the attention that the former give to the perceptions of the likely outcome of the election by indi-

viduals. There is evidence that shows that the amount of strategic voting found in previous work has been underestimated (Alvarez et al., 2006) and that over 50% of the voters vote strategically when there is an opportunity to do so. They find these results by looking only at voting behavior in districts with more than two major candidates in Great Britain. On the other hand, Gschwend (2006) analyzes voting behavior in twenty-six countries at the district level and finds that at most 11.1% of the sample in a particular country voted strategically. Even though there is debate in comparative politics literature about what percentage of the citizens vote strategically, scholars still focus on the sincere and strategic dichotomy. This discussion of strategic and sincere voting is important so that readers can see the difference between sincere, strategic and correct voting. The next section will discuss why a discussion of sincere and strategic voting is important when discussing comparative correct voting.

2.4.3 Sincere, Strategic, and Correct Voting

Strategic and sincere voting represent different strategies that voters use when making decisions before election day. They choose to vote for their most preferred option (sincere) or the most preferred option that has a chance of winning based on their own perceptions of the election outcome (strategic). This section discusses these two strategies in conjunction with individual perceptions of the party/candidates in order to determine when a voter makes the “correct” decision as opposed to an “incorrect” decision.

Clearly, as we saw in the previous section, sincere and correct voting are not the same. Sincere voting does not evaluate a voters’ preferences and compare it with the citizen’s vote choice, whereas correct voting does. This does not mean that a vote cannot be both sincere and correct. When an individual employs a sincere voting strategy and has accurate perceptions of political parties and candidates, this will also

result in a correct vote. This indicates that an individual has an accurate perception of his/her most preferred party/candidate and votes for this party/candidate. On the other hand, when an individual employs a sincere voting strategy but has inaccurate perceptions of parties or candidates, this will result in an incorrect vote. Here, an individual does not have accurate perceptions of the parties or candidates in the election, and the party that is most preferred is not the party that the individual should vote for given his/her views.

A voter with accurate perceptions about the parties/candidates employing strategic voting may not result in a correct vote. A voter with accurate perceptions employing strategic voting knows which party s/he should be voting for based on his/her views, but s/he will not vote for that party because this party does not have a chance of winning. If a voter cares about voting for the winning candidate, then theoretically this could be taken into account in determining the correct choice; however, researchers typically do not have the information from surveys regarding voter perception on the probability that different parties will win, making it difficult to incorporate strategic intentions into the calculation of correct voting. At best, we can control for strategic voting in our models by either calculating sincere voting and using the insincere votes to represent a strategic intention,⁷ or by using an institutional level variable that orders different electoral systems based on the likelihood of citizens voting strategically.⁸ In this dissertation, I control for strategic voting by using the institutional level variable.⁹

⁷This assumes that individuals who did not vote for the party or candidate that they liked the most (sincere) voted for the party that was closest to their views ideologically and had the most chance of winning the election (strategically). This measure assumes that all individuals have accurate perceptions of political parties, candidates, and election outcome. This greatly overestimates the measures of strategic voting because we have no way of knowing if individuals actually meant to vote strategically or if they were actually voting incorrectly. The only way to be able to appropriately measure strategic voting is if we had an individual's preferences about the parties and their views of what they believe the election outcome will be *ex ante*.

⁸See Chapter 3 and Appendix C for more information about how this variable is measured.

⁹Currently I am working on operationalizing an individual level variable for strategic voting and including these strategic votes as correct votes.

If, as discussed, strategic votes are recorded as incorrect, then we should expect to see an inverse relationship between correct and strategic voting. Electoral systems that have high incentives to vote strategically will decrease levels of correct voting, since strategic votes are recorded as incorrect. The next chapter will discuss aggregate levels of correct voting and compare these aggregate levels of correct voting to aggregate levels of sincere votes and strategic votes.

CHAPTER III

Estimating and Predicting Correct Voting

There are two measures of correct voting—a minimalist measure and a comprehensive measure. First, in this chapter, I will discuss the differences with the minimalist and comprehensive measures and the different data that were used to calculate these measures. This discussion will be followed by how the correct voting is estimated and an aggregate analysis of these measures. In the previous chapter, there was a discussion of the difference between sincere, strategic, and correct voting. The discussion on the aggregate measures will also compare correct voting measures with sincere voting measures to empirically demonstrate the differences between these measures. Finally, I will lay out the hypotheses to be tested and the method used to test these hypotheses.

Since there are two measures of correct voting—a minimalist and comprehensive measure, for each election I consider, correct voting is estimated twice. The two measurements of correct voting used in this dissertation are similar to the ones found in the previous works on correct voting (Lau and Redlawsk, 1997; Lau et al., 2008a,b). The minimalist measure of correct voting is estimated using data from the *Comparative Study of Electoral Systems*, or CSES¹. The CSES data surveys individuals from over forty democracies around the world in post election studies using a com-

¹For more information about the CSES database see Appendix A. Information about participating countries and data can be found at <http://www.cses.org>.

mon module for the survey questions. Estimates of correct voting with the CSES data can be based only on three factors—party identification, ideology, and economic preference. This first measure of correct voting is the same measure used in Lau et al. (2008b) with the CSES dataset. The second, more comprehensive, measure of correct voting is estimated using data from *National Electoral Studies* or NES.² The NES surveys include the same CSES post election survey module, but also include additional, comprehensive, and detailed survey questions not found in the CSES survey. The correct voting measured based on the NES datasets is estimated using five factors—party identification, ideology, economic preference, government approval, and policy stance. This second measure of correct voting is the same measure used in Lau and Redlawsk (1997) and Lau et al. (2008a), which use the American NES dataset.

3.1 Dependent Variable—Correct Voting

There are advantages and limitations of both correct voting measures. The advantage of the minimalist correct voting measure (CSES) is that it is calculated using identical survey question for each election, making comparisons across elections. The limitations of this minimalist correct voting measure is that it is only calculated using three factors, which may not always include the most important reasons citizens vote as they do. On the other hand, the comprehensive measure of correct voting (NES) is based on more factors, but is not calculated using the same survey questions.³ This section will now discuss the estimation of the correct voting, including the objective and subjective factors, and the weight placed on each factor. This is a general discussion of all the factors used to estimate correct voting.

²For a more comprehensive list of the NES data and where it was obtained, please see Appendix A.

³Please see Appendix B for details on the survey questions used to calculate the NES and CSES measures of correct voting for each election.

3.1.1 Party Identification

Party identification is measured by how close each respondent felt to each of the major political parties during the election. This criterion is completely subjective. Party identification differs widely across elections and is based on a number of variables, including the strength of party identification, party attachment, and/or party attraction. Each respondent was placed on a scale from -0.5 to 0.5 depending on how strongly they were attached or attracted to all the major parties. The number of parties varies across election and ranges from two to eight. Party identification is weighed by respondents subjective views on the importance of political parties. Party importance is calculated using two variables: (1) the necessity of political parties, and (2) the importance of political parties.⁴ More weight is placed on party identification for those respondents who feel political parties are very important, and less weight is placed on party identification for those respondents who feel political parties are not very important.

3.1.2 Ideology

Ideology is based on a combination of a subjective and objective measure. I use the Rabinowitz and MacDonald (1989) measure to determine the ideological closeness to each major political party. This measure is calculated using the subjective measure of where each respondent places themselves on an 11 point scale (0 for left to 10 for right), along with expert judgments provided by the survey researchers of where each major political party stands. The subjective self evaluation ideology was combined with the objective expert political party ideology to determine how close (ideologically) each

⁴All of the NES surveys include some variation of these two variables, except for New Zealand 2002. For New Zealand 2002, I used the average party importance from New Zealand 1996 and applied this as a weight for all respondents. In the CSES measures, the necessity of political parties and the importance of political parties was only asked in Module I, which includes elections from 1996-2000. For CSES Module II (elections after 2000), the average party importance from the previous election was used as a substitute.

respondent is to the major political parties.⁵ The purpose of the objective expert ratings is to ensure that correct vote is a normative measures. Without the objective expert rating, it is difficult to state where each political party lies ideologically, and therefore, hard to determine how close (ideologically) each individual really is to a political party. In addition, without the expert rating, a respondent might favor Party A (for whatever reason) and therefore incorrectly state in the survey that Party A is closest to him/her ideologically (Kinder, 1986; Krosnick, 1990; Markus and Converse, 1979; Heider, 1958). The objective expert rating provides a way of determining which party is actually closest to the respondent rather than which party the respondent thinks is closest to him/her. Ideology is weighed by the largest distance of all political parties that received over ten percent of the popular vote. The larger the ideological distance between these political parties, the greater the weight placed on ideology, and the smaller the ideological distance, the less weight placed on ideology.

3.1.3 Economic Preference

Economic preference was measured by combining respondent's evaluations of the current state of the economy in the country and retrospective evaluations about the change in the economy over the past year. Favorable judgements were assumed to have a positive impact on the incumbent party or candidate and unfavorable judgements were assumed to have the opposite effect.⁶ Economic performance is purely subjective

⁵In the CSES data, experts were asked to rate each major political party on the same 11 point scale. The rating of each political party was also applied to respondents in the NES survey since both surveys were used for the same elections, and therefore had the same political parties. If the expert rating was missing in any election, the experts were replaced by average ratings of the respondents who got most of the political knowledge quiz questions right.

⁶In Chapter 5 where the correct voting measures are based on the CSES data, the measurement of economic preference varies. For elections held between 1996 and 2000, economic preference evaluation is based on the average evaluation of evaluations of current economy and the retrospective judgement of the economy. Unfortunately respondents were not asked for their evaluations of the economy after 2000, and thus, for the elections between 2000 and 2004, the economic preference is based on evaluation of government performance. All of the NES measures (of correct voting in Chapter 5) of economic preferences are based on current and retrospective economic evaluations.

and weighed implicitly by the importance of economy.⁷

3.1.4 Government Approval

Government approval was measured for each respondent using a retrospective evaluation of the incumbent party/candidate or governing coalition. A favorable evaluation resulted in having a positive impact on the incumbent party/candidate or all the parties included in the governing coalition, and an unfavorable evaluation has the opposite effect. Government approval is purely subjective and weighed implicitly by its importance.

3.1.5 Policy Stands

Policy stands, similar to ideology, were determined using a combination of subjective and objective measures. The subjective measure was based on the respondents' stance on policy combined with an objective measure of where the major political parties stood on these same issues for each election. The subjective measure was combined with the objective/normative measure using the Rabinowitz and MacDonald (1989) scale to determine how close each respondent was to the major political parties for all issues.⁸ The number of evaluations varied among different elections and included policy stands on taxation, immigration, environment, education, health care, unemployment, international relations, defense, iraq, social programs, European integration, etc. The objective measure is an aggregate measure that represents the

⁷These implicit weights were determined for each respondent based on how many questions concerning the economy s/he answered. The reasoning being that if the issue was important to the respondent then s/he would answer all the questions, and if it not important or irrelevant then no questions would be answered. This implicit weight ranges from 0 to 1, where 0 indicates that the respondent did not answer any of the questions regarding the economy, and 1 indicates that the respondent answered all questions about the economy.

⁸If the data was available to determine a subjective and objective measure, the policy stands variable was measured using Rabinowitz and MacDonald (1989) measure of directional theory. However, in instances where I was unable to determine an objective view, or a straightforward subjective view, I used different methods, which were comparable. See Appendix B for full description of all cases and exceptions.

average for those respondents who fall in the top percentile (25%) of political knowledge. Each policy stand was weighed using explicit evaluation of how important each policy stand was for each respondent.⁹ More weight was given to the policies that were more important to the respondent.

3.1.6 Determining Correct Voting

Correct voting is determined by first creating a combined evaluation, or “utility scores,” for each major political party during each election. This simply means that respondents in each survey were given a different utility score for each of the major political parties. For the CSES survey, the utility score was a combination of party identification, ideology, and economy. For the NES survey, the utility score was a combination of party identification, ideology, economy, government approval, and policy stands. The political party with the highest utility score/evaluation for each respondent represented the political party the respondent *should* vote for. Once the political party with the highest utility score was established (the party that a voters *should* vote for), it was compared to the actual vote choice for each respondent.¹⁰ This comparison is used to estimate the correct vote variable, a dichotomous variable that is coded as 0 for an incorrect vote, and 1 for a correct vote. A vote is coded as an incorrect vote if the the *should* vote is the not the same as the vote choice; if the *should* vote is the same as the vote choice, then it is considered a correct vote.

Correct voting is only determined for those respondents in the surveys who voted or intended to vote in the election. In the pervious correct voting literature (Lau and Redlawsk, 1997; Lau et al., 2008a,b) the authors decided not to include the non-voters in their analysis because it is difficult to come up with a proper way of dealing with the nonvoters. If respondents did not vote (or did not intend to vote) in elections,

⁹In instances where the explicit evaluations were not available, implicit weights were used.

¹⁰If the survey was distributed pre-election, then the *should* vote is compared to the vote intention. If the survey was distributed post-election, then the *should* vote is compared to the vote choice.

it is impossible to correctly determine correct voting since there will be no way of comparing the should vote to an actual vote (or vote intention). Some possibilities of dealing with these missing data would be to assume that all of those that did not vote (or did not intend to vote) voted incorrectly, dissatisfied by voting strategically, or were satisfied with the status quo (Lau et al., 2008b). Measures dealing with all these possibilities or ignoring the issues of nonvoters (i.e. leave them as missing) are highly correlated ($r=0.64$). Therefore, it makes sense not to make any assumptions about those respondents that did not vote and therefore to not include them in the analysis.

3.2 Comparing Aggregate Levels of Correct Voting Measures— CSES vs. NES

Table 3.1 presents the percentage of individuals that voted correctly in both the CSES and the NES surveys, along with the differences in the measures of correct voting both between elections in the same country and also between the two measures of correct voting. The aggregate summary statistics show that the levels of correct voting vary within countries at most by 16% in the NES surveys and 8.0% in the CSES survey. On average, the variation within countries in the NES survey is 3.7% greater than the variation within countries in the CSES survey. The variation between different countries and between the two measures of correct voting is more than twice the variation within countries. In the CSES survey, the highest levels of correct voting is 83.1%, the lowest level is 55.7%; in the NES survey the highest level is 82.2% and the lowest level is 46.7%. The average levels of correct voting for all the cases listed in Table 3.1 for the CSES survey is 72.8% and the mean levels for the NES survey is 60.2%. Comparing the NES and the CSES measures, on average the CSES measure is approximately 12.6% higher than the NES measure.

These variations in correct voting displayed in Table 3.1 are consistent with the measures of correct voting discussed in earlier measures found in Lau and Redlawsk (1997), Lau et al. (2008a), and Lau et al. (2008b). Using the American NES survey, Lau et al. (2008a) find 77.2% of correct voting in 1996 and 85.1% of correct voting in 2004. Using the CSES surveys, Lau et al. (2008b) find 82.4% of the sample in 1996 and 88.4% of the sample in 2004 voted correctly. Similar to the measures displayed in Table 3.1, previous measures of correct voting also find variation within countries higher with the NES survey than the CSES survey and that the CSES survey have higher overall measures than the NES surveys. The lower overall measures of correct voting for the NES surveys are a result of issues, which are included in the NES measures of correct voting but not in the CSES measures. It seems that that the inclusion of issues result in fewer respondents voting for the party or candidate that we predict they should vote for. For instance just looking at correct voting measures for the Australia 1996 election, 81.4% of the respondents voted correctly when issues were not included in the calculation; 75.9% of the respondents voted correctly when issues were included in the calculation. The explanation of lower levels of correct voting when including issues is that individuals just do not know enough about the issues in order to make the right choice. As discussed earlier, most individuals do not know enough about politics and do not care about politics (Campbell et al., 1960; Lane, 1962; Converse, 1964). This apathy towards politics is picked up more in the NES surveys, which asks respondents about how they feel about different issues.

As Table 3.1 shows, there are some significant differences between the aggregate measures of correct voting based on the NES and CSES surveys. The average CSES measure for all 17 cases is statistically higher than the average NES measure ($t(32) = 3.55, p < 0.01$). While the overall averages of the CSES and NES measures may be statistically different, further analysis shows there is a high correlation between the two measures ($r = 0.65, p < 0.001$). Analysis also shows that the two

Table 3.1: **Summary of Correct Voting Measures**

Country	Formula	Year	CSES		NES		Difference in Correct Vote (CSES-NES)
			Correct Vote	Election Year Difference	Correct Vote	Election Year Difference	
Australia	Majority/Plurality	1996 2004	81.4 82.6	1.2	75.9 82.2	6.3	5.5 0.4
Canada	Majority/Plurality	1997 2004	69.5 74.0	4.5	56.5 52.7	3.8	13.0 21.3
Germany	Proportional	1998	72.9		55.2		17.7
Great Britain	Majority/Plurality	1997 2005	83.1 82.6	0.5	75.9 75.1	0.8	7.2 7.5
Netherlands	Proportional	1998 2002	60.4 58.2	2.2	55.1 46.7	8.4	46.7 11.5
New Zealand	Proportional	1996 2002	68.8 66.5	2.3	49.1 48.8	0.3	19.7 17.7
New Zealand	Majority/Plurality	1996 2002	63.7 55.7	8.0	52.6 58.7	6.1	12.7 -3.0
Sweden	Proportional	1998 2002	82.3 82.0	0.3	67.4 51.0	16.4	14.9 31.0
Switzerland	Proportional	1999 2003	80.0 74.1	5.9	54.0 66.2	12.2	26 7.9
Average Percentage			72.8	3.1	60.2	6.8	12.6

measures rank countries in a similar manner, with a correlation of $r = 0.64, p < 0.01$. Therefore, despite the variation in these two measures, they are highly correlated and the countries are similarly ranked. The variation can be attributed to the two ways the measure of correct voting was estimated. This suggests that estimating correct voting using factors such as government approval and policy stands will produce a lower level of correct voting than estimating correct voting simply using party identification, ideology, and economic preference alone.¹¹

¹¹This conclusion was reached after estimating correct voting using only party identification, ideology, and economic preference factors with the NES surveys. Using only these three factors with the NES surveys, I find similar, if not the same, percentages of correct voting as the CSES surveys.

3.2.1 Comparison of Aggregate Correct and Sincere Measures

In the last chapter, I spent some time discussing the differences between sincere, strategic, and correct voting. In this section, I hope to show empirically how correct voting is different from sincere by comparing aggregate levels of both for each election. Sincere voting is estimated the same way using both the CSES and the NES surveys. For all surveys, sincere voting is determined by examining the agreement of two variables—political party preferences and vote choice. For each respondent, the most preferred party, determined by the party respondents like the most, is compared to his/her vote choice.¹² If the most preferred party is the same as the vote choice, then the vote is recorded as a sincere vote. If the most preferred party is not the same as the vote choice, then it is recorded as an insincere vote or a strategic vote. The aggregate percentage of strategic votes is 100 minus the aggregate percentage of sincere votes. For instance, the 1996 CSES Australian survey shows 90% of the respondents voted sincerely and the remaining 10% of the respondents voted insincerely or strategically.

Table 3.2 reports the aggregate sincere and correct measures for both the CSES and NES surveys. The measures of correct voting are marginally lower than the measures of sincere voting for both the CSES and the NES surveys. For the CSES survey, the average sincere voting measure is about 12% higher than the average correct voting measure. In the NES surveys, the correct voting measures are 17% lower on average than the sincere voting measures. On average, aggregate sincere voting measures are higher than correct voting measures for both the CSES and NES surveys ($p < 0.001$ in both instances).¹³

By displaying the differences in correct and sincere voting, we can see that the

¹²In instances of ties, or where respondents greatly prefer two political parties equally, a vote is recorded as sincere when the respondent votes for either one of these political parties.

¹³I performed two different independent sample t-tests, one that compared the aggregate sincere measures to the aggregate correct measures for the CSES survey and a second that did the same for the NES survey.

Table 3.2: **Aggregate Percentage of Correct and Sincere Voting**

Country	Year	CSES		NES	
		Correct	Sincere	Correct	Sincere
Australia	1996	81	90	76	96
Australia	2004	83	87	82	95
Canada	1997	70	84	57	73
Canada	2004	74	83	53	81
Germany	1998	73	75	55	71
Great Britain	1997	83	86	76	91
Great Britain	2005	83	88	75	85
Netherlands	1998	60	79	55	63
Netherlands	2002	58	77	47	65
New Zealand (PR)	1996	69	85	49	75
New Zealand(SMD)	1996	64	77	53	64
New Zealand (PR)	2002	67	85	49	75
New Zealand(SMD)	2002	56	74	59	64
Sweden	1998	82	92	67	78
Sweden	2002	82	95	51	83
Switzerland	1999	80	82	54	73
Switzerland	2003	74	87	66	77
Average Percentage		73	85	60	77

two measures are not estimated in the same way and the importance of correct voting over sincere voting. Even though a great majority of individuals in all countries are voting sincerely and not strategically, a smaller percentage of citizens vote correctly. Although both correct and sincere voting are expressive forms of voting, but sincere voting is different from correct voting because correct voting does three important things that sincere voting fails to do. First, correct voting, unlike sincere voting, is based on numerous factors, including policy stands, ideology, government

approval, economy, and party ideology, all of which are important in determining which party/candidate a respondent will vote for. Second, correct voting combines objective and subjective measures to ensure that respondents are correctly perceiving which party/candidate is closest to their views. Third, the factors in correct voting (such as party identification, ideology, economy, etc.), are weighted by how important these factors are to the respondents. Greater weight is given to items or factors that are more important, and less weight is given to items or factors that are less important. With only one criterion, weights do not apply to the sincere voting measure. The gap between the sincere and correct voting measures found in Table 3.2 demonstrate that most respondents are voting for the party they prefer the most (sincere), which in fact is not always the party they “should” vote for (correct). In all elections, at least 12% of the respondents voted sincerely but did not vote correctly when other factors, such as voter perception of government approval and policy stands, are considered.

In the previous chapter there was also some discussion of the relationship between correct and strategic voting. Respondents who have accurate perceptions of parties and candidates may vote strategically, however this may be calculated as an incorrect vote. In these instances strategic voters may be recorded as incorrect because they end up voting for a party that is close to the party they should vote that also has chance of winning. If strategic votes are sometimes miscoded as incorrect votes, then we should expect lower levels of correct voting in electoral systems that have higher levels of strategic voting. This clearly indicates that it is important to control for strategic voting when trying to predict correct voting. This next section will discuss the independent and control variables, including strategic voting, that predict levels of correct voting.¹⁴

¹⁴In a later version of this research, I will use individual level data to operationalized strategic voting and include strategic votes as correct votes.

3.3 What Should Predict Correct Voting

Up until now, the discussion has focused on defining and operationalizing correct voting, and comparing different aggregate measures of correct voting. In the previous section, we saw variation between countries, within countries, and between the different measures of correct voting. This section explores the factors that are thought to best predict correct voting. The discussion of correct voting in previous literature shows that there are individual and possibly institutional explanations for the variation in correct voting (Lau and Redlawsk, 1997; Lau et al., 2008a,b). The variation within countries is best explained using individual level factors, but as we saw in Table 3.1, the variation between countries is greater than the variation within countries. These cross-national differences in correct voting can be best explained using institutional factors. The following section discusses both individual and institutional level hypotheses that might help explain these differences in correct voting. For an in depth discussion of how each of the independent variables within these hypotheses are operationalized, please refer to Appendix C.

3.3.1 Individual Level Hypotheses

- H1: Education: The higher the education the higher the probability of voting correctly. Educated individuals have a higher cognitive capacity and, therefore, are more likely to vote correctly, than less educated citizens.
- H2: Political Knowledge: The higher the political knowledge, the higher the probability of voting correctly. Political knowledge measures how much each respondent knows about politics and political issues during the election. Individuals who know more about the political issues and are more politically aware have a higher probability of picking the party/candidate that matches their own views.

- H3: Efficacy: Citizens who believe that voting or the voting process is effective are more motivated to take their duties seriously. Efficacy is measured by combining the importance of voting for each respondent. The more individuals care about the election, or believe that they can affect the outcome, the more motivated they are to vote correctly.
- H4: Age: The more elections individuals have experienced, the more familiar they are with the electoral system, and the more they have effectively developed various heuristics to help them make better voting decisions, which should result in higher levels of correct voting. Experience is indirectly measured by the age of the respondent. It is true that age results in a decline of cognitive abilities; however, research shows that experience usually trumps any decline in cognitive abilities due to old age (Lau et al., 2008a), generally having a net positive effect on voting correctly.

3.3.2 Institutional Level Factors

- H5: Effective Number of Electoral Parties: The effective number of political parties has a negative effect on correct voting. Individuals have an easier time processing information with lower ENEP (fewer parties) because of their cognitive limitations; therefore, lower ENEP leads to higher levels of correct voting.

3.3.2.1 Supplementary Institutional and Cross Level Factors

- H6: Ideological Difference: Greater ideological differences between competing candidates/parties result in higher levels of correct voting. If political parties/candidates are close ideologically, individuals would have a harder time determining which party/candidate best fits their views, but the farther apart parties/candidates are, the easier the decision is for voters. According to Downs (1957b) ideological difference is tied to the number of political parties. Two

party systems should have less ideologically distinct political parties, while multiparty systems can have more ideologically distinct parties. Given this relationship between the number of political parties (H5) and ideological distinctiveness, we can expect ideological distinctiveness to have an impact on correct voting primarily in multiparty systems (or PR systems) and not in majoritarian/plurality systems (which are often characterized as two party system).

- H7: Party Age: The longer political parties have been around, the more likely individuals will vote correctly. One of the main heuristics that individuals use when making decisions is party identification, and the longer political parties have been around, the more likely that individuals can make more accurate and reliable perceptions of parties, which helps them make correct decisions. This is especially true in instances in PR systems where individuals usually vote for political parties and not for individual candidates. In these cases, no new information needs to be learned during elections and voters do not need to learn about new candidates, since the candidates strictly adhere to party lines.
- H8: Personal Vote: The more incentives to cast a *personal* vote (voting for a candidate as opposed to a party), the lower the likelihood of a correct vote. Increased incentives to cast a personal vote will result in individuals having to learn new information about candidates during every upcoming election. On the other hand, decreased incentives to cast a personal vote results in individuals using the party identification and familiarity heuristics to make their decision, which results in less information that needs to be learned for upcoming elections. Since party votes require less new information to be learned, there should be higher levels of correct voting when there are lower incentives to cast a personal vote.

- H9: Incentives for a Strategic Vote: The higher the incentives to cast a strategic vote, the lower the likelihood of a correct vote. The measurement of correct voting does not take into account strategic incentives, so it is quite possible for a strategic vote to be recorded as an incorrect vote. This variable attempts to control for the incentives of voting strategically based on the electoral system. There are two ways to operationalize strategic voting: (1) to look at the aggregate levels of insincere votes for each election, or (2) by ordering the electoral systems in a way that measures the incentives for respondents to vote strategically. The first way of operationalizing strategic vote can be found by looking at percentage of respondents who did not vote sincerely in Table 3.2. This measure is somewhat problematic because within the elections included in this study, it shows that a higher percentage of respondents on average vote strategically in PR systems than in majoritarian systems. This goes against conventional wisdom and suggests that the insincere aggregate measure may not be the best measure for sincere voting in this instance. For this reason, I use a second measure to control for strategic voting. This measure of strategic voting is an institutional level variable that creates an ordinal ranking of electoral systems based its citizens' incentives to vote strategically. The lower the ranking of the electoral system, the lower the incentives for citizens to vote strategically. For more on the measurement of this variable or any other variables, see Appendix C.

3.4 Method

These hypotheses are tested using hierarchical modeling for a dichotomous dependent variable (or generalized linear hierarchical modeling) with the CSES and NES data. There are various reasons why hierarchical modeling is appropriate to test these hypotheses. The first reason is because the variation in correct voting as a function of

individual level and institutional level factors is not assumed to be fixed or constant. When there is more than one level of analysis, the independence of observations assumption, which is necessary for a traditional binomial logit, is violated. When the independence assumption is violated, this usually results in underestimating standard errors and overestimating statistical significance. Multilevel (aka hierarchical) modeling corrects the biases in the parameter estimates, including the standard errors, and generates correct confidence intervals and significance tests (Gua and Zhao, 2000; Steenbergen and Jones, 2002; Raudenbush and Bryk, 2002).

Table 3.3: **Description of Models**

	Model 1 (base)	Model 2	Model 3	Model 4	Model 5
H1:Intelligence	✓	✓	✓	✓	✓
H2:Sophistication	✓	✓	✓	✓	✓
H3:Motivation	✓	✓	✓	✓	✓
H4:Experience	✓	✓	✓	✓	✓
H5:ENEP	✓	✓	✓	✓	✓
H6:Ideological Dif.		✓			
H7:Party Age			✓		
H8: Personal Vote				✓	
H9: Strategic Vote					✓
Hypotheses Tested	H1 to H5	H1 to H5, H6	H1 to H5, H7	H1 to H5, H8	H1 to H5, H9

Conducting hierarchical generalized linear modeling (HGLM) and having a relatively small number of macro level cases (elections) limits the number of predictors that can be used at the macro level. The general rule of thumb is that when conducting HGLM with fifteen elections, there should be at MOST three institutional level variables. Given this limitation, the hypotheses discussed earlier will be tested using several different models, with each model having no more than three institutional variables (one macro level predictor for every 5 macro level case). A description of

the models tested in Chapters 5 and 6 are displayed in Table 3.3. There will be two tests of each model, using both the NES and the CSES surveys.

In addition to testing all of these institutional variables stated above, a very important institutional variable that is not included in the analysis is an electoral system dichotomy that distinguishes between plurality/majoritarian and PR. This dichotomy is very important theoretically because it can interact with any of the institutional level variables listed in the previous section (ENEP, ideological difference, party age, personal vote, and strategic vote). Duverger (1955) clearly states that single member districts found in majority/plurality systems should have fewer number of political parties than PR systems. Therefore, ENEP should result in lower levels of correct voting in PR systems than majority/plurality systems. According to Downs (1957a,b), political parties in PR systems have larger ideological differences and only establish political parties that are ideologically distinct from existing parties, while plurality/majority systems have centrist political parties. Therefore, one would expect to see that larger ideological differences to have a greater impact on correct voting in PR systems than in majority/plurality systems. Reynolds et al. (2008) argue that most plurality/majority systems voters select candidates and in PR systems voters vote for parties, which indicates that an older a political party, the less information citizens that needs to be learned before an election. This suggests that party age should have more of a positive effect on correct voting in PR systems than majority/plurality systems. Since voters select candidates in majority systems, an increase in personal vote should decrease correct voting in majority/plurality systems. Theoretically, strategic voting is more likely in single member districts found in majority/plurality systems, which means incentives to vote strategically will have a greater effect on correct voting in majority/plurality systems.

Although there are theoretical reasons for including an interaction of the PR/majority dichotomy with each institutional level variable, I could not test these interactions

in Models 2–5. Models 2–5 already include two institutional levels. Therefore, I do not have enough elections to include three institutional level variables and one level-2 interaction. In addition to the limited degrees of freedom, the models depicted in Table 3.3 cannot include a plurality/PR dichotomous variable because such a measure is highly correlated with ENEP ($r=0.75$). This high correlation would obscure the relationship between ENEP and correct voting. To test the effects of plurality/majoritarian systems and other level-2 predictors, I first split up the elections into two samples, with the first sample consisting of plurality/majority systems and the second sample consisting of PR systems. Next, I first run all the models with the plurality/majority sample and then again with the PR sample. Creating these two samples and running all five models separately allows me to see if there are different effects for the level-2 predictors on correct voting within these two types of electoral systems. These differences between the plurality/majority and PR systems are important because they give us a better understanding of how these institutional predictors listed in the previous section affect correct voting.¹⁵

¹⁵Even though there is a high correlation between the PR/plurality dummy with ENEP, I do include the dummy and interact it with all the other institutional level variables. I do this to see if the effect of these institutional variables is statistically different for majority/plurality systems than for PR systems. The results of these interactions are included in footnotes when I discuss the PR and majority/plurality samples in both chapters.

CHAPTER IV

Description of the Cases

As stated in the introduction, there are two purpose of this dissertation: (1) to test the effects of institutional variables on correct voting behavior, and (2) to compare the measures of correct voting obtained using the CSES survey and the measures of correct voting using the NES survey. All of the hypotheses discussed in the previous chapter (Chapter 3) will be tested using two different dependent variables. The first dependent variable is the CSES measure of correct voting, which is estimated using party identification, ideology, and economic performance. The second dependent variable is the NES correct voting measure, which is estimated using party identification, ideology, economic performance, policy stance, and approval of incumbent. By testing the same hypotheses with these two different measures, I can easily compare the results of the two models in order to see if the results obtained using the CSES measure are accurate and if using a measure based on only three factors will have the same effect as using a measure with five factors. If the results are similar, then future research can measure correct voting using only these three factors, keeping in mind that including more factors may lower the percentage of correct voting, but will not drastically change the results of hypothesis testing. On the other hand, if the results are dramatically different, this will suggest that future estimations of correct voting need to include policy stance and government approval

in order to produce more accurate results. This assumes that the comprehensive measure (ANES survey) is better and more accurate than the minimalist measure (CSES survey) because it is based on more factors. This chapter will discuss the cases or elections that will be used to test the hypotheses in the next two chapters.

4.1 Case Selection

The analysis included in Chapters 5 and 6 included fifteen elections. These fifteen elections represent various electoral institutions—6 plurality/majoritarian cases, 6 proportional cases, and 3 mixed dependent systems. The three mixed electoral systems include one election in Germany and two elections in New Zealand. In Germany, citizens cast two ballots in the Bundestag election. The first vote is cast for a candidate running to represent a particular district, and the candidate that receives the plurality wins the seat for that district. Half of the Bundestag members are directly elected from the district. The second ballot, which elects the second half of the Bundestag, is cast for a particular political party. The remaining seats are allocated using proportional representation. Members in the House of Representatives in New Zealand are elected in a similar way. Citizens in New Zealand place two votes, one for the district (plurality) and the second for the remaining seats (proportional). In the Germany 1998 election, respondents were only asked for their vote choice for the party vote (proportional), so Germany is categorized as a proportional representation system rather than mixed. In New Zealand, respondents recorded their vote choice/intention for the district vote (plurality) and the party vote (proportional). In order to add two more macro cases to the analysis, the two New Zealand elections are divided into four macro level cases (two majoritarian and two proportional) with one for each election. To avoid double counting a respondent in these surveys, the respondents are randomly divided into two groups for both the New Zealand 1996 and 2004 elections. In New Zealand, respondents place two votes, one for the the

district vote and a party vote. The district vote allocates seat using plurality rule, while the party vote allocates seats using PR rule. For the first group of respondents in New Zealand 1996 and 2004 the should vote is compared tot he district vote. The second group of of respondents' should vote is compared to the party vote and is characterized as a PR system.

The country and year/election case selection was determined based on theoretical reasoning and data availability. One of the purposes of this dissertation is to look at different measures of comparative correct voting as well as comparing the CSES measure of correct voting to the NES measure of correct voting. The elections were narrowed down based on data availability. First, only the elections only included in the CSES module 1 and 2 are considered. These elections are further narrowed by only choosing those elections that had larger available data (NES surveys) on elections. The cases that did not include variables that allowed me to calculate who the respondents should vote for and compare this to who the respondents did vote for were excluded. This resulted in a total of 17 distinct elections, including two United States elections, one in 1996 and the other in 2004. Comparing these 17 elections, the United States was ultimately excluded because its electoral system drastically differed from the other 15 elections. Unlike the other 15 cases, where the head of government is the selected from the largest party in the legislature, the United States was the only Presidential system where the head of government (the President) is elected separately from the lower house. These exclusion criteria resulted in 15 elections, and the remaining part of this chapter will discuss these 15 different elections.

For each election, the remaining portion of this chapter will discuss the electoral system, an overview of the major/minor political parties, the important issues, and events leading up to an election, the results, and the resulting changes in seats. This description will provide the reader a brief background of each election and perhaps some explanation of why some countries have lower levels of correct voting, while

others have higher levels. For instance, Great Britain was much more politically stable than Canada from mid 1990s to mid 2000, which provides a plausible explanation for why Great Britain had much higher levels of correct voting than Canada.

4.1.1 Australia 1996

In the Australian electoral system, the head of the state is the Prime Minister, who is appointed by the Governor-General under the Australian constitution. The Prime Minister position is appointed to the parliamentary leader of the party, or the coalition of parties, which has a majority of the seats in the House of Representatives. Each district in Australia elects one candidate to the House of Representatives, like in a single member district system. Each of the 148 districts in Australia has one seat in the House of Representatives, all of which are selected through an alternative vote (AV) system. Unlike a single member district system, instead of placing one vote for the most preferred candidate, citizens in Australia are required to rank the candidates in order of preference by placing numbers next to the candidates' name to indicate which candidate is the voter's first choice, second choice, etc. The first preference votes are all tallied, and if a candidate wins a majority, then s/he is elected. If, however, no candidate wins an absolute majority, the candidate with the lowest number of first preference votes is eliminated. The votes of those individuals that voted for the eliminated candidate are transferred to the second preferred candidate, and the votes are tallied again. This method continues, in which the candidate with the lowest votes is eliminated in each round until one candidate reaches an absolute majority. This type of electoral system results in political parties and candidates running on a centrist platform in order to appeal to a larger group of voters.

Australia has two major parties, the Australian Labor Party (ALP) and the Liberal Party. The ALP is a social democratic party and considered center-left on an ideological scale. The Liberal Party is a liberal conservative party and is positioned

on the center right of an ideological scale. A popular third party is the National Party, which (almost always) forms a coalition with the Liberal Party. The National Party is a center right party and is ideologically similar to the Liberal Party. In addition to these three parties, Australia also has two minor parties, the Greens, an ideologically left-wing party, and Family First, a right-wing party. The ALP formed the ruling coalition for thirteen years and won the five consecutive federal elections prior to the 1996 election. During this thirteen year ALP reign, the Liberal-National coalition was criticized for not supplying enough policy detail during these elections. The coalition addressed this criticism by releasing a detailed policy package eighteen months before the 1993 election (Bean, 1996). This gave the ALP enough time to come up with an effective campaign against the policy package and especially against the coalition's policies on health and the environment, which helped the ALP win in 1993. During the 1996 election, the Liberal-National coalition learned from their past mistakes and released a new policy proposals closer to the 1996 election date. The new policy proposals included new policy stands on health and environment, which were similar to those of the ALP.

Table 4.1: **Australia 1996 Election Results**

Political Party	Percent of Votes	Seats	Change in Seats
Labor Party	38.75	49	-31
Liberal Party	39.69	75	+26
National Party	8.21	18	+2
Country Liberal Party	0.35	1	+1
Independents	2.27	5	+3
Total		148	

The 1996 election, held on March 2nd, brought an end to ALP's thirteen year

rule of the government and was a huge victory for Liberal-National coalition. As seen in Table 4.1, compared to the previous election, the ALP (led by PM Paul Keating) lost 31 seats, the Liberals gained 27 seats, and the Nationals gained 2 seats. This resulted in the Liberal-National forming the governing coalition with 94 seats and ALP forming the opposition with 49 seats.

4.1.2 Australia 2004

The Liberal/National coalition remained in power after the 1999 election, and the ALP slowly began gaining more seats as the opposition party after 1999. In the 2001 election (the election before the 2004 election), the number of districts increased from 148 to 150. Out of these 150 seats the ALP (Australian Labor Party) occupied 65 seats, the Liberals held 69 seats, the Nationals controlled 13 seats, and the remaining three seats were given to independents.

Table 4.2: **Australia 2004 Election Results**

Political Party	Percent of Votes	Seats	Change in Seats
Labor Party	37.64	60	-5
Liberal Party	40.47	74	+6
National Party	5.89	12	-1
Country Liberal Party	0.34	1	0
Independents	2.24	3	0
Total		150	

One of the most important issues in this election was Australia's involvement in the Iraq War and national security. A month before the election the Australian Embassy in Jakarta was bombed, and the National Party and Labor Party had distinct views on the war on terror. When the Liberals were in power, they sent the third largest

number of combat forces to fight in Iraq, followed only by the United States and Britain. During the 2004 election, they continued to support this type of military involvement in Iraq. The opposition, the ALP, stated that the deployment of troops to Iraq made the country less safe, and promised to withdraw troops from Iraq. In addition to national security, another issue that affected the outcome of the 2004 were the economic and social conditions within Australia. The Liberals focused the public's attention on the Australian economic prosperity. Australia remained unaffected by both the Asian economic crisis of 1997-1998 and the global economic downturn in 2001. Australia had historically low unemployment, inflation, and interest rates, and economic growth over 4%. Because the Liberal Party presided over a period of economic prosperity, the ALP's campaign platform was on creating a more equitable education system and making health care more affordable (McAllister, 2005).

The October 2004 election in Australia resulted in another win for the Liberal/National coalition, with the ALP as the main opposition. Compared to the previous election, the Liberals won 6 more seats, Nationals lost a seat, and the ALP lost 5 seats. This resulted in the Liberal/National coalition occupying 87 seats (Liberals with 75 and National with 12) and the ALP forming the opposition government with 60 seats. This was a surprising win for the Liberal/National coalition, since the opinion polls had been predicting a Labor win since early 2004. The shift in support for the Liberal-National coalition occurred after the Jakarta attacks one month before the election. The attack on the Australian embassy resulted in respondents realizing that they preferred the Liberal's handling of terrorism instead of the ALP's focus on domestic social issues.

4.1.3 Canada 1997

The electoral system in Canada is modeled on the United Kingdom's electoral system. Canada has a parliamentary system with two houses—the upper house (Senate)

and the lower house (the House of Commons). In the House of Commons, there are currently 308 districts and each district is allocated one seat.¹ The candidate who wins the most votes in each district is elected to the House of Commons. The leader of the political party that wins the most seats in the House of Commons is appointed the title of Prime Minister. The Prime Minister, the head of government in Canada, chooses people to head various government departments.

Canada has numerous federal and regional parties. During the 1997 election, the main parties contending for seats were the Liberal Party, Progressive Conservative Party, the New Democratic Party, and two newer parties—Bloc Québécois and the Reform Party. The PC (Progressive Conservative) was conservative on economic issues and moderate on social issues, which made it similar ideologically to the Reform Party. Due to the ideological similarities between the Reform and PC parties, they merged in 2003 to form what is known today as the Conservative Party. The Liberal party is a centrist party that leans to the left on the Canadian ideological spectrum. The New Democratic Party (NDP) is a leftist party, and Bloc Québécois is a center-left.

The 1993 election, which came right before the 1997 election, produced one of the “most stunning outcomes in Canadian electoral history” (Nevitte et al., 2000, p.1). One of the major parties, the Progressive Conservatives was severely defeated, as they won only two seats in the House of Commons, down from the 170 seats they held before the 1993 election. For the first time, a Quebec sovereignist party, Bloc Québécois, found itself as the official opposition party, and a newly formed Reform Party gained enough support to challenge the political status quo. All of these events brought about instability to the political party system in Canada, which historically had been very stable. The major issue at hand in the 1997 election was the status and stability of an already fragile political party system after the 1993 election. Experts

¹The number of districts usually changes from election to election. For instance, there were 295 districts in the 1993 election, 301 districts in the 1997 election, and 308 in the 2004 election.

were unsure whether the 1997 election result "would produce a consolidation of the novel 1993 alignment, a return to the pre-1993 status quo, or something else" (Nevitte et al., 2000, p. 4).

Table 4.3: **Canada 1997 Election Results**

Political Party	Percent of Votes	Seats	Change in Seats
Bloc	10.7	44	-10
Liberal	38.5	118	-59
NDP	11.0	21	+21
Progressive Conservatives	18.8	20	+18
Reform	19.4	60	+8
Other	1.6	1	
Total		301	

One reason for the fragile political party system prior to the 1997 election was the distribution of support for the major political parties. The support for the major parties was divided regionally. Bloc Quebecois only represented Quebec and was devoted to the protection and promotion of Quebec's sovereignty. The Western provinces heavily supported the Reform Party, and the support for the Liberal party support was drawn mostly from Ontario. The Progressive Conservatives (PC) lost 168 seats in the 1993 election, and were trying to regain the lost support in. The instability of the electoral system after 1993 and the divide in support for the major parties can roughly measured by the percentage of seat change in the lower house. If we measured instability in this way, in Canada 1997 there is a -7.3% seat change, which is one of the largest percentages out of all of the elections studied in this dissertation.² This

²This was calculated by taking the total number of seat changes and dividing them by the total number of seats in the lower house (301).

instability in Canada around 1997, which was a residual effect of the highly unstable 1993 election, may explain the low percentage of correct voting in this election (40.1% in the NES survey and 69.5% for the CSES survey).

The elections were held on June 2, 1997, and 67% of the registered voters cast a ballot. The Liberal Party, the incumbent party from the 1993 election, won 38% of the vote, which is 3% less than the previous election (1993). The Reform Party and Conservative Party each received 19% of the votes, and remaining 22% were equally divided between the Bloc and NDP. Even though the Liberals received the highest percentage of votes, they still managed to loose the highest number of seats since the 1993 election.

4.1.4 Canada 2004

Following the 1997 election in Canada, another election was held on November 27, 2000 in which citizens elected 301 members in the House of Commons. During this election, Liberals won 172 seats, the Canadian Alliance won 66 seats, Bloc Quebecois won 38 seats, the New Democrats won 13 seats, and the Progressive Conservatives won 12 seats. By the end of 2003, the Liberals were confident in acquiring another win in the upcoming 2004 election. The Liberals had no real competition since their major competitors were annihilated a decade earlier. The only competition were smaller parties, such as the Quebec Bloc, the Reform Party, and the NDP, all of which had regional bases. This meant that the Liberals had no real rivals that could acquire the necessary number of seats to oust them. In addition to all of this, the Liberals were the ruling party since at least 1993, and the economic conditions in Canada were good. During this time, Canada's annual inflation rate was only 2.8%, its GDP was growing at a rate of 5.3%, the unemployment rate was 7.6% and trending downward.

In order to win, the Reform Party needed to become a national force and a stronger

opposition to the Liberals. They transformed themselves into the Canadian Alliance for the 2000 election. However, it was unable to get much support outside of the Western provinces and posed little threat to the Liberals. Under a new leader in 2003, the Alliance (formerly the Reform Party) was able to form a merger with the Progressive Coalition (PC) and create a new party called the Conservative Party of Canada. There was doubt as to whether the newly formed Conservative Party was going to be able to challenge the Liberals in central and eastern Canada, and so the Liberals still had the upper hand in the June 2004 election.

Early in 2004, Paul Martin, the former Financial Prime Minister was newly appointed as the Liberal leader and Prime Minister. In February 2004, the Auditor General released a report on “\$100 million in federal funds that had been spent to advertise the many good things the federal government was doing for Quebecers” (Clarke et al 2005, page 248). Instead of using these funds to provide any services, some Quebec Liberals had pocketed their share of the money. When this scandal broke (named the “sponsorship scandal”), the Liberals were affected at the polls, especially in Quebec. Despite the decreasing support in Quebec, the Liberals still maintained a lead over the other parties, including the newly formed Conservative Party. The Liberals were also having some problems in Ontario in May 2004. The Liberals reneged on their promise not to raise taxes just days before the election. They “introduced substantial new levies to cover major revenue shortfalls in health care” (Clarke et al., 2005, p. 248). The opposing parties quickly used the new health tax to demonstrate that the Liberals could not be trusted in government, and also added that they were corrupt (as seen in the sponsorship scandal). This resulted in the drop of Liberal support, which benefited the newly Conservative Party and the NDP. Therefore, just one week before the election it was hard to predict a winner.

The outcome of the 2004 election once again demonstrated that regionalization of Canadian party politics prevailed: the Bloc had most of its support in Quebec, the

Table 4.4: **Canada 2004 Election Results**

Political Party	Percent of Votes	Seats	Change in Seats
Conservative	29.6	99	+11
Liberal	36.7	135	-37
NDP	15.7	19	+6
Bloc Q	12.4	54	+16
Other	5.6	1	+1
Total		308	

Conservatives won the west, and the Liberals won most their seats in Ontario. Even with the addition of seven more seats in the House of Commons (the total number of seats increased from 301 in 2000 to 308 in 2004), the Liberal seats decreased from 172 to 135. This election was also the first time that the Liberals were a minority ruling party, and formed a coalition with the NDP after the election. The Canadian electoral system does not have a tradition of coalition governments, and in the past coalition governments have not lasted more than a year or two (LeDuc, 2005).

4.1.5 Germany 1998

The head of government in Germany is the Chancellor, who is a member of parliament and the leader of the largest political party in parliament. The parliament in Germany, or the Bundestag, has at least 598 seats, all of which are allocated using a mixed electoral system.³ Half of the Bundestag seats are allocated using first past

³The number of seats depends on the election outcome and has varied from 662 to 669 since German unification. The Bundestag allocates 598 seats, of which 299 are elected using FPTP (first past the post) and the others are allocated using a PR party list. The extra seats are a result of candidates winning what are known as overhang seats, which are extra seats allocated to a party that is entitled to more seats than allocated by the electoral rule in constituencies. In Germany, voters get two votes, and they can vote for one party at a district level (FPTP) and another party at the national level (PR). This results in parties winning local votes and leaving the party list votes

the post in 299 electoral constituencies, and the other half of the seats are allocated using proportional representation party list with a 5% vote threshold. The mixed electoral system is set up to make it difficult for one party to form a government on its own. Therefore, a government is usually created by political parties forming an alliance. These alliances are usually announced in a coalition statement issued by political parties before the election so that voters know who their preferred party would govern with.

Germany had two major political parties and approximately four smaller parties before the 1998 election. The first major political party is the Social Democratic Party (SPD) first established as a socialist party in 1875, and the oldest political party in Germany. The SPD has been a center-left party that promotes a welfare state since the late 1800s, a fiscal policy that does not significantly increase budget deficits, supports civil rights, and a foreign policy that ensures peace. The CDU/CSU is the second major political party in Germany. The Christian Democratic Union (CDU) of Germany formed a coalition with its Bavarian faction, the Christian Social Union of Bavaria (CSU). Both the CDU and CSU are center-right political parties that focus on the principles of 'Christian Democracy.' The CDU/CSU promote Catholic social teaching, national conservatism, stronger punishments for criminals, controlled immigration, and a foreign policy that supports European integration and strong relations with the United States. Since 1949, one of these two major parties, the CDU/CSU or the SPD, have been the main party within any coalition government in the Bundestag. In addition to these two major parties, Germany also had three smaller political parties—the Alliance/Greens, the Free Democratic Party (FDP), and the Party of Democratic Socialism (PDS). The Alliance/Greens is a leftist party that focuses on environmental issues. The FDP is a center-right party that has partnered with the CDU/CSU and the SPD, and because of this has been a minor coalition

with a shortage of seats, thus a need for “overhang seats.”

partner more often than any other party in Germany. The FDP promotes the creation of new jobs, the reduction of the bureaucracy, the reduction of national debt, social security that is privately funded, and an integrated EU with a common foreign and security policy.

Table 4.5: **Germany 1998 Election Results**

Political	SMD Vote		PR Vote		Total Seats
	%Votes	Seats	% Votes	Seats	
CDU-CSU	40.3	133	35.1	112	245
FDP	3.1	43	6.2	-	43
Green	5.1	47	6.7	-	47
PDS	5.0	32	5.1	4	36
SPD	44.6	86	40.9	212	298
Total					669

As a result of the 1998 election, for the first time since 1982, the CDU/CSU was not part of the governing coalition. Compared to the previous election in 1994 the CDU/CSU, led by Helmut Kohl, lost 10% of the votes, and the SPD gained 3% and the Greens/Alliance party gained 6.6%. This change was attributed to factors such as who would make a better chancellor and which party would be able to reduce unemployment. This election was a fight between Kohl, the incumbent chancellor, and Schroder, the challenger and leader of the SPD. In the end, voters preferred Schroder to Kohl because Schroder was careful not to engage in personal attacks on Kohl. Schroder complimented Kohl on his earlier achievements (including unifying Germany) and always placed these compliments in the past tense. After complimenting Kohl for his past actions, Schroder messaged to the voters that it was now time for a change and time for Germany to move forward. Unemployment was at an all time

high in Germany (over 9%) and had increased from approximately 4% after German unification (James, 2000). Voters slowly lost faith in the CDU throughout the 90s, and Schroder's strategy in the election resulted in a win for the SPD, which led to the end of the CDU sixteen year reign. The 1998 election resulted in a governing coalition between the SPD and the Alliance/Greens. The SPD won an additional 43 seats, which gave them a total of 298 seats. The CDU won 198 seats, and the CSU and the Alliance/Greens each won 47 seats. The FDP won 43 seats, and the PDS won 36 seats.

4.1.6 Great Britain 1997

Great Britain has a parliamentary system, in which the head of government is the Prime Minister. The Prime Minister is the head of the party that holds the most seats in the House of Commons (lower legislative house), and government is formed by the party that holds the majority of the seats.⁴ The House of Commons has over 600 districts⁵, and each district is allocated one seat. There are two major parties in Great Britain—the Conservative and the Labour Party. The Labour Party is a center-left party, and the Conservative Party is a center-right party. There are also a couple of smaller parties in Great Britain including the Liberal Democrats (a center left leaning party that merged the Liberal and the Social Democrat Parties), the Scottish National Party (SNP)—a center-left nationalist party in Scotland, and Plaid Cymru—a Welsh nationalist party. Since at least the 19th century, the governing parties have been either the Conservatives, the Labour, or the Liberals. The Liberals were the dominant left party before the rise of the Labour in 1920.

⁴Usually in Great Britain one party, either the Labour or Conservatives, has held a majority of the seats. In the most recent 2010 election, the Conservative and Labour failed to obtain a majority of the seats, and as a result the ruling government was formed by a coalition between the Conservatives and Liberal Democrats. The Prime Minister as a result of the 2010 election was the leader of the Conservative Party, which was the party that won the most seats.

⁵The number of districts in 1997 was 659. As of the 2005 general election, however, the number of districts decreased to 646.

The 1997 election brought about significant change to the House of Commons. Prior public support for the Conservatives were on a decline since ‘Black Wednesday’, which occurred approximately 5 months after the 1992 general election. Black Wednesday occurred on September 1992 “when the British were forced, after massive speculative pressure on the pound Sterling, to leave the European Exchange Rate Mechanism” (Wood, 1999, p. 143). This resulted in successive tax increases between 1993 and 1995, which led to a declining support for the Conservative Party. While public support for the Conservatives were decreasing since 1992, public support for the Labour Party was increasing due to an ideological shift towards the middle, primarily due to the party adopting more centrist economic policies. Ratings of the party leaders reflected the ratings of the parties themselves, and the polls showed that most citizens favored Tony Blair, the Labour leader, over John Major, the Conservative leader. In fact, Blair’s lead over Major remained over 20% leading up to the election, and the polling indicated that Labour were more trusted than the Conservatives to deal with all major issues.

The polling results predicted a large to very large lead for Labour over the Conservatives. These results were viewed with critical caution because the polling industry made mistakes with their sample during the 1992 election. The polling company over sampled Labour supporters, and under sampled Conservative supporters, which resulted in the polling industry erroneously predicting that the Labour party would win the 1992 election by a narrow margin (the Conservatives won by a margin of 7.6%). Even though all of polling firms were wrong in their prediction of the 1992 election, they all predicted correctly in 1997 that Labour would significantly beat the Conservatives.

Of the 659 seats in the House of Commons in 1997, the Labour Party managed to win 63.4% of the seats. The Labour Party gained 147 seats in this election, increasing their number of seats from 271 in 1992 to 418. In 1997, the Conservative Party lost

Table 4.6: **Great Britain 1997 Election Results**

Political Party	Percent of Votes	Seats	Change in Seats
Labour Party	43.2	418	+147
Conservative Party	30.7	165	-171
Liberal Democrats	16.8	46	+26
Other Regional Parties	9.3	30	+5
Total		659	

171 seats, decreasing their number of seats from 336 in 1992 to 165. The Liberal Democrats also increased their number of seats by 26, going from 20 in 1992 to 46. This election gave Labour their biggest majority in the House of Commons since its creation in 1920 and the Conservatives their lowest number of seats since 1906.

4.1.7 Great Britain 2005

The Great Britain general elections for the House of Commons were held on May 5, 2005. The Labour Party won its third consecutive victory over the Conservative Party since the 1997 election. Nevertheless, the elections saw approximately 62 seats change hands, and the three major parties experienced both success and failure. The election was called a year before the end of the five year term, which started in 2001 because the Labour Party realized that they might have trouble maintaining their lead if they waited an additional year. The polls showed that the Conservatives were closing the gap on the Labour Party's lead. The Liberal Democrats were also gaining support through their opposition to unpopular Labour policy stances, including the Iraqi war and student tuition fees.

There was a high level of local campaigning undertaken by both the Labour and Conservative parties. Both of these parties presented national messages in a local

context. The two parties focused on how their policies would impact the local constituency rather than the country as a whole. The parties positioned billboards in and around target seats or on travel routes to work and they ran regional newspaper advertisements focusing on local constituencies. The parties also sent direct mail, contacted constituents by telephone, and set up large regional communication centers. This demonstrated to the citizens that the local contests were more important to the two major parties than the national contests (Fisher, 2006).

In their national campaign, there was a large emphasis on major issues by all parties. The Labour concentrated on the economy, health, and education. The Labour's national campaign emphasized the issues and policies in which it performed well since coming into power in 1997. This is the main reason why Labour focused little on law and order, Iraq, and Europe. The Conservatives learned from the mistakes they made in their 2001 campaign. In 2001, the Conservatives focused mainly on immigration and asylum; however in 2005, they had a much broader policy platform. In 2005, the Conservatives concentrated on crime, tax, immigration, healthcare, clean hospitals, school discipline, and pensions. Like the Labour Party, there was no mention of Europe, and although the Conservatives tried to have a broad focus, the media concentrated on its immigration policy. The Liberal Democrats played to their strength and campaigned nationally on their most popular issues: abolition of student tuition fees, free personal healthcare for the elderly, the council tax, the Iraq war, and the environment.

Out of the 646 seats in the House of Commons in 2005, the Labour Party lost 47 seats, while the Conservatives and Liberal Democrats increased their totals. Even though the total number of seats held by Labour went from 413 in 2001 to 356 in 2005, it still held a majority. The Conservatives gained seats from both Labour and Liberal Democrats; the Conservatives had 166 seats in 2001 and ended up with 198 seats in 2005. The Liberal Democrats gained 11 seats from Labour and the Conservatives,

Table 4.7: **Great Britain 2005 Election Results**

Political Party	Percent of Votes	Seats	Change in Seats
Labour Party	35.2	356	-47
Conservative Party	32.3	198	+33
Liberal Democrats	22.1	62	+11
Other Regional Parties	7.9	30	+3
Total		646	

giving them a total of 62 seats in 2005.

4.1.8 Netherlands 1998

The head of government in Netherlands is the Prime Minister, who is usually the leader of the party with the most votes in the lower house of the parliament, the States General. The States General is directly elected by the citizens through a list PR (proportional representation) system. The Netherlands has an open list parliamentary system, which allows voters to express preferences for candidates on the party list. The voters usually cast their vote for the first name on the party list, and most candidates in Netherlands are elected according to party list. Candidates need to receive at least one fourth of the party vote in order to gain a seat or move up on the list. In order to win a seat in the lower house, the party must receive at least 0.67% of the vote, which is the threshold minimum for this PR system.

The Dutch electoral system has one district with 150 electoral seats. This large single district results in an increase in proportionality, which results in coalition governments, and a large number of parties (Clark et al., 2009; Reynolds et al., 2008). Some of the major parties include the Christian Democratic Appeal (CDA), the Labour Party (PVDA), the Socialist Party (SP), People's Party for Freedom and

Democracy (VVD), Democrats 66 (D66), the Party for Freedom (PVV), the Christian Union (CU), and the Greens. The PVV is a right political party that split from the VVD and it seeks to limit taxation. The CDA is a centrist right leaning party that supports free enterprise. The VVD and the D66 are also centrist right leaning parties; the former places a great deal of importance on private enterprise, while the latter runs on a pro-European platform. The PVDA is a left party that advocates social, political, and economic equality for all citizens. The Greens and SP are also left parties that focus on the environment and socialism, respectively.

The CDA had a stronghold in Netherlands throughout most of the 20th century. The CDA was so popular due to its centrist views, and had enough seats to be a part of every ruling government from 1917 through 1994. In 1994, for the first time in almost eighty years, the CDA lost a record 20 seats, which forced it to be part of the opposition instead of the governing coalition. In the 1994 election, the CDA lost 20 seats, and only kept 34 out of the 150 seats in the lower house. For the first time in almost eighty years, it became possible to form a ruling coalition without the CDA. The result of the 1994 election lead to a ruling coalition, named the purple coalition, between the labor–PVDA, and the liberals–VVD and D66. The purple coalition defied theories of coalition formation because the Labor and the Liberals were not contiguous on the socio-economic left right dimension. Despite their differences, this coalition did fairly well; they were able to “lower the deficit and expand expenditures in most areas” (Irwin, 1999).

The CDA was not accustomed to being the opposition party. In order to gain more support from the citizens, win back the seats it lost in the previous election, and to be a part of the governing coalition, the CDA dropped some members of parliament from the new party list in 1998. The Labor Party also experienced a drop in public support in 1998. In order to cooperate with the other members of the governing coalition, the PVDA became more centrist, which alienated its former supporters. This created

opportunities for other left leaning parties to gain support from the public that the PVDA alienated. The campaigning by the parties in the purple coalition was very tame and did not attach parties in the coalition because each of them wanted to be able to cooperate in a future government coalition. The Labor leaders focused on policies that would provide more services to lower income citizens and protect the welfare state. The Liberals (VVD and D66) focused on fiscal prudence, opposition to Europe, immigrants, and the multi-ethnic society. The CDA produced a programme that was viewed by some as being more leftist than Labor on social issues. The CDA also attacked Labour for not upholding their social policy promises from the 1994 campaign. Most citizens were not convinced by the CDA's leftist stance. The Greens and Socialists effectively attacked Labor for being too centrist.

Table 4.8: **Netherlands 1998 Election Results**

Political Party	Percent of Votes	Seats	Change in Seats
CDA	18.4	29	-05
D66	9.0	11	-10
Green	7.3	11	+06
PVDA	29.0	45	+8
SP	3.5	5	+3
VVD	24.7	38	+7
Other Parties	8.2	8	-9
Total		150	

The election resulted in Labor winning the most seats, followed by the VVD, CDA, D66, and finally the Greens and SP. The PVDA and VVD gained 8 seats each. The CDA lost 5 seats, the D66 lost 10 seats, and the Greens gained 6 seats. Out of the 150 seats in the lower house of the States General, after the 1998 election,

the PVDA had 45 seats, the VVD had 38 seats, the CDA had 29 seats, the D66 had 14 seats, the Greens had 11, and the SP had 5 seats. The remaining seats were distributed among some smaller parties. This division of seats resulted in a second purple governing coalition that consisted of the PVDA, VVD, and D66.

4.1.9 Netherlands 2002

The Dutch May 2002 election was followed by a new election eight months later (January 2003). The events leading up to the 2002 election can be traced back to the results of the 1994 election and the emergence of the unlikely purple coalition. Prior to 1994, governing coalitions were formed based on the left-right dimension, and the 2002 election was “perhaps a cause and effect, to instability in the leadership of political parties” that led to a 2003 election (Irwin and Holsteyn, 2004). This instability that began in 1994 resulted in problems and changes in party leadership and new parties emerging in the 2002 election, all of which resulted in a government that only lasted for 8 months.

One of the main reasons for the political instability leading up to the Dutch 2002 election was the change in leadership of major Dutch parties, including the VVD, D66, CDA, and the PVDA. The leadership in all of these political parties changed hands leading up to the 2002 election ⁶. In addition to changes in party leadership, there was also the emergence of a new political party, Livable Netherlands (LN). The LN realized the potential of a columnist and publicist by the name of Pim Fortuyn and included him on their ticket. Fortuyn was very controversial, and he “referred to Islam as a backward culture and stated that no new asylum-seekers should be allowed to enter the country” (Irwin and Holsteyn, 2004, p. 552). Fortuyn also insisted that Article I of the Dutch Constitution be repealed if it outlaws expression of these types of opinions. His extreme xenophobia led the LN to dismiss him from the party ticket,

⁶Thom De Graaf led the D66, Dijkstal led the VVD, Melkert led the PVDA, and Jan Peter Balkenende led the CDA

to which Fortuyn reacted very quickly by stating that he would create his own party ticket.

Fortuyn, despite being dismissed from the LN party ticket, did fairly well, and was able to win even more support under his new party list—Pim Fortuyn List (LPF). Fortuyn, in a televised debate, openly criticized the purple coalition for their failures on immigration, integration of foreigners, health, public safety, and other policy issues. The PVDA and VVD were focusing their campaign on the strong economic performance of the Dutch economy under their rule. However, PVDA, VVVD, and D66 were unable to successfully counter Fortuyn's points on these other issues, and therefore were losing support from the public. This was the first time in Dutch history that an election campaign revolved around a single person (Irwin and Holsteyn, 2004, p. 552). Fortuyn was able to gain support away from the supporters of LN, which quickly began to dissolve without his name on their ticket.

Two events occurred less than one month before the election that took the focus away from campaigning. On April 14, 2002, one month before the 2002 election, the entire cabinet resigned. This was shortly after the report on the Srebrenica massacre, which occurred in July 1995 when thousands of Muslim men were “liquidated almost literally under the eyes of the Dutch troops” (see Irwin and Holsteyn, 2004, p. 553). To take some responsibility for the Srebrenica massacre, Prime Minister Kok resigned, and his resignation was followed by the entire Cabinet. The second incident occurred on May 6, 2002, less than ten days before the election, when Pim Fortuyn was assassinated. Parties did not campaign until after the funeral, and the campaigning was kept at a minimum until election day on May 15, 2002. The creation of two new parties, and the upheaval one month before the election might explain the low levels of correct voting (only 47% to 58%).

The 2002 election brought an end to the purple coalition and the emergence of a LPF, a new party, which had the second most number of seats in the lower house of

Table 4.9: **Netherlands 2002 Election Results**

Political Party	Percent of Votes	Seats	Change in Seats
CDA	28.0	43	+14
D66	5.1	7	-7
Green	7.0	10	-1
PVDA	15.1	23	-22
SP	5.9	9	+4
VVD	15.4	24	-14
LPF	17.0	26	+26
Other Parties	8.2	8	-9
Total		150	

the States General. The CDA gained 14 seats from the previous election, bringing their total in 2002 to 43 seats. Pim Fortuyn's List won 26 seats in the 2006 election, giving them the second largest number of seats in the lower house. The VVD lost 14 seats, putting their total to 24 seats, and the PVDA lost 22 seats, giving them 23 seats. D66 lost 7 seats from the previous election, giving them only 7 seats in 2002. Livable Netherlands (LN) managed to gain 2 seats, even after dismissing Pim Fortuyn. These results brought the CDA back into the ruling government, a role it did not have since 1994. The CDA formed a ruling coalition with LPF and the VVD, and Peter Balkenende, leader of the CDA, was appointed the Prime Minister.

The low levels of correct voting can also further be explained by the instability of government that was established as a result of the 2002 election. The government formed in 2002, the Balkenende Cabinet, was only in power for eight months. The LPF spent this time trying to establish itself as a legitimate political party. This resulted in internal fighting and squabbling within the LPF, which had an impact on

the entire cabinet and spread to the CDA and VVD. Unable to resolve the issues, the VVD's leader withdrew his support for the coalition, and for the first time in Dutch history a cabinet fell due to differences in personalities and not over policy positions. After the VVD leader withdrew his support, the Prime Minister called for the cabinet's resignation and new elections were called for January 22, 2003. The elections resulted in the CDA still winning the most seats (44), followed by the PVDA (42), and VVD (28). The LPF lost 18 of its 26 seats and was left with only 8 seats. Following the 2003 election, the CDA and VVD needed at least 4 seats to form the governing coalition. Forming another coalition government with the LPF was not an option since the LPF proved to be too difficult, and was the main reason the government had to be dissolved early. Finally, the CDA and VVD chose the D66 as its coalition partner, and Balkenende remained the Prime Minister.

4.1.10 New Zealand 1996

New Zealand has a parliamentary system where the head of state is the Prime Minister, who is usually the leader of the winning party in the lower house of the legislative branch or the House of Representatives. The October 1996 election was the first election under a new electoral system in New Zealand. From 1914 to 1996, New Zealand appointed seats through a single member plurality (SMP), which was similar to the electoral system in Great Britain. There were two reasons for replacing the SMP system in New Zealand with a mixed system: (1) rising support for third parties and (2) lack of accountability of elected officials. Prior to the electoral reform, there was "intense party discipline in a small parliament. This allowed increasing cabinet dominance over the government caucus, and offset the direct links between voters and individual MPs (members of Parliament), which are amongst the strengths of the plurality system" (Vowles, 1995, p. 101). Electoral reform was voted on during the 1993 general election in which 53.9% of the citizens voted to abandon

the old SMP system and adopt a new two tier PR system. The old SMP system had only 99 seats in the House of Representatives, all of which were elected through plurality vote. The reform replaced the old electoral system with one that closely resembled Germany. Instead of a 99 member parliament, the new system consists of a 120 member parliament of which 65 of its members are elected through single member districts and the remaining 55 from a national list. The remaining 55 seats are awarded to parties to make the overall results as proportional as possible and correct the disproportionality created by the single member district seat allocation. The 55 national list seats are closed party lists, which means that individuals cannot list preferences for individual candidates, they must cast a vote for a political party, and the party determines which candidate occupies the seat.

Prior to the electoral reform, New Zealand had two major parties—the National and Labor Parties, which together held 95 of the 99 seats in the House of Representatives. The National Party is a center-right socially conservative party that supports low taxes and a free market economy. The Labor Party is a center-left, socially progressive party. Two smaller parties, New Zealand First (NZ First) and the Alliance Party, held two seats each after the 1993 election. The NZ First party was a centrist nationalist party whose primary goal was to reduce immigration. The Alliance Party is a leftist party that supported free education, environmental protection, and the welfare state. After the electoral reform of 1996, other much smaller parties were able to win some representation in the House of Representatives, including the United Party, the Conservative Party, and the Christian Democratic Party; the Conservative and Christian Democrats are both right winged parties. The United Party, a centrist party, mostly comprises of former members of the National and Labor parties who defected from these parties in 1995.

The outcome of the November 1996 elections resulted in the National Party winning the most seats, followed by Labor and NZ First. The National Party won 44

Table 4.10: **New Zealand 1996 Election Results**

Political	%Votes	Seats		Total Seats	Change
		SMD	PR		
National	33.8	30	14	44	-6
Labour	28.3	26	11	37	-8
NZF	13.4	6	11	17	+15
Alliance	10.1	1	12	13	+11
ACT	6.1	1	7	8	+8
United	0.9	1	0	1	+1
Total		65	55	120	

seats in 1996, the Labour Party won 37 seats, and NZ First won 17 seats. Alliance won 13 seats, ACT won 8 seats, and United won 1 seat. The power of determining the governing coalition was placed in the hands of NZ First, since their partnership was necessary in order to gain a majority and form the governing coalition. NZ First decided to form a coalition with National, almost a month after the 1996 election. The new government appointed the leader of the National Party, Jim Bolger as Prime Minister, and gave NZ First eight out of 20 cabinet seats. The public was disappointed with the new electoral system after seeing the National Party return to power. NZ First supporters were especially disappointed because they felt that the party misled them by not being upfront about their coalition preferences (Vowles, 1997).

4.1.11 New Zealand 2002

The next election after the 1996 election was held in 1999. The 1999 election resulted in the Labor Party winning the most seats and the appointment of a new Prime Minister, Helen Clark. In 1999, a new governing coalition emerged with Labor

teaming up with the Alliance Party, which had won 10 seats. In order to win the election again in 2002, Helen Clark called an early election to capitalize on the popular support of the Labor Party. The polls showed that over 50% of the voting population supported Labor and support for the Alliance party was decreasing. Holding the elections earlier than necessary, Labour hoped to win a majority of the votes and rule government without forming a coalition.

Leading up to the 2002 election, Labor focused on its various policy successes since 1999. Some of these successes were the reversal of labor market deregulations, the re-introduction of the income related rents for state housing, and an increase in the top rate of income tax from 36% to 39%. Additionally, they also emphasized the strong New Zealand economy, including the lowest level of unemployment since the late 1980s. Labour also focused its campaign on what was called the GM (genetically modified food) issue. The Greens supported the Labor-Alliance coalition in the past, “but this backing was under threat since the Greens had announced that they would refuse to support any government that lifted the current moratorium on releasing genetically modified (GM) organisms” (Geddis, 2004, p. 150). Labour wanted to weaken the Green support, so they portrayed the Green’s disapproval of GM food as one that would undermine the agricultural industry. The Greens capitalized on the public’s unease with the idea of genetically modified organisms (GM), especially with respect to food (Geddis, 2004). The Green’s focus on the GM issue allowed them to gain the support of the left at the start of the campaign. However, three weeks before the election, support for the Greens and Labour was affected by what came to be known as “the corngate controversy.” The controversy revolved around a published book claiming that the Labour-Alliance coalition knew and allowed the planting of a corn seed that was contaminated with GM. Many voters were angry at Labor for allowing the planing of genetically modified seed, causing some to withdraw their support for the party. Other voters thought that the Greens were the mastermind

behind the book and that its release was a dirty trick, causing some to withdraw the support for the Green Party.

The center-right and right parties in New Zealand found it difficult to increase their support, since New Zealand's economy was performing well. This, combined with the National Party's weak campaign, resulted in a win for Labour despite the corngate controversy. The National Party appointed a new leader only nine months before the election. This in addition to the party's decision to "axe several of the party's longest-serving MPs," did not help the National Party gain support among the public (Geddis, 2004). The National Party's campaign focused on law and order in order to attract support from the centrist voters; however, most voters found the most of the National Party's policy stances indistinguishable from Labour's. New Zealand First, the party that lost a substantial proportion of its seats in Parliament in the 1999 election, was successful in gaining support from the centrist voters. NZ First focused on immigration, criticizing the settlement of historic injustices against the Maori (the New Zealand indigenous people), and arguing for stricter law enforcement. However, the center-right parties were unsuccessful in pulling support away from Labour despite the corngate controversy.

The polls leading up to the July 2002 election clearly showed Labour winning the largest number of seats in Parliament. The focus turned from who would win the most seats to whether Labour could win a clear majority of seats. In the end, Labour won 41.3% of the popular vote and gained 3 more seats, giving it a total of 52 seats in Parliament. The National Party suffered the biggest loss in the election, losing 12 seats, which left it with only 27 seats. The seats lost by the National Party were divided to smaller center-right parties. NZ First and United First gained 7 seats each, leaving the former with a total of 13 seats and the latter with 8 seats. Although support for the Green was high at the beginning of the campaign, support decreased after the "corngate controversy," and in the end the Greens only gained 2 seats.

Table 4.11: **New Zealand 2002 Election Results**

Political	%Votes	Seats		Total Seats	Change
		SMD	PR		
National	21.1	21	6	27	-12
Labour	41.4	45	7	52	+3
NZF	10.6	1	12	13	+8
ACT	7.1	0	9	9	
United	6.8	1	8	9	
Alliance (Jim Anderton's)	1.7	1	1	2	-8
Total		69	51	120	

In 2002, Labour did not win a majority of the seats as they had hoped and could not reform the Labour-Alliance coalition, since Alliance lost all of its seats. Furthermore, Labour could not join forces with the Greens after the disagreement over the GM issue. In the end, Labour had no choice but to team up with more centrist parties in order to form the governing coalition, which would replace the center-left coalition that was formed in 1999. Labour formed a coalition with Jim Anderton's Progressive Coalition (PCP), which won a total of two seats in 2002. However, this left the coalition five seats short of a majority. In order to get a majority, the Labour-PCP coalition signed an agreement with United First, which "guaranteed the latter's support on matters of confidence and support for the next three years, and also its support on procedural motions in the House" (Geddis, 2004, p. 154). In return for the support of the United Party, the Labour-PCP coalition promised to leave the cannabis prohibition laws alone, build a motorway through the United leader's electorate, and pass a victims' right legislation.

4.1.12 Sweden 1998

Sweden has a traditional parliamentary system in which the head of government is the Prime Minister, who is the leader of the largest party in the legislature. Sweden has a unicameral legislature, called the National Assembly (Riksdag). The Riksdag has 349 members, who are elected using party lists in 29 multi-member constituencies. The 1998 election was the first since Sweden made two changes to their electoral system. After the 1994 election, the new electoral system changed in terms of the timing of elections and the party list. In the new electoral system, elections are held every four years, instead of every three years. The electoral system also includes a party list that allows constituents to rank candidates within the party list. The 1998 election was the first election held four years after the previous election (1994 election). Some scholars believe that this shift to a four year term resulted in a “dramatic and teasing outcome” (Arter, 1999) because 12 candidates won seats as a result of the new party list, which allowed voters to rank candidates.

There were approximately seven main Swedish political parties during the 1998 election. The Swedish Social Democratic Party (SAP), a center-left party founded in 1889, is Sweden’s oldest political party. The Social Democrats have supported social welfare provisions, progressive taxation, and corporatism (the institutionalization of a partnership between capital and labor with government oversight). A second popular party in Sweden was the Moderate Party (MP), often described as a center-right, liberal-conservative political party. The party members have been moderate or pragmatic views. The Moderate Party’s ideology has been a mixture of liberal and conservative ideology. The party supports free markets, privatization, personal freedom, tax cuts for job creation, reduction of the public-sector, and at the same time embracing social benefits. It also emphasizes issues such as government toughness on crime, legalizing same sex marriage, and raising the quality of the educational system. The Centre Party is a centrist party with close ties to rural Sweden. The

Liberal Party is a centrist/center-right party that focuses on social liberalism with a commitment to a mixed economic market based on extensive social welfare programs. The platform for the Liberal Party is “social responsibilities without socialism.” The Christian Democratic Party is a center-right party that focuses on improving care for the elderly, freedom of choice for families in selecting childcare, lowering taxes, promoting growth, and reducing unemployment. The Left Party is an ideologically left, social democratic and feminist party. The Left opposes privatization, is against Swedish membership to the EU, and wants to increase public expenditures. The last political party is the Green party, a ideologically left party that seeks to protect animals and plants, and improve the air and water quality.

In addition to the slight changes in the parliamentary system in Sweden prior to the 1998 election, the major political parties also saw a change in their leadership . The Social Democrat’s leader, Ingvar Carlsson stepped down as prime minister in early 1996. The Social Democrats replaced Carlsson with Goran Persson, the minister of finance. The Centre Party also saw a change in leadership when Johansson was replaced by Daleus three months before the election. The change in leaderships, in addition to the conditions in Sweden, did not help the Social Democrats in 1998. During the campaigning, Sweden was facing two major problems—unemployment and the national debt. In the late 1990s, Sweden had very high unemployment with over half a million Swedes out of work. Sweden also had the largest public sector in the world, which resulted in a very high national debt.

Leading up to the 1998 election, the Social Democrats occupied the largest number of seats (161 seats), followed by the Moderate Party (80 seats), Centre Party (27 seats), Liberal People’s Party (26 seats), and the Left Party (22 seats). From the 1994 election, the Green Party gained 18 seats and the Christian Democrats occupied 15 seats. The 1998 election saw some changes in seat allocation. In 1998, the Social Democrats lost 30 seats, leaving them with 131 seats, the lowest number of seats since

Table 4.12: **Sweden 1998 Election Results**

Political Party	Percent of Votes	Seats	Change in Seats
Centre Party	5.1	18	-9
Christian Democrats	11.8	42	+27
Green	4.4	16	-2
Left Party	12.0	43	+21
Liberal People's Party	4.7	17	-9
Moderates	22.7	82	+2
Social Democrats	36.6	131	-30
Total		349	

1921. However, they still won the most seats in the 1998 election. The Moderates gained two seats (82 total), the Left Party gained 21 seats, the Christian Democrats gained 27 seats, the Centre and the Liberal People's Party both lost 9 seats each, and the Green Party lost three seats. The outcome of the 1998 election left the Social Democrats and the Left Party with a total of 174 seats, or with one less seat than needed to make a majority. Thus, the governing coalition comprised of the Social Democrats, the Left, and the Greens.

4.1.13 Sweden 2002

The 2002 election produced similar results to the 1998 election. However, a few political parties suffered major losses, while some gained more seats. The Social Democrats gained 13 seats, giving them 144 total seats. The Moderate Party suffered a great deal, and lost 27 seats, which gave them 55 total seats. The Liberal People's Party were the biggest winners; they gained 31 seats, giving them a total of 48 seats. The Christian Democrats lost 9 seats, the Left Party lost 13 seats, the Centre Party

gained 4 seats, and the Greens gained 1 seat. Other than the change in the number of seats, no parties lost representation in the Riksdag, and no new parties emerged.

Leading up to the election day on September 15, 2002, the Social Democrats felt that they would suffer a historic defeat yet again in spite of an improving economy and low unemployment rates. Voters supported the Social Democrats because of their decisive stand after the September 11, 2001 terrorist attacks in the United States. Prior to September 2001, support for Goran Persson, the leader of the Social Democrats, was low. However, Persson's support increased due to his ability to effectively deal with international leaders. By December 2001, 32% of the voters had confidence in Persson, and by March 2002, his approval ratings significantly rose to 61%. As support for the Social Democrat leader increased, the Moderates saw a change in leadership, which caused a drop in public support. The Moderate Party's leader, Carl Bildt, retired in 1999 and was replaced by Bo Lundgren. Bildt was more popular than Lundgren, who was seen as a "somewhat technocratic and lacking in charisma" (Widfeldt, 2003). After this leadership change, the ratings for the Moderate Party remained a little over 20%.

Most voter exit polls showed that the most important issues to voters during this 2002 election were education, health care, the economy, and care of elderly. Individuals rated all of these issues higher than immigration and integration, which were the issues that received the most media coverage. A month before the election, the People's Party Liberals' leader Lars Leijonborg initiated a program for ethnic integration. These reforms included giving immigrants with employment some temporary residence, which would become permanent after five years. This meant that immigrants would not be entitled to welfare until after being employed for five years. If the employment ended before the five years, the immigrants would have to leave the country. Part of the reform program included a language test for Swedish citizenship. Regardless of being xenophobic, Leijonborg's policy seemed to go down well with

Table 4.13: **Sweden 2002 Election Results**

Political Party	Percent of Votes	Seats	Change in Seats
Centre Party	6.1	22	+4
Christian Democrats	9.1	33	-9
Green	4.6	17	+1
Left Party	8.3	30	-13
Liberal People's Party	13.3	48	+31
Moderates	15.2	55	-27
Social Democrats	39.8	144	+13
Total		349	

voters. This support among Swedish voters was affirmed by a team of investigative journalists, who traveled the country and presented themselves as xenophobic voters to local campaigners. The footage showed that most local campaigners (party representatives) agreed with the xenophobic voter, and often made xenophobic comments of their own. This TV documentary was broadcast five days before the election, and all major parties were tarnished by this documentary, except for the Left and the Green. The Moderate Party came out looking the worst, and this may have been the cause for it losing 27 seats in the 2002 election.

4.1.14 Switzerland 1999

The Swiss parliament has two chambers— the National Council and the Council of State. The representation in the National Council is determined by population, and has a total of 200 seats in 26 cantons (electoral districts); the representation in the Council of State is fixed, with most cantons (or electoral district) having two seats, and a few only have one seat. Members in the National Council are elected using

party list proportional representation. The candidates in the National Council are presented in alphabetical order under their party list. The candidates in the party list are ranked by the voters, and not by the party. The party controls which candidates to include on the list, but the voters control which candidates on the list win the seat.

The head of state in Switzerland comes from the National Council. Unlike most countries, Switzerland does not have one person as head of state, but instead a collective head of state consisting of seven members, all of whom make up the cabinet. The collective head of state is known as the Federal Council, or the Federal Assembly. Each of the seven Federal Councillors head one of the executive departments, and each year one of the seven members is elected by the Federal Assembly as President of the confederation and another member is elected Vice President. The position of the President and Vice President rotate annually. Each councillor becomes President and Vice President every seven years while in office. Councillors serve until they decide to resign from the National Council. Councillors cannot be voted out of office or impeached, and the only way they can lose their position is if they lose the election. Although Switzerland has a Federal Council consisting of seven members, all of these members are voted in through the lower house, which makes Switzerland very similar to the other cases discussed in this chapter. Since 1959, the four major parties, Free Democratic Party, Christian Democratic People's Party, Social Democratic Party, and Swiss People's party, have usually been represented in the Federal Assembly.

Switzerland has four major parties in Parliament, all of which have had at least one member in the Federal Council since 1959. The first major party is the Swiss People's Party (SVP/UDC), which became strong during the 1991 federal election, and is often criticized by party opponents and the media as being extremist. The SVP is strongly opposed to Switzerland's membership in the European Union, for a reduction of immigration, for lowering taxes, and eliminating the budget deficit. On

the opposite side of the spectrum lies the Social Democratic Party (SP/SPS), which is the left most political party. The SPS is the most pro-European Union party, and supports immediate entry into the EU. The SPS is also for social progressivism, stronger environmental policies that will reduce global warming, an open foreign policy, and a pacifist security policy. The SPS is against deregulation, lowering taxes on high income citizens, and decreasing government spending. The Free Democratic Party (FDP) is a center-right party that wants to promote the freedom of citizens and individual responsibility. The FDP favors a liberal society and economic order. The last major party is the Christian Democratic People's Party (CVP/PPC/PPD), which is a centrist party that emphasizes family values. The CVP supports policies that promote flexible working hours, child care, affordable housing, better education, and a strong social security system.

The 1999 election confirmed two trends that began in Switzerland in the late 1980s and early 1990s. The first trend was party dealignment, especially among young voters, which started in early 1990s. In Swiss surveys taken in the late 1980s, approximately 60% of the voters felt close to one political party; in the 1990s, only 40% of the voters felt close to one political party. This political party dealignment trend was also clearly seen during the 1999 election, where only 30% of the voters aged 18–39 felt close to a political party (Linder and Lutz, 2002). A second trend seen in the 1990s was increasing support for the four major political parties at the expense of smaller parties. This was especially clear during the 1999 election when the SVP, the most right party, went from the smallest of the four major parties to the largest. However, this gain was not at the expense of the SPS, the biggest opponent of the SVP. Instead, the gain of the SVP hurt smaller right wing parties. Even though the SVP gained seats during this election, it did not do so from the SPS or even the Greens, but from the smaller conservative parties, the FDP, and the CVP (the latter two are centrist parties).

Table 4.14: **Switzerland 1999 Election Results**

Political Party	Percent of Votes	Seats	Change in Seats
SPS	22.6	51	-3
SVP	22.5	44	+15
FDP	19.9	43	-2
CVP	15.8	35	+1
Green	5.0	9	+1
Others	14.3	18	-12
Total		200	

The outcome of the 1999 election gave the SVP 44 seats, 15 more seats than they had after the 1995 election; the SPS lost 3 seats, giving them a total of 51 seats. For the centrist parties, the FDP lost two seats for a total of 43 seats, and the CVP gained 1 seat for a total of 35 seats. The remaining seats in the National Council were divided among numerous smaller parties, including the Greens, Liberals, Swiss Democrats, Swiss Labor Party, and Ticino League. The SVP's gain made them the largest party in the National Council, but it did not give them more representation in the Swiss Federal Council. For over forty years, the seven seats in the Federal Council were divided so that the SPS, FDP, and the CVP each had two seats and the SVP had one seat. The SVP only got one seat on the Council because up until 1999 it had the least number of seats in the National Council of the four governing parties. After the 1999 election, the SVP should have gained one more seat in the council, which meant that the CVP, the least represented party in the National Council, would only have one seat. However, the leader of the SVP, Christoph Blocher asked for an additional seat for his party at the expense of the SPS, in an attempt to make the Federal Council more conservative. When this went up for a vote in the new government,

only the SVP members favored this proposition. The SVP did not have enough votes in their favor and it did not receive an extra seat. In the end, even though the SVP had the largest number of seats in the National Council, it only had one member in the Federal Council, and the Federal Council remained unchanged from the previous term.

4.1.15 Switzerland 2003

In the next Swiss general election, in 2003, public support and the number of seats in the National Council increased for the SVP. During this election, the important issues for voters were asylum seekers, the economy, health care, Swiss relations with the EU, and social security. The SVP successfully campaigned on the need to “go back to the essence of the Swiss model to ‘save’ the country” (Dardanelli, 2005). The SVP linked the rising crime rate to the rising number of immigrants and asylum seekers and blamed the other three major parties for economic mismanagement, such as a high budget deficit, increase in taxes, and low economic growth. The SVP also emphasized Swiss isolationism in foreign affairs. The FDP and the CVP did not successfully take a clear position against the SVP on these issues and therefore suffered a great deal in this election. The SPS, on the other hand, was able to successfully counter the SVP platform and provide clear policies that differed from the SVP such as humane treatment of asylum seekers and a renewed welfare state (Dardanelli, 2005).

During this election, the trend towards polarization became clear, as voters found themselves supporting the extreme parties instead of the centrist parties. The most popular political party was the most conservative party, the SVP, and the second most popular party is the most leftist party, the SPS. The SVPs emerged once again as the clear winners, winning a total of 55 seats in the National Council. The SPS won 52 seats, the FDP won 36 seats, and the CVP won 28 seats. The remaining 29 of the 200 seats were distributed among smaller parties, including the Green Party,

Table 4.15: **Switzerland 2003 Election Results**

Political Party	Percent of Votes	Seats	Change in Seats
SPS	23.3	52	+1
SVP	26.6	55	+11
FDP	17.3	36	-7
CVP	14.4	28	-7
Green	7.4	13	+4
Others	9.5	16	-2
Total		200	

which won 13 seats. Following their win in 2003, the SVP demanded a second seat in the Federal Assembly, a second seat that they failed to acquire after the 1999 election. This time around, the SVP asked for a second seat at the expense of the CVP, which had won the least number of seats in 2003. Most parliamentary members agreed that the SVP should be given a second seat in the Federal Council, but they had reservations because of the “party’s bargaining methods and Blocher’s (the SVP leader who would be appointed the second seat) personality” (Dardanelli, 2005). This time around the SVP was able to gain a second seat in the Federal Council, and the CVP only had one of the seven seats. This was the first time since 1919 that the CVP did not have two seats in the Federal Assembly and the makeup of the Federal Council had shifted to the right. This was also the first time in a very long time that the Federal Council was less proportional, since it had two councillors from Zurich and only one woman.

CHAPTER V

CSES Analysis

Chapters 1–3 discussed the theoretical reasoning behind correct voting and how correct voting is measured. The last chapter described in detail the elections used in this study. Looking at the aggregate measures from Table 3.1 and the description in Chapter 4, we can see that institutional level variables might have played a role in the variation in correct voting. According to the aggregate correct voting measures, the Netherlands have the lowest level of correct voting, while Great Britain and Australia have the highest measures of correct voting. Looking at the background of these elections, one thing that clearly stands out is that there were no new parties introduced in either Great Britain or Australia, while the Netherlands introduced at least two new political parties. Another distinction is the number of political parties in these systems. Australia and Great Britain have fewer political parties than the Netherlands. These are just some institutional factors that might effect the level of correct voting.

This chapter will test various individual and institutional level variables on correct voting based on the CSES surveys and discuss the results and implications. In particular, this chapter will test the five models discussed in Chapter 3. Doing this should allow us to better understand the factors that make correct voting more or less likely. All models will be tested using hierarchical generalized linear modeling (HGLM).

Stata software is used to compute the parameters of these models. All hypotheses are tested using multilevel binomial logit where individual responses are nested within elections. Analyses were conducted using both `xtmelogit` and `gllamm` commands in Stata (version 10). The result tables in this and the next chapter report the results using `xtmelogit` only because analyses using `xtmelogit` and `gllamm` produced similar results.¹ The results reported in this chapter use a weighted version of correct voting, since this most likely represents the way that people actually make decisions.² In the CSES surveys, there are 22,581 individual (level-1) survey respondents dispersed among 17 elections.³

A logit link function is used to estimate the likelihood of correct voting, the binary dependent variable. A general specification of the individual level (or level-1) model is:

$$\log\left(\frac{p_{ij}}{1 - p_{ij}}\right) = \beta_{0j} + \beta_{1j} \cdot \text{Education} + \beta_{2j} \cdot \text{Political Knowledge} + \beta_{3j} \cdot \text{Motivation} + \beta_{4j} \cdot \text{Age} + r_{ij} \quad (5.1)$$

where p_{ij} is the probability that respondent i in country j voted correctly (correct vote = 1). The probability of a respondent voting correctly is a function of education, political knowledge, motivation, age, and an error term (r_{ij}). Various null models

¹Using Stata, there are two main commands for hierarchical generalized linear models with a binary dependent variable with random coefficients—`xtmelogit` and `gllamm`. `Xtmelogit` and `gllamm` usually produce similar results with very few (if any) differences. For an in depth discussion of the similarities of `xtmelogit` and `gllamm`, see Rabe-Hesketh and Skrondal (2008). The main difference between `xtmelogit` and `gllamm` is that when reporting the random effects, `xtmelogit` output provides standard deviations and `gllamm` output provides variances. I used `xtmelogit` output but transformed the standard deviations to variances in order to calculate the variance components in all the tables.

²The weighted version of correct voting weighs each factor by the importance that factor has to the respondent. For instance, if party identification is most important to the respondent, this factor is weighted more than others.

³Although there are only 15 elections in this analysis, New Zealand has a mixed election system where citizens cast two votes—one in the local district vote and a party vote. The district vote determines the winner through plurality, and the party vote determines the winners through proportional representation. As described in an earlier chapter, the respondents in the 1996 and 2004 New Zealand surveys were randomly divided into two distinct groups, one that considers the correction of the district vote and the other that considers the correction of the PR vote. This increases the number of upper-level cases to 17. For simplicity, I refer to this as 17 distinct elections.

were tested to determine the inclusion of any random coefficients. The log likelihood test between random intercepts and corresponding random coefficients produced a conservative $p > 0.10$, which indicated that the level-1 variables (education, political knowledge, motivation, and age) did not vary across elections. That is, we can assume that age, education, political knowledge, and motivation have the same effect in each of the 17 elections.

The general specification of the election level (or level-2) model is:

$$\beta_{0j} = \gamma_{00} + \gamma_{01} \cdot ENEP + u_{0j} \quad (5.2)$$

B_{0j} is the observed aggregate level of correct voting, in each of the 17 elections. In the base model specified here, this aggregate level mean is hypothesized to be a linear function (γ_{01}) of the number of parties the voters must choose among (ENEP) plus a stochastic error term, u_{0j} . Subsequent models will include additional hypothesized aggregate level predictors. For instance, the aggregate level mean in Model 2 is hypothesized to be a linear function of the number of parties (ENEP), ideological difference, and a stochastic error term.

Equations 5.1 and 5.2 are combined to produce the following multi-level base model:

$$\log\left(\frac{p_{ij}}{1 - p_{ij}}\right) = \gamma_{00} + \beta_{1j} \cdot Education + \beta_{2j} \cdot Political Knowledge + \beta_{3j} \cdot Motivation + \beta_{4j} \cdot Age + \gamma_{01} \cdot ENEP + r_{ij} + u_{0j} \quad (5.3)$$

Descriptive statistics of all the predictors and the dependent variable are displayed in Table 5.1 below. All of the individual-level and institutional-level variables are grand-mean centered.⁴

⁴Snijders and Bosker (1999) argue that “one should be reluctant to use group mean centered random slope models unless there is a clear theory (or an empirical clue)” and that the group mean is related to the dependent variable instead of the grand mean (page 81). Theoretically, there is no reason to group center the level-1 variables, and empirically there is no difference in the analysis when the level-1 variables are group mean centered versus grand mean centered. Given that there is no theoretical or empirical reason to group mean center the individual-level variables, I grand mean

Table 5.1: **Descriptive Statistics for Variables From CSES Surveys**

	Min	Max	Mean	Standard Deviation
<i>Level-1 Variables</i>				
Correct Voting (Dependent Variable)	0	1	0.74	0.44
Education	0	4	2.95	0.69
Political Knowledge	0	1	0.54	0.32
Motivation/Efficacy	0	1	0.71	0.25
Age	17	101	47.62	16.58
<i>Level-2 Variables</i>				
ENEP	3.13	6.02	4.29	0.91
Ideological Difference	1	3.20	2.49	0.58
Party Age	24.31	87.17	54.66	24.63
Personal Vote	1	10	6.65	3.72
Strategic Vote	0	6	3.41	2.15

5.1 Results of CSES Data

The pooled sample includes all 17 elections. The results of the pooled sample is shown in Table 5.2 below. All models include the four individual level variables (education, knowledge, efficacy, and age) and one institutional level variable (ENEP). The data only includes 17 elections, and therefore, the number of institutional level variables in each model has to be limited to a maximum of three. All models will include ENEP and Models 2 through 5 will include ENEP and one additional institutional level variables. The interclass correlation (ICC) in Table 5.2 indicates that individuals in the same election are more similar to each other than individuals from different elections,⁵ which rightly justifies the use of multilevel modeling. In fact, a

centered them, making it easier to interpret the coefficients.

⁵This is true as long as the ICC is not zero (Gelman and Hill, 2007; Rabe-Hesketh and Skrondal, 2008; Snijders and Bosker, 1999). The ICC is calculated using an approximation for binomial models, and are calculated using the following formula: $\frac{r^2 + \sigma^2}{r^2}$, where r^2 is the level-2 variance component, and σ^2 is the level-1 variance component. The multilevel logit is similar to this formula, except that the level-1 variance component is equal to $\pi^2/3$ (Snijders and Bosker, 1999; Rabe-Hesketh and Skrondal, 2008; Gelman and Hill, 2007; Luke, 2004).

null model also indicates that there is a statistically significant difference in correct voting across elections, which indicates that a multilevel model should be used. In all of the models displayed in Table 5.2, holding all the predictors at their mean, there is approximately a 73% to 74% chance of voting correctly.⁶

As expected, models one through five in Table 5.2 show that age and efficacy are positively associated with correct voting ($p < 0.01$). The age coefficient shows that as one gets older and votes in more elections, the better the individual becomes at voting, thus increasing the probability of voting correctly. The motivation/efficacy coefficient shows that as a respondent starts to take their role as a citizen more seriously, and care more about the process and importance of voting, the more likely they are to vote correctly. Holding the other predictors at their mean (which is zero because all predictors are grand mean centered) in each model, a one standard deviation change in age in both directions results in an increase in correct voting by 3%, while a one standard deviation change in efficacy/motivation results in an increase in correct voting by 9% (see Figure 5.1). The difference between these increases in probability shows that motivation has more of an impact on voting correctly than age. Motivation/efficacy heightens voters need for information, and these voters are more likely to go out and collect more information about the political parties and candidates if they care in order to ensure that they make voting decisions consistent with their views.

The first hypothesis predicts an increase in correct voting with an increase in education. Unexpectedly, the results in Table 5.2 show a negative statistically significant relationship between education and correct voting.⁷ The second hypothesis predicts an increase in correct voting with an increase in political expertise or knowl-

⁶The coefficient of the constant in Table 5.2 is for all the variables at 0. Since all of the variables were grand mean centered, 0 is the mean for all variables included in the model. Thus, applying the logit link to 1.00 and 1.03, the extreme observed levels of the constant across my five models, results in 0.73 and 0.74 probability of voting correctly.

⁷The reason for this could be because smarter individuals tend to vote strategically, which is counted an incorrect vote here.

Table 5.2: Multilevel Analysis of Voting Correctly With the Pooled CSES Survey

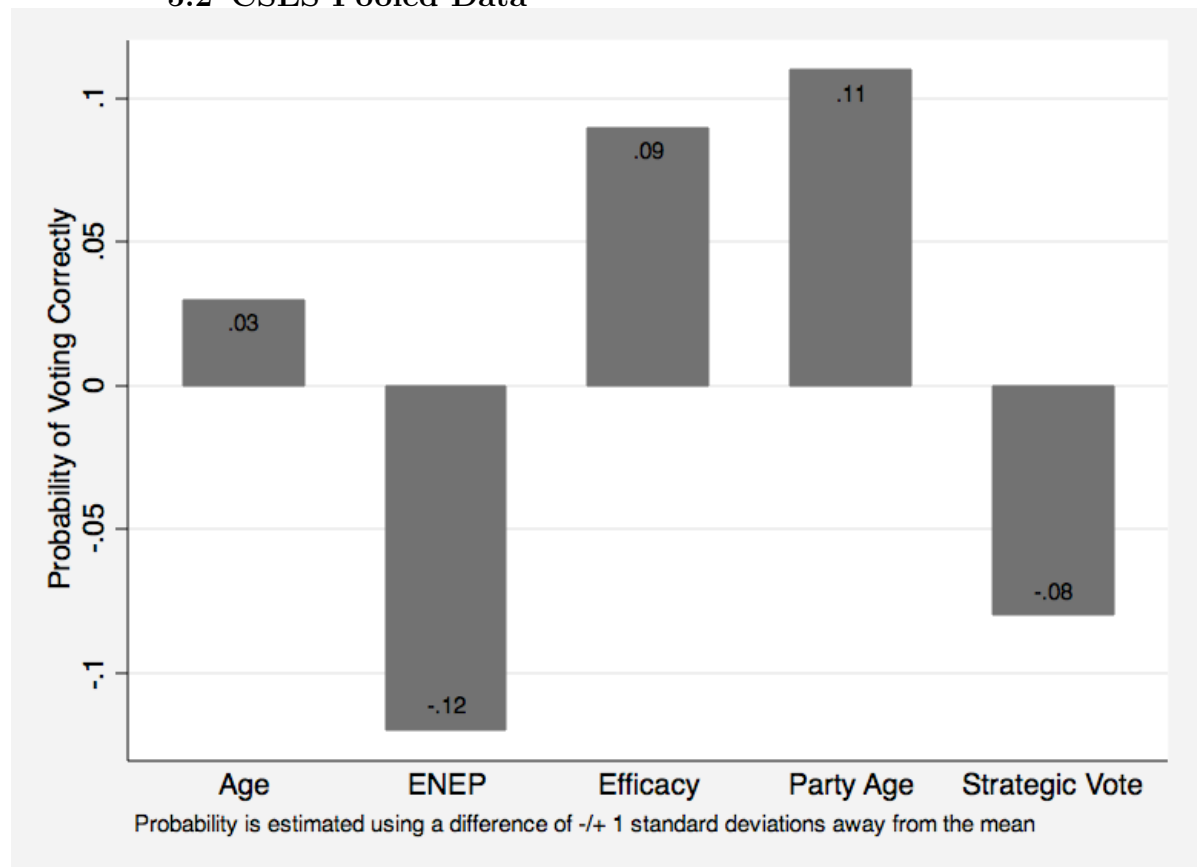
	Model 1	Model 2	Model 3	Model 4	Model 5
Motivation/Efficacy	0.82*** (0.07)	0.82*** (0.07)	0.82*** (0.07)	0.82*** (0.07)	0.82*** (0.07)
Age	0.27*** (0.08)	0.27*** (0.08)	0.24* (0.12)	0.27*** (0.08)	0.27*** (0.08)
Education	-0.29** (0.10)	-0.29** (0.10)	-0.28** (0.10)	-0.29** (0.10)	-0.29** (0.10)
Political Knowledge	0.07 (0.05)	0.07 (0.05)	0.08 (0.05)	0.07 (0.05)	0.07 (0.05)
ENEP	-0.27* (0.11)	-0.26* (0.12)	-0.24*** (0.06)	-0.36*** (0.12)	-0.32** (0.11)
Ideological Difference		-0.01 (0.20)			
Party Age			0.01*** (0.002)		
Personal Vote				-0.05 (0.03)	
Strategic Vote					-0.08 [‡] (0.05)
Constant	1.02*** (0.10)	1.02*** (0.10)	1.02*** (0.05)	1.00*** (0.09)	1.03*** (0.09)
Random Variance Components					
Level 2 Intercept	0.17	0.17	0.04	0.14	0.14
Deviance	25,119	25,119	25,089	25,117	25,116
Intraclass Correlation	0.049	0.049	0.012	0.041	0.041
$N_i(Level1)$	22,581				
$N_j(Level2)$	17				

[‡]p<0.10, *p<0.05, **p<0.01, ***p≤0.001
 Dependent Variable=Correct Vote
 Standard errors reported in parenthesis

edge. Political knowledge in Table 5.2 is positive, but not statistically significant, across the different models. This can also be explained by the nature of the CSES

survey, which only asks respondents two to three questions to evaluate their political expertise. Two or three questions to evaluate a respondent's political knowledge is not a good measure of expertise nor does it provide much variation. A shortage of questions in the CSES survey might best explain the insignificant results for political knowledge across the five models. If this is remotely true, we should expect to see positive and statistically significant when using the NES surveys in the next chapter because political knowledge measure will be operationalized with more than two or three questions.

Figure 5.1: **Estimated Effect on the Probability of Voting Correctly in Table 5.2—CSES Pooled Data**



Almost all of the institutional level variables in Table 5.2 are going in the expected direction. As predicted, the number of parties (ENEP) is negatively associated with correct voting in all five of the models. Holding all other variables constant (at their

grand means), a one standard deviation change in both directions of the ENEP mean decreases correct voting by 12% in the base model. The effect of ENEP is much greater in the models that control for strategic voting (model 5) and party age (model 4). By simply including incentives to vote strategically, ENEP decreases correct voting by 14%. When accounting for party age, ENEP decreases correct voting by 15%. The number of electoral parties by far has the largest impact on correct voting, even compared to the level-1 variables in the CSES pooled sample. This indicates that the number of parties in an election has the largest effect on whether a citizen will vote correctly or not, even more than age, education, expertise, and efficacy.

Other institutional factors, particularly party age and incentives to vote strategically, also have a large impact on correct voting. The longer a party system has been in existence, the higher the chances of voting correctly ($p < 0.001$); the more incentives to vote strategically in an electoral system, the less likely a citizen will vote correctly ($p < 0.1$). Holding all other variables at their mean, a one standard deviation change in either side of the party age mean increases correct voting by 11%, while the same change in the strategic vote variable decreases correct voting by 8%. Of all the variables that are statistically significant in Table 5.2, ENEP has the biggest impact on correct voting, followed by party age, efficacy, strategic voting, and a person's age. The institutional variables clearly have more of an impact on correct voting than the individual level variables, demonstrating the importance of electoral systems in determining a correct vote.

The remaining institutional (level-2) predictors are not statistically significant. In Model 2, ideological difference is not statistically significant and is going in the wrong direction. According to the results, the increase in ideological differences among parties decreases the levels of correct voting, which is the opposite of what I hypothesized. One would expect that as the ideological difference between parties grow, correct voting should increase because it would be easier for citizens to distinguish

between the policy positions of political parties, and pick the right or correct party that coincides with their views. Personal vote, though negative as expected, is not statistically significant, indicating that personal vote does not have an effect on voting correctly.⁸

5.2 Separating Proportional Representation and Plurality in the CSES Survey

In addition to controlling for the institutional factors considered in Table 5.2, it is also important to take into account the number of seats in each electoral district as well as how votes translate into seats. One variable that accounts for both these factors is the type of electoral system. Often electoral systems are divided in two basic categories—PR and plurality/majority. PR systems have multi-seat districts and allocate seats using the proportion of votes won by a party/candidate. On the other hand, plurality systems have single member districts, and seats are allocated to the candidate/party that won the most votes. Unfortunately, this PR/plurality distinction is highly correlated with the ENEP variable used in all of the models ($r=0.75$). Due to the high correlation between these two institutional (level-2) variables, the inclusion of both within the same model would not allow me to clearly see the effects of these institutional factors for PR versus non-PR systems. Furthermore, I cannot include an interaction term with institutional predictors and a PR/plurality variable because of limited degrees of freedom (as discussed in Chapter 3).

To find the effect of these two different electoral systems in this section, I divide the same CSES pooled data used in the previous section into two parts—one containing the PR elections and the other containing the plurality/majority elections. I tested all

⁸I also ran a model with just personal vote without ENEP thinking that perhaps the effect of ENEP washes out the effect of personal vote. This model showed that personal vote was not statistically significant. In fact, the p-value for the model displayed in Table 5.2, which controls for ENEP, is lower and closer to statistical significance than the p-value for a model that includes personal vote but not ENEP.

five models displayed in Table 5.2, but do not display the models that also controlled for personal vote and strategic vote (Models 4 and 5) because these two higher level predictors were never statistically significant for either the PR or the plurality sample. Table 5.3 lists the descriptive statistics for the level-2 variables for the two samples. The results of the PR and plurality samples are shown below in Table 5.4 and Figure 5.2.

Table 5.3: **Level-2 Descriptive Statistics—Majoritarian and PR samples**

	Min	Max	Mean	Standard Deviation
<i>Majoritarian/Plurality Sample</i>				
ENEP	3.13	4.44	3.70	0.50
Ideological Difference	1	3.00	2.32	0.65
Party Age	24.31	86.50	52.57	22.09
Personal Vote	8	10	9.50	0.93
Strategic Vote	1	6	3.75	1.91
<i>Proportional Representation Sample</i>				
ENEP	3.30	6.02	4.82	0.88
Ideological Difference	2	3.20	2.65	0.48
Party Age	24.31	87.17	56.52	27.89
Personal Vote	1	10	4.11	3.41
Strategic Vote	0	6	3.11	2.42

The PR elections in the sample presented in Table 5.4 include nine elections in five countries, and the plurality/majority sample includes eight elections in four countries. This PR sample includes the one election from Germany, and the two elections from Netherlands, New Zealand, Sweden, and Switzerland. It has 9,534 level-1 survey respondents. The plurality/majority sample includes the two elections each from Australia, Canada, Great Britain, and the SMD vote in New Zealand. There are 13,047 level-1 respondents in the plurality/majority sample. Holding education, age, efficacy, political knowledge, ENEP, ideological difference, and party age at their

mean, the probability of voting correctly varies between 70% to 73% for the PR sample and between 55% to 65% in the plurality sample.⁹

The results once again show that education is negative across the board but statistically significant only in the PR sample. Political knowledge is positive as predicted but not statistically significant across the board for both the PR and plurality samples. The lack of statistical significance is probably due to the small number of questions posed to respondents to assess their political expertise. As expected, efficacy is positive and statistically significant for all three models in both the PR and plurality sample. Looking at Figure 5.2, we can see that a change in efficacy increases correct voting by 7% in the PR sample and by 11% in the plurality sample. Motivation/efficacy has a greater impact in plurality electoral systems than in PR systems. Age is also positive, as expected, and is statistically significant in almost all the models presented in Table 5.4. Age increases correct voting by 2% in the PR sample and by 3% in the plurality sample.

The differences in the effects of the level-1 predictors is relatively small compared to the differences found at level-2. In the pooled sample, ENEP was negative, statistically significant ($p < 0.05$), and had the most impact on correct voting. In the PR sample, ENEP is still negative but is not statistically significant in any of the models; on the other hand, ENEP is negative and has a strong impact on correct voting in the plurality sample. In fact, looking at Figure 5.2 we can see that in the plurality sample, a one standard deviation change in ENEP decreases correct voting by 22%, implying that the number of parties in a system significantly decreases correct voting plurality systems and does not have much of an impact on citizens voting correctly in PR systems.

ENEP may not affect correct voting in PR systems, but the results show that party age and ideology do matter in PR systems. Looking first at the plurality

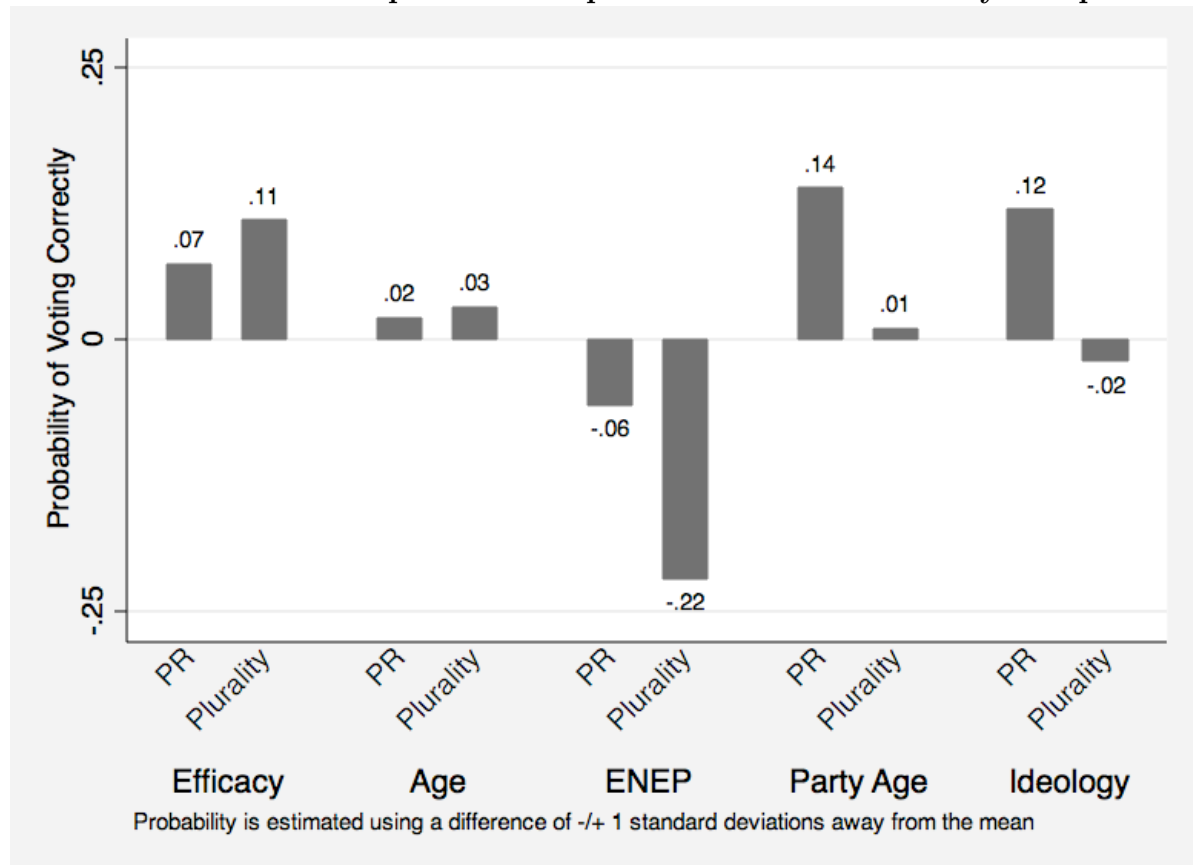
⁹This is calculated by applying the logit link to the constants, since the constants represent all the predictors in the model at their mean.

Table 5.4: Multilevel Analysis of Voting Correctly with CSES Data—
Proportional Representation vs. Plurality/Majority Systems

	Proportional Representation			Plurality/Majority		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Motivation/Efficacy	0.62*** (0.10)	0.62*** (0.10)	0.62*** (0.10)	0.98*** (0.09)	0.98*** (0.09)	0.98*** (0.09)
Age	0.23 [‡] (0.12)	0.23 [‡] (0.12)	0.16 (0.12)	0.30** (0.11)	0.30** (0.11)	0.31* (0.13)
Education	-0.35** (0.14)	-0.35** (0.14)	-0.35** (0.14)	-0.20 (0.15)	-0.20 (0.15)	-0.20 (0.15)
Political Knowledge	0.11 (0.07)	0.11 (0.07)	0.12 (0.07)	0.03 (0.08)	0.03 (0.08)	0.03 (0.08)
ENEP	-0.13 (0.18)	-0.15 (0.25)	-0.19 (0.36)	-0.96*** (0.16)	-0.91*** (0.16)	-0.95* (0.05)
Ideological Difference		0.53* (0.42)			-0.06 (0.19)	
Party Age			0.01*** (0.002)			0.001 (0.008)
Constant	0.99*** (0.17)	0.90*** (0.14)	0.99*** (0.06)	0.61*** (0.13)	0.63*** (0.15)	0.64*** (0.22)
Random Variance Components						
Level 2 Intercept	0.16	0.10	0.01	0.05	0.05	0.05
Deviance	11,319	11,315	11,291	13,782	13,782	13,047
Intraclass Correlation	0.046	0.030	0.004	0.015	0.015	0.015
$N_i(Level1)$	9,534			13,047		
$N_j(Level2)$	9			8		

[‡]p<0.10, *p<0.05, **p<0.01, ***p≤0.001
Dependent Variable=Correct Vote
Standard errors reported in parenthesis

Figure 5.2: **Estimated Effect on the Probability of Voting Correctly in Table 5.4—CSES Proportional Representation and Plurality Samples**



sample in Table 5.4, ideology and party age do not affect whether a person votes correctly. In the PR sample, both ideology and party age positively impact correct voting, as hypothesized. Larger ideological differences will result in higher levels of correct voting, since it is easier to distinguish between political parties. The longer political parties have been around, the less new information that needs to be learned, and more likely a citizen will vote correctly. In the PR sample, party age increases correct voting by 14% and ideological differences increases correct voting by 12% when holding all other variables at their mean. In the PR system, ideological difference has the largest impact on correct voting, while ENEP has the most influence in a plurality system when holding all other variables at their mean. The next section will discuss the importance of ENEP in plurality systems and the importance of party age and

ideological difference on correct voting in PR systems.¹⁰

5.3 Discussion of the Results

When trying to predict correct voting, one thing is clear: institutional level variables are very important. Whether we pool the CSES data or separate it into the two main electoral systems (PR sample and plurality sample), the level-2 predictors have the most impact on voting correctly. This section briefly discusses why these institutional variables are important and why they impact correct voting in certain electoral systems and not others.

As predicted, the number of parties does matter with regards to correct voting. In the pooled data, an increase in the number of parties leads to a decrease in correct voting. This relationship is even more significant in the plurality sample. However, it has no effect in the PR sample. Similarly, the age of political parties and ideological differences significantly increase correct voting in PR systems. However, both have no effect in plurality/majority systems. Why do the number of parties only negatively impact correct voting in plurality systems but not in PR systems? Why does party age increase correct voting in PR systems but not in plurality systems? Why is the effect of ideological difference positive and significant only in PR systems, and why is it the most influential? To answer these questions, there needs to be a further investigation of the way these two electoral systems work. The remaining part of this chapter will focus on a discussion of how the electoral systems results in the number of parties and ideological differences, and why this has an effect on correct voting.

The way in which votes translate into seats in plurality/majority systems is pretty

¹⁰In addition to creating two samples, I also created an interaction terms between a binary PR variable and all the institutional level variables. The results show that the interaction term between PR and ENEP is statistically significant at $p < 0.001$, which indicates that the effect of ENEP is different for PR systems than for plurality/majority systems. The only other interactions that were statistically significant were the PR and Ideological Difference interaction and the PR and Party Age interaction, both at $p < 0.1$.

clear cut. In its simplest form, the candidate or party with the most votes is declared the winner.¹¹ This type of electoral system usually produces two major political parties, both of which are broad based parties and thus relatively centrist in ideological terms (Sartori, 1968; Reynolds et al., 2008; Clark et al., 2009). Plurality systems allow voters to choose between people rather than political parties because “voters can assess the performance of individual candidates rather than just having to accept a list of candidates presented by a party...” (Reynolds et al., 2008). For many observers, plurality/majority systems are also preferred over PR systems because the former are simpler and easier to understand.

In proportional representation (PR) systems, the percentage of votes received by a party corresponds to the percentage of seats the party receives. Varieties of PR systems include list PR and single transferable votes, but most of the PR systems in the world use some form of list PR. This type of system usually produces a multiparty system, with like-minded candidates within the political parties. Like-minded candidates help citizens distinguish between political parties’ policies, ideological stands, and leadership differences (Reynolds et al., 2008). In list PR systems, voters usually vote for a party, and the parties receive seats in rough proportion to their overall share of the vote in the electoral district. In closed party lists, voters only vote for the political party, with the political party determining the order in which candidates within the party will win the seats. In open party lists, voters are allowed to indicate which candidate they prefer. In most open party list systems, however, “the vote for a candidate as well as a party is optional and, because most voters vote for parties only rather than candidates, the candidate-choice option of the ballot paper often has limited effect” (see Reynolds et al., 2008, p. 84). Even in open lists where voters can vote for candidates, voters still end up casting a vote for the party instead of choosing

¹¹There are other conditions to some plurality/majority systems, and there are different varieties of plurality systems, such as first past the post (FPTP), block vote (BV), party block vote (PBV), Alternative Vote (AV), and the two round system (TRS).

a particular candidate.

PR systems place a heavier emphasis on political parties rather than candidates. Voters in PR systems usually do not have to learn new information about new candidates each election since they often only vote for the party (this is often true even in open lists), which means that the older the party, the more likely voters know about the party itself and can correctly identify which party is closest to their own views. The heavy emphasis on political parties within PR systems clearly explains why party age has a large influence on correct voting. Ideological difference has the biggest influence on correct voting in PR systems. Multiparty systems usually consist of political parties that are ideologically distinct so that voters can easily distinguish one political party from the next (see Downs, 1957b, p.143). Down's model suggests that in multiparty systems, a new political party will not form unless it is able to "differentiate itself as completely as possible from its neighbors." This ideological distinctiveness among political parties, a consequence of the electoral system, explains why ideological distance greatly increase correct voting in PR systems but not in plurality systems.

The only institutional (level-2) predictor that influences correct voting in plurality system is the number of parties (ENEP). In Chapter 3, I hypothesized that ENEP should impact correct voting in PR systems since plurality/majority systems are mostly characterized by two political parties (Downs, 1957a). The results in Table 5.4 show the opposite effect. This can be explained by the fact in plurality/majority systems voters "choose between people rather than just between parties" (Reynolds et al., 2008). Unlike PR systems, plurality/majority systems assess the performance of individual candidates instead of accepting a list of candidates presented by a party. Focusing on individuals candidates means that citizens have to gather new information at every election and learn about the different candidates to determine which candidate best agrees with their views. The more candidates running for a seat dur-

ing an election, the more new information voters need to learn. The more political parties in a plurality/majority system, the more information voters have to learn about parties' candidates. The increase in options and choices for individuals in plurality/majoritarian systems, the higher the probability that they will not make the right choice.

CHAPTER VI

NES Analysis

The last chapter discussed the effects of the level-1 and level-2 predictors on correct voting from the CSES survey data. This chapter will parallel the previous chapter, with the only difference being that it will analyze the NES survey and discuss the differences and similarities between the CSES and NES results. Once again, all hypotheses are tested using hierarchical generalized linear modeling (HGLM) and the `xtmelogit` command in Stata. A logit link function is used to estimate the likelihood of voting correctly. For more information on the general specification, see Equations 5.1, 5.2, and 5.3 in Chapter 5. The methodology of the previous chapter was replicated, with the only difference being the substitution of NES data for the CSES data. The NES surveys have 28,743 level 1 respondents dispersed among the same 17 elections.¹ Descriptive statistics of predictors and the dependent variable are displayed below in Table 6.1.

6.1 NES Survey Results

The pooled results of the analysis are displayed in Table 6.2 and Figure 6.1 below. The same five models tested in the previous chapter are tested once again using the

¹Although there are 15 elections, there are 17 macro level cases two each for New Zealand 1996 and 2004. This once again results in 17 macro (level-2) cases.

Table 6.1: **Descriptive Statistics for Variables—NES Analysis**

	Min	Max	Mean	Standard Deviation
<i>Level-1 Variables</i>				
Correct Voting (Dependent Variable)	0	1	0.57	0.49
Education	0	4	1.50	1.05
Political Knowledge	0	1	0.51	0.29
Motivation/Efficacy	0	1	0.64	0.28
Age	17	101	48.37	16.96
<i>Level-2 Variables</i>				
ENEP	3.13	6.02	4.29	0.91
Ideological Difference	1	3.20	2.49	0.58
Party Age	24.31	87.17	54.66	24.63
Personal Vote	1	10	6.65	3.72
Strategic Vote	0	6	3.41	2.15

NES surveys. All five models include four individual level variables (education, political knowledge, efficacy, and age) and one institutional variable (ENEP). The last four models include additional level-2 variables. The limited degrees of freedom at level-2 constricts the number of institutional (level-2) variables that can be included in the model. Therefore, each model only includes at most 2 level-2 predictors. The interclass correlation (ICC) in Table 6.2 justifies the use of multilevel modeling and demonstrates that individuals from the same election are similar to each other. A null model also indicates that variation in correct voting between elections is statistically significant ($p < 0.001$), which again justifies the use of multilevel modeling. Various models were also tested to determine the inclusion of a random coefficient. The log likelihood test between various random intercepts and corresponding random coefficients (slopes) produced a conservative $p > 0.1$ indicating that empirically there is no need for any random coefficients. In all of the models displayed in Table 6.2, there is

Table 6.2: Multilevel Analysis of Voting Correctly With the Pooled NES Survey

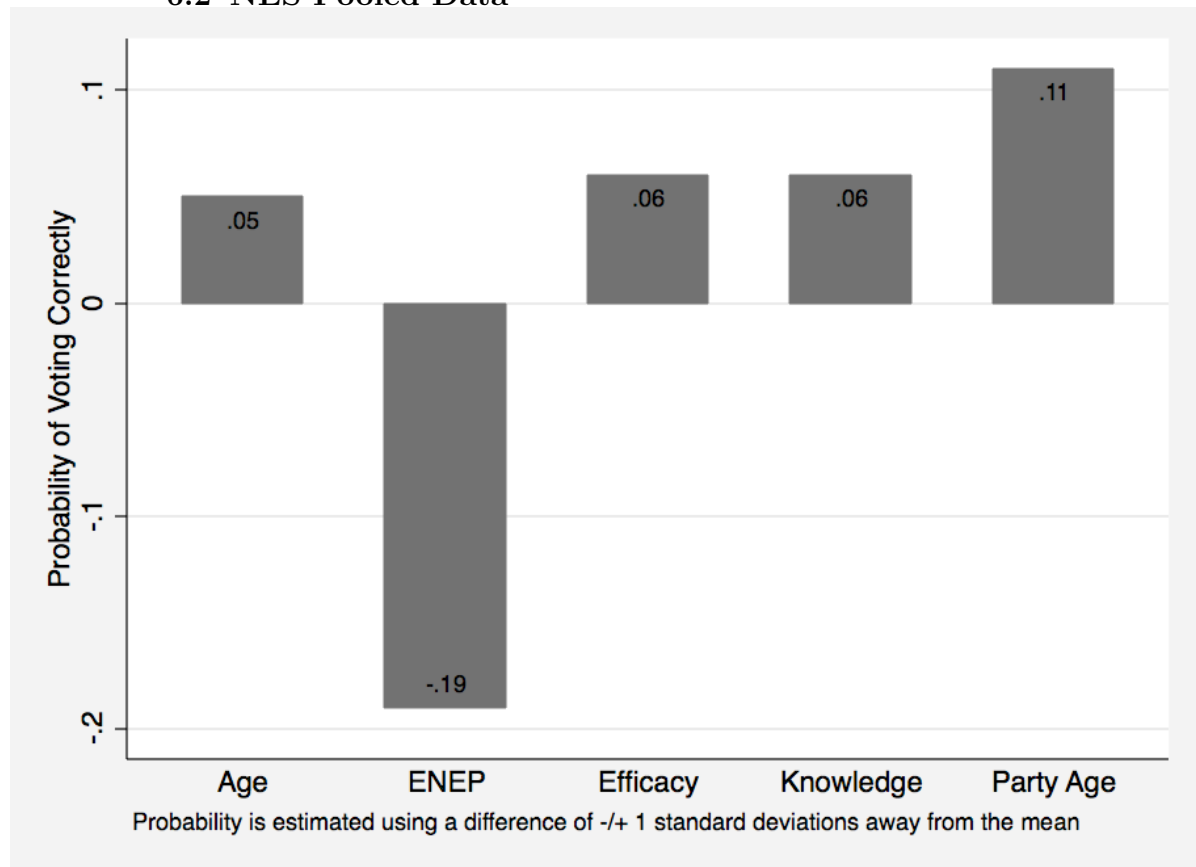
	Model 1	Model 2	Model 3	Model 4	Model 5
Motivation/Efficacy	0.46*** (0.07)	0.46*** (0.07)	0.47*** (0.07)	0.46*** (0.07)	0.47*** (0.07)
Age	0.46*** (0.08)	0.46*** (0.08)	0.46*** (0.08)	0.46*** (0.08)	0.46*** (0.08)
Education	0.07 (0.06)	0.07 (0.06)	0.07 (0.06)	0.07 (0.06)	0.07 (0.06)
Political Knowledge	0.41*** (0.05)	0.41*** (0.05)	0.41*** (0.05)	0.41*** (0.05)	0.41*** (0.05)
ENEP	-0.43** (0.15)	-0.40* (0.17)	-0.42** (0.11)	-0.46** (0.18)	-0.52** (0.14)
Ideological Difference		0.04 (0.22)			
Party Age			0.01* (0.004)		
Personal Vote				-0.02 (0.04)	
Strategic Vote					-0.13* (0.06)
Constant	0.51*** (0.13)	0.51*** (0.11)	0.49*** (0.10)	0.50*** (0.11)	0.49*** (0.11)
Random Variance Components					
Level 2 Intercept	0.21	0.21	0.15	0.20	0.18
Deviance	28,742	28,743	28,725	28,743	28,742
Intraclass Correlation	0.060	0.060	0.044	0.057	0.052
$N_i(Level1)$	28,819				
$N_j(Level2)$	17				

‡p<0.10, *p<0.05, **p<0.01, ***p≤0.001
Dependent Variable=Correct Vote
Standard errors reported in parenthesis

approximately a 62% chance of voting correctly holding everything at its mean.²

²The coefficient of the constant in Table 6.2 is for all the variables at 0. Since all of the variables are grand mean centered, 0 is the mean of all the variables. Applying the long link to the constant

Figure 6.1: **Estimated Effect on the Probability of Voting Correctly in Table 6.2–NES Pooled Data**



As expected, education is positive but statistically significant. The results show that citizens who have more political knowledge are more likely to vote correctly, and this relationship is highly significant ($p < 0.001$). Individuals who have higher motivation/efficacy and are older are also more likely to vote correctly. Holding all other variables constant, a one standard deviation change in each direction for these variables increases correct voting by the same percentage (approximately 5%–6%) for both variables. In particular, political knowledge and efficacy each increase correct voting by 6%, and age increases correct voting by 5%.

All of the institutional variables in Table 6.2 go in the expected direction. ENEP, will estimate the probability of voting correctly when all the variables are at their mean, which was converted into a percentage.

personal vote, and strategic vote decrease the probability of voting correctly while ideological difference and party age increase the probability of voting correct. However, ENEP, party age, and strategic vote are the only level-2 variables that are statistically significant in the NES pooled data. Holding all the other variables constant at their mean, a one standard deviation change in both directions for ENEP decreases correct voting by 19%, and increases correct voting by 11% for party age. Comparing all of the effects of the level-1 and level-2 predictors on correct voting, the results show that institutional factors (level-2) have more influence on correct voting than individual (level-1) factors. The most influential level-1 predictors are efficacy, education, and political knowledge at 6%, which is half of the influence of ENEP, the most influential level-2 predictor. Even party age, which is less influential than ENEP, increases correct voting by at least 5% more than any level-1 variable. Similar to the results from the CSES pooled sample (presented in the previous chapter), institutional level predictors once again have a larger impact on voting correctly.

6.2 Separating Proportional Representation From Plurality/Majority in the NES Data

In the previous chapter, separating the proportional representation (PR) from the plurality/majority elections showed some major differences between the effects of the predictors within the two types of electoral systems. The results showed that ENEP was more important in plurality systems, while party age and ideological difference have a bigger impact in PR systems. This section will replicate the analysis done in the previous section after dividing the pooled data into two samples—a PR sample and a plurality sample. The PR sample includes nine elections in five countries, and the plurality sample includes eight elections in four countries. The PR sample includes the following elections: Germany 1998, Netherlands 1998 and 2002, New Zealand (the

list vote which is converted into a seat using proportional representation) 1996 and 2002, Sweden 1998 and 2002, and Switzerland 1999 and 2003. The plurality sample includes the following elections: Australia 1996 and 2004, Canada 1997 and 2004, Great Britain 1997 and 2005, and New Zealand (plurality vote) 1996 and 2002. The PR sample has 11,101 level-1 respondents, and the plurality sample has 20,718 level-1 respondents. Holding all of the variables constant at their mean, the probability of voting correctly is approximately 54% in the PR sample and 42% to 47% in the plurality sample. Table 6.3 shows models one through three for the PR sample and the plurality sample because personal vote and strategic vote were not statistically significant and did not have much of an effect on the other predictors.

Separating the PR sample from the plurality sample shows how the effect of education differs with each voting system. In the PR sample, education does not positively effect correct voting as it does in the plurality sample.³ In the plurality/majority sample, education is positively associated with correct voting and is significant at $p < 0.1$. Political knowledge, efficacy/motivation, and age are all positively associated with correct voting in both PR and plurality samples. The effect of political knowledge, efficacy/motivation, and age are highly significant ($p < 0.001$) in the plurality sample. The impact of these individual variables is displayed in Figure 6.2. Education and political knowledge both have a larger effect in the plurality system than in PR systems. The only level-1 predictor that has a larger influence on correct voting in PR systems is efficacy.

There are even larger differences between the PR and plurality samples at level-2. ENEP is negative in the PR sample, but not statistically significant. In the plurality sample ENEP is negative and highly significant ($p < 0.001$) in all three models. Ideological difference and party age are both positive, as hypothesized, and statis-

³This may indicate that individuals with more education are voting strategically in PR systems than in majority/plurality systems. Recall that the way correct voting is operationalized, strategic votes are counted as incorrect.

Table 6.3: Multilevel Analysis of Voting Correctly with NES Data—
Proportional Representation vs. Plurality/Majority Systems

	Proportional Representation			Plurality/Majority		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Motivation/Efficacy	0.55*** (0.09)	0.54*** (0.09)	0.57*** (0.09)	0.32*** (0.10)	0.33*** (0.10)	0.31*** (0.10)
Age	0.44*** (0.11)	0.43*** (0.10)	0.45*** (0.14)	0.47*** (0.11)	0.47*** (0.10)	0.47*** (0.18)
Education	-0.17* (0.08)	-0.19* (0.08)	-0.19* (0.09)	0.15 [‡] (0.09)	0.16 [‡] (0.09)	0.15 [‡] (0.09)
Political Knowledge	0.26*** (0.07)	0.26*** (0.07)	0.25*** (0.07)	0.65*** (0.09)	0.64*** (0.09)	0.65*** (0.09)
ENEP	-0.0003 (0.08)	-0.003 (0.09)	-0.07 (0.08)	-1.44*** (0.34)	-2.12*** (0.42)	-2.00*** (0.52)
Ideological Difference		0.36* (0.17)			0.37 (0.32)	
Party Age			0.01* (0.005)			0.02 (0.01)
Constant	0.15 [‡] (0.09)	0.14 (0.09)	0.15* (0.07)	-0.13 (0.22)	-0.17 (0.23)	-0.33 (0.31)
Random Variance Components						
Level 2 Intercept	0.07	0.05	0.03	0.17	0.14	0.12
Deviance	15,127	15,123	15,111	13, 547	13, 545	13, 535
Intraclass Correlation	0.021	0.015	0.010	0.049	0.041	0.035
$N_i(Leve11)$	11,101			20,718		
$N_j(Leve12)$	9			8		

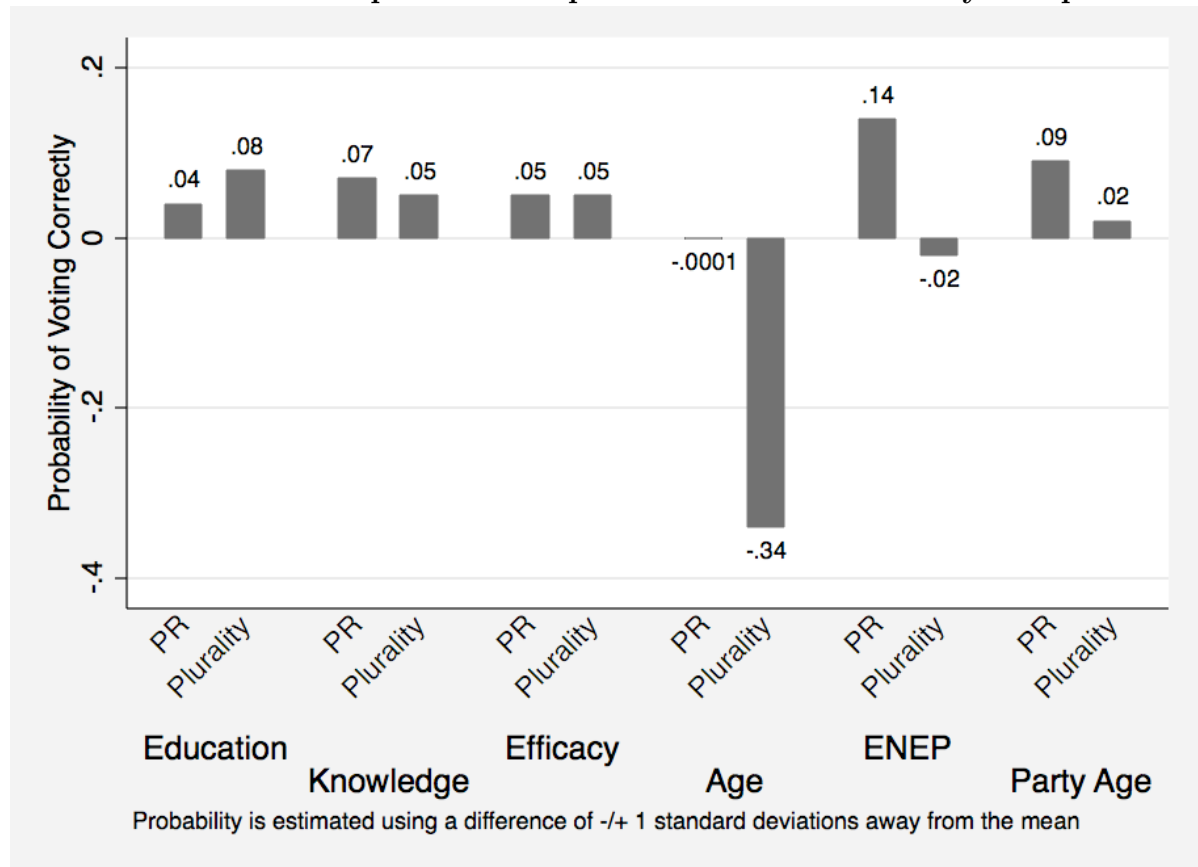
[‡]p<0.10, *p<0.05, **p<0.01, ***p≤0.001

Dependent Variable=Correct Vote

Standard errors reported in parenthesis

tically significant in the PR sample, but not statistically significant in the plurality sample. Once again, when comparing the impact of these institutional factors on correct voting within the different samples, we find that ENEP is the most influential level-2 factor in the plurality sample, and that party age and ideological are the

Figure 6.2: **Estimated Effect on the Probability of Voting Correctly in Table 6.3–NES Proportional Representation and Plurality Samples**



most influential factors in the PR sample. Comparing the effect of level-1 and level-2 factors on correct voting from the results in Figure 6.2, we can see that different institutional predictors are most influential in both PR and plurality systems. In the plurality/majority system, ENEP has the biggest effect on correct voting, and party age and ideological difference influence correct voting the most within PR systems.⁴

⁴Including an interaction term of the PR dummy with all the institutional level variables, the results show that the effect of ENEP on correct voting is statistically different for majority/plurality systems than for PR systems ($p < 0.001$). The interaction between PR and Party Age just misses the significance mark ($p=0.105$), which would probably become significant with an increase in level-2 observations.

6.3 Comparing the CSES and NES Results

This section will review the results from the models presented in this chapter and in the previous one. Table 6.4 simply redisplayes the base models presented in Tables 5.2, 5.4, 6.2, and 6.3 side by side so that it is easier to discuss the similarities and differences. This section will first compare the level-1 predictors and then discuss the level-2 predictors. Finally, this section will discuss the implications of these similarities and differences and what it means for future comparative research on correct voting.

Table 6.4: **The Six Versions of the Base Model**

	CSES			NES		
	Pooled	PR	Plurality	Pooled	PR	Plurality
Motivation/Efficacy	0.82*** (0.07)	0.62*** (0.10)	0.98*** (0.09)	0.46*** (0.07)	0.55*** (0.09)	0.32*** (0.10)
Age	0.27*** (0.08)	0.23 [‡] (0.12)	0.30** (0.11)	0.46*** (0.08)	0.44*** (0.11)	0.47*** (0.11)
Education	-0.29** (0.10)	-0.35** (0.14)	-0.20 (0.15)	0.07 (0.06)	-0.17* (0.08)	0.15 [‡] (0.09)
Political Knowledge	0.07 (0.05)	0.11 (0.08)	0.03 (0.07)	0.41*** (0.05)	0.26*** (0.07)	0.65*** (0.09)
ENEP	-0.27* (0.11)	-0.13 (0.16)	-0.96*** (0.18)	-0.13** (0.15)	-0.0003 (0.08)	-1.44*** (0.34)
Constant	1.02*** (0.10)	0.99*** (0.17)	0.61*** (0.13)	0.51*** (0.13)	0.15 [‡] (0.09)	-0.13 (0.22)
Level 2 Intercept	0.17	0.16	0.05	0.21	0.07	0.17
$N_i(Lev\ell1)$	22,581	9,534	13,047	21,819	11,101	10,718
$N_j(Lev\ell2)$	17	9	8	17	9	8
Deviance	25,119	11,319	13,782	28,742	15,127	13,547
Intraclass Correlation	0.049	0.046	0.015	0.060	0.021	0.049

[‡]p<0.10, *p<0.05, **p<0.01, ***p≤0.001

Dependent Variable=Correct Vote

Standard errors reported in parenthesis

The biggest difference in the level-1 predictors between the NES and CSES surveys occurs for education and political knowledge. From Table 6.4 we can see that in the CSES survey, education is negative across all three samples, while in the NES survey education is only negative in the PR sample. In the NES survey (aside from the PR sample), education has the expected effect on correct voting and is statistically significant.⁵ As expected, political knowledge is positive across the board for both the NES and CSES surveys. However, political knowledge is not statistically significant in the CSES survey, and highly statistically significant in the NES surveys. This can once again be explained by the different amount of information available within each dataset for measuring the variable, and that the NES has a better measure of political knowledge. The effect of efficacy and age on correct voting is positive and statistically significant across the board. Out of all the individual level factors, the only difference lies in the effects between education and political knowledge. Since these two variables are measured more accurately in the NES survey than the CSES survey, researchers should be a little cautious when trying to operationalize these two variables using the CSES survey. Aside from inconsistencies with these two variables, the other CSES individual level variables are measured in very similar ways to those from the NES data, and therefore provide similar results.

Looking at the comparison of the base model in CSES and NES survey in Table 6.4, the level-2 ENEP variable is negative across the board. Furthermore, its significance levels are similar regardless of the type of data used. In both surveys (NES and CSES), ENEP is statistically significant at $p < 0.05$ for the pooled sample, statistically significant at $p < 0.001$ in plurality sample, and not statistically significant in the PR sample. The remaining level-2 variables show a similar effect on correct voting in the pooled CSES and NES samples (refer to Tables 5.2 and 6.2). Party age is statistically

⁵The negative education may be an indicator that individuals that have higher levels of education are more likely to vote strategically, which was not included as a correct vote in this model. If this is the case, then the negative finding for the PR sample could show that smarter individuals are more likely to vote strategically in PR systems than in plurality/majority systems.

significant and has a positive effect on correct voting, strategic vote is statistically significant and has a negative effect on correct voting, and personal vote is negative but not statistically significant. Ideological difference is the only institutional variable that shows slightly different results, even though it is not statistically significant. In the NES pooled sample ideological difference is positive, but in the CSES pooled sample it is negative. These are relatively small differences between the effects of level-2 predictors in the pooled samples compared to the differences between the predictors at level-1.

We can also compare the effects of level-2 variables in the proportional representation sample (PR) and the plurality samples within the two surveys (refer to Tables 5.4 and 6.3). In the PR sample in both the CSES and NES surveys, the results showed that the number of parties (ENEP) did not have an effect on correct voting. The PR sample results showed that the two most important level-2 variables in both surveys were party age and ideological difference. Party age and ideological difference were both positive and statistically significant for the CSES and NES proportional representation sample. In the plurality sample, the results showed that ENEP was highly statistically significant in all the models and the most influential factor in predicting correct voting (refer to Figures 5.2 and 6.2). Finally, the remaining institutional variables, personal vote and strategic vote, were not statistically significant in either the PR or the plurality sample.

The major differences between the CSES and NES survey exist at level-1 with education and political knowledge. The results presented in this Chapter and Chapter 5 show that the effects of the institutional variables do not significantly differ from the NES survey and CSES surveys. The results show that the institutional (level-2) variables are the most important in predicting correct voting in both surveys. Furthermore, the impact that these level-2 predictors have on correct voting is similar for the NES and CSES surveys. In both surveys, ENEP is statistically significant

and is most influential in plurality systems, while party age and ideological difference are statistically significant and the most influential in PR systems. The aggregate measures of correct voting showed different levels of correct voting for the NES and CSES surveys (see Table 3.1), and on average the aggregate NES survey measures were approximately 12.6% less than the aggregate CSES survey measures. However, the analysis presented in the last two chapters shows that the predictors of correct voting (particularly the institutional predictors) are fairly similar across surveys, and researchers doing further work on correct voting can use the CSES survey in order to test hypotheses about what independent variables determine correct voting.

The CSES measure of correct voting only accounts for party identification, ideology, and economic performance, whereas the NES measure of correct voting accounts for party identification, ideology, economic performance, government approval, and issue stands. The common survey questionnaire in the CSES survey makes it easier to compute correct voting, especially if one is interested in comparing the measures across country. On the other hand, computing a measure of correct voting from the NES survey is more time consuming and difficult. The surveys used in the NES are much bigger and have a much longer questionnaire, which means the researcher has to sort through each survey separately in order to determine which variables to use to determine correct voting. In addition to the longer questionnaire, most of the NES surveys are not translated into English, and individuals must have the surveys translated in order to use them.⁶ For these reasons, it is much more difficult to compute correct voting using the NES surveys. A preliminary analysis of the CSES and NES measures discussed in Chapter 3 showed that the CSES measure is approximately 12.6% higher than the NES measure. Regardless of this difference, there is still a high correlation (both Pearson and Spearman rank) between the CSES and

⁶Larger datasets were available for Denmark, Portugal, Spain, Czech Republic, and Portugal. However, they were not available in English, and I neither had the financial resources nor the time to have these surveys translated.

NES measures. Further analysis into what predicts correct voting using the NES and CSES data in this and the previous chapter demonstrate that there are some differences with the level-1 predictors, especially education and political knowledge, but not any major differences with the level-2 predictors. These differences at level-1 indicate that the researcher should be especially careful when using the CSES and including the education and political knowledge predictors. Other than this problem at level-1, the similarities in the results with the pooled sample, and with the PR and plurality/majority samples show that researchers can use the CSES survey to predict correct voting, and they can be confident in the results, especially from those predictors at level-2. If researchers are interested in getting an accurate measure of the effects of education and/or political knowledge, however, then it might be better to use the NES or larger surveys, even if it takes them a longer time to calculate correct voting.

Lau et al. (2008b) use the CSES to examine the determinants of correct voting in 69 elections within 33 countries. Correct voting here is calculated using party identification, ideology, and economic performance from the CSES surveys. Lau et al. (2008b) test several individual and institutional level variables in addition to the variables that I test here. Some of these predictors include ENEP, ideological difference, personal vote, compulsory voting, clear lines of responsibility, and an ENEP by ideological difference interaction. Comparing the results of the CSES surveys displayed in Chapter 5 with the results of the NES surveys discussed in this chapter, it is clear that the results are comparable especially at level-2. This should place some confidence in the Lau et al. (2008b) findings. Even though the analysis performed in this dissertation did not find that ideological differences and personal vote significantly effect correct voting in the pooled sample, this could be explained by the limited number of elections. Lau et al. (2008b) use four times as many macro level cases and countries, which means that their analysis is more comparative than the

one presented here and that there is more variance among the level-2 predictors.

Despite the reasons offered above for why one should use the CSES data as a substitute for the NES data, there are some reasons as to why this might not work. One of major problems is that the countries examined in this dissertation are established democracies. The results are similar among the CSES and NES surveys for established democracies, but it is unclear whether the results would be same among the two surveys for newly formed democracies (or democracies that have not been around for at least 25 years). It is difficult to make this comparison, since the sample used in this dissertation does not include any new democracies. There are no obvious reasons why the models presented here will not hold in newer democracies. The only reason for not including any newer democracies was the lack of data availability. It was hard to get the NES surveys or its equivalent from these newer or newly formed democracies. The results show similar results especially among the level-2 predictors between the CSES and NES surveys, and with the problems of data availability all researchers can do is assume that they can use CSES data for newly established democracies and also get accurate results. Assuming that CSES and NES are comparable for newer democracies, the next step would be to study the effects of these institutions in newer democracies and see if these institutional factors still hold in predicting correct voting. If the results are the similar for newer democracies, then policy makers can promote certain institutional factors in these newer democracies to get higher levels of correct voting.

CHAPTER VII

Conclusion

The descriptive analysis performed in Chapter 3 displayed fairly large differences between, within, and among the aggregate election measures of correct voting. The first comparison between these aggregate measures showed that there was a larger variation between countries than within countries. This suggested that institutional (level-2) predictors should be more important in predicting correct voting than individual (level-1) predictors. This was confirmed in the analysis using the CSES survey and the NES survey. The second comparison between the aggregate correct voting measures showed that the CSES surveys overestimate correct voting by an average of 12.6% (see Table 3.1). Despite the large mean difference between the NES and CSES measures, the two surveys ranked countries in a very similar manner ($r=0.7$). Chapters 5 and 6 produced similar results despite the large overestimation of correct voting from the CSES data. For both correct voting measures, the number of parties is the most important factor in predicting correct voting relative to all predictors at level-1 and level-2.

Dividing the cases by electoral systems (PR and plurality/majority) for both surveys, CSES and NES, I find that party age and ideological differences are very important in PR systems and the number of parties is most influential in plurality system. The number of political parties impacts correct voting in plurality systems and not PR

systems because plurality/majority systems are more candidate centric, which means that with each increasing party, the voters need to gather more new candidate-specific information in order to make the right decision. In plurality/majority systems, voters cannot rely on a party heuristic as much as they can in a PR system, thus making it even more difficult for them to make the correct vote choice as the number of political parties increases. PR systems are usually characterized as multiparty systems, and the number of parties does not affect correct voting. In PR systems, an increase in ideological difference and party age leads to a higher probability of making the correct vote choice. Unlike plurality systems, voters in PR systems can most certainly employ the party identification heuristic since citizens vote for the party, not the candidate. The candidates in PR systems adhere to party lines, which means that during each election no new information needs to be gathered as long as the political parties do not change. The older a political party (and the older the voter), the more information a voter has about the party. This increases the likelihood of the voter matching his/her own views with those of the party, which increases the chance of voting correctly in PR systems. In multiparty systems, political parties try to be distinct from other existing political parties, regardless of how many major political parties there are. This means that the more distinct the political parties, the higher likelihood of correct voting.

Looking at Table 3.1, we can see that the country with the lowest levels of correct voting out of all the plurality/majority systems was Canada. The Netherlands had the lowest levels of correct voting out of all the countries with a PR system. A brief description of the conditions surrounding these elections helps explain the low levels of correct voting. In Canada, there was a major change in the political party system and an increase in the number of parties. Smaller political parties were gaining support, and the whole party system was experiencing a major shift away from nationalism towards regionalism. The number of political parties in Canada

during the two elections examined was around four. This is higher than any of the other plurality/majority elections examined. The Netherlands, similar to Canada, was also experiencing some major changes during the 1998 and 2002 elections. In the Netherlands, the elections were followed by major instability among political parties and the emergence of new political parties. In fact, during both of the Dutch elections, political parties were not that ideologically distinct. The average ideological distinction between the political parties was 2 for both elections, which is the smallest average among all the PR elections examined. The number of parties in Canada, and the newer parties in the Netherlands with ideological similarities can help explain the lower levels of correct voting in these countries. These explanations, though idiosyncratic to these two countries, are very consistent with the larger theoretical story I am trying to tell.

Clearly, there is a difference in the effects of the level-2 predictors on correct voting within different electoral systems. So, which electoral system promotes higher levels of correct voting overall? To answer this question, it is necessary, once again, to look at the aggregate correct voting measures by electoral system. Table 7.1 below displays average levels of correct voting for plurality/majority and PR systems using both the CSES and NES surveys. The table clearly displays that in both surveys, levels of correct voting on average are greater for plurality/majority systems. The average correct voting measure for plurality systems is only 2% higher for the CSES survey and approximately 11% higher for the NES survey. These measures show that clearly plurality systems have slightly higher levels of correct voting than their PR counterparts.

Even though plurality systems have higher levels of aggregate correct voting, this does not imply that plurality systems are healthier or better than PR systems. There are advantages and disadvantages in both types of systems. Policy makers are encouraged to instill either type of electoral system because the two systems offer different

Table 7.1: **Average Aggregate Levels of Correct Voting**

Electoral System	Survey	
	<i>CSES</i>	<i>NES</i>
<i>PR</i>	71.69	54.83
<i>Plur/Majority</i>	74.08	66.18

advantages. Plurality/majority systems offer greater accountability since there is usually one seat per district and there are almost no instances of a governing coalition. Voters in plurality systems can better hold the candidate that won the seat in their district accountable if they are unhappy with the politician's performance. This is also true because voters know which party/candidate make up the government unlike in a PR system, which is governed by coalitions among political parties. Plurality/majority systems are also have clear electoral rules on how votes translate into seats. The electoral rules within plurality systems are straightforward: the candidate/party with the either a plurality or a majority of the votes wins the seat. It is easy for voters to understand how their casted vote will eventually translate into a candidate winning the seat. The most complicated electoral rule within the plurality/majority system is AV (alternate vote), where voters number the candidates in order based on their own preference. Instead of casting one vote, voters place a number next to each candidate, assigning "1" to their most preferred candidate, "2" to their second most preferred candidate, and so on. Even the AV electoral rule is quite simple for voters to understand over the electoral rules in PR systems.¹

¹In PR systems, the electoral rule is a little more complicated, and includes an electoral formula that determines how the votes translates into seats. There are a number of complicated formulas used to calculate how votes translate into seats, all of which determine how to allocate the seats. Some examples include the Hare LR, Droop LR, and more. Each of these electoral formulas are used to determine the number of seats political parties win based on the percentage of votes they receive. The basic equation of the formula for every PR system is: $Q(n) = \frac{V_d}{M_d + n}$, where V_d is the total number of valid votes in a district, M_d is the number of seats available in a district, and n is the modifier of quota. The n varies for the different electoral formulas, such as $n = 1$ for the Hare LR formula, $n = 2$ for the Droop LR. These are just a few examples of how votes translate into seats

PR systems also offer some desirable characteristics for an electoral system. In PR systems, the percentage of votes a party wins translates (for the most part) into the percentage of seats. This is nice because within PR systems there are usually a smaller percent of wasted votes than in a plurality/majority system. In PR systems, for instance, if a party wins 30% of the popular vote, this roughly translates into winning 30% of the seats. On the other hand, in plurality/majority systems, if one party wins 30% of the vote, a second party wins 45% of the vote, and the remaining percentages are divided among other political parties, this will result in 55% of the the votes being wasted, since only the party/candidate with the most votes will win the seat. Another advantage of having a PR system over a plurality system is representation of minority voters or interests. It is difficult for minority interests or smaller parties to win seats in plurality systems, which is not the case in PR systems. PR systems are set up so that smaller parties can win seats if they pass a certain, usually small, threshold. The type of system that is developed in newer democracies should depend on the demographics of its citizens, and other important factors, because there are advantages to both. If there are minorities in a country whose interested need to be represented, then a PR system should be established. If a country needs more accountability, then a majority/plurality system should be established.

In Chapter 1, we saw that correct voting is important because it is a much better indicator of the health of a democracy than voter turnout. It is not only important that citizens exercise their right to vote, but vote for the candidate that best aligns with their preferences. Citizens need to learn about the candidates and parties and take time to get to know the party/candidate platform before voting. They need

in PR systems. Another electoral formula is the d'Hondt, which determines the seats won based on the the total number of votes won by each party in a each district. This is divided by a series of numbers called divisors to give quotients. District seats are then allocated to the parties that have the highest quotient. The process through which votes cast are translated into seats is quite difficult to grasp in PR systems, much more so than plurality/majority systems.

to find out where the parties/candidates stand on issues, and compare where the party/candidate stands to their own views to find the best choice. It is only by doing this that a democracy can be healthy. In Chapter 3, we saw that plurality/majority systems have higher aggregate levels of correct voting. In Chapters 5 and 6, we saw what institutional (level-2) predictors play the most important role in predicting correct voting. Even though the aggregate results show higher levels of correct voting in plurality systems, this does not imply that all democracies should be plurality systems. For some new democracies, a PR system is needed in order for the government to represent minority interests. In instances like this, there can still be higher levels of correct voting if the political parties are ideologically distinct. If a new political party forms, it should do so where there is a void in the ideological scale and it should ensure it can be easily distinguished from other existing political parties. In newer PR systems, correct voting will increase over time as the political parties also get older and become more familiar to voters. This will give the voters time to learn about the parties and find out which party best suits their needs and aligns with their preferences.

If possible, future research on correct voting should use a larger number of countries to see if the most theoretically important institutional factors still hold within a larger number of democracies. The sample in this study only includes established democracies and not the newer democracies. Using the CSES surveys, one can do a large scale comparative study to see if ENEP has a negative effect only in plurality systems and/or if ideological difference and party age have a positive effect in PR systems. By including newer democracies, we can compare the results herein to see if these conditions hold within newer democracies in both types of electoral systems, which can give us an ever better idea of which institutional (level-2) factors are important in different electoral systems.

APPENDICES

APPENDIX A

The Data

CSES

The CSES, or the Comparative Study of Electoral Systems, surveys were obtained from the following website: <http://www.cses.org>. This dissertation used elections from Module 1 and Module 2. Only the following elections within the CSES dataset were used from Module 1: Australia 1996, Canada 1997, Germany 1998, Great Britain 1997, Netherlands 1998, New Zealand 1998, Sweden 1998, and Switzerland 1999. The following elections were used from Module 2: Australia 2004, Canada 2004, Great Britain 2005, Netherlands 2002, New Zealand 2002, Sweden 2002, and Switzerland 2003. Both modules are available for download from the following website: <http://www.cses.org/download/download.htm>.

NES

The National Elections Surveys all came from different sources. Below is a list of the name and source of the data for each election.

Australia 1996

Study Name: Australian Election Study, 1996

Archive: Australian Social Science Data Archive

Website: <http://www.assda.edu.au/>

Australia 2004

Study Name: Australian Election Study, 2004

Archive: Australian Social Science Data Archive

Website: <http://www.assda.edu.au/>

Canada 1997

Study Name: Canadian Election Survey, 1997

Archive: University of Toronto Data Library Service

Website: <http://www.chass.utoronto.ca/datalib/>

Canada 2004

Study Name: Canadian Election Survey, 2004

Archive: University of Toronto Data Library Service

Website: <http://www.chass.utoronto.ca/datalib/>

Germany 1998

Study Name: German National Election Study - Post-Election Study, 1998

Archive: Central Archive for Empirical Social Research, University of Cologne

Website: <http://www.gesis.org/en/redirect/former-institutes/>

Great Britain 1997

Study Name: British General Election Study: Campaign Panel, 1997

Archive: UK Data Archive

Website: <http://www.data-archive.ac.uk/>

Great Britain 2005

Study Name: British General Election Study: 2005

Archive: UK Data Archive

Website: <http://www.data-archive.ac.uk/>

Netherlands 1998

Study Name: Dutch Parliamentary Elections, 1998

Archive: Data Archiving and Networked Services (DANS)

Website: <http://www.dans.knaw.nl/en>

Netherlands 2002

Study Name: Dutch Parliamentary Elections, 2002

Archive: Data Archiving and Networked Services (DANS)

Website: <http://www.dans.knaw.nl/en>

New Zealand 1998

Study Name: New Zealand Election Survey, 1996

Archive: New Zealand Election Survey

Website: <http://www.nzes.org/exec/show/data>

New Zealand 2002

Study Name: New Zealand Election Survey, 2002

Archive: New Zealand Election Survey

Website: <http://www.nzes.org/exec/show/data>

Sweden 1998

Study Name: Swedish Election Study, 1998

Archive: Swedish Social Science Data Service

Webstie: <http://www.ssd.gu.se/en/catalogue>

Sweden 2002

Study Name: Swedish Election Study, 2002

Archive: Swedish Social Science Data Service

Webstie: <http://www.ssd.gu.se/en/catalogue>

Switzerland 1999

Study Name: Eidgenössische Wahlen 1999: Das Verhalten der Wählerinnen und Wähler im nationalen und im regionalen Kontext

Archive: SIDOS Swiss Information and Data Archive Service for the Social Science

Switzerland 2003

Study Name: Eidgenössische Wahlen 2003: Das Verhalten der Wählerinnen und Wähler im nationalen und im regionalen Kontext

Archive: SIDOS Swiss Information and Data Archive Service for the Social Science

Election Results

The data displayed in Chapter 4, the results of the elections, were all obtained from Adam Carr's election archive's website. For more information about these results, go to <http://psephos.adam-carr.net/>. If the election results were not found from Adam Carr's website, I used the Election Results Archive from Binghamton University, SUNY. Similar to Carr's website, this website provides the results of previous elections. The election results from Binghamton University, SUNY can be found at <http://cdp.binghamton.edu/era/countries/>.

APPENDIX B

The Dependent Variable

CSES

Measuring correct voting using the CSES surveys was based on party identification, ideology, and economic performance variables. Since the CSES surveys in all elections had a common survey questionnaire, party identification, ideology and economic/government performance were calculated using the same variables.

Party Identification

Respondents were asked whether they usually think of themselves close to any particular political party in their country, and to state how close they felt to each party. This belief is completely subjective, i.e. the evaluation is self reported by the individual.

Ideology

Respondents placed themselves on an 11 point left-right ideology scale, which was used as a measure of subjective personal political ideology. The CSES also

provided expert judgements about where the political parties stood on that same left-right scale. Using the direction algorithm, respondents self reported placement on the ideological scale was combined with the expert judgement of political parties to estimate which political party the respondent was closest to ideologically (Rabinowitz and MacDonald, 1989).

Economic/Government Performance

In Module 1, respondents were asked to retrospectively evaluate the current state of the economy, and changes within the economy over the last year. In Module 2, respondents were asked to evaluate government performance over the last year. For both of these questions, a positive indication of the economy/government performance was assumed to positively affect the incumbent party or governing coalition, while negative evaluations was assumed to have the opposite effect on the incumbent party.

NES

Measuring correct voting using the NES surveys were based on party identification, ideology, economic performance, government approval, candidate traits, and policy stands. Unlike the CSES surveys, the NES surveys did not have similar survey questionnaires, which mean that each variable was measured with different survey questions. Regardless, all of the differences among the surveys, I was able to find similar enough questions to measure party identification, ideology, economic performance, and government approval. The differences among the elections exist mainly with candidate traits and policy stands.

Party Identification

Party identification was measured using three or more questions that ask respondents how they feel about particular political parties as well as how close they are

to these parties, or how strongly they identify or associate themselves to with these particular parties. Responses to these questions were combined for each respondent with a new one point range. Each respondent is measured based on how close they are to various different political parties. The number of political parties that respondents evaluated here were different for each election. Below is a list of the political parties by election. This list includes all the parties that respondents were asked to evaluate in an election.

- Australia 1996: Liberal, National, Labor, Democrats, Green
- Australia 2004: Liberal, National, Labor, Democrats, Green
- Canada 1997: Liberal, PC, NDP, Reform, Bloc
- Canada 2004: Liberal, PC, NDP, Bloc
- Germany 1998: CDU, CSU, SPD, FDP, Green, PDS
- Great Britain 1997: Conservative, Labor, Liberal Democrats
- Great Britain 2005: Labor, Conservative, Liberal Democrats
- Netherlands 1998: PVDA, VVD, D66, Green, CDA, GPV, SP
- Netherlands 2002: PVDA, VVD, D66, Green, CDA, LPF, SP
- New Zealand 1998: National, Labor, NZF, Alliance, Green
- New Zealand 2002: National, Labor, NZF, Alliance, Green
- Sweden 1998: Left, Moderate, People's Party, Democrat, Green, Christian
- Sweden 2002: Left, Moderate, People's Party, Democrat, Green, Christian
- Switzerland 1999: FDP, CVP, SPS, SVP
- Switzerland 2003: FDP, CVP, SPS, SVP

Ideology

Respondents placed themselves on an 11 point left-right ideology scale, which was used as a measure of political ideological self-identification. The CSES also provided expert judgements about where the political parties stand on that same left-right scale. Using the direction algorithm, respondents self reported placement on the political ideological scale was combined with the expert judgement of political parties to estimate which political party the respondent is closest to ideologically (Rabinowitz and MacDonald, 1989). This factor was also rescaled to have a range equal to 1. The variable indicated for each respondent, how close a respondent was ideologically to various political parties. The number of political parties varied by election. The list of political parties and the expert ratings for each political party by election is shown in Table B.1.

Economic Performance

Economic performance was based on one or more questions that asked respondents to evaluate the country's economy in the past year or past four years. The number of questions that were combined to create this variable depends on the survey. In order to be thorough and to have a good measure of economic evaluations, I used as many questions from each survey that asked respondents to evaluate the state of the economy retrospectively. In all instances, numerical scores for the responses to each question were averaged and rescaled to a one point range. There was at least one question that asked respondents to evaluate the economy for each survey. A positive indication of the economy/government performance was assumed to positively affect the incumbent party or governing coalition, while negative evaluations were assumed to have the opposite effect.

Government Evaluation

Government performance was based on one or more questions that asked respondents to evaluate the ruling government's performance over the past year or since coming to office. Numerical scores for the responses to each question were averaged and rescaled to a one point range. Every survey asked at least one question asking respondents to evaluate government performance, except for Germany 1998, and New Zealand 1996. For the Germany 1998 and New Zealand 1996 elections, this factor was not included in the correct voting measures. A positive evaluation of government performance were assumed to positively affect the ruling party/parties, a negative evaluation was assumed to have the opposite effect.

Policy Stands

The number of policy stands for each election varied based on the survey questionnaire. Respondents were evaluated on how they felt about different policies in each election. This subjective evaluation was combined with an objective evaluation of the political experts (in this case it was those individuals who had high levels of political knowledge). For instance, if respondents were asked to evaluate taxation policy, this was combined with political experts knowledge of where each political party stood on the taxation policy. In order to correctly combine the subjective evaluation with an objective measure, the surveys needed to ask questions about where political parties stood on particular issues. Unfortunately, surveys only asked where some political parties stood on particular issues, so the number of political parties evaluated for each policy stand is limited. Below is a list of the political parties and policy stands that were evaluated for each election.

- Australia 1996

- Policy Stands: Respondents were only asked where they thought two po-

litical parties—labor and liberal—stood on thirteen issues. The issues include taxation, immigration, education, environment, industrial relations, health, Asia, defense, interest rates, unemployment, privatization, inflation, and state relations.

- Australia 2004

- Policy Stands: Respondents were only asked where they thought two political parties—labor and liberal—stood on twelve issues. The issues include taxation, immigration, education, industrial relations, health, refugees, defense, interest rates, unemployment, Iraq, and terrorism.

- Canada 1997

- Policy Stands: Respondents were asked where they thought five political parties—PC, Liberal, NDP, Bloc, and Reform—stood on seven issues. The seven issues are taxes, national unity, jobs, election promises, Quebec, social programs, and fighting crime.

- Canada 2004

- Policy Stands: Respondents were asked where four parties—PC, Conservative, NDP, and Bloc—stood on thirteen issues. The 13 issues are environment, Canada in international relations, crime, health care, traditional family values, social welfare, taxes, unity, jobs, provincial government, religion, same sex marriage, and corruption.

- Germany 1998

- Policy Stands: Respondents were asked where two major parties—CDU/CSU and SPD—lie on seven issues. The seven issues are unemployment, tax,

securing pension, delinquency, environment, foreign migration, and competitive industry.

- Great Britain 1997
 - Policy Stands: Respondents were asked where two major political parties—Labor and Conservative—stood on three issues. The three issues are economy, taxation, and health care.
- Great Britain 2005
 - Policy Stands: Respondents were asked where five political parties—Labor, Conservative, Liberal Democrats, SNP, and Plaid Cymru—stood on two issues. The two issues are taxation and European Union.
- Netherlands 1998
 - Policy Stands: Respondents were asked where six political parties—CDA, PVDA, VVD, D66, Green, and GVP—stand on seven issues. The issues are euthanasia, income differences, asylum seekers, European Union, minorities, social welfare, and nuclear weapons.
- Netherlands 2002
 - Policy Stands: Respondents were asked where six political parties—CDA, PVDA, VVD, D66, and LPF—stand on seven issues. The issues are euthanasia, income differences, asylum seekers, crime, European Union, minorities, and nuclear weapons.
- New Zealand 1998
 - Policy Stands: Respondents were asked to evaluate sixteen issues for four political parties—National, Labor, NZF, and Alliance. The sixteen issues

are inflation, unemployment, growth, taxes, defense, immigration, health, welfare, law and order, education, industrial relations, superannuation, environment, health care, police, redistribution and income.

- New Zealand 2002

- Policy Stands: Respondents were asked to evaluate seven issues for five political parties—National, Labor, NZF, Alliance, and Green. The seven issues are health, education, economy, growth, tax, law, and unemployment.

- Sweden 1998

- Policy Stands: Respondents were asked to evaluate fifteen issues for five political parties—Left, Moderate, Democrat, People’s and Green. The fifteen issues are employment, environment, taxes, economy, energy/nuclear power, foreign and security policy, social security, care for elderly, EU, EMU, refugees, law and order, equality, school and education, and child care.

- Sweden 2002

- Policy Stands: Respondents were asked to evaluate fifteen issues for five political parties—Left, Moderate, Democrat, People’s and Green. The fifteen issues are employment, environment, taxes, economy, energy/nuclear power, business, social security, care for elderly, EU, foreigners, law and order, equality, school and education, and child care.

- Switzerland 1999

- Policy Stands: Respondents were asked to evaluate eleven issues for four political parties. the four political parties are FDP, CVP, SVP, and SPS.

The 11 issues are tax, income, market, EU, foreigners, tradition, Swiss Army, law and order, social expenditure, environment, and nuclear energy.

- Switzerland 2003
 - Policy Stands: Respondents were asked to evaluate six issues for four political parties. the four political parties are FDP, CVP, SVP, and SPS. The six issues are tax, job security, EU, foreigners, and nuclear energy.

For the policy stands, the respondents were asked to self identify their stands on the issue, along with evaluate the political parties' stand on the issues. The evaluations of the political parties were averaged for those with high levels of political knowledge, and this was used as the objective measure, which was combined with the respondents' subjective measure. In the end there was an indication of how close each respondent was to each political party for each issue.

**Table B.1: Political Parties and Ideological Ratings
by Election**

Australian Parties	1996 Rating	2004 Rating
Liberal	5.5	6
National	6.5	6
Labor	4.5	4
Democrats	4	3
Green	3.5	2

Canadian Parties	1997 Rating	2004 Rating
Liberal	5	5
Reform	8	
PC	6	
Conservative		7
New Democrats	3	3
Bloc Quebec	3.5	3
German Parties	1998 Rating	
SPD	4	
CDU/CSU	6	
Green	3	
FDP	7	
PDS	3	
British Parties	1997 Ratings	2005 Ratings
Labour	4	4
Conservative	8	7
Liberal Democrats	4	4
Scottish National Party	4	4
Plaid Cymru	3	4

Dutch Parties	1998 Ratings	2002 Ratings
PVDA	4	5
VVD	7	7
CDA	6	6
D66	5	5
Green	3	4
RPF		87
List Pim Fortuyn		7
CU		7.5
New Zealand Parties	1996 Ratings	2002 Ratings
Labor	4	4
National	7	8
New Zealand First	6	6
Alliance	3	2
Act NZ	9	9
United	6	6
Green	1	3
Swedish Parties	1998 Ratings	2002 Ratings
Social Democrats	4	
Moderate Rally	8	
Left	2	
Christian Democrat	7	
Centre	6	
People's	7	
Green	4	

Swiss Parties	1999 Ratings	2003 Ratings
SVP/UDC	8	8
SDP	3	3
FDP	7	7
CVP	6	6
GPS	2	2

APPENDIX C

The Independent Variables

Individual (level-1) Independent Variables

The individual level variables are the same for the CSES and NES. The major difference is with political knowledge variable, which is based on more questions in the NES data analysis than the CSES data analysis.

- Age and Education: This variable is measured in years, come from individual level items that are self reported by the respondent.
- Political Knowledge: Measured by the proportion of correct answer to factual questions asked in Surveys. In the CSES, the number of questions asked ranges from 3 to 5 factual questions. In the NES surveys, the total number of factual questions asked ranges from 5 to 18 questions.
- Political Efficacy: Measured using survey questions that ask respondents to evaluate their views towards voting (whether or not it makes a difference) and/or their views towards the political process (whether it is effective). The CSES is based on a combination of one or two questions—the importance of voting, and

whether their votes make a difference. The NES is based on a combination of one to four questions of this nature.

Institutional (level-2) Independent Variables

Since the same elections were used when separately analyzing the CSES and NES data, the measurement of the level-2 variables within each analysis are the same.

- ENEP was calculated using the Laakso and Taagepera (1979) formula:

$$ENEP = \frac{1}{\sum v_i^2}$$

where v_i is the percent of votes obtained by the i th party.¹ This data was taken from the contextual dataset distributed by Matias Bargsted and CSES. You can find this data from the CSES website:

<http://www.cses.org/download/contributions/contributions.htm>

- Ideological difference was calculated by taking the average difference between the major parties. The ideological placement of the parties was obtained from the expert responses included in the CSES data. Since the same elections were analyzed, these expert responses were also used for the NES data. In order to calculate the ideological difference, I took every possible combination of absolute difference between parties and averaged them for each election. For instance, suppose an election had three political parties and party A was given a rating of 6 by experts, party B a rating of 4 and party C a rating of 8. I first found the absolute difference between parties A and B, parties A and C, and parties B and C. Once I found all the possible absolute differences, I simply took their average.
- Party age was calculated using the average age of political parties for each election. The party age is measured for all parties involved in the analysis.

¹For more details about this calculation, see Laakso and Taagepera (1979)

The age of political parties was obtained from their individual websites. I used their established date and obtained the age for each political party by taking the current year (2010) and subtracting it from the established date. Next, I averaged the ages of all the political parties that were involved for each election.

- **Personal Vote:** Incentives for personal vote will be measured using Carey and Shugart's (1995) methodology. This measure is based on three different factors, each on a 2 point range, where 0 indicates a party vote and 2 indicates a personal vote. The first factor is ballot (which measures the degree of control party leaders have over the party label: 0=leaders present a fixed ballot, voters may not disturb list; 1=leaders present party ballots, but voters may disturb lists; 2=leaders do not control access to ballots or rank). The second factor is pooling (measures whether votes cast for one candidate of a given party also contribute to the number of seats won in a district by the party as a whole: 0=pooling across whole party; 1=pooling at sub-party level; 2=no pooling), and vote measures that range from 0 to 2). The last factor is votes (which measures if voters are allowed to cast a single vote for a party, multiple votes, or vote for candidate: 0=single vote for one party; 1=multiple vote for multiple candidates; 2=single vote below party level). Carey and Shugart (1995) then take all possible combinations of the different ballot, pool, and vote measures, and create a ranking order from zero to thirteen to categorize all types of electoral systems. Within this thirteen range measure, zero indicates the lowest incentive for a personal vote and highest incentive for a party vote, while thirteen indicates the highest incentive for a personal vote.

These measures were taken from the updated database available from Joel Johnson's webpage: <http://dss.ucsd.edu/~jwjohnso/espv.htm>.

- In order to measure the strategic vote variable at the aggregate level, I used

an ordinal scale created by Gschwend (2006). This scale places electoral systems on a 6 point range, where zero is a system that has no incentives to vote strategically and 6 is a system where voters have high incentives to vote strategically. This scale was determined based on the strategic voting literature that discusses the types of systems that are more likely to promote strategic voting. Gschwend (2006) comes up with an ordinal scale for different types of electoral systems: 0=Pure PR systems, 1=Alternate Vote, 2=Adjusted MMD, 3=Multi-Member Districts, 4=Single Member Districts, 5=Non-compensatory Mixed, and 6=Compensatory Mixed.

Table C.1: **Institutional (Level-2) Level Data**

Country	Electoral System	Year	ENEP	Ideological Difference	Party Age	Personal Vote	Strategic Vote
Australia	Plur/Maj	1996	3.18	1.00	78.50	8	1
		2004	3.13	2.00	86.50	8	1
Canada	Plur/Maj	1997	4.09	2.60	47.40	10	4
		2004	3.79	2.33	48.50	10	4
Great Britain	Plur/Maj	1997	3.22	2.67	63.67	10	4
		2005	3.59	2.00	41.67	10	4
New Zealand	Plur/Maj	1996	4.44	3.00	30.00	10	6
		2002	4.14	2.93	24.31	10	6
Germany	Proportional	1998	3.30	2.20	53.20	1	6
Netherlands	Proportional	1998	5.14	2.00	32.20	3	0
		2002	6.02	2.00	30.23	3	0
New Zealand	Proportional	1996	4.44	3.00	30.00	10	6
		2002	4.14	2.93	24.31	10	6
Sweden	Proportional	1998	4.54	2.67	83.17	2	2
		2002	4.51	2.67	87.17	2	2
Switzerland	Proportional	1999	5.87	3.20	82.20	3	3
		2003	5.46	3.20	86.20	3	3

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