

The Role of Political Sophistication in the Decision-Making Processes of Voters

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DEDICATION

To my parents.

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ABSTRACT

Since the origination of the scientific study of voting behavior in the 1950s and 1960s, political scientists have developed several models of voting behavior. As those models were tested empirically, scholars were faced with a seeming contradiction: while voters in general are poorly-informed about politics, they nonetheless are capable of making voting decisions that are consistent with their fully informed preferences.

Lodge, Stroh and Wahlke (1990) posited that none of these preexisting models could adequately explain voter behavior, because they failed to explain the mechanisms that led to voters' decisions. However, relatively few studies have been done to understand how these mechanisms work, and the areas of research that have attempted to explain these mechanisms have generally been seen as lacking methodological rigor. In more recent years, scholars have looked at the use of heuristics and affect as "cognitive shortcuts," but have generally failed to provide a compelling explanation of how and when voters can make use of them, beyond demonstrating that they appear to do so.

In particular, relatively little attention has been paid to the question of which heuristics are available to particular voters. While the use of heuristics is generally considered to be an individual-level phenomenon, we should expect that various groups of voters should process information in similar ways. In particular, it is reasonable to believe that voters who are more aware of politics can draw upon more sources of information when making evaluations, while less sophisticated voters are more limited in their ability to draw inferences due to their lack of

knowledge.

This dissertation demonstrates how voters make use of political information and heuristic devices in different ways based primarily on their their level of political sophistication—their ability to comprehend and apply political information when evaluating issues or making voting decisions.

TABLE OF CONTENTS

I	INTRODUCTION	1
II	THE CONCEPT OF POLITICAL SOPHISTICATION	7
	2.1 The Levels of Conceptualization	8
	2.2 Constraint and Schematic Approaches	12
	2.3 Political Expertise and Political Sophistication	15
	2.4 Rational Choice Perspectives on Sophistication	19
	2.5 Toward a Unified Meaning of Sophistication	22
III	HEURISTICS AND COGNITIVE SHORTCUTS	25
	3.1 Classical Studies of Voting Behavior	25
	3.2 Decisions Under Limited Information	30
	3.3 Heterogeneity in Decision-Making Processes	33
IV	THE LIKABILITY HEURISTIC IN POLICY EVALUATION	37
	4.1 Theoretical Background	39
	4.2 Hypotheses and Independent Variables	45
	4.3 Data and Methodology	46
	4.4 Results	48
	4.5 Conclusions	51
V	COALITION PERFORMANCE AND THE ASSESSMENT OF PARTY RESPONSIBILITY	54
	5.1 Theoretical Background	55
	5.2 The Case of the Netherlands	59
	5.3 Hypotheses	62
	5.4 Data and Methods	65
	5.5 Results	70

5.6	Conclusions	87
5.7	Appendix: The measure of political sophistication	89
5.7.1	Knowledge Items	91
5.7.2	Item-Response Theory Models	92
5.7.3	Estimation and Results	94
VI	DUVERGER'S LAW, POLITICAL SOPHISTICATION AND STRATEGIC VOTING	97
6.1	Literature Review	98
6.2	Theory	102
6.3	An Aggregate Analysis of the 1992–2000 Elections	105
6.4	Hypotheses	108
6.5	Data and Methods	110
6.6	Results	114
6.7	Conclusions	123
VII	CONCLUSIONS	126
7.1	Refining the measurement of sophistication	127
7.2	The impact of low sophistication on democracy	129
	REFERENCES	134
	VITA	153

LIST OF TABLES

Table 1	The levels of conceptualization in <i>The American Voter</i>	9
Table 2	Bivariate probit model of support for government health insurance and Clinton's handling of health care reform.	49
Table 3	Hypotheses tested in the model of evaluation formation.	64
Table 4	Hypotheses tested in the model of vote choice.	66
Table 5	Variables in the Dutch election models.	67
Table 6	Descriptive statistics for metric variables in the Dutch models. . . .	71
Table 7	Descriptive statistics for dummy-coded variables in the Dutch models.	71
Table 8	Descriptive statistics of intended vote choice in the 1998 DPES (with comparison to the actual election results).	72
Table 9	Ordered logit model of voter satisfaction with the 1994–98 Dutch government's performance using unadjusted sympathy scales. . . .	73
Table 10	Ordered logit model of voter satisfaction with the 1994–98 Dutch government's performance using adjusted sympathy scales.	74
Table 11	The effects of interactions between sophistication and adjusted party sympathy scales.	75
Table 12	Multinomial logit model of intended vote choice (coalition performance satisfaction measure).	82
Table 13	Multinomial logit model of intended vote choice (general performance measure).	83
Table 14	The effects of interactions between sophistication and general performance.	85
Table 15	Sophistication measures included in the 1998 DPES	90
Table 16	Knowledge items in the item-response theory model	92
Table 17	Parameters of the item-response theory model	95
Table 18	Aggregate-level analysis of third-party voting in the 1992, 1996, and 2000 presidential elections.	108

Table 19	Hypotheses tested in the models of strategic voting.	109
Table 20	Correspondence between common included variables and ANES variable numbers.	112
Table 21	Coding of variables in models	113
Table 22	Results of the 1992 individual-level model.	115
Table 23	Results of the 1996 individual-level model.	116
Table 24	Results of the 2000 individual-level model.	117

LIST OF FIGURES

Figure 1	Venn diagram of policy and policymaker opinions.	41
Figure 2	The case of an obscure policymaker.	43
Figure 3	A nonlinear relationship between sophistication and heuristic use.	44
Figure 4	Estimated effect of affect toward Hillary Clinton on approval of health care reform by respondent's level of sophistication.	52
Figure 5	The impact of political sophistication on the use of affect toward Labour (PvdA) as a heuristic for evaluating coalition performance.	76
Figure 6	The impact of political sophistication on the use of affect toward the VVD as a heuristic for evaluating coalition performance.	77
Figure 7	The impact of political sophistication on the use of affect toward D66 as a heuristic for evaluating coalition performance.	78
Figure 8	The impact of political sophistication on the use of affect toward the CDA as a heuristic for evaluating coalition performance.	79
Figure 9	The effect of government performance evaluations on predicted probability of vote choice among less sophisticated voters.	85
Figure 10	The effect of government performance evaluations on predicted probability of vote choice among more sophisticated voters.	86
Figure 11	Predicted probabilities of an independent voter casting a ballot for Ross Perot in 1992.	119
Figure 12	Predicted probabilities of an independent voter casting a ballot for Ross Perot in 1996.	120
Figure 13	Predicted probabilities of an independent voter casting a ballot for Ralph Nader in 2000.	121

CHAPTER I

INTRODUCTION

This dissertation is largely concerned with the importance of *political sophistication*—the degree to which citizens are knowledgeable about politics and capable of making decisions that are consistent with their self interest.¹ In particular, it is concerned with how voters with varying levels of sophistication make political decisions—how they decide to vote, how they evaluate issues, and how they judge the performance of their current government. These are three key tasks that voters are expected to be able to perform, yet the overwhelming evidence from four decades of scientific study of mass political behavior in the United States and other countries suggest they are woefully unprepared for them, at least to the extent that factual knowledge about politics is important.

However, many scholars believe that voters' lack of factual knowledge can be compensated for through other means—that citizens can act as if they are fully-informed, despite failing to know everything they “need” to. These scholars argue that various “shortcuts,” or *heuristics*, can be used by voters in lieu of complete knowledge of politics and lead generally to decisions that are sufficiently similar to those made by fully-informed voters. On the other hand, there are other researchers

¹Political sophistication, and similar concepts, are also known as political expertise, political awareness, and civic competence. A thorough review of the use of the concept in political science appears in Chapter 2.

who argue that these shortcuts often lead voters to make incorrect decisions—choices that are inconsistent with the decisions that would be made if citizens were fully informed.

In the following chapters, I attempt to examine whether or not these heuristic devices can adequately compensate for the general lack of knowledge and political awareness in mass publics. Perhaps more importantly, I also consider whether these devices are more useful among politically sophisticated voters than among less informed members of the electorate. I also examine whether higher levels of political sophistication are associated with greater understanding of the electoral environment. In addition, I examine whether the concept of political sophistication, as developed in the American politics tradition, is generalizable to other contexts.²

The two chapters following this one review the existing literature and provide the broad theoretical framework for this dissertation. Chapter 2 traces the evolution of the concept of political sophistication in political science and related fields, including some of the evolutionary cul-de-sacs, from the initial understanding of sophistication embodied in *The American Voter* (Campbell et al. 1960), through more modern approaches drawing on psychological research and improved understanding of the survey response. Next, Chapter 3 reviews the literature on the possibility that voters can use limited information to make political decisions, primarily through the use of heuristics or cognitive shortcuts.

The next two chapters examine the use of potential heuristic devices by voters. Chapter 4 examines whether voters can use their attitudes toward political figures

²While the generalization of sophistication may seem to be obvious, other apparently “universal” political concepts developed in the American context have failed to have the same meaning in other contexts. The most obvious example is that of party identification (Budge, Crewe and Farlie 1976).

as a heuristic for deciding their stances on contemporary political issues. The particular case considered is whether American voters interviewed for the 1994 National Election Study were able to evaluate the health care issue by using their attitudes toward then-First Lady Hillary Rodham Clinton, who was responsible for the Clinton Administration's national health care plan, as a heuristic for deriving their own personal attitudes toward the proposal. In particular, this chapter examines the question of whether heuristic use is conditional on the voter's level of political knowledge, particularly when citizens attempt to formulate opinions on more abstract issues, and finds that the use of attitudes toward the former First Lady as a heuristic was largely confined to relatively sophisticated segments of the public, suggesting that, in practice, heuristics fail to compensate for the informational shortfalls of the public.

The next chapter examines the use of partisanship—attitudes toward political parties—as a heuristic device by voters. Chapter 5 looks at the possibility that voters use their underlying attitudes toward political parties to decide whether or not those parties are governing effectively—in short, whether voters can properly attribute blame or credit for government policies to the political parties responsible for them. Specifically, this chapter examines how voters interviewed by the 1998 Dutch Parliamentary Election Study used their attitudes toward major political parties—inside and outside the coalition government—to make evaluations of the government's performance, and how those performance evaluations affected their voting decisions. As in the previous chapter, I examine whether the use of partisanship as a heuristic is conditional on the voter's level of political sophistication. I also build on work by Delli Carpini and Keeter (1996), demonstrating that a class of latent variable models known as *item-response theory models* can be used to produce

valid measures of political sophistication where there is no observational measure of the concept.

The final analytical chapter, Chapter 6, departs from the theme of heuristics that underly the previous chapters. Instead, this chapter examines whether voters engage in “conditional strategic voting”—choosing between sincere and strategic voting on the basis of the anticipated closeness of elections—and whether this behavior is more prevalent among more sophisticated voters. In this chapter, I examine voting behavior in the 1992, 1996, and 2000 U.S. presidential elections, and test whether voters were more likely to vote strategically—support a major-party candidate instead of a minor-party candidate they might prefer—in states where the presidential election was anticipated to be close; I also test whether or not more sophisticated voters are more likely to vote strategically in these so-called “battleground” states.

Finally, Chapter 7 reviews the findings of this dissertation, attempts to reach some tentative conclusions about the effectiveness of cognitive shortcuts and whether or not they can adequately replace higher levels of political knowledge, and proposes future avenues for research, including suggesting that political scientists need to gain a better understanding of how people become more politically sophisticated and whether civic education—the remedy most often proposed in the literature—is an effective tool for increasing sophistication over time.

This dissertation includes a number of contributions to our understanding of political sophistication and its meaning in political science. One contribution is improving our understanding of the effect of differential levels of sophistication on the evaluative processes of voters and on their vote choices. Most of the extant

literature has assumed that voters make evaluations and decisions in roughly the same way regardless of their level of sophistication; by contrast, the models of vote choice and opinionation presented in this dissertation allow the impact of key explanatory variables to vary depending on the respondent's level of sophistication, thus permitting us to consider how the differing resources and abilities of voters affect the decisions that are made by voters.

As noted above, this dissertation also proposes the use of item-response theory models, rather than additive or other *ad hoc* scales, as a measurement technique when combining multiple items that are believed to be indicators of sophistication, and demonstrates their use. Item-response theory models provide researchers with indicators of the relative quality of each knowledge item, and may suggest particular types of knowledge item that better measure sophistication than others. These models have a number of benefits: they allow future survey designers to concentrate on including items that are likely to be good indicators without subjecting respondents to large batteries of knowledge questions, facilitate comparisons between different potential indicators of sophistication, and can provide reliable, objective measures of sophistication based on a limited number of items.

I also consider the universality of political sophistication; that is, whether political sophistication is a meaningful concept outside the United States. While there are good reasons to believe that sophistication has an important role in the decision-making of voters worldwide, few scholars have examined this role to confirm its apparent universality. By measuring, and testing the impact of, sophistication in a very different electoral context than that found in the United States—a large, multiparty parliamentary system characterized by coalition governments with strong religious and distributional cleavages—we can determine whether sophistication

is truly a universal concept, or if it is simply an artifact of the American political system.

Finally, I consider whether or not rational choice and psychological perspectives on political sophistication can truly be reconciled, as some scholars have suggested (see, for example, Lupia 2002 and Carmines and Huckfeldt 1996). While there has been considerable consensus on the actual measurement of the concept of sophistication between these traditions, there remains a notable lack of consensus on the substantive meaning of the concept: is sophistication a necessarily tautological concept, as some political psychologists have seen it, or does it have a truly independent effect on how people process and use political information? I hope to at least provide a partial answer to that question in the subsequent chapters.

CHAPTER II

THE CONCEPT OF POLITICAL SOPHISTICATION

Ever since the first studies of political behavior, political scientists have been aware of vast differences between the level of political knowledge of the American public and that expected in democratic theory. Berelson, Lazarsfeld and McPhee (1954) note:

The democratic citizen is expected to be well informed about political affairs. He is supposed to know what the issues are, what their history is, what the relevant facts are, what alternatives are proposed, what the party stands for, what the likely consequences are. By such standards the voter falls short (308).

From this statement about the lack of knowledge of citizens, a literature on the concept of *political sophistication* (sometimes discussed using different terminology) has evolved. This chapter examines that evolution, from its roots in *The American Voter* (Campbell et al. 1960) and *An Economic Theory of Democracy* (Downs 1957) to its present usage. In particular, it examines the divergence in how different traditions within the discipline view the concept of political sophistication. While Carmines and Huckfeldt (1996) note that “each of the three traditions [rational choice, sociological, and psychological approaches] has addressed a distinct challenge to democratic theory” and that “they have also tended to converge on a unified view of the citizen in democratic politics” (224), important differences in perspective between these branches remain—including on the meaning of the

concept of sophistication.

2.1 The Levels of Conceptualization

Campbell, Converse, Miller and Stokes's path-breaking study of the American polity was the first to discuss the concept of political sophistication, although it did not directly employ that term. Noting the vast range in the amount of knowledge Americans have about politics, they attempted to classify the electorate into groups based on the sophistication of individuals' conceptualization of politics. They described what they sought to measure as follows:

We are interested in the presence or absence of certain abstractions that have to do with ideology; but we are also interested in the degree to which an individual's political world is differentiated, and, most important, in the nature of the degree of "connectedness" between the elements that are successfully discriminated. In short, we are interested in the structure of thought that the individual applies to politics; and this interest forces us to deal in typologies and qualitative differences (221–22).

Subsequently, they established a typology of four levels of conceptualization (identified as levels A–D), based on a reading of the responses to the open-ended "likes and dislikes" questions they included in the 1956 American National Election Study.¹ Level A consisted of "all respondents whose evaluations of the candidates and the parties have any suggestion of the abstract conception one would associate with ideology" and the three lower levels consisted of those expressing "fairly

¹Since 1956, the presidential-year NES studies have included a series of open-ended questions asking respondents to identify things they like and dislike about the two major parties and the two parties' presidential candidates; they have commonly been referred to as the "likes and dislikes" questions since.

Level	Description	Approximate percentage of the 1956 electorate
A	Ideologues and near-ideologues	11.5
B	Group benefits (“ideology by proxy”)	42.0
C	Nature of the times	24.0
D	No issue content	22.5

Table 1: The levels of conceptualization in *The American Voter*

concrete and short-term group interest” or “ideology by proxy” (level B), attitudes reflecting their perceptions of the state of the times (level C), and those whose attitudes toward the two major parties and presidential candidates were unconnected with domestic policy (level D) (222–23). The bulk of the sample fell into levels B–D, with only about 11.5 percent showing some degree of ideological conception (level A) (249). Campbell et al. also demonstrated that the higher levels of conceptualization were associated with higher levels of education and political involvement. The levels and their proportion of the 1956 electorate are summarized in Table 1, reproduced from *The American Voter*.

Converse (1964) expanded on, and revised, the levels of conceptualization and introduced the concept of a “belief system” to generalize the concept of ideology used by Campbell et al.. He defined a belief system “as a configuration of ideas and attitudes in which the elements are bound together by some form of constraint or functional dependence” (207). Converse argues that the level of constraint in a person’s belief system is largely a function of the level of information that individual possesses; by information, he means both simple facts and the “contextual knowledge” or essential relationships between those facts (212–13). He examined two different approaches to measuring the level of sophistication of members of the public: the “active use” of ideology in making political decisions, a recasting of Campbell et al.’s levels of conceptualization using the same “likes

and dislikes” questions, and the recognition of the ideological positions of parties and understanding of those ideological labels, based on the ability of a respondent to characterize one of the parties as more conservative than the other and give a reasonable explanation of what “conservative” meant. Converse noted that high levels of sophistication according to both measures were associated with higher levels of political activity and education, consistent with the findings of Campbell et al..

Converse also considered sophistication in terms of the constraint of individuals’ belief systems, and found relatively little constraint in the issue positions expressed by the public when measured by the correlations among those issue attitudes (227–29), suggesting again that much of the public had relatively unstructured political belief systems. He held out the possibility of more constrained belief systems within “issue publics”—subgroups with interests in particular issue domains (245–46). Both conceptions of political sophistication advanced by Converse—sophistication as ideological (or belief system) constraint and sophistication as the use, recognition, and understanding of ideology—would see further development.

The conception of political sophistication in terms of the levels of conceptualization continued to have some currency in the literature through the 1970s. Pierce (1970), Pierce and Hagner (1982) and Nie, Verba and Petrocik (1976) used Campbell et al.’s levels of conceptualization in various forms to illustrate the changing role of

ideology in how voters made political decisions,² arguing that voters had in general increased their sophistication in the 1960s and 1970s. However, these works were strongly criticized by Smith (1980), who presented evidence that the levels of conceptualization measure had neither validity nor reliability.³ When Smith examined both the *Changing American Voter* (Nie, Verba and Petrocik 1976) and Pierce (1970) measures of the levels of conceptualization, as well as the original measure used by Campbell et al. (1960), during the 1956–60 American National Election Study panel using three different tests,⁴ he found that the reliability—and hence the validity—of the measures was very low.⁵ Smith also argued that voters in general were no more ideological or sophisticated than they were at the time of *The American Voter*. More recent research appears to have abandoned attempts to measure sophistication based on the levels of conceptualization *per se*.⁶

²Pierce (1970) and Pierce and Hagner (1982) used the interview transcripts to produce their coding, while Nie, Verba and Petrocik (1976) used the set of “master codes” provided by the NES in the public dataset to preserve anonymity.

³For a continuation of this debate, see Abramson (1981); Nie, Verba and Petrocik (1981); Smith (1981); Cassel (1984); and Luskin (1987).

⁴Smith used test-retest correlations (Kendall’s τ -b), a test of reliability in the presence of measurement error developed by Wiley and Wiley (1970), and attempting to explain changes in respondent sophistication by changes in their interest in politics, political participation, and media use through bivariate correlations.

⁵However, he later (Smith 1989: 22–42) reaches exactly the opposite conclusion based on the same data—that the measures display a high level of individual-level stability, and hence are reliable. However, he argues that they still lack validity, mainly because they fail to explain differences in political attitudes and behavior that one would expect sophistication to affect (76–80). He generally blames this lack of validity on the failure of Campbell et al. (1960) to tie the “levels of conceptualization” to any extant psychological theory (81–82). Additional contributions of Smith (1989) to the measurement of sophistication are discussed below.

⁶See, e.g., Miller and Shanks (1996), which mentions the levels of conceptualization only in passing (567); however, see Bafumi (2003) for a recent application.

2.2 *Constraint and Schematic Approaches*

However, the second part of Converse's work on belief systems—the idea of ideological constraint indicating sophistication—continued to be studied. Jackson and Marcus (1975) extended the ideological constraint to belief systems other than liberalism and conservatism, and note:

The combined consequence of issues that generate low salience and of issues that are couched in terms ambivalently or inconsequently preferred by the public will be to yield low levels of ideological thinking by the electorate. This would seem to place great importance on the ability of political leadership to select and frame issues in ways that encourage political analysis (107).⁷

This view of sophistication as constraint was subsequently revised and extended in terms of the schematic approach, which was taken up in the field of political psychology. Fiske and Kinder (1981) made the first attempt to connect the schema concept to political sophistication, noting the links between Converse (1964)'s conception of ideology and the more general concept of a schema.⁸ They suggest that there are numerous possible schemata that citizens can apply to politics, and suggest that citizens' level of political involvement and expertise might have an effect on what schemata are used (180–81), and conclude that that is the case:

[S]chema availability and schema use depend importantly on individual differences—especially, we have argued, on expertise and involvement:

⁷Also see Carmines and Stimson (1980) who make a similar point in terms of the ability of members of the public to engage in issue voting.

⁸Conover and Feldman (1984) provide a useful definition of a schema, derived from that of Fiske and Linville (1980): “a cognitive structure of ‘organized prior knowledge, abstracted from experience with specific instances’ that guides ‘the processing of new information and the retrieval of stored information’” (96).

The uninitiated do not have appropriate schemata available; novices possess concrete versions of consensual schemata and use them in simpleminded ways; and experts possess abstract schemata that they use in sophisticated ways (187).

Converse's finding that many voters did not use ideology for their political reasoning could thus be explained by heterogeneity in available schemata; for example, voters might have other ways of making political decisions based on non-ideological schemas based on such things as partisanship (Lodge and Hamill 1986), race and fundamental values of individualism and egalitarianism (Conover and Feldman 1984). Explanation of how these schemata were formed, however, was left to future research.

Like Fiske and Kinder, Conover and Feldman (1984) make an attempt to recast the issue as a question of how people think about politics, given the substantial evidence that most voters do not use ideology directly. The authors suggest that a schematic approach provides a way to unify sociological and psychological perspectives on the formation of belief systems (98–99). Like the pre-schematic approach of Converse (1964), this approach conceptualizes sophistication as the degree of association between various political beliefs; however, they indicate that “people organize their political worlds in richer and more diverse ways than implied by the traditional approaches to mass belief systems” (121), suggesting that most people have a political belief system, and hence some degree of political sophistication. However, their approach does not readily produce a measure of individual sophistication; for example, would we consider some schemata more “sophisticated” than others. Should we assume that more heterogeneity (or homogeneity!) in the schemata used by an individual would reflect greater sophistication? A reading of Campbell et al. (1960) and Converse (1964) suggests that

a hierarchy of schemata would be appropriate (with “ideology” being the most sophisticated), while more consistent use of a single schema would be more sophisticated than the use of varying schemata; on the other hand, Fiske and Kinder (1981) and Conover (1984) suggest that the use of multiple schemata reflects higher sophistication than the use of a single schema for all political evaluations.

Hamill, Lodge and Blake (1985) defined a schema as a knowledge structure, based on both declarative (or factual) knowledge and knowledge of the associations between concepts and facts, similar to Converse’s conception of information (852). As in Fiske and Kinder (1981) and Conover (1984), Hamill, Lodge and Blake found that voters with higher levels of expertise used more sophisticated and varied schemata to evaluate issues, but even the less expert had some schemata they were able to draw on.

The use of schemata in political psychology was strongly criticized by Kuklinski, Luskin and Bolland (1991), who argued that schemas were being measured inappropriately, their applications were merely “cosmetic,” and their use generally failed to give any additional insight than similar concepts such as cognitive maps and attitudes. Perhaps more relevant to the issue of sophistication, however, they noted the similarity between Hamill, Lodge and Blake’s measure of partisan schema usage and measures of sophistication used elsewhere in the literature by Zaller (1986) and Luskin (1987) (Kuklinski, Luskin and Bolland 1991: 1352, n.11), suggesting that there were at least valuable insights that could be applied to future research on sophistication from the “dead end” research program that they criticize. While their critique was disputed at the time,⁹ the use of explicit schemata

⁹See, e.g. Lodge and McGraw (1991); Conover and Feldman (1991); and Miller (1991).

in political science and political psychology has fallen out of favor, even if some of the conceptual underpinnings remain in other work¹⁰ and the concept retains its viability and validity in the related field of social cognition (see Fiske and Taylor 1991; Rhee and Cappella 1997). Moreover, one useful and enduring concept to come out of this research line and political psychology's forays into cognitive and social psychology is that of "political expertise."

2.3 *Political Expertise and Political Sophistication*

More recent works in the psychological vein have produced useful measures of sophistication, drawing on the more general concept of "expertise" used in cognitive psychology. Fiske, Kinder and Larter (1983) suggest that political sophistication is the result of acquiring knowledge about politics:

Experts have more chunks of knowledge, and the chunks themselves contain more concepts (Chase & Simon, 1973). In addition, however, the structure of knowledge apparently changes. As people become more expert, their knowledge becomes more organized. . . . In any case, the cohesion of organized knowledge seems to be greater in experts' memory (384).

¹⁰For example, Lodge and McGraw (1995) note:

The associative network model has come to be adopted by many political psychologists . . . , and is clearly the structural "currency" of choice for most of the contributors to this volume. So we forewarn readers who may find themselves wondering "where is the schema?" that although the word itself is conspicuously absent from the text, it is conceptually present throughout. . . . [W]e must underscore the point that the *concept* of schema as an organized memory structure is still vitally important to the understanding of political reasoning and judgment, but that *specification* of the particular form such structures may take demands more precision than the ubiquitous schema term provides (4).

Also, while Luskin (2002b) continues to reject schema theory as a whole, he suggests there might be some promise in examining individual-level cognitive mappings like those presented in Lodge and McGraw (1991).

Thus, if we can measure a person's political expertise, we are inherently able to understand their level of political sophistication. And since expertise is largely a function of knowledge, a voter's level of knowledge may be a good measure of sophistication. Fiske, Kinder and Larter indicate that political expertise includes "the interlocking set of knowledge, interest and participation" (1983: 385), although their measure largely reflects the latter two items.

Neuman (1986) suggests a definition of political sophistication resting on three factors: "political salience" (based on individual interest, attentiveness, and involvement), "political knowledge" (based on factual knowledge items) and "political conceptualization" (largely based on the levels of conceptualization in Converse (1964) and the ability to integrate political concepts).

The meaning of political expertise was further explored in an issue of *Social Cognition* devoted to the topic; Krosnick (1990a), in the introduction to that issue, explicitly relates political expertise to the conception of sophistication embodied in Campbell et al. (1960) and Converse (1964). However, Krosnick also notes that the measurement and definition of political expertise is subject to considerable debate: unlike in other fields, political expertise doesn't reflect performance *per se*. Instead:

[P]olitical experts are presumed to be keenly interested in political affairs, to expose themselves to lots of political information (both directly through behavioral participation in political events and indirectly through the mass media), to pay close attention to the political information they encounter, and to reflect on the meaning and implications of that information long after it is acquired (4).

The authors in the issue used various measures of political expertise. Krosnick (1990b) indicates that the researchers in the volume demonstrated that

knowledge, interest, exposure and behavioral participation have independent effects on some phenomena. . . . Taken together, this evidence indicates that the various dimensions of political expertise considered here may each have unique impacts via unique mechanisms. Thus, investigators should recognize the possibility that these dimensions can sometimes function as distinct factors (156–57).

Zaller (1990) measures political expertise in terms of four measures of “political awareness,” based on the ability to correctly locate groups and candidates on a 7-point ideological scale (the “information scale”) and measures of participation, media exposure, and political interest from the 1972–76 NES panel study. He concludes:

One is politically aware to the degree that one chronically exposes oneself to and comprehends media reports of political events, issues, and personages. It has been argued [earlier in the article] that political awareness, understood in this way, is best measured by tests of political information (147; an extended discussion is at Zaller 1992: 333–39).

Luskin (1987) also makes an effort to consolidate various definitions of political sophistication. He first famously noted that “most sophistication research skips rapidly past definition. . . trusting a citation to Campbell et al. (1960) or Converse (1964) to do the rest” (857). He defines political sophistication as “the extent to which [a person’s personal belief system] is large, wide-ranging, and highly constrained” (860), and “the political case of a more general variable,” *cognitive complexity or expertise* (861). This definition suggests that, at least to him, political sophistication and political expertise are essentially the same thing.

Luskin revisits Converse (1964), and finds little to recommend in the correlation-based measures of sophistication suggested there (and in the schema literature), but

finds more promise in his “active use” (AU) and “recognition and understanding” (RU) measures, developing a sophistication measure of his own that he refers to as *S*, incorporating both knowledge of politics (or information holding) and the ideological measures derived from Converse.¹¹ Like Krosnick (1990b) and Zaller (1990), Luskin finds some value in using political knowledge as a measure of sophistication, although he also suggests that measures like *S* are likely to perform better (890).

In this and subsequent articles, Luskin appears to largely gloss over the distinctions between terms like “political expertise,” “political knowledge,” “cognitive complexity” and “political information” (see, for example Luskin 2002b: 220), to which we might add “citizen competence” (Kuklinski, Quirk and Jerit 2001) and “political literacy” (Cassel and Lo 1997). However, he cautions against some aggregations like Zaller’s “political awareness,” which he argues “commingles sophistication, which is what he really seems to have in mind, with education, political interest, media use, and political participation.” (235) He also suggests that there may be some promise in examining the role of “cognitive ability” or general intelligence as a substitute for what he views as an over-emphasis on education as an explanatory variable in models of political knowledge (239–41).

¹¹ More formally:

$$S = (I_1 + I_2 + 1)(D + 1)$$

where I_1 is an active use measure based on Campbell et al. (1960)’s levels of conceptualization (scored 0–2, with 0 representing “no issue content,” 1 representing “group benefits” and “nature of the times” explanations, and 2 representing ideologues and near-ideologues), I_2 is a recognition and understanding measure (also scored 0–2) roughly similar to Converse (1964)’s, and D is an eleven-point measure based on each respondents’ ability to classify the two major parties and themselves correctly on 11 policy issues (respondents receive one point per issue “correct”), an approach essentially the same as Zaller’s “information scale.” The range of S is 1–60 (Luskin 1990: 340).

Largely independently of the psychological line of research, Smith (1989) arrives at a broadly similar conclusion about the use of political knowledge as a measure of sophistication. He argues that neither the levels of conceptualization nor measures of attitude consistency are worthwhile measures of political sophistication; he argues that for most purposes in the study of mass political behavior, political knowledge and what he terms “conceptual sophistication” are highly correlated to the point that they are essentially indistinguishable, although he concedes that that better measures of sophistication might reveal meaningful differences (226–27).

2.4 Rational Choice Perspectives on Sophistication

Rational choice perspectives on political sophistication have always largely focused on the role of knowledge or information, and in particular on the costs of obtaining that information. Downs (1957) classically argues that low levels of political information in the public are a rational consequence of the low value of that information to most members of the public; to the extent members of the public acquire political information, it is either through passive processes or due to interest in particular issues affecting one’s self-interest.

Various authors have attempted to explain how the public can behave responsibly in the absence of complete information. Much of this research has focused on the use of heuristics or shortcuts by voters with low levels of political information. While the earlier development of ideology-based conceptions of political sophistication was of limited use to rational choice scholars, the conception of expertise and information discussed above is much more akin to that embodied in Downs and subsequent rational choice approaches.

To the extent rational choice scholars have been interested in political sophistication, it has largely been to ask how voters with low levels of information are able to make rational political decisions. McKelvey and Ordeshook (1985) were among the first authors to attempt to reconcile rational choice models with the low levels of political information known to exist in the public:

When voters do not possess the perfect information assumed in earlier models, and when it is costly to obtain this information relative to the presumed expected benefits, we assume that voters take cues from other sources, endogenous in the system, that are easily observable and which they believe may convey useful information. Such sources may be other voters, interest groups, historical behavior of the candidates, or poll results (56).

Subsequent research has focused on the use of these heuristics or cognitive shortcuts by voters (Brady and Sniderman 1985; Sniderman, Brody and Tetlock 1991a; Lupia 1994; Lupia and McCubbins 1998). While it is apparent that not all voters use all of these heuristics, much of the early research did not ask which heuristics were used by whom; instead, the researchers focused on the ability of heuristics to make voters behave as if fully informed—what Popkin (1991) referred to as *low-information rationality*. Because of this failure to specify *who* uses *which* heuristics, this research has been strongly criticized; for example, Luskin (2002b), echoing his similar criticism of the use of “schema theory” by some scholars, states that “while these models shed light on some of the ways in which voters may put even crude information to use, they do not necessarily imply that very many voters successfully do so” (286); Kuklinski and Quirk (2000) offers a similar critique of attempts to salvage “pure” rational choice theory with heuristics.

Nonetheless, some heuristics appear to have more promise than others for use

by voters. Carmines and Kuklinski (1990) and Mondak (1993a,b) suggest that voters use signals from elite “insiders,” including members of Congress and the president, as cues for the positions they should take on issues. Sniderman, Glaser and Griffin (1990), Huckfeldt et al. (1999), and Schaffner and Streb (2002) suggest the use of partisanship as a heuristic device—for example, Schaffner and Streb argue that party labels for otherwise unknown political candidates make it possible for voters to infer their policy positions. Both of these heuristic devices should be at least somewhat effective for voters with relatively low levels of political information. Yet for the most part this literature has been silent on what level of information is necessary to use a heuristic, or has failed to look at the possibility of heterogeneity in heuristic use based on the level of information possessed by voters (Rivers 1988, but see Lau and Redlawsk 2001a,b for some attempts to do just this).¹²

Perhaps the most promising direction in this literature has been the effort to bring the lessons of political psychology into the rational choice literature. In the concluding chapter of *Elements of Reason*, Lupia, McCubbins and Popkin (2000) suggest that rational choice scholars need to recognize that “a cognition-independent concept of expected utility maximization is *not sufficient* to describe uncertainty’s effects,” (288) given the evidence that voters do not consciously use heuristics (Kuklinski and Quirk 2000), while at the same time indicating that scholars in political psychology ought to recognize that choice is at the heart of political behavior. Lupia, McCubbins and Popkin recommend that rather than more debates in which

¹²In many ways, the use of heuristics from the rational choice perspective seems to parallel the schematic approaches that were popular in political psychology in the 1980s. Notably, both approaches suggest that members of the public with more political knowledge have more schemata/heuristics that they can draw upon. However, heuristics generally appear to be less complex phenomena than the schemata posited in the political psychology literature, with schemata being more of an overall framework for thinking about particular issues or issue domains, while heuristics are simply shortcuts connecting bits of knowledge.

“scholars talk[] past each other” (289), focusing on the deficiencies of work from other traditions, scholars from the rational choice and psychological traditions should build on contributions from each others’ fields to formulate a more unified perspective on political reasoning and choice.

2.5 Toward a Unified Meaning of Sophistication

As Lupia (2002) notes, “[p]olitical psychologists and rational choice theorists do not interact very much. This silence is particularly ironic when it comes to explaining political behavior, as such explanations are a core concern of both groups” (51). It is perhaps even more ironic that despite this lack of interaction, both groups’ approaches to the issue of sophistication have arrived at a common ground, more-or-less independently: that an individual’s level of political sophistication is observable in terms of that person’s level of political awareness and political knowledge.¹³

The literature subsequent to Luskin (1987), Smith (1989) and Zaller (1992) has mostly used the respondent’s level of political information or political knowledge as the indicator of voter sophistication; see, for example, Lupia (1994), Bartels

¹³The use of political knowledge as a sole indicator of sophistication may have some weaknesses; most notably, the relationship between sophistication and “rote” knowledge (such as the ability to identify the size and composition of particular elected and appointed bodies, or the current occupants of relatively obscure offices) is tenuous at best. The general argument in favor of the use of knowledge as an indicator of sophistication is that more sophisticated citizens have greater attentiveness to the political environment and thus are exposed to more information as a matter of course. Ideally, a test of the relative performance of particular types of knowledge questions in discriminating between sophisticates and non-sophisticates would be worthwhile.

However, alternate measures of sophistication have weaknesses of their own: notably, Bafumi (2003) finds greater variation in political sophistication, as measured by the levels of conceptualization, in the high-information environment of election years than in off-year contexts. It is presently unclear if other measures of sophistication are affected by the context in this way.

(1996), Delli Carpini and Keeter (1996), Cassel and Lo (1997), Althaus (1998), Duch, Palmer and Anderson (2000), Mondak (2000a,b), and Smith (2002), and in a cross-national context, Gordon and Segura (1997), suggesting that a broad consensus on the particular indicator to be used has been reached.¹⁴ More importantly, these works come from both the rational choice and political psychology traditions, suggesting that Carmines and Huckfeldt's anticipation of a consensus between the two traditions was well-founded.

This dissertation contributes to the literature on political sophistication in a number of ways. First and foremost, it examines the impact of political sophistication on the evaluative processes of voters and on their vote choices. Most of the extant literature has omitted sophistication as an explanatory variable, instead assuming that voters make evaluations and decisions in roughly the same way regardless of their level of sophistication. By allowing the impact of key explanatory variables to vary depending on the respondent's level of sophistication, we can see how voters' differing abilities to make informed political evaluations affect the decisions they make.

This dissertation also contributes to the understanding of sophistication by proposing the use of item-response theory models, rather than additive or other *ad hoc* scales, as a measurement technique when combining multiple items that are believed to be indicators of sophistication, and demonstrating their use. Item-response theory models provide researchers with indicators of the relative quality of each knowledge item, and may suggest particular types of knowledge item that better measure sophistication than others, thus allowing future survey designers

¹⁴The specific measure of information-holding varies in some of these studies, but the use of some form of "knowledge" as the indicator of sophistication is common to all of these works.

to concentrate on including items that are likely to be good indicators without subjecting respondents to large batteries of knowledge questions.

A third contribution is to examine the role of political sophistication outside the United States. While there are good reasons to believe that sophistication has an important role in the decision-making of voters worldwide, few scholars have examined this role to confirm its apparent universality. By testing the impact of sophistication in a very different electoral context than that found in the United States—a large, multiparty parliamentary system characterized by coalition governments with strong religious and distributional cleavages—we can see if sophistication is truly a universal concept.

In the next chapter, I consider the role of political information in the use of shortcuts and heuristics by voters. The “classical” argument for the use of heuristic devices by voters suggests that the use of cognitive shortcuts can compensate for low levels of political information. However, it remains something of an open question how low a level of political knowledge is sufficient for voters to use heuristics; indeed, some heuristic devices would seem to require a great deal of knowledge about political actors (such as candidates and parties) and their positions on political issues. The subsequent chapter reviews the literature on heuristics with an eye to evaluating the impact of sophistication on the shortcuts available to, and used by, individual voters.

CHAPTER III

HEURISTICS AND COGNITIVE SHORTCUTS

There are two distinct strands of research on how voters make political decisions in the fields of political psychology and public opinion. The more prominent strand, perhaps due to the focus on American politics where the impact of candidates is especially prevalent, examines how voters make evaluations of political candidates, and whether those evaluations are isolated or comparative in nature. A second, less prominent, strand focuses on the impact of issues—how voters decide their positions on political issues, and how they make choices when confronted with referenda and initiatives where they are called on to make direct decisions on matters of public policy. Despite these differences in focus, recent research on both candidate perception and issue evaluations have found a prominent role for *cognitive shortcuts* or *heuristics* in how voters make their decisions.

3.1 Classical Studies of Voting Behavior

Most modern research in the field of voting behavior has been organized around three schools of thought about how voters arrive at their decisions. The first major theory of voting behavior advanced by Berelson, Lazarsfeld and McPhee (1954) indicated that voting behavior was primarily a function of sociological factors external to the voter. This approach, often called the “Columbia” model of voting,

posits that voting decisions are based on social group identity (based on characteristics such as class, race, and religion), education and occupational status. The Columbia model essentially argues for a “stimulus-response” concept of voting; the same stimulus should always produce the same response in the voter, regardless of changes in the voter’s immediate environment.

An alternative theory was advanced by Campbell et al. (1960), working from national voting studies conducted at the Survey Research Center at the University of Michigan; this approach posited a socio-psychological (or, more simply, psychological) framework, in which vote choice was not only a function of sociological factors. Instead, the Michigan school argued, voters integrated new political stimuli from their environment into their decision-making process, augmenting their socialization with some internal processing of new information; voters in the Michigan model also have an attachment to a particular political party that can evolve over time, can vary in strength, and is based on both external and internal factors. Although their model, particularly its conception of a “funnel of causality” into which any conceivable factor can be placed, may be legitimately criticized for its nonfalsifiability, it is important in that it integrates the individual into the process of decision-making.

A third approach, advanced initially by Downs (1957), argues that voters make decisions based on “rational choice”; they anticipate the possible outcomes of their decision, then support the outcome that will maximize their expected utility—the net benefit from making a particular choice. This model is valuable in that it provides a plausible explanation of how the internal process within voters takes place, although there are complications in dealing with the problem of making decisions in a context of incomplete information—a condition that is exasperated

by the low salience of political issues and candidates to most voters (Zaller 1992: 16–21), deliberate ambiguity and obfuscation by candidates, and the almost complete absence of tangible benefits for voting (see e.g. Shepsle 1972; Page 1976, 1978; Franklin 1991; Huckfeldt et al. 1998). More recent refinements of rational choice theory (Enelow and Hinich 1985; Grofman and Norrander 1990; Alvarez and Nagler 1998; Merrill III and Grofman 1999) have suggested that voters use the difference between their position on the issues and the perceived positions of candidates (“issue distance”) as a measure of how various outcomes will affect them, even when they possess limited information.

Each framework offers some valuable contributions to understanding voting decisions. The Columbia approach argues that voters make evaluations based primarily on their socioeconomic status; it is almost as if voters are wired by their socialization processes to respond to particular political stimuli in certain, specific ways. In particular, it argues for strong influence by members of relevant social groups, such as peers and relatives, on voting behavior. Tedin (1980) demonstrates some of these effects on issue attitudes among recent high school graduates, although it is fairly clear that adolescents are unlikely to be highly engaged in politics. Huckfeldt et al. (1998) find that individuals tend to associate with others who share their own political beliefs, although people tend to exaggerate the degree of agreement between themselves and others and tend to assume that other individuals agree with majority opinion, demonstrating that humans are rather poor at ecological inference. Granovetter (1973) also explores the role of links between individuals, although he emphasizes the importance of “weak ties” that connect networks of social groups to others through members who associate with multiple groups; new political ideas can be propagated through these weak ties, while

intragroup (or strong) ties tend to reinforce older ideas.

In other recent work in the sociological tradition, Conover (1984) finds that group identification, as measured by examining the “closest to” items on the 1980 National Election Study, affects how individuals decide which issues are most relevant to them and what positions they take on those issues, although the strength of these relationships varies quite widely among social groups. Erikson, Luttbeg and Tedin (1980) also demonstrate some important differences between various social groups, based on the 1976 NES, although they find that some identifications are more salient than others, and they do not engage in any statistical tests of these differences. Anderson, Silver and Abramson (1988) find effects on National Election Study survey responses by blacks based on the race of their interviewer, indicating that there may be some social-group pressure for African Americans to falsely claim they uphold expected norms of participation when responding to fellow blacks but not when interviewed by whites; these race-of-interviewer effects also “induce[d] changes in actual behavior” (1988: 54) in that respondents interviewed in the pre-election wave by blacks were more likely to actually vote than those interviewed by whites; however, the effects found appear rather weak. This finding suggests a form of social-group influence on reported and subsequent political behavior by African-American interviewers on voters of the same race. While the sociological school does explain a large portion of individual voting behavior, it certainly does not explain all of it; as Campbell et al. argue, “[C]rucial fluctuations in the national vote occur from election to election [that] cannot be accounted for by independent variables which, over brief spans of time, do not vary” (1960: 17). Can the Michigan model account for these changes more fully?

The Michigan approach integrates internal factors into the model of voting behavior. This approach helps explain more of the variance in observed behavior between voters and the degree of change in their political beliefs over time; however, like the sociological approach, it is “silent about the processes that drive [its] explanations” (Lodge, Stroh and Wahlke 1990: 13). Examining the psychological approach can also be complicated by what Converse (1970) calls “non-attitudes”: the willingness of individual voters to express political attitudes that are not reflections of any particular opinion on their part. While there are ways to work around this difficulty—for example, by measuring the strength of the emotional response to a particular issue, as in Kinder (1994), or by asking respondents to rate the importance of particular issues (Krosnick 1988)—it presents problems in looking at political behavior that are simply not present in the sociological approach. The psychological approaches are also more difficult to examine through survey research; physical control is necessary to make definite conclusions about the impact of particular information on evaluations. The literature also suggests that psychological approaches are difficult to evaluate because individuals cannot accurately report their own psychological processes (Nisbett and Wilson 1977); hence we cannot be sure that respondents are giving an accurate account of how they make evaluations. For example, a voter may claim that she is evaluating a candidate based on her specific knowledge of him, but when pressed may not actually reveal any knowledge of the candidate. On the other hand, Alvarez and Franklin (1994) find that voter reports of certainty about candidate positions are correlated with their use of their impressions in candidate evaluation, while Bartels (1986) examines the role of uncertainty in a rational choice framework, concluding that issue proximity may be less important than uncertainty about candidate positions in candidate selection—an effect that may also help explain incumbency advantage.

Nevertheless, psychological approaches have been dominant in the literature—to the point that it is difficult to distinguish between the contributions of the Michigan approach and the broader field of political behavior—although they are often coupled with rational choice ideas to help explain why and how individuals act on limited information. However, as Lodge, Stroh and Wahlke argue, most of these models are “black boxes” in which the actual decision-making process is ignored.

3.2 Decisions Under Limited Information

The early literature was largely silent on the question of how evaluations and voting decisions are actually made, given that voters rely on incomplete information. Lodge (1995), McGraw, Lodge and Stroh (1990), and Wyer and Srull (1986) argue for an “on-line” or “impression-driven” model of decision making, in which individuals add to their existing evaluations by recording their affective responses to new information and adjusting their “tally” of positive and negative attitudes for a particular political object according to this new response; these tallies are then drawn upon when making political evaluations. Other scholars (including Brody and Page 1972; Rahn, Aldrich and Borgida 1994; Enelow and Hinich 1985) support a memory-based approach in which voters draw upon their specific knowledge of politics and evaluate candidates based on this knowledge. While the on-line approach is generally more consistent with what we know about the level of political knowledge of the public, memory-based models have also been demonstrated to work in certain contexts. More to the point, neither model explicitly accounts for the possibility that voters with different levels of political sophistication will evaluate candidates and make voting decisions in different ways. More recent work

on economic and issue voting (including Krause 1997; Gomez and Wilson 2001; Redlawsk 2001) has suggested that more knowledgeable or educated voters rely on memory-based criteria, while less sophisticated voters tend to evaluate policies and issues “on-line,” and there is some evidence that how information is presented affects how it is processed (Huffmon 2001, forthcoming).

As Downs (1957) argues, it is rational for voters to not seek information about candidates and issues; it follows that what little knowledge most people have about politics comes as a by-product of experiences encountered when they are not looking for political messages, rather than from specifically searching for political information (also see Page and Shapiro 1992: ch. 2). However, even when voters appear to lack information, there is evidence that they act on what Popkin (1991) terms “gut rationality.” Stroh (1995) argues that voters make a trade-off between maximizing their accuracy and minimizing their effort in making political judgments. Voters are, in his words, “pragmatic cognitive misers” who use available information to impute the political beliefs of unknown actors from their existing knowledge of politics. Sniderman, Glaser and Griffin (1990) similarly find that voters, particularly those who are well-educated, can impute values onto political actors to help clarify their voting decisions. Voters also use affective responses to particular groups to help evaluate political issues: they know how they feel about particular issues, and they know how they feel about particular groups, so they use this information to impute how those groups feel about the particular issues at hand, utilizing what Brady and Sniderman (1985) call the *likability heuristic*¹—for example, an individual might reason that a Republican candidate opposes abortion

¹*Merriam-Webster* suggests this is the only correct spelling of the word *likability*, and that is the spelling used in Sniderman, Brody and Tetlock (1991a); however, *Merriam-Webster* says *likeable* is an acceptable alternative spelling of *likable*.

rights because she supports abortion rights and dislikes Republicans.

While imperfect², this effect has been demonstrated to work in a variety of settings (Conover and Feldman 1989; Kuklinski, Metlay and Kay 1982; Mondak 1993b; but see Martin 2001). Moreover, a similar heuristic process allows voters to figure out where they should stand on issues based on their attitudes towards information providers.³ Mondak (1993a) suggests that individuals use the source of information about issues in two ways: knowledge of where others stand helps to promote the opinion-formation process, and it can also guide the directionality of individuals' opinions. Yet even the heuristics available to voters are limited by their level of political sophistication: if an American voter is unable to associate senators John McCain or Russ Feingold with campaign finance reform, or a German voter cannot link Foreign Minister Joseph (Joschka) Fischer with Germany's foreign policy, he or she will be unable to make use of this association as a heuristic.⁴ The ability of voters to use heuristics is thus also limited by their level of political knowledge—specifically, their ability to associate political objects with other salient referents. While there is considerable debate in the literature over whether heuristic reasoning is able to compensate for the public's overall lack of knowledge about

²Tversky and Kahneman (1974) notes that heuristics in general lead to "incorrect" or suboptimal conclusions. This research line has been extended further; see, for example, Tversky and Kahneman (1986) and Kahneman and Tversky (1996). While the imperfection of heuristics may seem to be a rather trivial point, it is not obvious that all heuristics are imperfect, nor is it immediately clear which heuristics are less perfect than others. That some scholars argue that heuristics enable voters to behave "as if" they are fully informed—thus rehabilitating classic rational choice models of decision-making—suggests that they believe that at least some heuristic devices are perfect.

³Brady and Sniderman use the term "likability heuristic" to refer to both processes. Sobel (1985) proposes a similar approach based on the perceived credibility of the source of information. Iyengar and Valentino (2000) independently derive a credibility-based approach through research into the effects of campaign advertising. Group membership and identification may also help to promote this process (Conover 1984; Grofman and Norrander 1990; Huckfeldt and Sprague 1990).

⁴See Lodge and Stroh (1993); Lodge and Taber (2000); Taber, Lodge and Glathar (2001) for a discussion of associative reasoning in the context of the on-line model.

politics,⁵ nonetheless it appears that most voters can do better than push buttons or mark circles at random in the voting booth.

In addition to the likability heuristic, voters can make use of other heuristics, or shortcuts, as well, such as partisanship, ideology, perceived competence, and incumbency (Popkin 1991); they can also utilize information gleaned from group stereotypes (Riggle et al. 1992). Particular segments of the public are more informed about some issues; these “issue publics” (Glynn et al. 1999: 252–53) can be a source of political information for less informed voters if necessary. While it is irrational for voters to collect information about all issues and all candidates, it is clear that voters are capable of making consistent political decisions based on limited information.

3.3 Heterogeneity in Decision-Making Processes

One of the contributions of the research into schema theory (Hamill, Lodge and Blake 1985; McGraw and Steenbergen 1995) is the recognition that individual mechanisms for processing political information and making voting decisions can, and do, differ. However, an important weakness of schema theory was that it failed to generally advance any explanation for why these mechanisms might differ across individuals.⁶ While there are studies that discuss the possibility that different types

⁵Notably, McKelvey and Ordeshook (1985); Popkin (1991); Page and Shapiro (1992); Lupia (1994); Lupia and McCubbins (1998); Skalaban (1998) and Berggren (2001) argue that low levels of sophistication and knowledge are offset by averaging effects across the population or mitigated by institutional factors, while Bartels (1996); Althaus (1998); Kuklinski and Quirk (2000) and Kuklinski, Quirk and Jerit (2001) note considerable divergence between the ability of less-informed and highly-informed voters to make choices consistent with “fully informed” preferences.

⁶See Kuklinski, Luskin and Bolland (1991); however, Fiske and Kinder (1981) at least discuss the possibility of systematic relationship between expertise and schema use.

of voters use different decision rules in a systematic way,⁷ relatively few scholars have recognized that a voting model can and should differ in this way.

One fairly obvious reason why these mechanisms should differ is that some voters have more understanding of how politics work than others; that is, that some voters are more “politically sophisticated” than others (see Sniderman, Brody and Tetlock 1991b: 18–20). I posit that the politically unsophisticated must necessarily employ little political knowledge when voting or evaluating candidates, while more sophisticated voters—who are capable of making stronger links between pieces of political knowledge—are able to bring more data to bear when evaluating candidates or making voting decisions.⁸

The definition and measurement of sophistication has seen considerable debate in the literature in the past two decades, as discussed in Chapter 2. While no consensus on the best possible measure has been reached, despite a volley of articles since Luskin (1987) (see e.g. Iyengar 1985; Krosnick 1990a; Fiske, Lau and Smith 1990; Zaller 1990; Mondak 2001), Zaller (1985) found that the interviewer evaluation of the respondent’s level of political knowledge was a reliable and unbiased measure, at least in the context of face-to-face interviews such as those conducted (until recently) by the National Election Study (see Zaller 1992: 339).

⁷Rivers (1988) finds that the effects of partisanship are stronger in an issue-voting model when the assumption of homogeneity in the use of partisanship is relaxed in a model.

⁸This is consistent with Zanna, Klosson and Dalley (1976), who find that individuals who have more non-political information available to them are more capable of arriving at accurate and reliable conclusions.

Not surprisingly, the concept of political sophistication (or “expertise” or “knowledge”) has been utilized rather extensively in the political science literature, although often in a “black box” mode, with or without interaction with other variables. The concept of sophistication underlies the research of Carmines and Stimson (1980, 1982, 1989) into “easy” and “hard” issues, particularly the issue of race—presumably the sophisticated are more capable of making sense of issues that opinion leaders have failed to make “easy” for the public.⁹ Sophistication is also believed to affect whether voters engage in issue voting (Jacoby 1991; Goren 1997) and economic voting (Duch, Palmer and Anderson 2000; Gomez and Wilson 2001), how voters use information presented in the media (Zaller 1996; Miller and Krosnick 2000), whether voters support civil liberties for various nonconformist groups in society (Bobo and Licari 1989), and perhaps whether or not voters can organize political issues into consistent general attitudes (Campbell et al. 1960; Sidanius 1988; Lusk and Judd 1988; but see Goren 2000 who finds limited support for this thesis).

However, the application of political sophistication in cognitive models of political behavior has been relatively limited, despite the emphasis on sophistication underlying Sniderman, Glaser and Griffin (1990) and Sniderman, Brody and Tetlock (1991b). In addition to those works, only Lau and Redlawsk (2001a,b) appear to have considered an interaction between sophistication and the use of various heuristics; Lau and Redlawsk find, as I suggest here, that heuristics are a more useful tool for the politically sophisticated due to their greater ability to relate referents with one another.

⁹Also see Sniderman and Hagen (1984), who similarly conclude that the public is relatively well-informed about racial issues.

The following two chapters investigate the relationship between heuristic use and political sophistication in greater detail, demonstrating that the use of heuristics appears to be based, at least in part, on the ability of voters to make connections between political issues and actors. This finding indicates that more sophisticated voters are better able to make use of heuristic devices—which suggests that, instead of allowing uninformed voters to behave “as if” fully informed, heuristics enable more informed voters to make better political decisions than their less informed counterparts in the electorate.

CHAPTER IV

THE LIKABILITY HEURISTIC IN POLICY EVALUATION

A widely recognized debate in the political behavior field is whether voters have sufficient political interest and knowledge to engage in policy voting. There is an extensive body of research documenting the low levels of political sophistication among the electorate (e.g. Converse 1970; Neuman 1986; Smith 1989); however, there is also more recent research contending that citizens can behave as if fully informed through the use of cognitive shortcuts or heuristics (e.g. Lupia 1992, 1994; but see Bartels 1996.) The key question in this debate is whether these cognitive shortcuts are capable of compensating for the known informational shortcomings of the electorate—and thus whether voters can make reasonable decisions, consistent with their “fully informed” preferences, based on limited information.

Reflected in this debate is the implicit assumption that a negative relationship exists between sophistication and the use of heuristics (e.g. Sniderman, Brody and Tetlock 1991a). If heuristics address an information shortfall, it is logical to assume that less sophisticated citizens are more likely to use heuristics than are more sophisticated citizens. In this chapter, I question whether this assumption holds for all heuristics in all policy contexts. More specifically, I propose a more general theory of heuristic use in which the conditioning role of sophistication depends on

the policy context. A necessary condition for heuristic use is recognizing that a connection exists between the heuristic and the policy area. I posit that for certain heuristics and policy contexts this condition is only met at medium to high levels of sophistication, thereby producing a curvilinear or positive relationship between sophistication and heuristic use.¹

The theoretical discussion presented here focuses on the use of a *likability heuristic*. But contrary to Brady and Sniderman (1985), I consider affect toward a policy maker rather than a group. In turn, the necessary condition for use of this likability heuristic is whether the respondent recognizes the connection between the policy maker and the policy realm about which they are asked to express an opinion. Those who fail to recognize the connection do not use the heuristic, so heuristic use can actually increase rather than decrease with sophistication. I theorize that the likelihood of recognizing the connection varies with public awareness of the policy maker and the salience of the policy area.

In order to investigate our theoretical argument, I consider attitudes toward health care reform at the beginning of the first Clinton Administration. At the time of Bill Clinton's inauguration, most pundits believed that his plan to create a government-run health care system for all Americans would be a major achievement of his administration. The proposal was the centerpiece of Clinton's legislative program during his first two years in office, and he took the unprecedented step of delegating the task of drafting the legislation to a task force led by

¹This supposition would be consistent with Zaller (1992)'s receive-accept-sample model of opinionation; however, voters who have more available heuristic devices will favor some sort of sub-optimal search strategy (such as sampling per Zaller, or perhaps satisficing, per Simon 1957) to decide which heuristic to use when making their decisions, which suggests that even the most sophisticated voters are likely to rely on only a few heuristics in practice.

his wife, Hillary Rodham Clinton. Her public leadership on the issue made her name virtually synonymous with the program; it became known, particularly to its detractors, as “Hillarycare.” By the time of the 1994 midterm elections, however, the program was widely unpopular.²

What accounts for the unpopularity of the Clinton approach? I believe that citizens, particularly those with higher levels of sophistication, came to associate the plan with Hillary Clinton, thus basing their evaluations of the plan on their attitudes towards the first lady. This effect should not be as pronounced when respondents are asked to evaluate whether or not the United States should have any government-run insurance program.

4.1 Theoretical Background

The literature on public opinion and political psychology suggests that the opinions that respondents provide in survey responses are usually not directly recalled from memory; instead, they are believed to be generated “on-line” by the respondent from the most accessible information in their heads (Lodge, McGraw and Stroh 1989; McGraw, Lodge and Stroh 1990; Lodge, Stroh and Wahlke 1990; Zaller 1992). This has important implications for the study of opinion, as respondents’ professed attitudes may differ depending on how questions are phrased, sometimes in unpredictable ways.³ Research has also shown that survey respondents often give

²The 1994 National Election Study (Rosenstone et al. 1999b) indicates that only 36.7% (plus or minus 2.5%) of Americans supported the plan ($N = 1659$). Even among supporters of government insurance in general, only 56.9% also supported the Clinton plan ($N = 260$). See also Koch (1998). A complete study of attitudes towards Hillary Clinton during this period can be found in Burden and Mughan (1999).

³See, for example, footnote 73 in Glynn et al. (1999: 297), which details how the difference of one word in a survey question caused a 37-percentage-point difference in survey responses.

inconsistent responses to identical questions, suggesting that survey responses may be contaminated by error from “non-attitudes” expressed by citizens lacking true attitudes towards the subjects at hand (Converse 1970).

The rational choice tradition in political science argues that it is rational behavior for voters to not seek out information about issues or candidates; thus, the knowledge most people have about politics is a by-product of exposure to information encountered when they are not seeking political information (Downs 1957; Page and Shapiro 1992). However, the literature on the use of heuristics suggests that voters can “make do” with limited information, perhaps relying on what Popkin (1991) terms “gut rationality.” One heuristic device that has been suggested is a *likability heuristic* (Brady and Sniderman 1985): for example, a voter might use this heuristic to conclude that a Democratic candidate opposes increased defense spending because the voter favors higher spending on defense and dislikes Democrats. This heuristic has been demonstrated to work fairly well in a variety of settings.⁴

The ability to make connections between attitudes towards information providers and the programs they espouse is necessarily limited by the amount of cognition needed for the individual to use their feelings towards that provider in forming an evaluation. For example, a typical voter will have more difficulty connecting her attitude toward President George W. Bush to his “No Child Left Behind” education initiative—a relatively non-salient and obscure program—than she will in associating the president with the “War on Terror” campaign against al-Qaeda and

⁴An extended discussion of various heuristics, and the ability of voters to make use of the likability heuristic, is in Chapter 3.

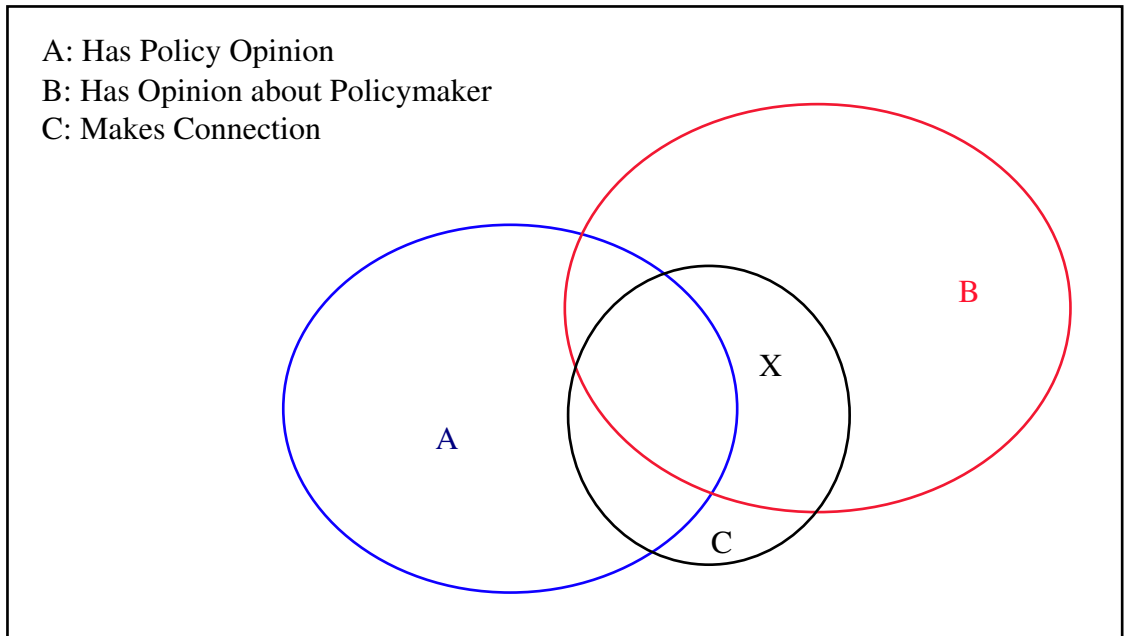


Figure 1: Venn diagram of policy and policymaker opinions.

other anti-Western terror groups. Those voters with the highest levels of sophistication should be able to connect Bush with both issues; however, we would expect a greater falloff in association between Bush and “No Child Left Behind” as we work our way through to lower levels of sophistication in the electorate, while the falloff in the Bush–“War on Terror” association should be less steep, as it is a more well-known theme. This pattern suggests that the likability heuristic is more effective for sophisticated voters, who have more information to draw upon, than unsophisticated voters.⁵

For example, on any given issue some group of voters (*A*) may have an opinion about that issue, while another, possibly overlapping, group of voters (*B*) may have

⁵This is consistent with Zanna, Klosson and Dalley (1976), who find that individuals who have more non-political information available to them are more capable of arriving at accurate and reliable conclusions.

an opinion about the policymaker who is responsible for that issue. We also assume that a group of voters (C), who need not have an opinion about either the issue or policymaker, will recognize the connection between the policymaker and the issue; see Figure 1 for a Venn diagram that illustrates the case where the policymaker is reasonably salient. Voters who have an opinion about the policymaker and are aware of her connection to the issue, but do not have a preexisting opinion about it (in set theoretic terms, $(C \cap B) \cap \bar{A}$, the area where C and B intersect without overlapping A ; on the applicable illustrations, I have denoted this subset by X), can use their attitudes toward the policymaker to decide their own position on the issue; they are potential users of the likability heuristic. In some cases (such as in Figure 2), the policymaker may be so obscure that everyone who knows she is responsible for the issue—presumably the most sophisticated voters—will also have an opinion about the policy, as the region B (representing those with an opinion about the policymaker) is fully within A (representing those with an opinion about the issue), making the heuristic useless for those voters.⁶

Furthermore, we might expect a nonlinear relationship between voter sophistication and the use of the likability heuristic; among voters with low sophistication relatively few voters will have an opinion about either the policymaker or the issue, while among the highly sophisticated most voters will have already formed an opinion about the issue and thus will not need a heuristic (see Figure 3). For many important issues and public figures, I believe the moderately sophisticated

⁶For example, consider the case of Deputy Secretary of Defense Paul Wolfowitz, perhaps the most prominent “neoconservative” in the Bush administration and an early advocate of regime change in Iraq; only ardent viewers of Sunday morning television shows would know who he is—indeed, most voters asked about Wolfowitz would probably think they were being asked a question about CNN anchor Wolf Blitzer. Any voter who has an opinion about Wolfowitz would almost certainly have an opinion about the 2003 conflict with Iraq.

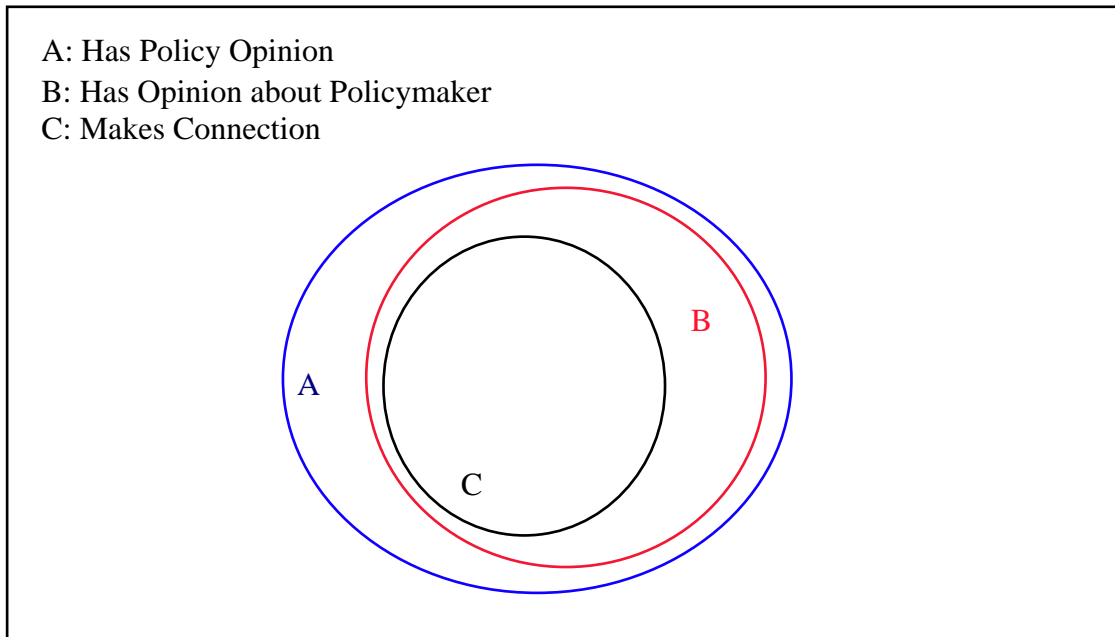


Figure 2: The case of an obscure policymaker.

will be most likely to need and use this heuristic.⁷

For some issues and policy makers, however, the connection between the issue and the policy maker might be obscure enough that the use of the likability heuristic increases with sophistication (but not so obscure that the likability heuristic is irrelevant). In this case, the size of the C subset for Medium Sophistication in Figure 3 decreases in size so that the $(C \cap B) \cap \bar{A}$ subset is larger for High Sophistication. Alternatively, low salience issues might produce positive relationships between sophistication and heuristic use. In this case, the intersection of subsets A and C for High Sophistication decreases enough in size so that a positive relationship results.

⁷In important ways, this relationship parallels Zaller (1992)'s finding that moderately sophisticated voters are the most likely to receive political information from multiple sources, and hence are more susceptible to persuasion by media campaigns.

A: Has Policy Opinion
B: Has Opinion about Policymaker
C: Makes Connection

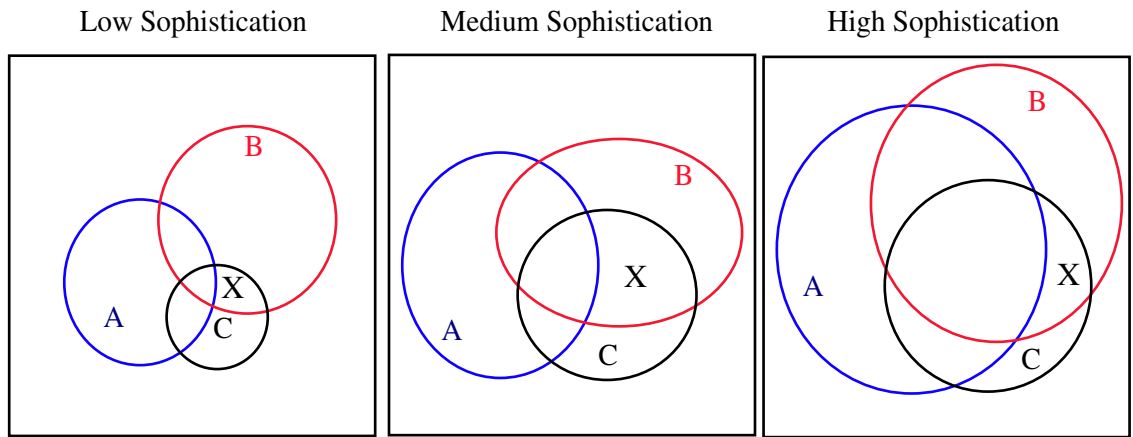


Figure 3: A nonlinear relationship between sophistication and heuristic use.

In the case of the issue of government health insurance, there is an opportunity to test this effect. While Americans had generally been bombarded with information about President Clinton's support for a national health insurance system, less sophisticated voters, particularly those who had ceased to be attentive after the 1992 campaign, would not be as likely to associate Hillary Clinton with the issue of health care reform. Less sophisticated voters would also be less likely to connect Mrs. Clinton's role in producing the Clinton health insurance proposal to attitudes towards health insurance in general. Accordingly, for less sophisticated voters responses to questions about Clinton's approach to health care reform should be based in part on attitudes toward Hillary Clinton, while thoughts about health care reform in general should not be associated, due to the greater number of associations that would have to be made.

In sum, the expectation is that a curvilinear relationship exists between sophistication and the use of affect toward Hillary Clinton as a heuristic for evaluating

health care reform. Yet, it is also possible that Hillary Clinton's role in formulating the Clinton Administration's health care policy was obscure enough that a positive relationship exists.

4.2 Hypotheses and Independent Variables

The following hypotheses about health care reform are suggested either by the literature or simply by common sense:

1. Respondents who do not have health care insurance should generally be more supportive of a government-run health care system. (Operationalized by V941022.)
2. Respondents who find medical bills to be a financial burden should be more supportive of a government-run health care system. (Operationalized by V941025.)
3. Republican identifiers should be less supportive of a government-run health care system than Democratic identifiers. Partisanship is operationalized by V940655, with higher levels indicating greater strength of Republican identification.⁸
4. Citizens who like Bill Clinton should be more supportive of a government-run health care system.
5. Citizens who like Hillary Clinton should be more supportive of the Clinton health care plan, but they should not be more supportive of government-run health care in general.
6. Political sophisticates should use their attitudes towards Hillary Clinton as a heuristic for evaluating government-run health care; thus, sophisticates who like Hillary Clinton will be more supportive of government insurance (in the

⁸Bartels (2000) suggests that the party identification scale does not truly reflect the strength of partisan feeling; notably, that weak partisans tend to be less partisan in their behavior than so-called "independent leaners."

abstract or the Clinton plan), while sophisticates who dislike Hillary Clinton will be less supportive.⁹

7. In addition, control variables are introduced for gender (V941434), region (V940011), age (V941203), and race (V941434).

Affect towards Bill Clinton is operationalized by responses to a feeling thermometer, V940223; likability of Hillary Clinton is similarly derived from V940229. The level of political sophistication was measured using the interviewer's rating of the respondent's intelligence, V941439.¹⁰

4.3 Data and Methodology

The data for this study are taken from the 1994 American National Election Study conducted by the Center for Political Studies and Survey Research Center at the University of Michigan (Rosenstone et al. 1999b). Of the 1795 respondents, 1536 (85.6 percent) had usable responses to the dependent variables operationalizing the hypotheses. Missing values of independent variables were set to the mean in the case of continuous variables, and set to the modal category in the case of discrete variables.¹¹

⁹Note that there is no direct measure in the 1994 ANES of whether or not the respondent either associated Mrs. Clinton with either the health care reform issue or the administration's handling of the issue. Instead, correlation between attitudes toward Mrs. Clinton and the dependent variable is assumed to represent whether or not the respondent made the association. However, other plausible sources for an association between attitudes toward the first lady and these issues, including partisanship, attitudes toward the president, and demographic factors, are controlled for in the model.

¹⁰This measure is believed to be quite reliable and is comparable in its findings to summated scales based on political knowledge. In addition, using post-high school education as a proxy for sophistication in the model gave very similar results. See Zaller (1992: 339) for a discussion.

¹¹The treatment of missing data in political science is something of an ongoing controversy; for a recent discussion, see King et al. (2001). The ideal solution is to use estimation techniques like full-information maximum likelihood or marginal data augmentation that avoid the need for imputation techniques; unfortunately, "canned" routines for common models making use of these techniques are still rare (the most complete implementation appears to be Martin and Quinn 2003).

The dependent variables in this analysis are derived from two items in the 1994 ANES. Respondents' support for the Clinton reform plan was derived from questions asking whether respondents approved or disapproved of how President Clinton was handling health care reform and how strongly they held that view (V940207); respondents indicating approval were coded as supporters of the Clinton plan. Respondents' attitudes toward government-run health care in general were measured by a question asking where respondents placed themselves on a seven-point scale between supporting government-run insurance and private insurance (V940950); respondents rating themselves in the interval 1–3 on the scale were coded as supporters of government-run insurance.

Both dependent variables are dichotomous in nature; accordingly, an estimator such as logit or probit (Aldrich and Nelson 1984; Greene 2000) would normally be appropriate. However, as the error terms of the two models are likely to be correlated, an extension of probit known as bivariate probit (Greene 2000) is, in general, a more appropriate estimator. In the bivariate probit model, the joint probability that $Y_1 = y_{i1}$ and $Y_2 = y_{i2}$ is given by

$$\begin{aligned} \Pr(Y_1 = y_{i1}, Y_2 = y_{i2}) &= \Phi_2(q_{i1}\beta'_1 x_{i1}, q_{i1}\beta'_2 x_{i2}, q_{i1}q_{i2}\rho), \\ q_{ij} &= 2y_{ij} - 1, j = 1, 2 \end{aligned}$$

where Φ_2 is the bivariate normal cumulative density function,

$$\Phi_2(w_1, w_2, \rho) = \int_{-\infty}^{w_2} \int_{-\infty}^{w_1} \frac{e^{-(1/2)(z_1^2 + z_2^2 - 2\rho z_1 z_2)/(1/\rho^2)}}{2\pi \sqrt{1 - \rho^2}} dz_1 dz_2.$$

The bivariate probit model produces estimates of the coefficient vectors β_1 and β_2 for the two equations; ρ , the correlation between the error terms (ϵ_j) of the equations; and standard errors for these parameters. We can then test whether or not the correlation between the equations is statistically significant, to decide

whether the bivariate estimator was necessary.¹² The bivariate probit model was estimated using the `biprobit` command in Stata 7.

4.4 Results

The results of the bivariate probit model appear in Table 2. The ρ parameter is highly significant, indicating that the error structures of the equations are correlated, suggesting that the bivariate model is the correct specification. The models together perform substantially better than the naïve model that respondents oppose government insurance and do not support Clinton's handling of the health insurance issue.

As we might expect, respondents who do not have difficulty affording their own health care expenses and those with health insurance are less supportive of government financing of health insurance. However, these relationships completely disappear when they evaluate Clinton's handling of the health care issue. While it is possible that this is the result of Clinton's failure to pass legislation mandating government health insurance, it is more likely that voters considered the Clinton plan in partisan terms. It is surprising, however, that the groups the plan was primarily intended to benefit were no more supportive of Clinton's handling of the health care issue than similar individuals with affordable access to health care through existing channels, suggesting that the administration's campaign in favor of the proposal had not succeeded in convincing these core constituencies that would have been needed to help pressure legislators to support the proposal. As

¹²If the correlation is not significant, separate (univariate) probit estimation of the equations is preferable as bivariate probit is less efficient than estimating separate models when the errors are not correlated. (Greene 2000: 853–4)

Variable	Coefficients (Robust Standard Error)	
	Gov't Insurance	Clinton's Handling
Feeling Thermometer: Bill Clinton	0.010*** (0.002)	0.019*** (0.003)
Feeling Thermometer: Hillary Clinton	-0.018*** (0.005)	-0.004 (0.006)
Can afford health care expenses (dummy)	-0.393*** (0.078)	-0.139 (0.088)
Has health insurance (dummy)	-0.374** (0.134)	0.126 (0.125)
Party identification scale	-0.112*** (0.021)	-0.100*** (0.023)
Black (dummy)	0.108 (0.120)	0.028 (0.127)
Female (dummy)	0.002 (0.073)	-0.149† (0.081)
South (dummy)	-0.049 (0.075)	-0.202* (0.084)
Over 50 (dummy)	-0.179* (0.075)	-0.206* (0.085)
Respondent intelligence rating	-0.501*** (0.107)	-0.633*** (0.158)
FT Hillary × intelligence	0.008*** (0.001)	0.008** (0.002)
Constant	1.235*** (0.309)	-0.349 (0.415)
ρ		0.155** (0.050)
Log likelihood		-1508.4549
Wald test of full model: $\chi^2(22)$		635.33***

- Coefficients are maximum-likelihood bivariate probit estimates. $N = 1536$.
- *** indicates $p(z) < .001$; ** $p < .01$; * $p < .05$; † $p < .10$ (two-tailed test).

Table 2: Bivariate probit model of support for government health insurance and Clinton's handling of health care reform.

we would probably expect, partisanship affected support for both government insurance and Clinton's handling of the issue; Republicans were less supportive than Democrats of both Clinton's proposal and the idea of government insurance.

An interesting finding was that Americans over the age of 50 were less supportive of government insurance in general and the Clinton health care plan than we might otherwise expect. This population includes all of the beneficiaries of Medicare, whom we would at least expect to support the idea of government insurance, if not the Clinton proposal. It is possible that respondents over 50 were concerned that universal health care coverage might lead to greater rationing of health care in the Medicare program or increases in tax rates (or retail prices, if employer-based financing of the program were instituted) that seniors would receive a disproportionately small marginal benefit from; it is also possible that older Americans were reflecting a lack of enthusiasm for the Medicare program, and thus government-run insurance in general, in their responses to both questions, as they would be more familiar with government insurance than younger Americans.

Another significant finding was a regional disparity in support for the health care plan; respondents in southern states were significantly less likely to support Clinton's handling of the health care issue, despite not being significantly less likely to support government insurance in general. It is unclear why this relationship might appear; it may reflect a regional sense that Clinton's program would be too bureaucratic, or it may be an artifact of where opponents of the Clinton proposal targeted their media campaigns against the plan.¹³

¹³Presumably, the opponents of the proposal targeted their lobbying pressure on conservative and/or weak Democratic incumbents and their districts; in 1994, this was the case in many parts of the south.

Attitudes towards Bill Clinton affected support for both insurance in general and the Clinton plan in particular; in fact, it was the best predictor of support for both. As President Clinton had, by the 1994 elections, been personally associated with the health care issue for nearly three years, it is not surprising that attitudes towards Clinton carried over into support for insurance in abstract terms; it is also likely that he was personally associated by respondents with “the government.” This variable may also be capturing some underlying partisan or ideological attitudes that are not tapped by the party identification scale.

Perhaps the most interesting findings revolve around respondent attitudes towards Hillary Clinton and sophistication. Due to the interaction with the respondent’s level of intelligence, a direct discussion of the coefficients would be misleading. However, from Figure 4, we can see the interaction between intelligence and attitudes towards the first lady rather clearly. As we might expect, there was a curvilinear relationship at work, with attitudes towards Hillary Clinton having a greater effect on support for both the Clinton approach and government insurance in general among the politically sophisticated, and a smaller effect among the less sophisticated.

4.5 Conclusions

This chapter examined the connections between attitudes towards a political actor (the first lady) and an issue that the actor had been actively involved in promoting. The central finding of this analysis is that voters’ ability to use their attitudes towards actors to locate themselves in policy space is limited by their ability to connect the actors to the policies they espouse. Politically sophisticated voters

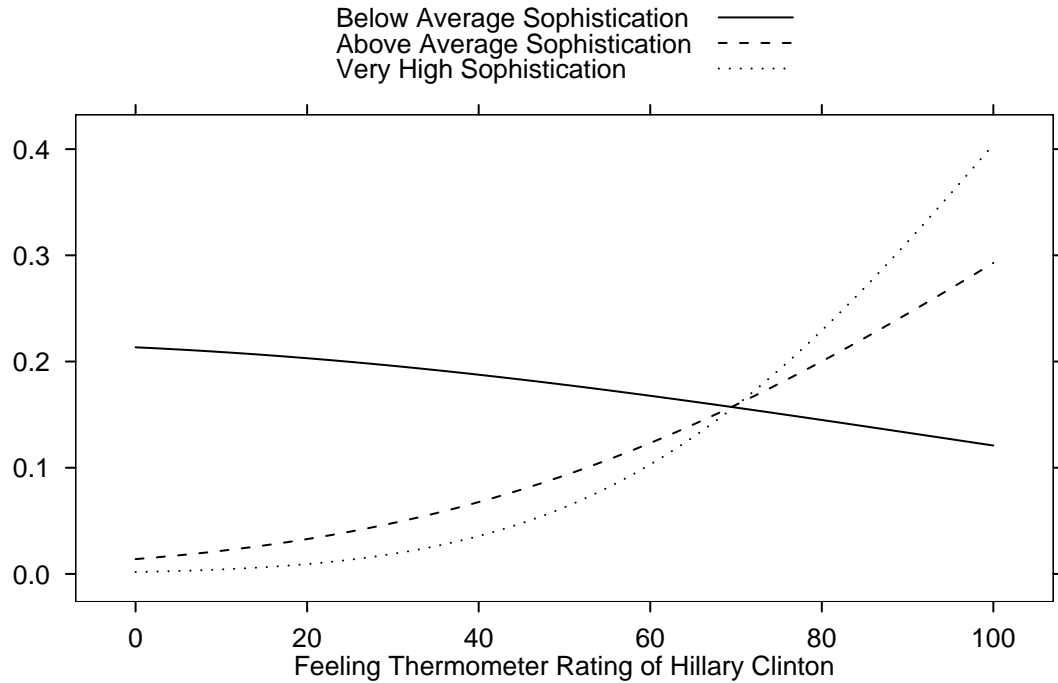


Figure 4: Estimated effect of affect toward Hillary Clinton on approval of health care reform by respondent's level of sophistication.

used evaluations of Hillary Clinton to place themselves in response to a question about the abstract concept of “government-run health insurance” than less sophisticated voters, but those differences were less significant when voters were asked to evaluate the President’s handling of the issue. More generally, it appears that less sophisticated voters have fewer resources to draw upon when deciding their own issue positions.

This chapter also suggests that attitudes towards political actors other than the president may be important in evaluating proposals by the executive branch, particularly when those actors are publicly-visible advocates of a proposal. While few—if any—administrations have had such a high-profile task delegated publicly to a publicly-visible figure, presidents cannot rely on their own popularity to curry

support for proposals that have been associated with other actors. In particular, we might want to look at the role of attitudes towards members of Congress in promoting public support for legislation they are shepherding through Congress on behalf of the president. In a comparative context, we might also want to examine the role of attitudes towards cabinet ministers in public support for a government's legislative proposals; for example, attitudes towards Britain's Chancellor of the Exchequer may be used as heuristics in addition to attitudes towards the prime minister or ruling party when politically sophisticated Britons consider economic policy issues. This relationship might be particularly important in multi-party cabinets, where ministers from different parties may be able to act as policy entrepreneurs against the wishes of the prime minister.

In broader terms, this chapter helps inform the wider debate about how voters use heuristics in making political decisions. It appears that more sophisticated voters are more able to draw upon multiple guides for heuristic evaluation than less sophisticated voters, particularly when evaluating more abstract concepts. The "rational public" is rational only to the extent that voters are able to draw upon information to arrive at conclusions about issues, and this ability is largely dependent on how many sources of information voters can draw upon when making their evaluations.

CHAPTER V

COALITION PERFORMANCE AND THE ASSESSMENT OF PARTY RESPONSIBILITY

When there is a single actor (either a party or candidate) that is responsible for government actions—as is often the case in the United States or in “Westminster” democracies such as Britain or Canada—the attribution of responsibility is generally quite straightforward. However, when multiple parties are responsible for policies, as is often the case in democracies outside the English-speaking world, it is possible that these attributions will be more difficult for voters to make.

This chapter examines the relationship between political sophistication and the assessment of party responsibility for government actions in the Netherlands, a country with a long history of coalition government. The findings suggest that voters generally hold the lead party in the coalition responsible for coalition performance, although more politically sophisticated voters will also hold other members of the coalition accountable. This pattern suggests that parties who want to retain support but still have a significant share in power are often able to deflect responsibility among those dissatisfied with the government’s performance to the largest party, thereby casting doubt on the ability of voters to hold multiple parties accountable for a coalition’s performance.

5.1 *Theoretical Background*

The possibility of the use of party affect as a heuristic by voters has been acknowledged in political science for over forty years. The common party identification scale used in the United States was defined by Campbell et al. (1960) as a measure of a citizen's "affective orientation" toward the two major parties. The role of parties in modern industrialized democracies—in terms of organizing political competition by providing a common "brand" for like-minded political candidates, translating preferences into policy, and motivating the electorate—is such that democracy's persistence in their absence would be "unthinkable" (Schattschneider 1942: 1; also see Aldrich 1995).

Rational choice models of voting behavior postulate that citizens seek to maximize their utility when voting (Downs 1957),¹ and empirical studies suggest that voters do so by engaging in retrospective voting (Key 1966; Kramer 1971; Fiorina 1981)—that is, by evaluating candidates and parties based on their past performance, rather than evaluating them prospectively based on their promises of future behavior. Much of the literature on this question has focused on economic voting, a form of retrospective voting that focuses on the performance of the economy under the stewardship of a particular candidate or party (Lewis-Beck 1988).

However, the ability of voters to engage in any form of retrospective voting is necessarily limited by their ability to attribute blame or credit to a particular

¹ In Downs' initial formulation, the act of voting in and of itself was seen as irrational. Attempts to reconcile this "paradox of voting" have had decidedly mixed results; see e.g. Riker and Ordeshook (1968), Ferejohn and Fiorina (1974), Cyr (1975), Katosh and Traugott (1982), Sigelman and Berry (1982), and Fiorina (1990). More recently, Bendor, Diermeier and Ting (2003) attempt to resolve the paradox by fusing rational choice and psychological explanations.

party or candidate. Erroneous attributions of responsibility may lead to perverse outcomes—for example, “punishing” a party or candidate who is out of power for actions it was not responsible for. While some scholars argue that voters are able to make do with limited information, behaving with low-information or “gut rationality” (Popkin 1991), there is a considerable body of evidence to the contrary.

One important factor that may limit the ability of voters to make informed choices is the institutional configuration. Some configurations make it easier for voters to properly attribute blame than others; the simplest, most clearly responsible case, is where a single unitary actor can be blamed (or credited) for the actions of the government, as is the case in what Lijphart (1999) describes as “Westminster-style” democracies: governments where all executive and legislative power is in the hands of a single party. Not only are such governments “efficient,” in the famous phrase of Bagehot (1964), they also concentrate accountability. Voters who disliked Margaret Thatcher’s policies could easily express their displeasure by voting for another party’s candidates for Parliament, and if enough voters did so, the Conservatives—and Thatcher—would be removed from power.

Shugart and Carey (1992) expand on this theme in their discussion of two advantages of presidential democracies over parliamentary ones. They argue that there are two components of responsibility: *accountability* and *identifiability*. Accountability is tied directly to the theme of retrospective evaluation:

Accountability describes the degree and means by which elected policymakers are responsible to citizens. The more straightforward the connection between the choices made by the electorate at the ballot box and the expectations to which policymakers are held, the greater accountability. Accountability is closely related to concepts such as retrospective voting (Fiorina 1981), or “throwing the rascals out.” Under these conceptions of electoral connection between constituents and

government, voters need not be able to assess prospectively the policy directions with which they wish to endow a mandate on the government (Riker 1982b). Rather, voters need only have the opportunity to impose sanctions on elected officials at the next election. (44)

They argue that parliamentary regimes often undermine this accountability because new governments can be formed without an election, due to “shifting coalitions in the assembly.” Such coalition shifts can create confusion in the electorate and make it harder for voters to attribute responsibility for policies, particularly in countries with a history of volatile coalitions such as Italy.

Shugart and Carey also argue that identifiability is an important aspect of responsibility. They define it as “the degree to which voters can identify before the election the likely alternative governments that may emerge after the election” (45). Supporters of a particular party may vote for it, but will have no control over what other parties it chooses to enter a coalition with. For example, a German voter may support the Christian Democrats, but prefer a Christian Democrat-Liberal coalition to a Christian Democrat-Social Democrat coalition. Shugart and Carey indicate that this lack of identifiability in multiparty democracies hinders the ability of citizens to vote prospectively; by contrast, in a presidential system (or a “Westminster” parliamentary system), the voter knows what sort of government she is getting for her vote when she casts her ballot.

Federalism may also make a difference: voters in a unitary state may be able to connect policy problems more readily to the government than those in a federal republic, where subnational governments like states or provinces may have significant policy responsibility. Divisions in control between the legislature and

the executive in presidential systems—the phenomenon known as divided government in the United States and *cohabitation* in France—may also affect the ability of voters to assign credit or blame for economic conditions such as unemployment and inflation, or the results of other policies (Stein 1990; but, for evidence to the contrary, see Norpoth 2001 and Nadeau and Lewis-Beck 2001).² Lack of cohesion in legislative parties may also have an effect on perceived responsibility.

Taken together, these institutional and contextual factors produce varying degrees of clarity of responsibility. Powell and Whitten (1993), in their study of economic voting in 19 industrialized democracies, find that clarity of responsibility is strongly associated with economic voting at the aggregate level, with minority governments faring significantly better than either majority coalitions or single-party majority governments; the same effect was also noted by Palmer and Whitten (1999) over a longer time-span (also see Anderson 1995, 2000). Examining the effects of divided government, Nicholson, Segura and Woods (2002) find that presidential approval in the United States is higher during periods of divided government, suggesting that divided government insulates presidents from responsibility in the eyes of the electorate. Most of these studies have focused on aggregate-level evidence of retrospective voting; however, in an analysis of state-level attributions in the United States of blame for economic conditions, Rudolph (2003) finds that evaluations of state governors are conditioned on whether the individual voter attributes responsibility for economic conditions within the state to the governor or the state legislature.

²For example, during the 1990s in the United States, both the Republican-led Congress and Democratic president Bill Clinton took credit for policy achievements such as welfare reform and balancing the federal budget.

There is another factor that may also matter in retrospective evaluations: whether the voter is politically sophisticated enough to understand the relationship between political actors and policy outcomes. Duch, Palmer and Anderson (2000) find that politically sophisticated voters' retrospective and prospective evaluations of the American national economy are strongly affected by their partisan preferences, thus producing a systematic bias in individual-level measures of economic voting, while Gomez and Wilson (2001) find that less sophisticated American voters attribute credit and blame for macroeconomic conditions to the president, while more sophisticated voters do not, as they recognize the president's relative lack of control over the economy. More generally, we would expect the clarity of responsibility for government policies to affect the level of sophistication needed to attribute blame or credit.

5.2 The Case of the Netherlands

The Kingdom of the Netherlands provides a fertile testing ground for the importance of political sophistication. Historically, it has been a stereotypical "consensus democracy," and it has never had a single-party majority government in its modern history (Timmermans and Andeweg 2000). Because of this history, if there were ever a country with a record of coalition government where even the least sophisticated voter would be able to make retrospective evaluations, that country would be the Netherlands.

However, the 1994 elections produced a significant shock to the preexisting system. For the first time since 1917, the Christian Democratic Appeal (CDA)³ was

³While the CDA was formed in 1977, the three Christian parties—the Anti-Revolutionary Party

not a member of the coalition that formed. Instead, the coalition that formed after the election consisted of three parties—the social democratic PvdA (or Labor Party), the center-left reformist Democrats 66 (D66), and the liberal⁴ People’s Party for Freedom and Democracy (VVD). While the PvdA and D66 had governed together in the past, no coalition prior to 1994 had included both PvdA and VVD due to what had appeared to be irreconcilable differences in their preferred economic policies.⁵

Nevertheless, the coalition, headed by PvdA leader Wim Kok, was broadly successful. Irwin (1999) suggests that the main opposition to government policies was not provided by any of the opposition parties, but rather by Frits Bolkestein, the Liberal leader, who did not take a position in the cabinet, and came to be seen by many as the effective leader of the opposition—even though his own party was a major partner in the governing coalition.⁶ According to Irwin, most of the opposition parties, including the traditionally-centrist CDA, attempted to position themselves to the left of Labor (who were seen as having moved to the right), with mixed results.

(ARP), Christian Historical Union (CHU), and Catholic People’s Party (KVP)—that joined to form it had previously acted much like a single party, even though the former two parties drew mostly on Protestant support while the latter was supported by Catholics.

⁴In the European, pro-free market sense.

⁵PvdA historically drew most of its support from the working class, as a typical European social democratic “mass party” supported by trade unions. The CDA and its predecessors, as a typical continental Christian democratic party, generally appealed to practicing Christians, particularly among the lower and middle classes. D66 is a “left-libertarian” party that seeks a more inclusive Dutch political system and generally appeals to the intellectual elite of Dutch society; it generally competes for support with PvdA and the Greens. The VVD is a traditional European liberal party with strong support among the upper class, entrepreneurs, and the less-devout parts of the middle class.

⁶As Andeweg (1996) notes, members of the coalition are required to resign their seats in parliament as a condition for participation in the cabinet, although they may appear on the party list for reelection.

This three-way coalition, known as the “Purple Coalition,” based on the combination of the traditional red color of the PvdA and blue of the VVD, faced the electorate in 1998 with a pledge to continue the coalition if the parties retained sufficient strength to do so, thus reducing the potential “identifiability” problem for voters. The coalition faced opposition not only from the Christian Democrats, but also from a number of orthodox Calvinist parties,⁷ GroenLinks (literally, the GreenLeft), the old-line Socialist Party, and a number of smaller parties focused on particular issues.

In the elections that were held on May 6, 1998, the 150-seat Second Chamber (lower house) of the national parliament was elected by party-list proportional representation from a single constituency. The Netherlands provides for no minimum threshold for party representation beyond the number of votes required to gain a single seat (1/150th of the national tally). The only unusual feature of the list system is a provision that voters may express a preference for one of the lower-ranked candidates on the party list (Irwin 1999: 273–74).

The election was a moderate success for the coalition as a whole. Both Labor and the Liberals gained seats (Labor gaining five percent of the vote and eight more seats, bringing its total up to 45 seats; the Liberals gaining 4.8 percent and seven seats, garnering 38 total seats), while D66 lost 6.5 percent of the vote relative to 1994 and saw its seat total reduced from 24 in the outgoing parliament to 14. Meanwhile, the Greens more than doubled their representation to 11 seats (from 5), the main opposition CDA again suffered losses, the Calvinist parties gained a seat,

⁷The Reformed Political Party (SGP), Reformed Political Union (GPV), and Reformed Political Federation (RPF). These parties had separate lists in the election but generally attract support from similar groups of voters.

and the Socialists also attracted more votes, and received 5 seats. Although Labor and the Liberals had sufficient seats between them (83 of 150) to form a minimal winning coalition without D66, the latter party was invited into the new coalition as well, under the continued leadership of Labor's Wim Kok.

5.3 *Hypotheses*

To examine how retrospective evaluations of government performance were influenced by respondents' levels of sophistication, and in turn how vote choice was affected by those evaluations, two separate estimation stages are necessary.

Duch, Palmer and Anderson (2000) estimate a model of retrospective evaluations of government performance in the United States that includes sophistication effects.⁸ Adapting their hypotheses to the multiparty electoral context of the Netherlands is reasonably straightforward.

Duch, Palmer and Anderson's primary hypothesis is that party identification conditions respondents' evaluations of the performance of the government; those citizens who identify with the party in power (in their case, that holding the Presidency) will generally evaluate the government's performance more highly than those who do not do so. Outside the United States and other English-speaking countries, however, the concept of "party identification" has met with limited success (Budge, Crewe and Farlie 1976); for example, most voters in the Netherlands do not identify with a particular party. Moreover, given the multiparty system in the Netherlands, a unidimensional measure of party identification would be

⁸They also estimate a model of prospective evaluations; however, there are no prospective evaluation questions in the 1998 Dutch Parliamentary Election Study.

unsatisfactory.

As a substitute for “party identification,” we can use the affective orientation of respondents to particular political parties. Because Dutch governments are typically coalitions, we would expect those voters who favor parties that are members of the coalition to evaluate the government more highly, and those who favor the parties outside the coalition to have less positive evaluations of the government’s performance.

Another hypothesis is that the voter’s level of exposure to political information will have an effect on their evaluations of government performance. In particular, we would expect the voter’s level of education and level of political sophistication to be generally more aware of the government’s performance, and thus “have more accurate, or at least more consistent, economic evaluations” (Duch, Palmer and Anderson 2000: 639).

We would also expect an interaction between these affective orientations and the voter’s level of political sophistication. Duch, Palmer and Anderson argue, based on Zaller (1992), that more politically sophisticated voters are more likely to have their evaluations colored by partisan bias. In addition to this effect, more sophisticated voters are more likely to understand the workings of a coalition government—including its composition and the distribution of power among the member parties—and thus are more likely to show an association between their partisan affinities and their evaluations of government performance.

Finally, we would expect various manifestations of what Duch, Palmer and Anderson describe as “group self-interest” to have an effect on evaluations. We would expect the working class, the elderly, and women, groups who generally

1. Higher income leads to more positive evaluations of the coalition.
2. More educated voters have more positive evaluations of the coalition.
3. Working-class voters have less positive evaluations of the coalition's performance.
4. Voters with greater affinity for parties in the coalition will have more positive evaluations of coalition performance.
5. The effect of affinity towards minor-party members of the coalition on evaluations should be stronger among voters who are more politically sophisticated.

Table 3: Hypotheses tested in the model of evaluation formation.

benefitted from the policies previous, more egalitarian coalitions, to have negative evaluations of the "neoliberal" Purple Coalition, and those citizens with higher incomes to have more positive evaluations for similar reasons.

In addition to a model of retrospective evaluations, a second model of vote choice is also necessary to decide whether the attributions of credit or blame for past performance are translated at the voting booth. Recent studies of vote choice in multiparty elections (Whitten and Palmer 1996; Alvarez and Nagler 1998, 2000; Schofield et al. 1998; Quinn, Martin and Whitford 1999; and Duch and Palmer 2002) suggest a number of hypotheses to be tested.

First and foremost, we would expect the retrospective evaluation of government performance to have an effect on vote choice. Voters who believe the government is doing a good job should be more likely to support coalition parties and less likely to vote for opposition parties.

We might also expect an interaction between these evaluations and the respondent's level of sophistication, particularly among the parties outside the coalition;

more sophisticated voters with negative evaluations of the government's performance should be more likely than nonsophisticates to support opposition parties and less likely to vote for coalition members.

A number of control variables are also suggested by the literature. As the Dutch party system has historically been class-based, we would expect class voting to have an effect on vote choice. We would also expect voters' ideological orientations on the left-right axis to have an effect, as well as their issue positions and various effects of "group self-interest" similar to those in the retrospective evaluation model. Finally, we would expect religious devotion to have an effect, with those voters who are more devout supporting the CDA or one of the minor Calvinist parties.

The hypotheses tested in the two models are shown in Tables 3 and 4.

5.4 Data and Methods

These hypotheses are examined using data from the 1998 Dutch Parliamentary Election Study (Aarts, van der Kolk and Kamp 1999), a national face-to-face survey of 2101 potential voters in the Netherlands conducted prior to the 1998 parliamentary elections.⁹

As described above, two separate models were estimated. The dependent variable in the analysis of retrospective evaluation is a measure of the respondent's satisfaction with the government's performance over the past four years ("Satisfaction"). It is a composite of responses to three questions: the respondent's

⁹A post-election wave was also conducted; however, this analysis relies solely on the pre-election wave.

1. The historical class-based voting pattern of the Dutch electorate should lead to greater support of the VVD and D66 among upper-class voters, higher support for the PvdA among working-class voters, and higher support for the CDA among married voters.
2. Left-wing ideology should increase support for the PvdA and Socialists, while right-wing ideology should increase support for the VVD and minor Calvinist parties.
3. Voters who support greater income redistribution should support left-wing parties more strongly.
4. Voters who favor euthanasia should be less likely to support the CDA and minor Calvinist parties.
5. Respondents favoring more liberal asylum policies should be less supportive of the VVD.
6. Voters who favor greater European integration should be less supportive of the PvdA.
7. More religious voters should support the CDA and Calvinist parties.
8. Voters' attitudes toward the performance of the coalition should affect their vote choice, with voters who approve of coalition performance should be more likely to vote for coalition members.
9. The preceding effect should be more pronounced among more sophisticated voters, particularly when considering smaller coalition members.

Table 4: Hypotheses tested in the model of vote choice.

evaluation of the coalition's "general performance," the coalition's impact on the national economic situation, and the effect the coalition has had on unemployment.

Respondents' attitudes toward the three coalition parties and the main opposition party (the CDA) were measured using four 0–100 "sympathy scales," similar to the feeling thermometers used in the American National Election Studies. As it is possible that there were individual respondent effects in these attitudes, a separate model was estimated with these sympathy scales recentered so the per-respondent mean evaluation of the coalition parties, the CDA, GroenLinks, and the Socialists

Variable	Coded from
Satisfaction	Four-point Mokken scale ($H = 0.37$) of three items evaluating the performance of the government since the 1994 election, with 0 being the least satisfied and 3 being the most satisfied. V0074.
General Performance	Five-point Likert scale evaluating government performance since the last election, with 1 meaning “very unsatisfied” and 5 meaning “very satisfied.” V0073 (reversed).
Vote Choice	A categorical measure of the respondent’s intended vote in the 1998 Second Chamber elections. Respondents were classified as planning a vote for CDA, D66, GroenLinks, a Calvinist party (SGP, GPV, or RPF), PvdA, the Socialists, or PvdA. Respondents who planned to vote for a minor party or did not plan to vote were omitted. V0076.
Issue scales	Respondent’s self-location the issues of income redistribution, legalized euthanasia, asylum policy for refugees, and further European integration. V0123, V0116, V0130 and V0137 respectively.
Income	Respondent’s estimated household income. V0348.
Age	Respondent’s age. V0350.
Married	Coded 1 for married respondents, 0 otherwise. V0351.
Education	Respondent’s level of education. V0352.
Class	Respondent’s self-identified social class. Omitted category is middle class. V0394.
Left-Right Position	Respondent’s self-location on an 11-point “left-right” ideological spectrum. V0160.
Female	Coded 1 for female respondents, 0 for males. V0288.
Catholic × Attendance	Frequency of church attendance for Catholic respondents. Coded 0 for non-Catholics. Coded from V0377 and V0382.
Protestant × Attendance	Frequency of church attendance for Protestant respondents. Coded 0 for non-Protestants. Coded from V0377 and V0382.
Party Sympathy Scales	Feeling thermometers: V0170 (Labour/PvdA), V0171 (VVD), V0172 (D66), and V0174 (CDA).
Adjusted Sympathy Scales	The party sympathy scales, adjusted so the per-respondent mean of the four included sympathy scales and the scales for GroenLinks and the SP are zero.
Political Sophistication	Latent variable constructed based “correct” answers to 44 knowledge items on the survey. The construction is described further in the main text.

Table 5: Variables in the Dutch election models.

was zero.¹⁰

The political sophistication measure used in this analysis was constructed from a unidimensional item response theory model of political knowledge in the Dutch electorate. For details on the theoretical justification for the model and construction of the measure, see the appendix starting on page 89.¹¹

The coding for the group self-interest variables was straightforward and is presented in Table 5. As the dependent variable has multiple ordered response categories,¹² the most appropriate estimator is an ordinal model such as ordered logit¹³ or ordered probit (McKelvey and Zavoina 1975; Aldrich and Nelson 1984); I chose to estimate it using the former specification.¹⁴ The model was estimated in *GNU R* 1.7.1 (Ihaka and Gentleman 1996) using the `polr` (proportional-odds logistic regression) procedure from the `MASS` library (Venables and Ripley 2002), with only complete cases estimated.

The second specification uses as the dependent variable the respondent's anticipated vote choice. Respondents who indicated they planned to vote in the 1998 election were coded into one of seven categories, with those who did not plan to vote or planned a vote for a minor party were omitted.

¹⁰GroenLinks and the Socialists were included to ensure the recentered sympathy scales would not produce an identification problem in the model. Otherwise, each recentered scale would be a linear function of the other three scales included, which would produce a singular estimation matrix.

¹¹A 13-point measure of political knowledge included in the public dataset performed similarly in a previous analysis.

¹²Although this measure has five categories, it effectively only has three due to most respondents' evaluations being clustered in the middle three points on the scale (and the model only predicts three of the five responses). Estimating the model with the scale collapsed to three points had no substantive effect.

¹³Also known as "proportional-odds logistic regression."

¹⁴Probit estimates are generally equivalent to logit estimates, with a small scaling factor, except in rare cases; see Long (1997) for a discussion.

To operationalize “devoutness,” separate measures of church attendance for Protestants and Catholics were produced. The operationalization of the remaining hypotheses was straightforward (or already described above).

Two separate models using this specification are estimated; the first uses a reversed “satisfaction” measure, which is the dependent variable in the retrospective evaluation models, while the second uses an reversed “general performance” measure, one of the components of the satisfaction measure.¹⁵

As the dependent variable is categorical, a multinomial model is appropriate. A number of potential models have been suggested in the literature, including multinomial logit or MNL (Whitten and Palmer 1996), conditional logit (McFadden 1974), nested multinomial logit, mixed logit or MXL (Glasgow 2001), and multinomial probit or MNP (Alvarez and Nagler 1998; Schofield et al. 1998; Quinn, Martin and Whitford 1999), each of which has various benefits and drawbacks.¹⁶ Following Whitten and Palmer (1996), I used the MNL specification. The MNL models were estimated in *GNU R* 1.8.0 with the `vglm` (vector generalized linear model) procedure using the `multinomial` link in the *VGAM* package (Yee and Wild 1996).

A summary of variables in the models are presented in Table 5, and some

¹⁵The measures were reversed so that higher levels would indicate greater dissatisfaction with the government’s performance, which eases interpretation of the models, as most respondents were generally satisfied.

¹⁶Most notably, MNL is subject to the “independence of irrelevant alternatives” or IIA assumption. However, alternative models generally must be estimated using simulation techniques like Markov Chain Monte Carlo (MCMC), don’t allow individual-level variables (in the case of conditional logit), require choice-specific variables to provide non-fragile estimates (Keane 1992), and/or generally are not provided by common statistical packages; however, an *R* implementation of MNP is forthcoming (Martin and Quinn 2003). Moreover, the degree to which the IIA assumption is problematic in political science research is subject to some debate; see Whitten and Palmer (1996: 255–56) for a discussion.

descriptive statistics are provided for them in Tables 6–8. Table 8 also provides the actual vote received by each party, from Irwin (1999).

5.5 Results

The results of estimating the model of retrospective evaluation appear in Tables 9 and 10.¹⁷ There are significant differences in the impact of sophistication on the effects of attitudes toward the four parties. These differences are demonstrated visually in effects displays showing the predicted impact of affect toward the four largest political parties, conditioned on respondents' levels of sophistication, shown in Figures 5–8.¹⁸ For example, in Figure 6, an unsophisticated voter who gave an evaluation of the VVD 50 points higher than the mean would only have a 20% chance of awarding the coalition a “very high” evaluation, while a highly sophisticated voter with the same rating of the VVD would have a 45% chance of giving the coalition a “very high” satisfaction rating.

In addition, significance tests of the interaction between sophistication and party affect for the model using adjusted sympathy scales are shown in Table 11. This table shows that more sophisticated voters are more likely to evaluate the coalition's performance on the basis of their affective orientation toward the member

¹⁷Unlike LIMDEP, but like Stata, `po1r` estimates ordered logit models with $k - 1$ cut points and the constant term (intercept) fixed at zero. There are no substantive effects; see Long (1997: 104) for a discussion.

¹⁸Each effects display shows the predicted probability of a high evaluation of the coalition's performance for a “typical” voter who evaluates the given party at a particular “sympathy scale” rating. In each display, the feeling thermometer ratings for the other three parties are held constant at their means, and the remaining variables are set to their means or, in the case of dichotomous variables, modes, while the adjusted rating for the party was allowed to vary from -50 to 50 . The panels show the estimated relationship for voters who have varying levels of political sophistication.

Variable	Range	Median	Mean	Std. Dev.
Satisfaction	0–3	2	1.64	1.07
General performance	1–5	3	3.318	0.749
Income differences	1–7	5	4.96	1.57
Euthanasia	1–7	6	5.16	1.84
Asylum seekers	1–7	4	4.36	1.57
European integration	1–7	4	3.87	1.65
Left-Right position	0–10	5	5.10	2.07
Education	1–10	4	5.03	2.68
Income	1–12	9	8.01	3.27
Catholic × Attendance	0–4	0	0.42	0.96
Protestant × Attendance	0–4	0	0.43	1.15
PvdA sympathy scale	0–100	70	64.32	18.9
CDA sympathy scale	0–100	50	55.10	19.7
VVD sympathy scale	0–100	50	51.95	21.5
D66 sympathy scale	0–100	50	53.55	19.6
Political Sophistication	0–4.46	2.25	2.30	0.92

Table 6: Descriptive statistics for metric variables in the Dutch models.

Variable	Percentage coded 1
Upper Class	17.4
Upper Working Class	7.2
Working Class	18.4
Female	51.4
Married	60.4

Table 7: Descriptive statistics for dummy-coded variables in the Dutch models.

Vote Choice	Percentage Support	
	Vote Intention (DPES)	Election Results
PvdA (Labor)	27.8	29.0
VVD (Liberals)	22.8	24.7
CDA (Christian Democrats)	20.6	18.4
Democrats 66	7.4	9.0
GroenLinks (Greens)	8.5	7.3
SGP, GPV, RPF (Calvinists)	5.6	5.0
SP (Socialists)	5.3	3.5
Others (omitted)	2.0	3.1

Table 8: Descriptive statistics of intended vote choice in the 1998 DPES (with comparison to the actual election results).

parties, particularly the junior members (the VVD and D66), while less sophisticated voters show no effect of party affect toward coalition members; among the least sophisticated voters, the only significant effect is in the opposite direction than that which we would expect (CDA support among unsophisticated voters leads to significantly higher evaluations of coalition performance, which is inconsistent with “correct” retrospective evaluation).

The effect of sophistication on the relationship between attitudes toward Labour (PvdA), the leading coalition partner, and coalition performance is the least pronounced. At the lowest level of sophistication, there is a significant relationship between ratings of Labour and the evaluation of coalition performance in the unadjusted model, while the effect is insignificant in the model using the adjusted sympathy scores. There is a slight positive interaction (insignificant in the unadjusted model, but significant in the adjusted model) between the level of sophistication and the feeling thermometer rating as illustrated in Figure 5. It is apparent that almost all voters have learned that Labour is responsible for the government’s performance, which is hardly surprising—not only was it the lead member of the

Independent Variable	Coefficient (Std. Err)
Income	0.038* (0.015)
Age	-0.004 (0.003)
Education	0.005 (0.020)
Female	-0.552*** (0.093)
Working Class	-0.386** (0.130)
Sophistication	-0.260 (0.252)
PvdA Sympathy	0.016* (0.007)
VVD Sympathy	-0.006 (0.007)
D66 Sympathy	-0.008 (0.008)
CDA Sympathy	0.022** (0.007)
Sophistication × PvdA Symp.	0.003 (0.003)
Sophistication × VVD Symp.	0.007* (0.003)
Sophistication × D66 Symp.	0.008** (0.003)
Sophistication × CDA Symp.	-0.009** (0.003)
μ_1	0.260 (0.644)
μ_2	1.540* (0.646)
μ_3	3.002*** (0.649)
Log likelihood (L)	-2232.970
Wald test versus null model $\chi^2(14)$	1309.383***
Percent correctly classified	40.37%
Proportional reduction in error over null model	14.63%

- Coefficients are ordered logit maximum-likelihood estimates. $N = 1761$.
- *** indicates $\Pr(t) < .001$, ** $p < .01$, * $p < .05$, † $p < .10$ (two-tailed test).

Table 9: Ordered logit model of voter satisfaction with the 1994–98 Dutch government’s performance using unadjusted sympathy scales.

Independent Variable	Coefficient (Std. Err)
Income	0.045** (0.015)
Age	-0.008** (0.003)
Education	0.007 (0.020)
Female	-0.538*** (0.093)
Working Class	-0.393** (0.129)
Sophistication	0.241*** (0.070)
Adj. PvdA Sympathy	0.014 (0.009)
Adj. VVD Sympathy	-0.004 (0.007)
Adj. D66 Sympathy	-0.009 (0.010)
Adj. CDA Sympathy	0.019* (0.008)
Sophistication × PvdA Symp.	0.007† (0.004)
Sophistication × VVD Symp.	0.005† (0.003)
Sophistication × D66 Symp.	0.012** (0.004)
Sophistication × CDA Symp.	-0.007* (0.003)
μ_1	-1.055*** (0.249)
μ_2	0.186 (0.247)
μ_3	1.606*** (0.250)
Log likelihood (L)	-2271.095
Wald test versus null model $\chi^2(14)$	1233.132***
Percent correctly classified	37.54%
Proportional reduction in error over null model	10.57%

- Coefficients are ordered logit maximum-likelihood estimates. $N = 1761$.
- *** indicates $\Pr(t) < .001$, ** $p < .01$, * $p < .05$, † $p < .10$ (two-tailed test).

Table 10: Ordered logit model of voter satisfaction with the 1994–98 Dutch government’s performance using adjusted sympathy scales.

Party	Baseline (0%)	t score at level of sophistication			
		25%	Median (50%)	75%	Maximum (100%)
PvdA	1.586	6.334***	8.711***	7.869***	4.861***
VVD	-0.559	1.248	2.908*	4.086***	3.094**
D66	-0.927	2.182*	4.887***	6.454***	4.968***
CDA	2.327*	1.855†	0.922	-0.905	-2.055*

- Table entries are t tests of the linear hypothesis $\beta_i + \beta_j s = 0$, where β_i is the coefficient for the party's sympathy scale, β_j is the coefficient for the interaction of the sympathy scale and sophistication, and s is the corresponding value of sophistication. The first column corresponds to the baseline significance tests presented along with the model.
- The t tests are formulated as $t = \frac{b_i + b_j s}{\sqrt{\sigma_{b_i}^2 + s^2 \sigma_{b_j}^2 + 2s \sigma_{b_i b_j}}}$.
- *** indicates $\Pr(t) < .001$, ** $p < .01$, * $p < .05$, † $p < .10$ (two-tailed test).

Table 11: The effects of interactions between sophistication and adjusted party sympathy scales.

coalition, it was also the only member of the coalition that had been continuously in government since the 1989 election.

The impact of sophistication among the two junior coalition partners (VVD and D66) is more interesting. Attitudes toward both parties have small, insignificant effects among unsophisticated voters, but both interactions show significant, positive relationships at higher levels of knowledge in both models. Figures 6 and 7 illustrate this increasing slope at higher levels of sophistication, indicating that more knowledgeable voters tend to have a higher level of understanding about the smaller parties' role in political decision-making, while the relationship appears to be less strong among less sophisticated voters.

Finally, the effect of evaluations of the CDA varies markedly between unsophisticated and sophisticated voters. Unsophisticated voters appear *completely oblivious* to the upheaval in the Dutch system in 1994, and are still using their feelings toward

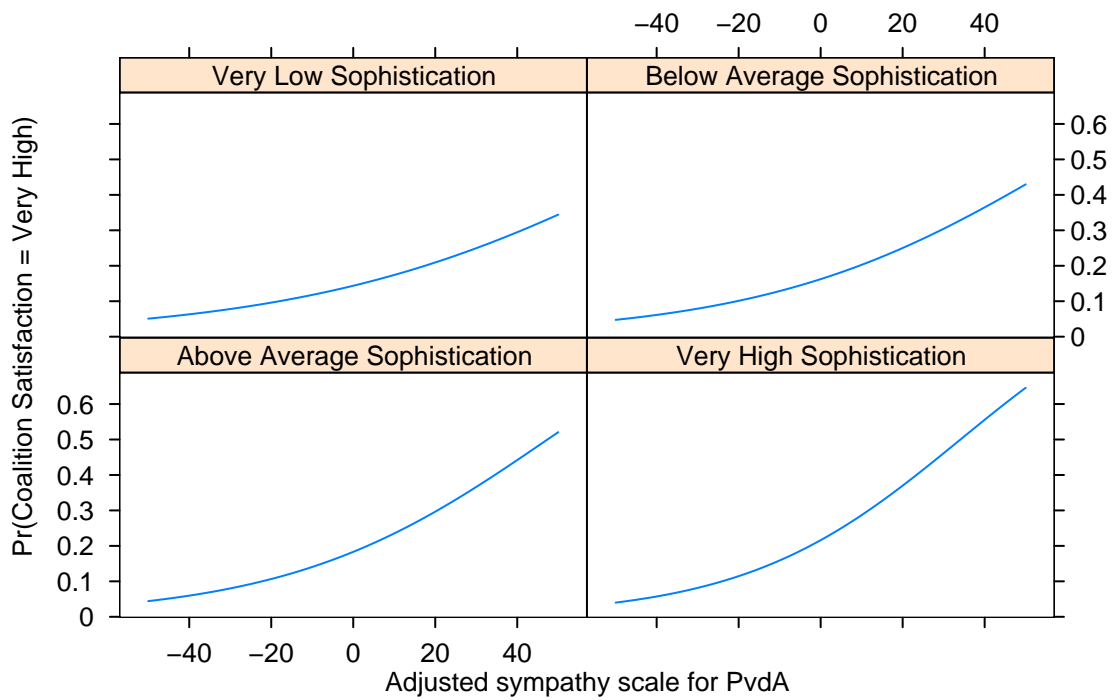


Figure 5: The impact of political sophistication on the use of affect toward Labour (PvdA) as a heuristic for evaluating coalition performance.

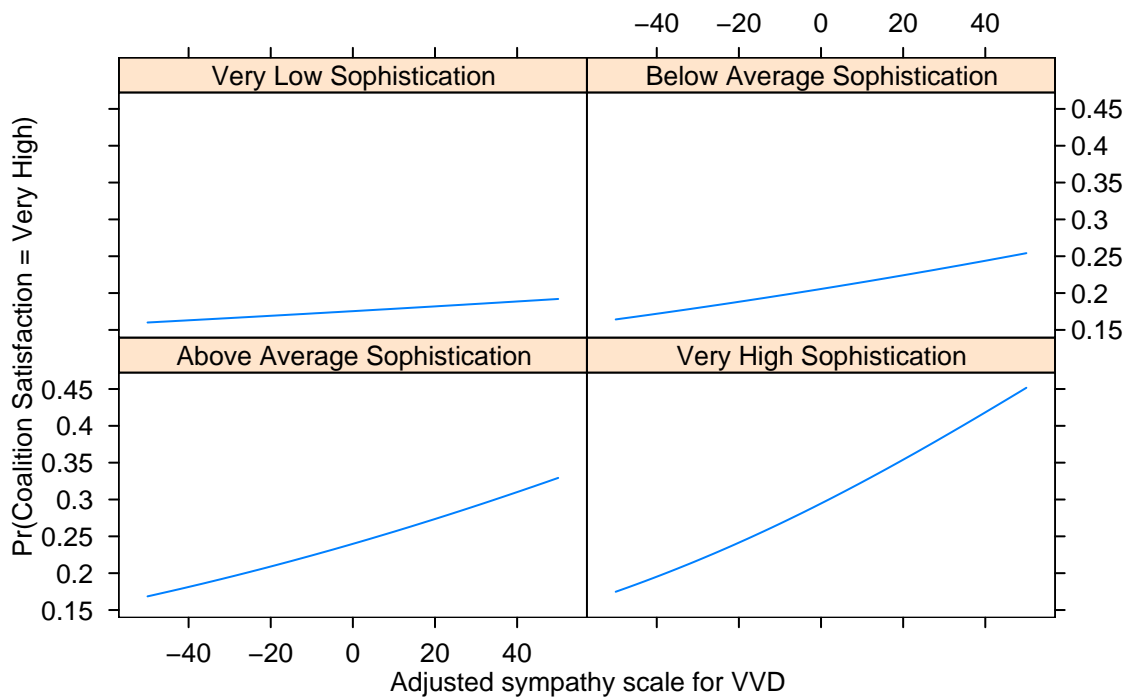


Figure 6: The impact of political sophistication on the use of affect toward the VVD as a heuristic for evaluating coalition performance.

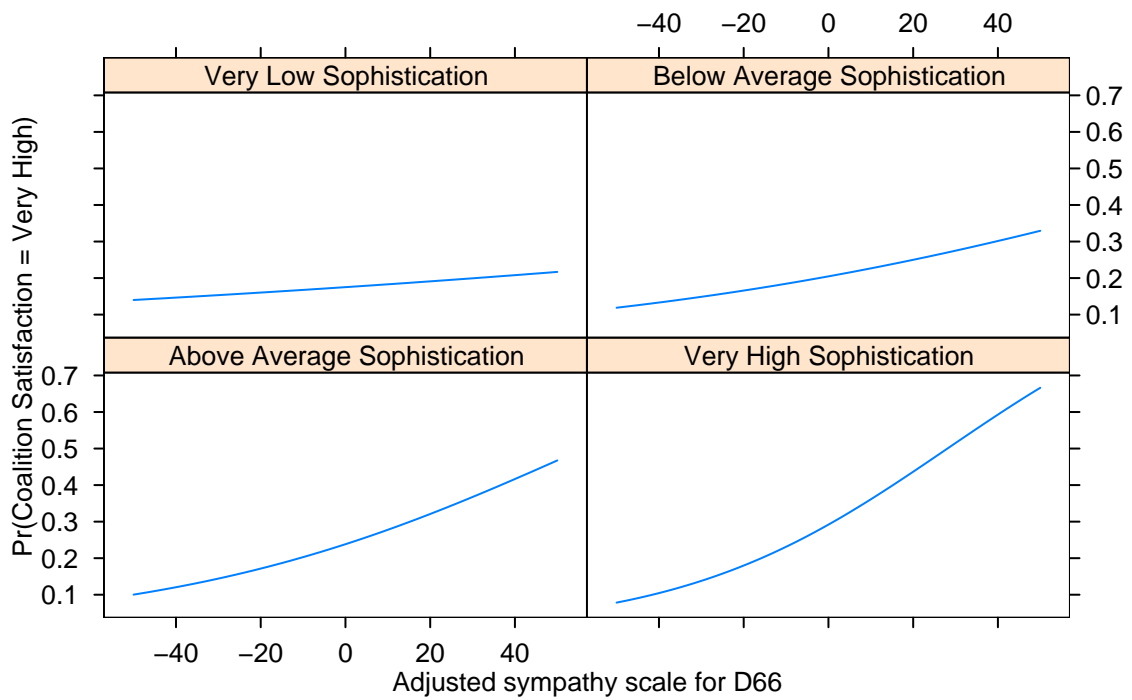


Figure 7: The impact of political sophistication on the use of affect toward D66 as a heuristic for evaluating coalition performance.

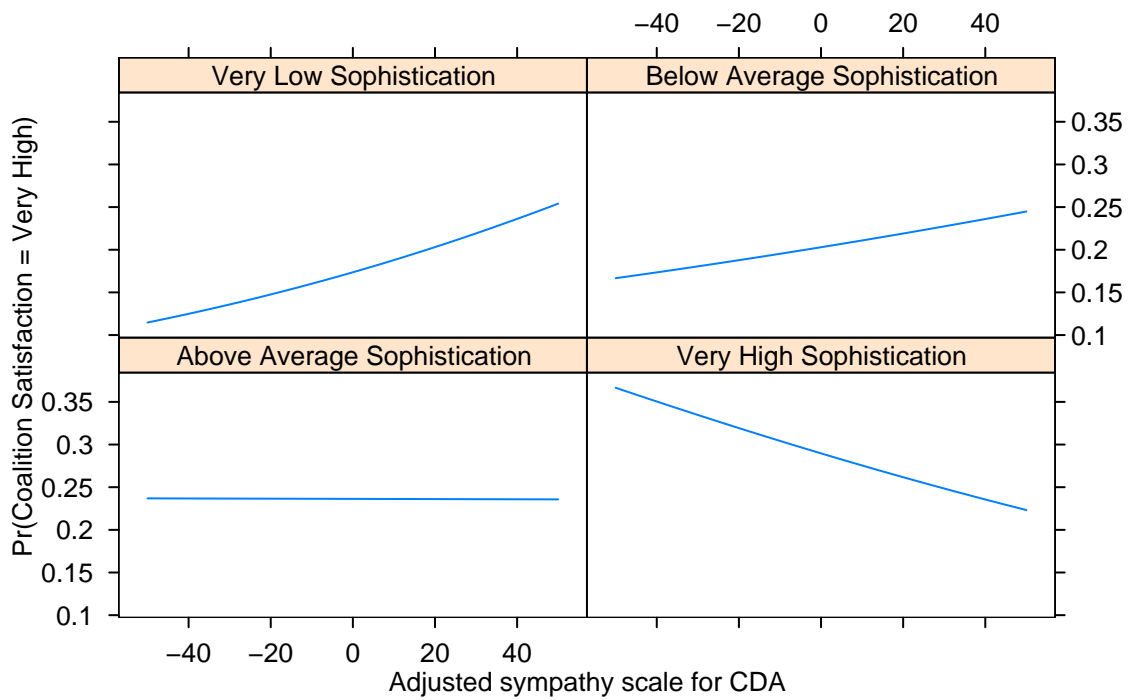


Figure 8: The impact of political sophistication on the use of affect toward the CDA as a heuristic for evaluating coalition performance.

the CDA to evaluate the performance of the government (this is illustrated by the significant, positive relationship on the non-interactive term in the models, and the positive slope in the upper-left corner of Figure 8). However, the significant, negative coefficient on the interaction reverses this effect among the most sophisticated voters, suggesting that there is a partisan bias in attributions of coalition performance among the most sophisticated voters—that is, that sophisticated voters with higher evaluations of the CDA are less likely to show high levels of support for the coalition’s performance, indicating that their partisanship affects the objectivity of their evaluations.¹⁹

Another noteworthy effect is that the use of affect toward parties is more strongly associated with evaluations of coalition performance among more sophisticated voters. Although it is not readily apparent from the coefficients, the figures clearly show that party affect is strongly associated with intensity of opinion about the coalition’s performance among sophisticates, while less sophisticated voters are less likely to have a strongly positive opinion about the government.

The effects of the control variables are generally as expected. Women and the working class generally have less favorable evaluations of the government’s performance (female voters are approximately 42% less likely to have a high evaluation of the coalition’s performance, while working-class voters are 32% less likely to evaluate the coalition’s performance highly), while those with higher incomes generally have more favorable evaluations, indicating that the “neoliberal” leanings of

¹⁹There is a slight, but significant, negative correlation between the adjusted sympathy scores for PvdA and the CDA among voters at all levels of sophistication; no such correlation is apparent when using the unadjusted scores.

the coalition resonated with voters with higher incomes (a one-unit increase in income increased the odds of higher support for the coalition's performance by 4%). The effect of age was small, although it attained significance in the model with the adjusted sympathy measure, with a ten-year increase in age corresponding to an 8% drop in support for the coalition; however, the effect of age was not statistically significant in the model with the unadjusted measure. Information had little effect in the unadjusted model; however, in the adjusted model, sophisticates were 27% more likely to have a positive evaluation of the government than nonsophisticates, and the effect was statistically significant.

Independent Variable	log(CDA/PvdA)	log(D66/PvdA)	log(GreenLinks/PvdA)	Coefficient (Std. Err)	log(Calvinists/PvdA)	log(SF/PvdA)	log(VVD/PvdA)
(Intercept)	-3.011** (1.087)	-3.535** (1.287)	0.170 (1.231)	-1.947 (2.221)	-4.639** (1.601)	-5.140*** (1.075)	
Upper Class	0.212 (0.342)	1.072*** (0.311)	0.931** (0.321)	-0.177 (0.746)	0.168 (0.495)	0.726* (0.300)	
Upper Working Class	-0.632 (0.466)	-1.010 (0.640)	-0.207 (0.475)	-2.036 (1.356)	0.555 (0.463)	-0.377 (0.405)	
Working Class	-1.100** (0.360)	-1.157* (0.484)	-0.862* (0.401)	-2.575*** (0.778)	-0.734+ (0.428)	-2.656*** (0.546)	
Left-Right Position	0.673*** (0.075)	0.248** (0.081)	-0.167+ (0.087)	1.008*** (0.164)	0.090 (0.097)	0.846*** (0.075)	
Sophistication	-0.083 (0.240)	0.592* (0.239)	0.037 (0.254)	1.114+ (0.662)	0.294 (0.331)	0.136 (0.219)	
Dissatisfaction	-0.399 (0.377)	0.420 (0.421)	-0.247 (0.401)	0.697 (0.827)	0.153 (0.475)	-0.178 (0.369)	
Sophistication × Dissatisfaction	0.305* (0.148)	-0.140 (0.162)	0.217 (0.150)	-0.203 (0.326)	0.137 (0.175)	0.146 (0.146)	
Income redistribution	-0.303*** (0.083)	-0.233* (0.098)	0.069 (0.106)	-0.163 (0.149)	0.087 (0.128)	-0.557*** (0.084)	
Euthanasia	-0.160* (0.074)	0.232* (0.105)	0.033 (0.094)	-1.868*** (0.301)	0.204+ (0.118)	0.136+ (0.078)	
Asylum policy	0.067 (0.088)	-0.022 (0.097)	-0.217* (0.093)	-0.482* (0.205)	-0.214* (0.104)	0.260** (0.087)	
European integration	0.061 (0.082)	0.150+ (0.090)	0.240** (0.086)	0.625*** (0.175)	0.466*** (0.102)	0.215** (0.076)	
Household income	-0.058 (0.045)	0.006 (0.051)	-0.011 (0.045)	-0.002 (0.093)	-0.093 (0.058)	0.045 (0.044)	
Age	0.000 (0.008)	-0.026* (0.010)	-0.041*** (0.010)	-0.090*** (0.022)	-0.015 (0.011)	-0.007 (0.008)	
Married	0.652* (0.285)	0.142 (0.300)	-0.088 (0.288)	0.476 (0.571)	0.248 (0.359)	-0.056 (0.259)	
Catholic × Attendance	0.982*** (0.124)	0.010 (0.201)	0.145 (0.174)	-0.052 (0.526)	-0.166 (0.243)	-0.034 (0.163)	
Protestant × Attendance	0.952*** (0.123)	0.095 (0.196)	0.283+ (0.155)	1.149*** (0.183)	-0.549 (0.417)	0.074 (0.168)	
Log likelihood (L)	-1216.267						
Wald test versus null model $\chi^2(96)$	1498.194***						
	Percent correctly classified			60.03%			
	Proportional reduction in error			44.84%			

• Coefficients are multinomial logit maximum-likelihood estimates. $N = 1119$

• *** indicates $\Pr(t) < .001$, ** $p < .01$, * $p < .05$, + $p < .10$ (two-tailed test).

Table 12: Multinomial logit model of intended vote choice (coalition performance satisfaction measure).

Independent Variable	log(CDA/PvdA)	log(D66/PvdA)	log(GreenLinks/PvdA)	Coefficient (Std. Err)	log(Calvinists/PvdA)	log(SF/PvdA)	log(VVD/PvdA)	
(Intercept)	-1.939 (1.349)	-3.724* (1.557)	0.788 (1.515)	-3.495 (2.982)	-4.147* (1.997)		-5.106*** (1.326)	
Upper Class	0.214 (0.346)	1.065*** (0.313)	0.924** (0.327)	-0.113 (0.753)	-0.109 (0.535)		0.727* (0.301)	
Upper Working Class	-0.632 (0.472)	-1.040 (0.641)	-0.226 (0.481)	-1.735 (1.321)	0.542 (0.482)		-0.383 (0.405)	
Working Class	-1.083** (0.358)	-1.163* (0.484)	-0.887* (0.413)	-2.440** (0.764)	-0.480 (0.433)		-2.671*** (0.548)	
Left-Right Position	0.673*** (0.076)	0.251** (0.081)	-0.176* (0.088)	1.038*** (0.163)	0.074 (0.101)		0.841*** (0.075)	
Sophistication	-0.694† (0.387)	0.536 (0.397)	-0.394 (0.409)	1.008 (0.965)	-0.412 (0.558)		0.034 (0.369)	
Poor performance	-0.809 (0.565)	0.369 (0.661)	-0.417 (0.625)	1.554 (1.198)	0.208 (0.724)		-0.111 (0.570)	
Sophistication × Performance	0.585** (0.215)	-0.034 (0.239)	0.444* (0.224)	-0.148 (0.445)	0.478† (0.262)		0.164 (0.219)	
Income redistribution	-0.326*** (0.083)	-0.232* (0.098)	0.039 (0.106)	-0.200 (0.144)	0.023 (0.130)		-0.558*** (0.084)	
Euthanasia	-0.115* (0.074)	0.239* (0.105)	0.046 (0.096)	-1.820*** (0.292)	0.236† (0.122)		0.131† (0.078)	
Asylum policy	0.055 (0.088)	-0.023 (0.097)	-0.236* (0.094)	-0.521* (0.203)	-0.211* (0.108)		0.261** (0.088)	
European integration	0.065 (0.082)	0.141 (0.091)	0.242** (0.088)	0.590*** (0.172)	0.416*** (0.105)		0.219** (0.077)	
Household income	-0.069 (0.045)	0.005 (0.050)	-0.023 (0.046)	0.020 (0.095)	-0.088 (0.061)		0.040 (0.044)	
Age	-0.000 (0.008)	-0.026** (0.010)	-0.043*** (0.010)	-0.090*** (0.022)	-0.021† (0.012)		-0.007 (0.008)	
Married	0.739* (0.287)	0.188 (0.300)	0.032 (0.292)	0.526 (0.578)	0.428 (0.374)		-0.017 (0.259)	
Catholic × Attendance	0.965*** (0.125)	-0.006 (0.202)	0.141 (0.174)	-0.090 (0.549)	-0.225 (0.253)		-0.040 (0.163)	
Protestant × Attendance	0.939*** (0.123)	0.087 (0.197)	0.250 (0.158)	1.093*** (0.180)	-0.620 (0.434)		0.052 (0.167)	
Log likelihood (L)	-1194.749							
Wald test versus null model $\chi^2(96)$	1533.869***							
	Percent correctly classified							62.22%
	Proportional reduction in error							47.51%

• Coefficients are multinomial logit maximum-likelihood estimates. $N = 1117$

• *** indicates $\Pr(t) < .001$, ** $p < .01$, * $p < .05$, † $p < .10$ (two-tailed test).

Table 13: Multinomial logit model of intended vote choice (general performance measure).

The results of the multinomial logit models of vote choice are presented in Tables 12 and 13. In terms of retrospective evaluation, the most interesting coefficients are the “dissatisfaction” and “poor performance” measures, and their interactions with sophistication. In both models, retrospective evaluations make no difference in vote choice among the least sophisticated voters; however, among sophisticates, dissatisfied voters’ likelihood of choosing the CDA over PvdA is significantly higher in both models. The general performance measure performs substantially better than the aggregated “satisfaction” measure among sophisticates; in addition to the CDA, both the Greens and Socialists benefit from negative assessments of government performance—but only among sophisticated voters. In addition, the Calvinists are more likely to be supported over PvdA among moderately sophisticated voters with negative evaluations of the coalition’s performance.

These interactions for the general performance model at varying levels of sophistication are shown further in Table 14; this table indicates there is essentially no significant relationship between performance evaluations and vote choice among the least sophisticated voters, while there is a statistically significant relationship at higher levels of sophistication. In addition, Figure 9 shows the effects of coalition performance evaluations on the predicted probability of voting for PvdA (the lead coalition member), the CDA (the largest opposition party), and Democrats 66 (the smallest coalition member) among less sophisticated voters, while Figure 10 shows these effects among more sophisticated voters.²⁰

²⁰In each figure, the control variables are set to their mean (or, in the case of dichotomous variables, the mode). The low sophistication graph shows voters at the 25th percentile, while the high sophistication graph shows voters at the 75th percentile. On the horizontal axis, the “general performance” measure is varied across its observed range, while the vertical axis is the predicted probability of an individual voter planning a vote for the party in question.

log(Party)/log(PvdA)	Baseline (0%)	<i>t</i> score at level of sophistication			
		25%	Median (50%)	75%	Maximum (100%)
CDA	-1.431	0.637	2.639*	4.387***	3.893***
Democrats 66	0.558	1.006	1.287	1.195	0.443
GroenLinks	-0.666	1.081	2.657*	4.251***	3.458**
Calvinists	1.297	2.391*	3.050**	2.668*	0.962
Socialists	0.287	2.914**	4.985***	6.322***	4.321***
VVD	-0.195	0.641	1.382	1.796†	1.323

- Table entries are *t* tests of the linear hypothesis $\beta_i + \beta_j s = 0$, where β_i is the coefficient for the party's sympathy scale, β_j is the coefficient for the interaction of the sympathy scale and sophistication, and *s* is the corresponding value of sophistication. The first column corresponds to the baseline significance tests presented along with the model.

- The *t* tests are formulated as $t = \frac{b_i + b_j s}{\sqrt{\sigma_{b_i}^2 + s^2 \sigma_{b_j}^2 + 2s \sigma_{b_i b_j}}}$.

- *** indicates $\Pr(t) < .001$, ** $p < .01$, * $p < .05$, † $p < .10$ (two-tailed test).

Table 14: The effects of interactions between sophistication and general performance.

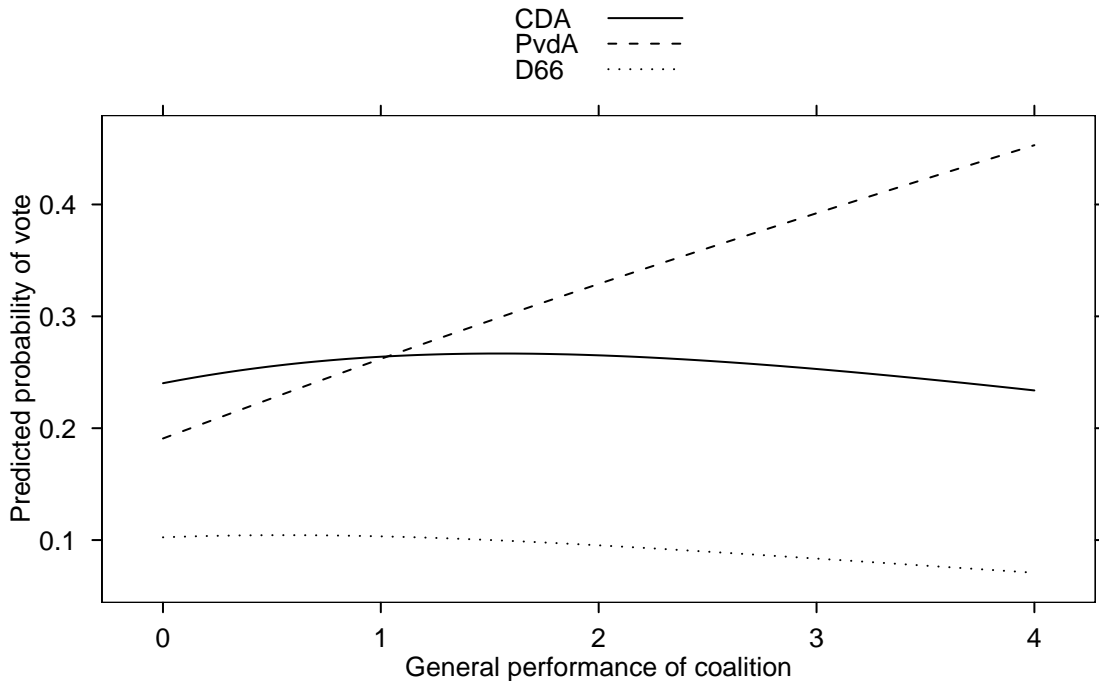


Figure 9: The effect of government performance evaluations on predicted probability of vote choice among less sophisticated voters.

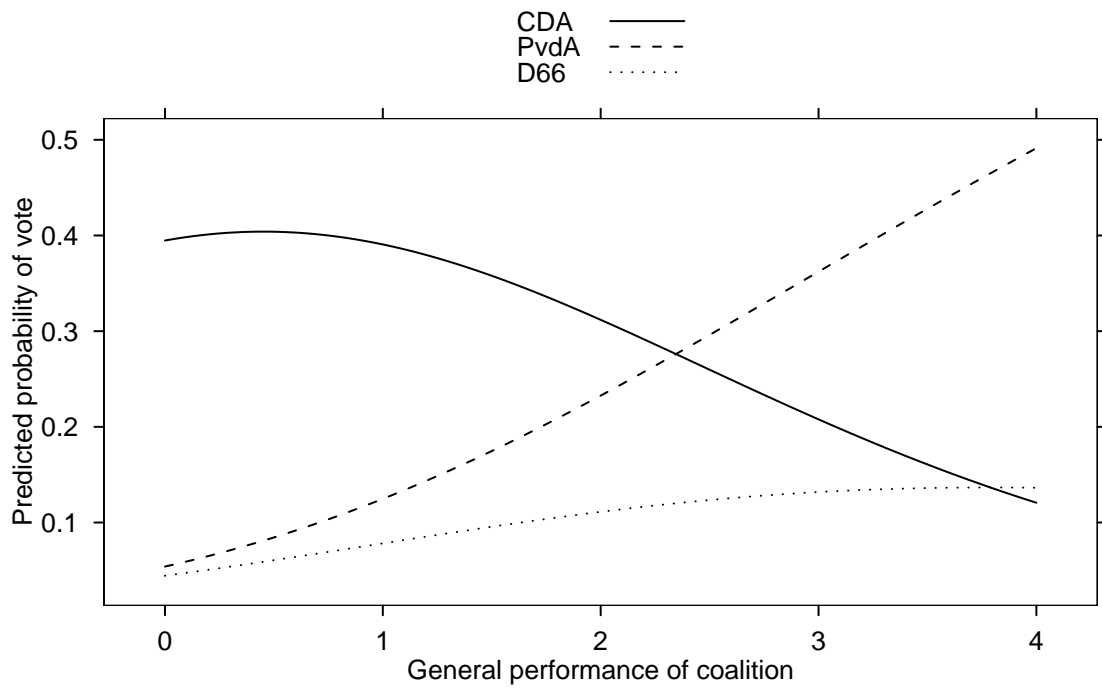


Figure 10: The effect of government performance evaluations on predicted probability of vote choice among more sophisticated voters.

In addition to these effects, a number of effects among the control variables are also of interest. Older voters are less likely to support newer parties than younger ones (for example, a ten-year increase in age corresponds to a 33% drop in the odds of supporting the Greens over the PvdA), while the probability of married voters supporting the CDA over the PvdA is significantly higher than for unmarried voters (being married increases the relative odds of supporting the CDA over the PvdA by 92%). The class, confessional, and ideological bases of support for each party are also apparent, as is the impact of issue positions.²¹ The only control variable that has no effect is household income; its substantial effects may be captured by the social class dummy variables.

5.6 *Conclusions*

This chapter has examined whether voters of varying levels of political sophistication can use their attitudes toward political parties to make facially valid assessments of the performance of a coalition government, and to use those assessments to guide vote choice. The evidence for low-information rationality is decidedly mixed: while less sophisticated voters were able to correctly attribute coalition performance based on their feelings toward the Labour party, they were unable to do so with either the VVD or D66, the smaller coalition partners, and many still were evaluating the government's performance based on their attitudes toward the CDA—which had not been part of the government in four years. In general, sophisticated voters did much better, although they did display some degree of

²¹For example, upper-class voters are 107% more likely to support the VVD over the PvdA than middle-class voters, while working-class voters are 67% less likely to support the CDA over the PvdA (and are 93% less likely to support the VVD over the PvdA) than are middle-class voters.

attribution bias at the highest levels of sophistication.

The voting models also demonstrate heterogeneity in attribution of responsibility. Less sophisticated voters generally do not appear to make their vote choice based on retrospective evaluations of the parties' performance, while more sophisticated voters are more likely to defect from their "natural" preferences to an opposition party if they are dissatisfied with the government's performance. This finding suggests that volatility in election results in Holland is largely driven by sophisticated voters who behave as if the system is pluralistic, while nonsophisticates generally respond to elections as if they were a "class census," as we would expect them to in a "consensus democracy" like the Netherlands.

The results suggest that clarity of responsibility matters, but perhaps in a more subtle fashion than we might have thought. In particular, it begs the question whether similar effects are present in other polities that have recently seen a dramatic shift in the relative strengths of parties, such as fellow "consensus democracy" Austria and majoritarian Britain. Could some of the Conservative Party's woes in Britain be partially due to unsophisticated voters still thinking the Tories are at least partially responsible for government policies? Could the Austrian People's Party still be benefitting from voters who don't know they are in the government?

Finally, it is possible that different coalition sizes or compositions may make a difference in attributions; in this case, only the lead party (PvdA) received blame or credit among most voters, despite the fact that the second-largest party (the VVD) held an equal number of cabinet seats and nearly as many seats in the Second Chamber. Is it solely the prime minister's party that receives blame, or is this an artifact of the VVD leader's unusual oppositional role during the 1994–98 coalition?

Would it make a difference if the prime minister came from a minority partner in the coalition, as is sometimes the case in coalitions? What if the coalition had more members, or just included two parties? Expanding this analysis to multiple coalitions, or perhaps including additional countries, would help to answer these questions.

5.7 Appendix: The measure of political sophistication

Unlike the American National Election Studies, the Dutch Parliamentary Election Studies do not include an interviewer evaluation of the respondent's level of political knowledge, the measure used in the other two data analyses in this dissertation. Therefore, it was necessary to select a measure based on the responses to the questions in the survey.

Fortunately, the 1998 DPES includes a number of knowledge measures that could reasonably be considered for use as a measure of a respondent's overall political sophistication. Three measures constructed by the DPES investigators were available. The simplest measure was a dummy variable indicating whether or not the respondent correctly identified the composition of the outgoing coalition based on a series of 14 questions asking the respondent to identify whether or not a particular party was a coalition member.²² Approximately 63.4% of the sample was able to identify all of the parties correctly (and not give any incorrect answers).

The other two measures were based on identification of four domestic Dutch

²²Of these questions, 13 prompted the respondent to say whether or not a named party was in the coalition, while the final question asked the respondent if she could identify any other party in the coalition.

Measure	Description	Variable
Coalition knowledge	Correct identification of the coalition members from a 14-question series.	V0224
Identification #1	Mokken scale based on the number of questions answered correctly in a quiz based on photos of four Dutch political figures ($H = 0.62$).	V0202
Identification #2	How many of the four Dutch political figures were identified completely correctly ($H = 0.63$).	V0203

Table 15: Sophistication measures included in the 1998 DPES

political leaders from photographs. Respondents were called on to give the name, party affiliation, and job description of four important members of the lower house (Second Chamber) of the Dutch parliament, thus giving a total of twelve questions. The first measure is based on the number of responses that were correct, while the second is based on the number of leaders who were completely correctly identified (i.e. all three items pertaining to that leader were answered correctly). The measures are briefly summarized in Table 15.

However, the 1998 DPES also included a number of other knowledge items. Rather than relying on the relatively small set of knowledge items embodied in the three measures provided in the DPES, I identified all of the potential knowledge items in the pre-election DPES wave and constructed an *item-response theory model* of political sophistication for the Dutch electorate.²³

²³This is not new application of this class of models; Delli Carpini and Keeter (1996) apply an item-response theory model to items of political knowledge in an appendix to their book. However, they applied it strictly to direct knowledge items; the present model also includes “differentiation” items patterned after those suggested by Luskin (1990). (I actually arrived at this application of the model independently of Delli Carpini and Keeter, as the other literature using item-response theory models in political science did not take note of their use of the model.)

5.7.1 Knowledge Items

The pre-election wave of the 1998 DPES included 45 knowledge items, 44 of which I used in the item-response theory model.²⁴ In addition to the 12 picture identification items and 13 coalition composition questions, 19 other items were believed to be indicators of the respondent's level of political sophistication. Ten items were included that asked respondents to identify whether or not ten countries were members of the European Union at the time of the survey.²⁵ Four items asked respondents to identify the relative sizes of four pairs of party delegations in the Second Chamber.

The final five items were constructed similarly to Luskin (1990)'s *D* measure of political differentiation or Zaller (1990)'s "information scale." Respondents were asked to place themselves and six parties (PvdA, CDA, VVD, D66, GroenLinks, and GPV) on seven-point issue scales on the following five issues: euthanasia, rectifying income differences, asylum policy, increasing integration of the European Union, and the degree of integration of ethnic minorities into Dutch society. Respondents were scored as correct if they correctly identified the relative positions of the most extreme parties on each issue and placed themselves on the issue scale.

All 44 items, which are presented in Table 16 were coded as dichotomous variables, with missing values set to zero,²⁶ for estimation as the *X* matrix in the

²⁴The omitted item was the open-ended question asking respondents to identify another party that was in the coalition; only two respondents identified another party, so the question was essentially useless.

²⁵The countries were Germany, the United States*, France, Italy, Spain, Poland*, Lithuania*, Sweden, Norway*, and Turkey*. (Countries marked with an asterisk were not EU members at the time of the survey.)

²⁶The missing values were originally treated as missing data. However, most of these items include "don't know" responses as the overwhelming majority of the missing data; therefore coding

Measure	Description	Variables
Policy Issue Positions	Correct identification of the relative positions of the most extreme parties on five issues.	From V0110–V0144
EU Members	Correct identification of whether 10 countries were members of the European Union.	V0150–V0159
Politician IDs	Correct identification of the name, party affiliation, and position of four politicians.	V0190–V0201
Party Sizes	Correct identification of the relative sizes of four pairs of political parties in Parliament.	V0205–V0208
Coalition Members	Correct identification of members and non-members of the 1994-98 coalition government.	V0210-V0222

Table 16: Knowledge items in the item-response theory model

item-response theory model described below.

5.7.2 Item-Response Theory Models

The concept of an item-response theory model comes from the fields of psychometrics and educational testing, where there is an interest in deciding how well items on examinations measure latent traits. For example, we might be interested in how well a multiple-choice examination of undergraduates reflects their mastery of the material in the course. In the item-response theory literature, this latent trait is called an *ability*, and each item on the test is believed to be an (imperfect) indicator

these missing responses as “incorrect” is more accurate than merely treating them as missing, which would vastly overestimate the possibility that the missing response was a result of something other than not knowing the correct answer. This is particularly apparent on the political figure knowledge questions, where hundreds of respondents gave “don’t know” responses that almost certainly reflect true ignorance.

of the latent ability of each subject.²⁷

In the political science literature, the most famous application of item-response theory is to the analysis of legislative roll call data. Poole and Rosenthal (1997), for example, apply a variant of this model (which they call *NOMINATE*) to estimate the ideal points for legislators in a two-dimensional Euclidean space. More recently, the availability of high-speed desktop computers has provided the ability to estimate item-response theory models with less restrictive assumptions using Markov Chain Monte Carlo (MCMC) procedures, generally using the Bayesian framework for statistical analysis.

Specifically, Johnson and Albert (1999) describe a tractable item-response theory model.²⁸ Assume each subject j has a latent ability (ideal point) θ_j and each item i has two parameters: a *difficulty* denoted α_i (how “hard” the question is—a measure of how likely a randomly-selected subject is to get it correct) and a *discrimination parameter* denoted β_i (how well the question distinguishes between subjects with varying levels of the latent trait). Then we can define z_{ij} , the probability that the observed response x_{ij} is correct, as:

$$z_{ij} = \alpha_i + \beta_i \theta_j + \epsilon_{ij}$$

²⁷The relationship between this procedure and factor analysis should be readily apparent; the main distinction is that the observed variables (test items) are dichotomous and that the estimation procedure can recover more than one item-specific measure of the item’s efficacy.

²⁸The model is generalizable to multiple dimensions: for a description and application to the legislator ideal-points problem, see Jackman (2001). For notational convenience, and because the unidimensional case is the only one used here, I simplify slightly and assume there is only one latent trait. I follow the notation used by Jackman and Martin and Quinn (2003), who chose the parameterization $\beta = a$ and $\alpha = b$, *contra* Johnson and Albert, which corresponds more clearly to statistical parlance (where α is an intercept and β is a slope) but leads to a great deal of confusion when switching between the two notations.

We cannot observe this probability directly; however, we can treat z_{ij} as an unobserved utility, and use a random utility approach (as in the standard probit and logit models):

$$\Pr(x_{ij} = 1|\theta_j) = F(z_{ij})$$

Generally, F is the standard normal cumulative density function (Φ). With suitable priors and constraints on the distribution of α and β (namely, that they are distributed normally with a mean of zero and a precision²⁹ of one), the model is identified sufficiently to produce a solution.³⁰ The `MCMCpack` package for *GNU R* (Martin and Quinn 2003) provides a C++ procedure (`MCMCirtKd`) for estimating this two-parameter item-response theory model with a specified number of latent abilities.³¹

5.7.3 Estimation and Results

As the 44 items were expected to represent a single latent trait, “political sophistication,” a unidimensional item-response theory model was estimated using `MCMCirtKd`, and the mean estimated ability ($\bar{\theta}_j$) for each respondent was stored. To simplify interpretation of the model presented in the body of the chapter, the measure was recentered so the zero point was at the 2.5 percentile, and subjects whose abilities were estimated to be below the zero point were moved to the zero

²⁹In the Bayesian framework, precisions are used instead of variances. The precision is simply the reciprocal of the variance.

³⁰It may also be helpful to identify the sign of one of the β parameters to constrain the directionality of the recovered latent factor, for ease of interpretation.

³¹A second procedure, `MCMCirt1d`, is available that allows subject-specific constraints, but is restricted to a single dimension and has slightly different assumed priors.

Item	α	β	Item	α	β
Germany in EU	2.165	0.927	PvdA > VVD	1.188	0.642
USA not in EU	1.737	0.793	D66 > GroenLinks	1.196	0.504
France in EU	1.798	0.802	CDA < PvdA	0.965	0.713
Italy in EU	1.178	0.649	VVD > D66	1.213	0.648
Spain in EU	1.161	0.581	PvdA in coal.	2.300	1.373
Poland not in EU	0.937	0.369	CDA not in coal.	0.853	1.462
Lithuania not in EU	1.601	0.588	VVD in coal.	1.414	1.053
Sweden in EU	-0.007	0.105	D66 in coal.	1.392	1.356
Norway not in EU	-0.069	0.151	GroenLinks not in coal.	1.917	1.234
Turkey not in EU	0.797	0.215	SGP not in coal.	4.213	2.412
Wallage/Name	-0.435	1.300	GPV not in coal.	4.862	2.912
Wallage/Party	0.113	1.614	RPF not in coal.	4.766	2.775
Wallage/Pos	-1.043	1.652	CD not in coal.	4.379	2.588
de Graaf/Name	-0.867	1.635	Unie 55+ not in coal.	4.502	2.557
de Graaf/Party	-0.537	1.784	AOV not in coal.	4.253	2.408
de Graaf/Pos	-1.059	1.502	SP not in coal.	4.125	2.464
Jorritsma/Name	0.415	0.612	Senioren 2000 not in coal.	3.207	1.717
Jorritsma/Party	0.327	1.309	Euthanasia issue	0.402	0.764
Jorritsma/Pos	0.863	0.831	Income differences	0.686	0.811
Bukman/Name	-1.112	1.340	Asylum seekers	0.572	0.794
Bukman/Party	-0.709	1.423	EU unification	-0.521	0.538
Bukman/Pos	-0.682	1.469	Minority integration	0.240	0.749

Table 17: Parameters of the item-response theory model

point.

Mean α_i (difficulty) and β_i (discrimination) parameters for each item were also recovered, and are presented in Table 17. The α parameters are *more negative* for “harder” items; generally, they are correlated with the percentage of the subjects who got a particular response “correct.” The β parameters are all positive in this analysis because higher levels of the latent trait are associated with higher levels of the observed items; this is not necessarily the case for ideal-point estimates, where the “correctness” of a particular item (e.g. a roll call vote) is a function of the underlying partisan directionality of the vote.

Generally, it appears that the photo identification questions were the hardest,

although respondents also had trouble figuring out which Scandinavian country was a member of the European Union and had some difficulty identifying the relative positions of the extreme parties on the five issues considered in the survey. Respondents also had difficulty with the questions that looked at the relative size of the CDA versus PvdA (the former of which had suffered a landslide loss in the 1994 elections, reversing the historic positions of the two parties) and that required respondents to know that the CDA was no longer part of the government.

The findings generally indicate that the 13-point knowledge scale based on the four politicians' photos would perform fairly well as a measure of sophistication, as the items had both good variation in their difficulties and fairly strong discrimination parameters. However, the full measure of sophistication recovered from this analysis had higher variation, included additional items that would indicate voter sophistication (most notably the issue items), and is closer to a true metric scale, so it was used in the main analysis.

CHAPTER VI

DUVERGER'S LAW, POLITICAL SOPHISTICATION AND STRATEGIC VOTING

It's true, we are aliens. But what are you going to do about it? It's a two-party system; you have to vote for one of us.

— "Kodos" in "Treehouse of Horror VII," *The Simpsons* (Keeler, Greaney and Cohen 1996).

One of the best-known and durable theories of political institutions is that the use of plurality elections leads to the evolution of a two-party system. Although this theory existed prior to Maurice Duverger's statement of it (see Riker 1982b for a historical overview), his statement of "Duverger's Law" and explanation that it is the result of both mechanical and psychological consequences of the institution of plurality elections is the best-known articulation of the idea. This chapter is concerned mostly with the latter, including the broader concept of strategic voting, and the capacity within the electorate to engage in it.¹

Although minor parties have played a relatively marginal role in much of American history, with the exception of the ascension of the Republican Party to major-party status in the civil war period, presidential candidates of minor parties have had a pivotal role in many recent presidential elections. In the past three presidential elections (1992, 1996 and 2000), minor party candidates robbed the

¹Also known as "tactical," "sophisticated," or "insincere" voting.

plurality winner of an absolute majority of the popular vote, and in the most recent election a number of candidates received sufficient votes to decide the disposition of Florida's electors, despite their relatively paltry vote shares. Thus, clearly some segment of the electorate chose to express a "sincere" vote for minor candidates, even though that choice may have diminished the chances of their next-most-preferred candidate in the election. Why do some voters choose to vote sincerely, while others choose a strategic vote?

In this chapter, I focus on the decision whether or not to support major-party candidates in the 1992, 1996 and 2000 presidential voters. For some voters, this was a sincere choice, while some others may have preferred third-party candidates but chose to vote strategically in an attempt to block the election of their least preferred major-party candidate. I show that voters who were predisposed to vote for a third-party candidate and in a state where the election was generally viewed as close (the so-called "battleground" states) were more likely to make a strategic choice, while voters in non-battleground states were more likely to vote sincerely. This effect, which I term *conditional strategic behavior*, was stronger among those voters who displayed higher levels of political sophistication.

6.1 Literature Review

As discussed above, the existence of Duverger's Law precedes Duverger himself. Riker (1982b) traces its evolution to the 19th century, noting that Henry Droop was the first to make a concise statement of the law, in 1881, 70 years prior to Duverger, and that the law as "commonplace" knowledge by 1901 (756). Duverger, however, did discuss the concept in greater detail than previous works, and concluded

that both “mechanical” and “psychological” factors caused minor parties to fail to gain support in plurality systems. The “mechanical” effect is mostly one of disproportionality; parties need only receive a plurality of the vote to gain a whole seat in a legislature, so it is possible for a party to gain a majority position in the legislature while only receiving a minority of the popular vote, even independent of factors such as gerrymandering (Taagepera and Shugart 1989, 1993).

The “psychological” effect is perhaps more interesting, and the subject of greater controversy. Downs (1957) built on Duverger’s Law to suggest the following:

A rational voter first decides what party he believes will benefit him most; then he tries to estimate whether this party has any chance of winning. He does this because his vote should be expended as part of a selection process, not as an expression of preference. Hence even if he prefers part A, he is “wasting” his vote on A if it has no chance of winning, because very few other voters prefer it to B or C. The relevant choice in this case is between B and C. Since a vote for A is not useful in the actual process of selection, casting it is irrational (48).

Thus, to the extent voters are rational, they should vote strategically. Riker, in reviewing the extant literature at the time, generally found that “a large amount of sophisticated voting occurs—mostly to the disadvantage of the third parties nationally—so that the force of Duverger’s psychological factor must be considerable” (764). More recent behavioral studies in various countries (Alvarez and Nagler 1998, 2000; Duch and Palmer 2002; Wantchekon 1999) have generally arrived at similar conclusions, although researchers studying Canada (Bowler and Lanoue 1992; Gaines 1999; Blais 2002) have found surprisingly little strategic voting

there, perhaps due to stronger distinctions between Canadian parties than their counterparts in other countries and the heterogeneity of party systems between provinces.

However, formal models of voting, focusing on parties and candidates as the strategic actors, have met with mixed success (Cox 1997; Feddersen 1992; Palfrey 1989), and individual-level models have scarcely fared better, with Ferejohn and Fiorina (1974) suggesting that strategic voting is, *contra* Downs, *irrational*, although Fey (1997) suggests a model that accounts for the strategic behavior of voters in response to polling data, and Bueno de Mesquita (2000) suggests in his study of Israel's 1990s experiment with separate, direct election of the prime minister that political actors account for strategic behavior by voters in decisions about the electoral laws they implement (and the aggregate outcomes suggest that voters for minor parties did, in fact, react strategically to the introduction of direct election of the prime minister).

Most interest in strategic voting in the United States has focused on the primary process (Bartels 1985, 1988; Southwell 1991; Abramson et al. 1992), where the opportunities for strategic voting are more apparent and the candidates are generally better substitutes for each other. There has also been some interest in the incidence of strategic voting in terms of bloc voting against minority candidates (see e.g. Liu 2001). Explanations of strategic voting in presidential elections have been less widespread.

Most explanations of voting for minor-party candidates have focused on factors other than strategic considerations. One common theme has been that of disaffection and distrust of the political system: voters are more likely to support

third-party candidates due to feeling alienated from the major parties. Peterson and Wrighton (1998) and Southwell (2003) both suggest that this is a primary cause of voting for minor candidates. However, Koch (2003) indicates that support for third-party candidates *leads to* these feelings of distrust and disaffection, and that for explanations of support for minor candidates we should look to the same explanations as those for support of major-party candidates. Other explanations have focused on issue-based “protest” voting motivated by the alleged failures of the two major parties on policy grounds (Rosenstone, Behr and Lazarus 1996); Donovan, Bowler and Terrio (2000) find some support for this thesis in a study of California third-party voters.²

Abramson et al. (1995), rather than attempting to explain support for third-party candidates George Wallace, John Anderson, and Ross Perot, examine the relative feeling thermometer evaluations of candidates in their respective elections and suggest that most of the failure of the minor candidates to win votes was a result of the mechanical features of Duverger’s Law, rather than a psychological effect, although they find a drop-off effect in the support for all three minor candidates. In a similar vein, McCann, Rapoport and Stone (1999) find a drop-off in support for Perot before and after the campaign, although this effect was less marked among those who were more active Perot supporters in their sample.

²The difference between protest voting and more general disaffection is not necessarily very clear-cut; however, generally protest voting is believed to be motivated by particular issues (for example, the budget deficit in Ross Perot’s 1992 campaign), while disaffection appears to be a more long-term phenomenon and less focused on particular issues than on failures of either the major parties or government in general.

6.2 Theory

If we assume that voters have transitive preferences, they will have a (possibly incomplete) rank-ordering of potential vote recipients. For example, in a four-candidate race, we can assume that a voter will rank at least some of those candidates in some order based on her preferences.³ A voter is *sincere* if she votes for her most highly-ranked candidate; otherwise, the voter is *insincere*. We can consider a voter *strategic* if she votes for a candidate who will reduce the probability of a less-preferred candidate being elected. And, a voter's choice is *pivotal* if a change in their vote would change the outcome of the election.

For most voters, strategic voting is unnecessary. Voters who support a candidate who has a serious chance of winning will not find themselves in a situation where they must decide whether or not they will vote strategically—or, more accurately, their strategic choice is also the sincere choice, as a sincere vote for their preferred candidate will also accomplish the strategic goal of reducing the chances of a less preferred candidate taking office.

However, supporters of minor-party candidates and disaffected supporters of the major parties have to decide between voting sincerely and making a strategic choice. Voting for a candidate unlikely to win the election will have virtually no effect on the chances of each of the major candidates winning; thus, this sincere choice can be said to have no impact on the election—essentially having the same effect as abstaining. The voter can instead make a strategic and insincere choice by voting for one of the candidates with a chance of winning the election, which will

³The voter need not rank all candidates; she could simply rank one candidate above all the others.

reduce the chances of the other contending candidates.⁴

For these supporters, the strategic/sincere choice rests on whether their vote is likely to be pivotal. Although Downs (1957) argues that casting a non-strategic vote is irrational, that is only the case if the vote has a non-negligible chance of affecting the outcome of the election. Sincere voting for minor candidates is irrational in the sense that elections are not normally thought of as a forum for expressing general preferences, but rather as a “selection process”; however, if political actors respond to election results as if they are referenda on particular policies espoused by candidates, sincere voting for minor candidates may be rational in certain circumstances.⁵ If a citizen’s vote is almost certainly not pivotal, it may be rational for voters to show their public policy preferences by supporting a minor candidate.⁶

In the United States, the use of the Electoral College to elect the president creates an electoral environment in which voters will have varying incentives to engage in strategic voting. The use of the Electoral College means that presidential candidates compete in 51 separate elections⁷ to gain electors, rather than a single

⁴A voter could also vote insincerely, but not strategically, by voting for a candidate who is less preferred than their favorite candidate, but who will not reduce the probability of their least preferred candidate winning the election. This sort of voting behavior appears to be irrational, but could conceivably occur.

⁵For example, many politicians responded to the large percentage of the vote for Ross Perot in 1992 by attempting to balance the federal budget, while large votes for reformist and pro-temperance minor candidates in the late 19th and early 20th centuries encouraged politicians to enact a number of substantial political reforms and Prohibition.

⁶See e.g. Riker and Ordeshook (1968), Fiorina (1976), and Riker (1982a) who argued that voting should be seen as both “selection processes” and “referenda.”

⁷There are votes to select electors in all 50 states and an election in the District of Columbia for its three electors. As a simplifying assumption, Maine and Montana—states that choose some of their electors at the congressional district level, rather than at-large—are treated as having statewide at-large elections. For a recent discussion of the impact of the Electoral College on presidential election outcomes, see Neubauer and Zeitlin (2003).

nationwide contest.⁸ As electors are selected on a per-state basis on an essentially at-large basis, and states have varying levels of support for the two major parties, the competitiveness of the election in each state is a function both of the relative popularity of the candidates in the electorate at large and the partisan dispositions of the electorate in a particular state.

Thus, voters may be considered rational if they express a preference, rather than merely taking part in a “selection process,” in states where their vote is highly unlikely to make a difference in the outcome. For example, according to CNN (2000), only 20 of the 51 elections for electors in 2000 were in so-called “battleground” states that were expected to be close.⁹ Thus, a voter in one of the other 30 states or the District of Columbia could presumably vote for a third-party candidate and thus have virtually no expectation of affecting the presidential contest, as their vote would be highly unlikely to affect the disposition of their state’s electors.¹⁰

Moreover, minor-party supporters with higher levels of knowledge about American politics—those who are more *politically sophisticated* (Luskin 1987)—should be

⁸Elections to legislatures in countries that use single-member district elections would also produce substantial opportunities for the strategic environment to differ in the same election; see e.g. Duch and Palmer (2002) and Gschwend (2001).

⁹The battleground states identified by CNN were: Arizona, Arkansas, Delaware, Florida, Illinois, Iowa, Louisiana, Maine, Michigan, Missouri, Nevada, New Hampshire, New Mexico, Ohio, Oregon, Pennsylvania, Tennessee, Washington, West Virginia, and Wisconsin. A more scholarly assessment by McKee (2002) conducted after the election, based on the internal strategy of the Gore and Bush campaigns, identifies 17 battleground states, excluding Arizona, Illinois, and Nevada from the states identified by CNN.

¹⁰The distinction between “battleground” and “non-battleground” states is somewhat artificial; in truth, there is a continuum of competitiveness among states, from very competitive (for example, Florida in 2000) and non-competitive (The District of Columbia, in every election since its residents received representation in the Electoral College due to the 25th Amendment). However, the allocation of resources by presidential campaigns appears to follow this simplistic classification scheme very closely; see e.g. Shaw (1999).

able to distinguish between an opportunity for expressing a sincere preference and a situation in which it is important to vote strategically to reduce the possibility of a less-preferred candidate taking office.

6.3 *An Aggregate Analysis of the 1992–2000 Elections*

The first test of this theory in the 1992, 1996 and 2000 elections is at the aggregate level: did more sincere voting for third-party candidates take place in states where the contest between the major parties was less competitive?

Electoral returns from *Presidential Elections, 1789–2000* (2002) and Leip (2003) were used to estimate a simple regression model:¹¹

$$\frac{\text{votes received by others}}{\text{total valid votes cast}} = \alpha + \beta_1 \frac{|\text{Republican votes} - \text{Democratic votes}|}{\text{Republican votes} + \text{Democratic votes}} + \beta_2(\text{Partisanship}) + \beta_3(\text{Independence}) + \epsilon$$

The dependent variable is the percentage of the vote received by third-party candidates in the state. The first term on the right is the *marginality* of the election, the plurality divided by the number of votes cast for the two candidates receiving the most votes. The second and third terms are the historic partisanship (percentage of Republican identifiers subtracted from Democratic identifiers) and independence (percentage of self-identified independents) among the state electorates from 1992–2001, derived from CBS/New York Times public opinion polls as compiled by Brown (2003) following the methodology established by Wright,

¹¹For more sophisticated forecasting models of elections in the states, see Campbell (1992) and Rosenstone (1983).

Erikson and McIver (1987). All of these variables were expressed as proportions in the range 0–1.

We would expect that, if voters took account of the institutional context when deciding whether or not to vote strategically, the incidence of third-party voting would be lower in states where the major-party candidates are running close. We would also expect the incidence of minor party support to be proportional to the state's historic level of independent identifiers. In 1992 and 1996, we would expect a positive relationship between the partisanship variable and the level of minor party voting in the state, as Ross Perot's candidacy was generally more attractive to traditional supporters of the Republican Party than to Democrats. However, in 2000, as the most popular third-party candidate (Ralph Nader) was expected to be more attractive to Democratic partisans than Republicans, we would expect a negative relationship between the partisanship variable and the level of minor party voting in the state.

The results of this model for the three elections are shown in Table 18.¹² In 1992, the results suggest that relatively few voters incorporated strategic considerations into their vote choice; while the coefficient for marginality is in the expected direction—suggesting that voters were more likely to support a third-party candidate in states where the race between George H.W. Bush and Bill Clinton was not competitive—the effect does not reach conventional levels of statistical significance with a two-tailed test. As expected, Republican-leaning states were more likely to have higher levels of third-party support ($p(t) < .001$, two-tailed test), as were

¹²As the minimum reasonable value of the dependent variable is zero, a tobit model (Tobin 1958) was also estimated for each election; the results of that model were essentially identical to the ordinary least squares estimates.

states with higher numbers of independent identifiers ($p < .01$). This dynamic suggests that many third-party voters genuinely believed that Ross Perot had a non-negligible chance of winning the election and that his campaign's efforts to negate beliefs that a vote for Perot was "wasted" were at least somewhat effective.

The results for the 1996 election show clear effects of marginality; third-party support was significantly higher ($p < .001$) in states where the race between major-party candidates Bill Clinton and Bob Dole was not very competitive. As in 1992, third-party candidates generally attracted greater support in more Republican states ($p < .001$)—perhaps in part as a result of many Republicans' dissatisfaction with their party's nominee (Dole). While support for third-party candidates improved in states with more independent identifiers, the effect was only marginally significant in the 1996 election ($p < .097$).

The results in 2000 indicate the effect of marginality, while fairly small, it is significant and in the expected direction ($p < .005$). As expected, states with high proportions of independent identifiers had significantly higher levels of voting for minor party candidates ($p < .001$); somewhat unexpectedly, minor party voting was also proportional to the relative strength of the Republican party in the state, although this effect is not significant.¹³

In summary, the aggregate evidence suggests that voters reacted to the strategic environment in the 1996 and 2000 presidential elections, but did not do so in 1992. However, due to the ecological inference problem (King 1997), we cannot simply assume that individuals made a conscious choice to vote strategically in closer

¹³It is possible that, because more strongly Republican states tended also to be less competitive in this particular election, Democratic identifiers in those states felt more free to vote for Nader as their votes were less likely to be pivotal.

Independent Variable	Coefficients (Standard Error)		
	1992	1996	2000
Marginality of election in state	0.101 (0.062)	0.175*** (0.041)	0.053** (0.018)
Partisanship of state electorate	0.390*** (0.063)	0.203*** (0.049)	0.038 (0.024)
Independence of state electorate	0.399** (0.119)	0.172† (0.101)	0.243*** (0.051)
Intercept	0.070† (0.040)	0.033 (0.033)	-0.046* (0.018)
Adjusted R^2	0.457	0.363	0.361
$F(3, 47)$	15.01***	10.49***	10.43***

- Coefficients are ordinary least squares linear regression estimates. $N = 51$.
- The dependent variable is the proportion of the vote received by third-party and independent candidates in the state or District of Columbia.
- *** indicates $p(t) < .001$; ** $p < .01$; * $p < .05$; † $p < .10$ (two-tailed test).

Table 18: Aggregate-level analysis of third-party voting in the 1992, 1996, and 2000 presidential elections.

states and vote sincerely in others. Thus an individual-level model of candidate choice should also be examined.

6.4 Hypotheses

A number of general hypotheses about the voting behavior of individual voters are suggested by the literature. Fundamentally, respondents who are more strongly attached to a major political party or a major-party candidate should never vote strategically in a general election; partisans should have a candidate available from their party, with rare exceptions, and will be disposed to vote for them.

Among those who favor a minor-party candidate (or a minor party in general), however, the decision calculus is more complex: if the election between the major

1. White southerners and white born-again Christians should be more likely to support Republican candidates.
2. Black voters should be more likely than non-blacks to support Democratic candidates.
3. Voters in union households should be more likely than those in non-union households to support Democrats.
4. Female voters should be more likely than male voters to favor major-party candidates, and Democrats in particular.
5. Older and more educated voters should be more likely to support major-party nominees.
6. Strong partisans should be more likely to support their own parties' nominees, and less likely to support the opposite major-party nominee than a third-party candidate.
7. Voters in "battleground" states should be more likely to support major-party nominees than voters in non-battleground states.
8. Voters who have greater affinity toward minor-party nominees should be more likely to support them over major-party candidates.
9. More sophisticated voters should be more likely to vote for minor-party candidates in non-battleground states than in battleground states, particularly as their affinity for minor-party candidates increases.

Table 19: Hypotheses tested in the models of strategic voting.

party candidates is close, per Downs supporters of a minor-party candidate should defect from that candidate and vote strategically for less-objectionable major-party candidate. However, if the election is not close, minor-party supporters should continue to favor the minor-party nominee, as the probability of their vote making a difference in the general election is virtually zero. In other words, we should expect *conditional strategic behavior* on the part of voters, where the behavior is conditioned on their ability to recognize whether or not a sincere vote would be a "wasted" one.

This discussion assumes that the voter is rational and has sufficient information

to decide whether to vote strategically. Yet many voters are uninformed or misinformed. Hence we would expect more sophisticated voters to be more conscious of the need to make a choice to vote strategically in a close election. This effect should be particularly pronounced among voters who favor policies advocated by the minor-party nominee and, to a lesser extent, by the less-objectionable major party nominee. The hypotheses tested in the models, including the “control” hypotheses, are shown in Table 19.

6.5 Data and Methods

To test these hypotheses, mass survey data collected from a random cross-section of the United States electorate by the American National Election Studies (ANES) project in 1992, 1996, and 2000 was used (Rosenstone et al. 1999a,c; and Burns et al. 2002); each survey consisted of separate pre-election and post-election waves conducted using a combination of telephone and face-to-face interviews. As none of these surveys included a direct measure of strategic voting behavior, the vote choice reported by the respondent in the post-election wave was used as the dependent variable.¹⁴ In order to simplify the analysis, only voters who reported a vote for a major-party nominee or the leading independent candidate were included in the analysis.¹⁵

For each election, a number of independent variables were included in the model to control for known demographic influences on vote choice, including whether

¹⁴The use of post-election data, instead of vote intentions expressed before the election, is a matter of some debate in the literature; see Wright (1990); Gronke (1992); and Wright (1992) for a discussion of the issues, centered on reported voting in House elections.

¹⁵Specifically, each election was modelled as a three-way choice: Bush, Clinton, or Perot in 1992; Clinton, Dole, or Perot in 1996; Bush, Gore, or Nader in 2000.

the respondent was female, African-American, or a white southerner; whether the respondent was a self-identified white born-again Christian;¹⁶ whether the respondent was married; the age, level of education, and household income of the respondent; and whether or not anyone in the respondent's household was a member of a labor union. The respondent's party identification was also included,¹⁷ as was the respondent's level of political sophistication and a "feeling thermometer" rating of the leading third-party candidate (Perot in 1992 and 1996; Nader in 2000). The measure of political sophistication was taken from the interviewer's evaluation of the respondent's level of political knowledge at the end of the pre-election interview (for a discussion of the validity of this measure, see Zaller 1992: 333–39). A "battleground" variable was coded 1 for respondents interviewed in states that were considered to be battleground states for either of the two major-party candidates in that election year, as classified by Shaw (1999) for the 1992 and 1996 presidential elections and by McKee (2002), with guidance from Shaw, for 2000.¹⁸

In the 1996 and 2000 elections, a measure of policy interest in the outcome of the election was included: for 2000, as both Gore and Nader were known for their advocacy of environmental causes, the respondent's evaluation of the importance of environmental issues was used to measure this policy interest; we would expect

¹⁶See, e.g. Wilcox and Rozell (1997) and Green, Rozell and Wilcox (2003).

¹⁷To ease interpretation of the results and to avoid including polynomial or collinear terms, the party identification scale was split into two scales: strength of Republican identification, and strength of Democratic identification. Respondents who identified as independents were coded zero on both scales; all other respondents were coded on the appropriate scale based on their strength of identification (1–3) and coded zero on the other scale; for example, a "weak Democrat" would be coded 2 on the Democratic scale and 0 on the Republican scale, while an "Republican-leaning independent" would be coded 0 on the Democratic scale and 1 on the Republican scale.

¹⁸McKee's classifications were similar to those produced by CNN (2000); however, I chose to use McKee's to improve comparability between elections, and because the CNN data were unavailable for 1992 and 1996.

Variable	1992	1996	2000
Vote choice	V925612	V961082	V001249
Respondent's gender	V924201	V960066	V001029
Respondent's race	V924202	V960067	V001006A
Where respondent grew up	V924125	V960711	V001014
Marital status	V923904	V960606	V000909
Born-again Christian	V923847	V960601	V000903
Respondent's age	V923903	V960605	V000908
Level of education	V923908	V960610	V000913
Union household	V924101	V960698	V000990
Household income	V924104	V960701	V000994
Party identification	V923634	V960420	V000523
Pol. sophistication	V924205	V960070	V001033
Cand. feeling thermometer	V923307	V960274	V000363

Table 20: Correspondence between common included variables and ANES variable numbers.

respondents with higher levels of knowledge and higher interest in the environment to favor Gore, who would be more likely to be in a position to promote pro-environment causes from within the government (due to Nader's slim chances at election), while less knowledgeable voters with interest in the environment might favor Nader and not be thinking strategically. In 1996, a "deficit concern" measure was constructed from the respondent's responses to four questions on trade-offs between taxes, spending, and deficit reduction.¹⁹ A summary of the variables taken from the 1992, 1996, and 2000 studies are listed in Table 20, and the coding of the variables included in the models are indicated in Table 21.

As the dependent variable indicates a choice among three, unordered options,

¹⁹Attempts to find or construct a suitable "policy interest" measure for the 1992 election within the 1992 ANES data set proved fruitless; shockingly, respondents were not asked any questions about their personal attitudes toward the budget deficit, although they were asked to identify whether they blamed the president or Congress more for its size. A series of questions *were* asked of panel participants in 1990, some of whom carried over into the 1992 ANES, but this would have excluded over 1000 respondents from the 1992 survey.

Variable	Description
White southerner	Coded 1 for self-identified white respondents who grew up in the South (ANES state/country codes 141–159); 0 otherwise.
Black	Coded 1 for self-identified black respondents; 0 otherwise.
Female	Coded 1 for female; 0 for males.
Married	Coded 1 for married respondents; 0 for all others.
White born-again Christian	Coded 1 for white respondents who consider themselves “born-again” Christians; 0 for everyone else (including non-Christians).
Age	Respondent’s age in years.
Education	Seven-point scale indicating respondent’s level of education (range: 1–7).
Union household	Coded 1 for respondents who reported a union member in their household; 0 otherwise.
Household income	Respondent’s household’s income category (range 1–24 in 1992 and 1996; 1–22 in 2000).
Party identification strength	See text.
Battleground	See text.
Candidate feeling thermometer	Respondent’s evaluation of the candidate on a 101-point scale (range: 0–100).
Political sophistication	Interviewer’s evaluation of the respondent’s level of political information. 5-point scale, reversed (range: 0–4).
Deficit spending (1996)	Responses to trade-off questions between deficit reduction and budget changes; higher levels indicate greater support for measures to reduce the deficit. Five-point scale constructed from V961219, V961221, V961227, and V961228 (range: 0–4).
Environmental importance (2000)	How important the respondent considers environmental issues, from V000777 (range: 1–5).

Table 21: Coding of variables in models

estimators such as ordinary least squares or binary or ordinal logit/probit are inappropriate. Instead, the multinomial logit estimator was used.²⁰ The models were estimated in *GNU R* 1.8.0 with the *vglm* (vector generalized linear model) procedure using the *multinomial* link in the *VGAM* package (Yee and Wild 1996).

6.6 Results

The results of the analyses are presented in Tables 22–24. For each election year, coefficient estimates for the logged odds-ratio of selecting each of the major party nominees versus the third-party candidate are presented, which allow us not only to see whether or not strategic behavior took place, but also to see which major-party candidates were affected by that behavior. Positive coefficients indicate a higher level of the independent variable increases the odds of choosing the given major-party candidate, while negative coefficients indicate increases in the independent variable increase the relative odds of selecting the minor-party candidate. The model’s predictions of the behavior of “typical” independent-identifying male voters are shown graphically in Figures 11–13. In each of these figures, the independent variable is the hypothetical respondent’s feeling thermometer evaluation of the third-party candidate, while the dependent variable is the predicted probability of the respondent voting for that candidate. Each figure includes four panels, corresponding to the level of sophistication of the hypothetical voter illustrated; in each panel, the predicted behavior of a voter in a battleground state is compared to that of a voter in a non-battleground state.²¹

²⁰For a detailed discussion of the possible estimators for unordered responses, and their strengths and weaknesses, please see page 69.

²¹In each panel, the other variables are set to their means in that year’s ANES (for continuous or ordinal variables) or the modal category. Both partisan identification variables are set to zero (“true

Independent Variable	Coefficient (Std. Err)	
	log(Bush/Perot)	log(Clinton/Perot)
(Intercept)	-3.503† (2.058)	-0.972 (2.020)
White southerner	0.603* (0.239)	0.117 (0.243)
Black	0.944 (0.655)	2.150*** (0.549)
Female	0.533** (0.187)	0.444* (0.181)
Married	0.174 (0.208)	-0.307 (0.200)
White, born-again	0.165 (0.202)	-0.636** (0.221)
Age	0.014* (0.006)	0.013* (0.006)
Education	0.164* (0.066)	0.166* (0.066)
Union household	0.023 (0.236)	-0.119 (0.223)
Household income	-0.009 (0.020)	-0.026 (0.019)
Democratic ID strength	-0.252† (0.132)	0.743*** (0.102)
Republican ID strength	0.697*** (0.104)	-0.477*** (0.131)
Battleground	1.982 (1.505)	0.910 (1.482)
Sophistication	1.719* (0.762)	1.125 (0.748)
Perot feeling thermometer	0.028 (0.035)	-0.020 (0.034)
Battleground × Soph.	-0.987† (0.552)	-0.606 (0.547)
Battleground × Perot FT	-0.034 (0.027)	-0.002 (0.025)
Soph. × Perot FT	-0.035** (0.013)	-0.014 (0.013)
Battleground × Soph. × Perot	0.020* (0.010)	0.008 (0.009)
Log likelihood (<i>L</i>)	-911.698	
Wald test versus intercept-only model $\chi^2(38)$	1589.854***	
Percent correctly classified	75.99%	
Proportional reduction in error	54.34%	

- Coefficients are multinomial logit maximum-likelihood estimates. $N = 1445$
- *** indicates $\Pr(t) < .001$, ** $p < .01$, * $p < .05$, † $p < .10$ (two-tailed test).

Table 22: Results of the 1992 individual-level model.

Independent Variable	Coefficient (Std. Err)	
	log(Clinton/Perot)	log(Dole/Perot)
(Intercept)	4.536* (2.174)	1.275 (2.257)
White southerner	-0.327 (0.400)	-0.171 (0.403)
Black	3.110* (1.205)	0.187 (1.581)
Female	0.682* (0.323)	0.227 (0.331)
Married	-1.346** (0.420)	-1.132** (0.431)
White, born-again	-0.210 (0.374)	0.563 (0.366)
Age	0.023* (0.011)	0.038*** (0.011)
Education	0.125 (0.119)	0.152 (0.119)
Union household	0.277 (0.385)	-0.512 (0.398)
Household income	0.086* (0.035)	0.127*** (0.037)
Democratic ID strength	0.954*** (0.195)	-0.346 (0.228)
Republican ID strength	0.112 (0.224)	0.966*** (0.212)
Sophistication	-0.801 (0.754)	-0.391 (0.762)
Battleground	0.975 (3.440)	1.374 (3.460)
Perot feeling thermometer	-0.103*** (0.030)	-0.083** (0.030)
Soph. × Battleground	-0.906 (1.138)	-1.013 (1.144)
Battleground × Perot FT	-0.027 (0.060)	-0.018 (0.060)
Soph. × Perot FT	0.010 (0.011)	0.008 (0.011)
Soph. × Battleground × Perot FT	0.019 (0.020)	0.015 (0.020)
Deficit attitudes	-0.429 (0.364)	-0.096 (0.389)
Deficit × Soph.	0.095 (0.143)	-0.015 (0.151)
Log likelihood (<i>L</i>)	-414.251	
Wald test versus intercept-only model $\chi^2(42)$	1164.152***	
Percent correctly classified	84.08%	
Proportional reduction in error	65.68%	

- Coefficients are multinomial logit maximum-likelihood estimates. $N = 942$

Table 23: Results of the 1996 individual-level model.

Independent Variable	Coefficient (Std. Err)	
	log(Gore/Nader)	log(Bush/Nader)
(Intercept)	4.443 (4.966)	4.123 (5.069)
White southerner	-0.133 (0.824)	0.164 (0.814)
Black	-0.467 (1.177)	-0.702 (1.284)
Female	0.694 (0.528)	0.448 (0.535)
Married	-0.475 (0.574)	-0.301 (0.583)
White, born-again	-0.574 (0.628)	0.373 (0.617)
Age	0.046* (0.020)	0.037† (0.020)
Education	0.071 (0.186)	-0.138 (0.189)
Union household	-0.362 (0.639)	-0.527 (0.657)
Household income	0.080 (0.078)	0.091 (0.078)
Democratic ID strength	1.941*** (0.420)	0.409 (0.437)
Republican ID strength	0.250 (0.404)	1.392*** (0.387)
Sophistication	-1.035 (1.615)	-0.015 (1.644)
Battleground	16.399† (9.486)	16.002† (9.551)
Nader feeling thermometer	-0.008 (0.046)	-0.049 (0.047)
Soph. × Battleground	-4.501 (2.789)	-4.517 (2.808)
Battleground × Nader FT	-0.258* (0.125)	-0.223† (0.127)
Soph. × Nader FT	-0.017 (0.015)	-0.009 (0.015)
Soph. × Battleground × Nader FT	0.072† (0.037)	0.064† (0.038)
Environmental importance scale	-1.356 (0.992)	-0.371 (0.980)
Env. import × Soph.	0.492 (0.307)	0.123 (0.300)
Log likelihood (<i>L</i>)	-263.733	
Wald test versus intercept-only model $\chi^2(42)$	1321.553***	
Percent correctly classified	88.15%	
Proportional reduction in error	75.58%	

- Coefficients are multinomial logit maximum-likelihood estimates. $N = 793$

Table 24: Results of the 2000 individual-level model.

The results in 1992 strongly support the hypothesis that strategic behavior was conditional on both the electoral environment and the voter's ability to recognize that environment. Figure 11 illustrates the interaction between sophistication, the respondent's affinity for Perot, and whether or not the state was a "battleground" state. For less sophisticated voters (in the "Below Average Sophistication" pane of the graph), the effect of the strategic environment is minimal: there is a simple, direct relationship between affinity for Perot and the voter's odds of choosing to vote for him over Bush or Clinton. However, among more sophisticated voters, we see a significantly "flatter" relationship in battleground states than in non-battleground states, suggesting that more sophisticated voters were attuned to the possibility of "wasting" their votes in more competitive states. An examination of the coefficients underlying these effects suggests that for voters in 1992, the strategic choice was primarily between Perot and Bush, indicating that Perot's support among independent voters was largely due to disaffection with Bush.

The demographic and other control variables in 1992 suggest that female, older and better-educated voters were significantly more likely to favor one of the major-party nominees over Perot. White southerners were significantly more likely than non-black northerners (the reference category) to favor Bush over Perot. African-Americans were significantly more likely to favor Clinton over Perot—hardly a surprise, given Perot's disastrous appearance before the NAACP in July of 1992, which precipitated his brief exit from the race—while white born-again Christians were more likely to favor Perot over Clinton. As we might expect, stronger partisans ("in-partisans") were more likely than independents to support their party's nominee over Perot, while "out-partisans" were less likely to do so.

independent").

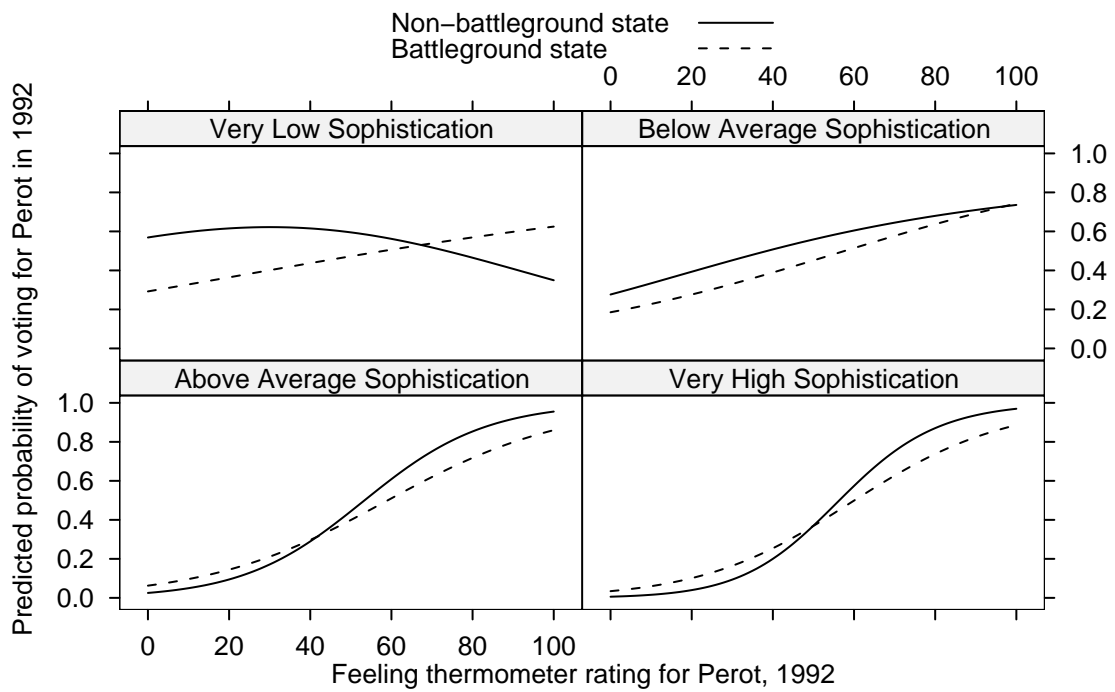


Figure 11: Predicted probabilities of an independent voter casting a ballot for Ross Perot in 1992.

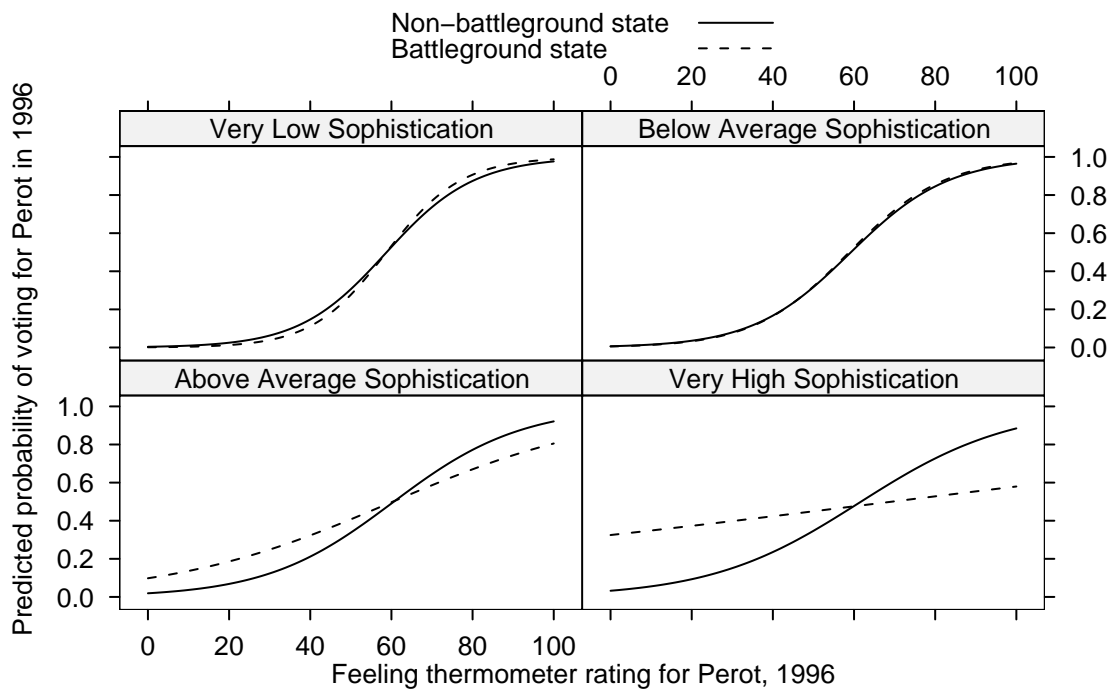


Figure 12: Predicted probabilities of an independent voter casting a ballot for Ross Perot in 1996.

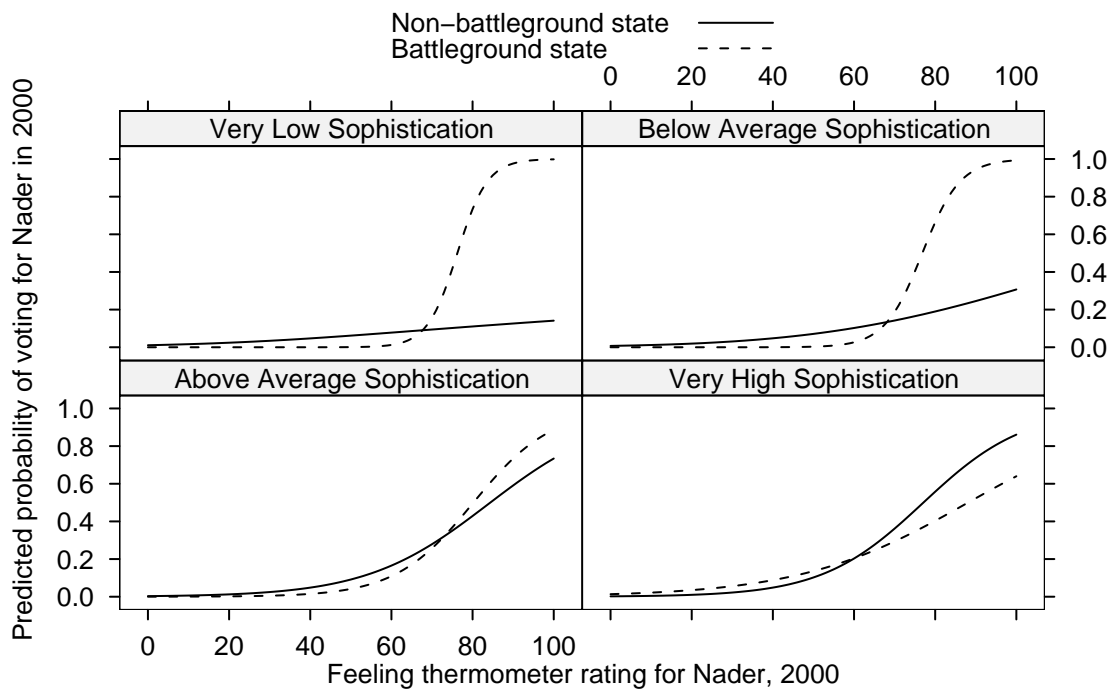


Figure 13: Predicted probabilities of an independent voter casting a ballot for Ralph Nader in 2000.

The conditional strategic behavior hypothesis, however, fares poorly in 1996. While the graphical evidence in Figure 12 suggests that the most sophisticated voters did engage in strategic behavior in battleground states, none of the interactions are statistically significant. Instead, we see a fairly clear, direct relationship between support for Perot and the respondents' odds of choosing him over Clinton or Dole. The lack of evidence for conditional strategic behavior may simply indicate that most voters, on the basis of media coverage and polling data, concluded that the race between Clinton and Dole was so lopsided that most voters in "battleground" states did not actually believe the disposition of their state's electors would affect the national outcome.

As in 1992, older voters were significantly more likely than younger voters to prefer both major-party nominees, as were voters with higher household incomes. Also like 1992, black voters were significantly more likely to prefer Clinton over Perot; female voters were also more likely to prefer Clinton over Perot. Unlike in the previous election, however, white southerners and born-again Christians were no more likely to prefer Perot over the Republican nominee. The partisan effects in 1996 were similar for "in-partisans"; however, "out-partisans" were no more likely to prefer Perot over the opposite party's nominee than independents, suggesting Perot's cross-over appeal had diminished by 1996.

In the 2000 election, the conditional strategic behavior hypothesis performs fairly well.²² Surprisingly, the effects indicate that Nader attracted strategic behavior relative to both candidates (the 1992 results only showed conditional strategic

²²Due to the significantly smaller 2000 ANES sample, and the small (but consistent with overall returns) number of respondents who reported voting for Nader, the 2000 results should be viewed with some degree of caution.

choice between George H.W. Bush and Perot), and are illustrated graphically in Figure 13. The results suggest that among less sophisticated voters, support for Nader was generally low (except among voters who rated Nader very high on the feeling thermometer scale); by contrast, in the “Very High Sophistication” panel we see conditional strategic behavior: the voters who rate Nader the highest on the feeling thermometer are less likely to vote for him in battleground states than in non-battleground states. Unlike in earlier elections, the control variables perform rather poorly; as in 1992 and 1996, older voters are more likely to support a major-party nominee than Nader, and we see the familiar “in-partisan” effects.

6.7 *Conclusions*

In this chapter, I have advanced a theory of *conditional strategic behavior*—that voters decide between casting a strategic or sincere ballot based on their perception of the electoral environment. Voters with higher levels of political knowledge are more likely to perceive the electoral environment—whether or not an election will be close—correctly, and demonstrate higher levels of Downsian rational behavior. The results of an analysis using the 1992, 1996, and 2000 American National Election Studies suggest that conditional strategic behavior took place in at least 1992 and 2000; while the 1996 results do not suggest this behavior took place, it may simply be due to the national electoral environment in that year being uncompetitive due to a moderately popular incumbent president seeking re-election against a weak opposition-party nominee.

One avenue for future research would be to broaden the analysis to use an

indicator of competitiveness that is more nuanced than the “battleground”–“non-battleground” dichotomy, using indicators such as poll results as used in typical forecasting models (e.g. Rosenstone 1983 and Campbell 1992) or perhaps measures of campaign spending in particular states Shaw (1999). This type of analysis would perhaps improve our understanding of the effects of campaign expenditures and the psychological impact of poll results on vote choice. Other potential measures would include the respondent’s estimate of the closeness of the election in his or her state, or the actual marginality of the election in the particular state.²³

As Duch and Palmer (2002) show, differences in strategic behavior within the electorate are not unique to U.S. presidential contests; they demonstrate that more sophisticated voters, when presented with hypothetical electoral environments, select between sincere and strategic choices—they behave with Downsian rationality when the electoral environment requires a strategic choice (in the Hungarian case, when their preferred party’s candidate has a negligible chance of reaching a run-off round), but will cast sincere ballots when the overall outcome is not in question. This effect should be observable in any context where the voting system allows for strategic behavior to be preferable to a sincere choice.²⁴

The idea of conditional strategic behavior is also related to the interest in the American context in whether or not voters prefer divided or unified government, and whether voters act on that preference when casting their ballots—what Smith

²³The closeness question, alas, was only asked about the national result in the 2000 ANES.

²⁴Arrow (1970) argues that all electoral systems that include choices between more than two options cannot be “ideal”; this is known as “Arrow’s Impossibility Theorem.” All electoral rules appear to fail this “idealness” test by permitting strategic behavior of some form or another.

et al. (1999) term “nonseparable preferences.” Specifically, voters may have nonseparable preferences—for example, they may prefer a Democratic-controlled executive and a Republican-controlled legislature—but be in an electoral situation where a strategic vote to accomplish that end is meaningless, as one election is (or both elections are) non-competitive. In these circumstances, while it might be rational to cast a ballot consistent with these preferences, a sincere vote on other grounds is possible—either for the major-party candidate who is likely to win, or a minor-party candidate. Thus survey and other evidence showing that many voters’ choices aren’t consistent with “cognitive Madisonianism” may be the result of the lack of competitiveness of many districts and states. This might be a worthwhile area for further research.

It would also be desirable to follow-up this research with data collected to better understand the nature of voting for minor-party candidates. The present ANES, with its limited sample size, relative lack of interest in minor-party candidates, and lack of questions on strategic motivations, is insufficient for the deeper understanding that research on the strategic motivations of voters requires in the future. Fielding of survey-experiment hybrids in the United States, like the Hungarian example used by Duch and Palmer (2002), might improve our ability to find the determinants of who votes strategically and why.

CHAPTER VII

CONCLUSIONS

This dissertation has examined the decision-making processes of voters of varying levels of sophistication when making evaluations of candidates, parties, and policies, and making choices among candidates and parties in elections. Each chapter generally supports a conclusion that more sophisticated voters make their decisions in different ways: they generally draw on more information and show a greater understanding of the electoral context.

In Chapter 4, I demonstrate that voters with higher levels of political sophistication are more likely to use the so-called “likability heuristic” proposed by Brady and Sniderman (1985) when making evaluations in 1994 of the Clinton Administration’s performance on the health care reform issue and establishing their own positions on whether private organizations or the government should be responsible for financing health care. This effect is particularly pronounced when voters are called upon to evaluate the general issue of government versus private provision of health care services, with only more sophisticated voters making use of their evaluations of former first lady Hillary Rodham Clinton as a guide for deciding their own position on the issue.

I show in Chapter 5 that more politically sophisticated voters are better able to make retrospective evaluations of the performance of the 1994–98 “Purple Coalition” in the Netherlands, and are more likely to draw on those evaluations of

coalition performance in making their vote choice. In particular, I find that the less sophisticated portions of the Dutch public are more likely to use their attitudes toward the Christian Democrats, a party that was not a member of the coalition, to make evaluations of the coalition's performance, which leads them to make potentially "incorrect" voting decisions. I also show that an item-response theory model of political sophistication, based on political knowledge items, is an effective surrogate for the interviewer evaluation of political information used in the American National Election Studies series.

In Chapter 6, I show that voters with higher levels of political expertise are better able to "correctly" identify opportunities for sincere voting in the 1992, 1996, and 2000 U.S. presidential elections, based on the anticipated closeness of the election in the state in which they reside. More sophisticated voters are less likely to support a minor-party candidate when they reside in a state where the election is expected to be close, while the vote choices of less sophisticated voters tend to only be affected by their affinity for minor-party candidates.

7.1 Refining the measurement of sophistication

There are a number of directions for future research that are suggested by this dissertation. A significant contribution of this dissertation has to been to reintroduce the use of item-response theory models for the measurement of political expertise. Given Zaller (1985)'s conclusion that the interviewer evaluation of political information was a reliable measure of sophistication, and the oft-noted resistance

of respondents to “quiz”-type questions about politics¹, why would we want to abandon that simple measure in favor of a more complex measure that would take away from time needed for other, perhaps more interesting questions?

In the case of the analysis in Chapter 5, the answer is fairly obvious: there was no interviewer evaluation that could be used. There were a number of summary measures based on respondents’ recorded responses that may have been used instead, but they omitted potentially valuable information about respondent knowledge and were based on relatively dated scaling methods. Other established surveys may not have direct measures like the interviewer evaluation, but may contain questions that would be sufficient for constructing a valid measure of political sophistication.

In other future surveys, there may be no opportunity to collect interviewer evaluations. The deployment of surveys and survey-based experiments by computer has become more widespread, and the evidence suggests they would appear to be a low-cost and reliable way of obtaining data for original political research from mass publics (Berrens et al. 2003); however, this mode of interview, by definition, omits the interviewer. The only available measure of political sophistication would have to be derived from the respondent’s answers to the questions asked in the survey, thus necessitating some form of scale construction—either an IRT model, or a more simplistic approach.

The use of IRT models also permits us to test whether particular conceptions of political sophistication perform better than others. For example, in the IRT

¹However, Delli Carpini and Keeter (1996) argue that, in practice, this is not a serious problem (295–96).

model in Chapter 5, a set of “differentiation” measures based on those proposed by Luskin (1990) performed as well as the best pure “knowledge” taken directly from the survey, based on the estimated discrimination and difficulty parameters of the items from the model. This finding suggests that both “raw” knowledge and the ability to conceptualize relationships among political actors based on that knowledge are meaningful components of sophistication—indicating that Luskin 1990 is correct to call for more nuanced measurement of political sophistication than simple knowledge batteries.

7.2 The impact of low sophistication on democracy

The findings of this dissertation would appear to support the legions of studies, from the original Columbia (Berelson, Lazarsfeld and McPhee 1954) and Michigan (Campbell et al. 1960) studies through more modern treatments like those of Bartels (1996, 2003), Delli Carpini and Keeter (1996), Lupia and McCubbins (1998), and Luskin (2002a), that suggest that voters both are woefully under-informed and make choices that are inconsistent with their true, “fully-informed” preferences. If that is the case, what are the possible responses?

Popkin (1991) argues that voters ordinarily possess limited information, and that this is simply a fact of life that cannot be remedied. Both ambivalence and voters’ use of information shortcuts—or heuristics—are “inescapable fact[s] of life, and will occur no matter how educated we are, how much information we have, and how much thinking we do” (218). Rather than treating low knowledge as a problem to be solved, Popkin believes political campaigns, such as the presidential primary process in the United States, should be redesigned to accommodate the

inevitability of voters' ambivalence and limited information.

Taking a somewhat different tack, Marcus, Neumann and MacKuen (2000) suggest that instead of voters' decision-making ability being consistent over time, it varies over time due to changes in the electoral environment: voters become more attuned to politics when issues that are personally important to them are being debated, but less attuned when those issues are no longer in the forefront. They characterize this behavior by voters as reflecting "affective intelligence." Their findings suggest that traditional measures of sophistication underestimate the latent political expertise of many voters.

On the other hand, both Delli Carpini and Keeter (1996) and Lupia and McCubbins (1998) argue that voters' lack of basic political knowledge is a hindrance to the democratic process. Both sets of authors suggest institutional reforms to correct this deficiency. Lupia and McCubbins suggest that institutions should be designed to maximize the number of cues available to the electorate that will enable them to make reasoned choices—for example, the abolition of non-partisan elections, public funding of campaigns, and term limits, encouraging public deliberation on issues, and the provision of greater amounts of political information by parties and interest groups (205–27). Delli Carpini and Keeter suggest the public would benefit from wider availability of news media; higher levels of general and civic education;² more widespread attention to, and publicity for, elite debates (similar, perhaps, to the "Larry King Live" debate on NAFTA between Ross Perot and Al Gore in 1994); fostering civic virtues in the citizenry; and increased concern about

²However, it is noteworthy that political sophistication and civic engagement appear to have declined over time, despite higher levels of education among the electorate and greater attention to formal civic education in secondary and post-secondary schools; see e.g. Putnam (2001).

the low level of knowledge of the public by political scientists (272–90).

It is also possible that what matters isn't what voters *know* about politics, but rather what they *understand* about politics. Knowledge may simply be a *byproduct* of understanding among those citizens most exposed to political information; in other words, knowledge is only important to the extent that higher levels of knowledge about politics—as measured by, for example, answers to the notorious “trivia questions” about politics that are regularly used by civic groups as evidence that the public has insufficient levels of civic education—generally reflect greater understanding of politics. If that is the case, civic education efforts may improve voters' reasoning processes even if they don't lead to greater retention of the minutiae of politics by citizens over the long term. This possibility may suggest that more indirect measures of political sophistication, like Luskin (1990)'s “differentiation” measure, may better tap the concept of sophistication than direct knowledge items.³

While this dissertation does not provide any direct support for any of these prescriptions, it does suggest that there are meaningful—and perhaps more pervasive than previously thought—differences in the decision-making processes of citizens that are explained by differences in political expertise. Obviously, if we expect citizens to be purely rational actors, many are incapable of meeting that standard; this dissertation suggests that even common heuristics and readily-available knowledge—such as whether or not they are being bombarded by television ads in a presidential contest—do not help many voters to act “as if” they are fully informed, either.

³It may also be desirable to test whether civic education efforts, including typical political science “survey” courses for undergraduates, have a lasting effect on the political sophistication of citizens.

On the other hand, the desirability of a society in which political issues are so critically important that they require the attentiveness of large segments of the public seems relatively low; consider highly polarized societies like contemporary Israel and Venezuela, where it is unlikely there are any voters without opinions on the Palestinian peace process or on the soft-authoritarian Chávez regime, respectively, where the outcome of elections is literally a question of life or death in many voters' minds. Perhaps we should count our blessings that the most salient mainstream debates in the United States today are over the future of entitlement programs for the elderly, the level of restriction that will be placed on abortion, and where and under what conditions same-sex relationships will be acknowledged by the government—and that our pluralist system permits voters to focus their interests on particular policies that directly interest them. This suggests that rather than creating institutions that might lead to a more conflicted or polarized society, the interest of democracy would be best served by giving citizens the tools to participate in public debate, but leaving it up to them whether their participation is strictly necessary.

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