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INFORMATION, ACCOUNTABILITY, AND POLITICAL PREFERENCES

By

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ABSTRACT OF THE DISSERTATION

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Political scientists have long endorsed a theory of preference formation based on a model of political expertise. According to this line of thinking, optimal political preferences result from reason, logic, and the appraisal of factual evidence. Accordingly, politically sophisticated citizens are assumed to develop political preferences that are more rational, less biased, and more correct than those of the less informed members of the electorate. In this project, I challenge this orthodox view. I argue that most political preferences are rooted in the personality traits, values, and cultural world-views of people and are formed on the basis of affective reactions to stimuli rather than through the reasoned consideration of information. The affective nature of political judgments implies that information serves primarily to rationalize rather than form opinions. Since political preferences are an important signifier of group and individual identity, I posit that the social need to be accountable for one's opinions is a major explanatory factor in the development of political expertise. I develop a conceptualization of political preferences as affective judgments situated in social reality and hypothesize that political information acquisition serves an important social function. Based on this conceptualization, I contend that what separates political experts from non-experts is not the degree of information used to form a preference, but rather the nature of the social incentives that motivate certain individuals to seek

information in order to defend, rationalize, and justify their preferences. I present data from the National Election Surveys and two original experiments to support my claims that increasing the amount of information a subject possesses about politics does not necessarily change their preferences and that the social expectation of accountability significantly influences the way subjects process information about political candidates.

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A revised and edited version of the data in Chapter 3 will appear in a forthcoming issue of the journal *Political Behavior*. The final publication is available at Springer via <http://link.springer.com/article/10.1007/s11109-014-9281-5> and I offer my thanks to Springer for allowing me to reproduce portions of that article here.

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Contents

Abstract	ii
Acknowledgments	iv
Contents	vii
List of Tables	xi
List of Figures	xiv
Introduction	1
A Hierarchy of Preferences?	1
Questioning the Hierarchy	17
Chapter 1 Toppling the Hierarchy	21
1.1 In Search of Political Expertise	22
1.2 Determining Better or Worse Preferences	30
1.2.1 Appeals to Interest	31
1.2.2 Information and Biased Opinions	37
1.2.3 Consistency Criterion	43
1.3 Summary	49
1.4 Conclusion	52

Chapter 2	A Non-Hierarchical Theory of Information and Political Preferences	54
2.1	Proposition #1: Political Preferences are Affective Judgments	56
2.2	Proposition #2: Information Processing is Motivated	65
2.3	Proposition #3: Political Preferences are Social	72
2.4	Summary: A Social-Affective Model of Information Use	76
2.4.1	Comparison of SAM to the Hierarchy of Preferences Theory .	77
2.4.2	Compatibility of SAM with the Existing Literature on Political Knowledge and Preferences	79
2.5	Conclusion	83
Chapter 3	Reconsidering Information Effects and Collective Preferences	84
3.1	Statistical Imputation and the Hierarchy of Preferences	88
3.2	A Skeptical Take on Statistical Imputation	89
3.3	Information Effects in Presidential Preferences Reconsidered	95
3.3.1	Information Effects in the 1992–2008 Presidential Elections . .	96
3.3.2	Hypothesis Testing: Information and Preferences	101
3.4	A Social Affective Explanation of Information Effects	108
3.5	Conclusions	114
Chapter 4	Accountability and Information Processing Strategy	118
4.1	Experimental Design	120
4.1.1	Manipulations	122
4.1.2	Hypotheses	126
4.1.3	Data and Measures	128
4.2	Results	131
4.2.1	Manipulation Checks	131

4.2.2	Effect of Decision Task on Search Strategy	133
4.2.2.1	Summary of Results	138
4.2.3	Effect of Accountability on Search Strategy	140
4.2.3.1	Summary of Results	144
4.3	Effect of Political Expertise on Information Processing	146
4.4	Perception of the Decision-Task	148
4.5	Discussion	152
4.6	Conclusions	155
Chapter 5	Accountability and the Nature of Political Preferences	158
5.1	Experimental Design	160
5.1.1	Manipulations	161
5.1.2	Hypotheses	162
5.1.3	Data and Measures	166
5.2	Results	168
5.2.1	Manipulation Checks	168
5.2.1.1	A Note on Analysis Strategy	170
5.2.2	Effects of First Impressions on Candidate Preferences	170
5.2.2.1	Summary of Results	177
5.3	The Effect of Accountability on Epistemic Freezing	177
5.3.1	Effect of Accountability on Final Preferences	182
5.3.1.1	Summary of Results	187
5.4	Accountability and Confirmatory Processing	188
5.5	Discussion	192
Chapter 6	Political Expertise as Legitimizing Myth	194
6.1	Theoretical Objections	194
6.2	Empirical Findings	196

6.3	Normative Concerns	197
6.4	Future Research Directions	203
Appendix A Appendix to Chapter 3		205
A.1	Political Knowledge Questions	205
A.2	Probit Models	206
A.3	Values Models	217
Appendix B Appendix to Chapter 4		224
B.1	Experiment Stimuli	224
Appendix C Appendix to Chapter 5		229
C.1	Parallel Analysis of the Partisan Candidate	229
C.1.1	First Impression Effects	229
C.1.1.1	Summary of Impression Effects	234
C.1.2	The Effect of Accountability on Epistemic Freezing	236
C.1.2.1	Summary of Results on Epistemic Freezing	240
C.2	Logistic Regression: Opinion Change	242
Bibliography		247

List of Tables

Table 3.1	Log-likelihood Tests	98
Table 3.2	Estimated Deviances from Fully Informed Votes	101
Table 3.3	Demographic Groups and Fully Informed Vote Trends 1992–2008 .	103
Table 3.4	Estimated Effect of Imputation on Respondents’ Values	111
Table 3.5	Differences Between Most and Least Informed	117
Table 4.1	Demographic Characteristics of the Sample	129
Table 4.2	Experimental Group Sizes	129
Table 4.3	Descriptive Statistics: Total Items Accessed	133
Table 4.4	ANOVA Results: Total Information	134
Table 4.5	Planned Comparison: Total Information Search by Decision Type .	134
Table 4.6	Descriptive Statistics: Comparability of Search	134
Table 4.7	ANOVA Results: Comparability of Search	135
Table 4.8	Planned Comparison: Comparability of Search by Decision Type .	135
Table 4.9	Descriptive Statistics: Preferred Candidate Search Proportion . . .	135
Table 4.10	ANOVA: Preferred Candidate Search Proportion	135
Table 4.11	Descriptive Statistics: Time Spent on Tasks	136
Table 4.12	ANOVA: Time Spent Per Item	136
Table 4.13	Planned Comparison: Time Spent Per Item by Decision Type . . .	136
Table 4.14	ANOVA: Extra Time Spent in Study	136
Table 4.15	Planned Comparison: Extra Time Spent in Study by Decision Type	137

Table 4.16	Descriptive Statistics: Decline in Information Acquisition	137
Table 4.17	ANOVA: Decline in Information Acquisition	137
Table 4.18	Planned Comparison: Decline in Information Acquisition	137
Table 4.19	Planned Comparison: Accountability Effect on Information Search	141
Table 4.20	Planned Comparison: Accountability Effect on Comparability of Search	142
Table 4.21	Planned Comparison: Accountability Effect on Time Spent	145
Table 4.22	Planned Comparison: Accountability Effect on Change in Informa- tion Acquisition	145
Table 4.23	Descriptive Statistics: Total Information by Sophistication Level .	147
Table 4.24	ANOVA: Total Information Search by Sophistication	148
Table 4.25	Descriptive Statistics: Search Distribution by Sophistication Level	149
Table 4.26	ANOVA: Comparability of Search by Sophistication	149
Table 4.27	ANOVA: Preferred Candidate Proportion by Sophistication	149
Table 4.28	Summary of Results	157
Table 5.1	Demographic Characteristics of the Sample	167
Table 5.2	OLS Regression, Feeling Thermometer Rating	171
Table 5.3	Logistic Regression, Moderate Candidate Vote	173
Table 5.4	Information Effects by Experimental Group	180
Table 5.5	ANOVA: Confirmatory Search Proportion	190
Table 5.6	Planned Comparison: Accountability Effect on Confirmatory Search	190
Table A.1	Replication of 1992 Information Effects Model	207
Table A.2	1992 Information Effects Model, Objective Measure	208
Table A.3	1996 Information Effects Model, Subjective Measure	209
Table A.4	1996 Information Effects Model, Objective Measure	210
Table A.5	2000 Information Effects Model, Subjective Measure	211

Table A.6	2000 Information Effects Model, Objective Measure	212
Table A.7	2004 Information Effects Model, Subjective Measure	213
Table A.8	2004 Information Effects Model, Objective Measure	214
Table A.9	2008 Information Effects Model, Subjective Measure	215
Table A.10	2008 Information Effects Model, Objective Measure	216
Table A.11	Predicting Values, 1992 NES: Subjective Measure of Information .	218
Table A.12	1992 Authoritarian Vote Model: Subjective Measure	219
Table A.13	1992 Egalitarian Vote Model: Subjective Measure	220
Table A.14	Predicting Values, 1992 NES: Objective Measure of Information . .	221
Table A.15	1992 Authoritarian Vote Model: Objective Measure	222
Table A.16	1992 Egalitarian Vote Model: Objective Measure	223
Table C.1	OLS Regression Results: Partisan Feeling Thermometer Rating . .	231
Table C.2	Logistic Regression, Partisan Candidate Vote	233
Table C.3	Summary of First Impression Effects	237
Table C.4	Effect of New Information on Preferences, Both Candidates	245
Table C.5	Logistic Regression Results: Preference Change	246

List of Figures

Fig. 2.1	Social-Affective Model of Information Use	78
Fig. 3.1	Changes in Republican Vote Probability for Selected Groups	105
Fig. 3.2	Changes in Republican Vote Probability for Additional Groups . . .	106
Fig. 3.3	Changes in Republican Vote Probability by Party Preference	107
Fig. 3.4	Absolute Change in Republican Vote Probability by Model	110
Fig. 3.5	Predicted Republican Vote Probability, Conflicted Values Group . .	112
Fig. 3.6	Predicted Republican Vote Probability, Congruent Values Group . .	115
Fig. 4.1	Sample Dynamic Information Board	122
Fig. 4.2	Sample Information Item	123
Fig. 4.3	Final Candidate Preferences by Experimental Group	132
Fig. 4.4	Mean Item Opens Per Minute by Decision Task	139
Fig. 4.5	Proportion of Search Devoted to Preferred Candidate.	144
Fig. 4.6	Proportion of Search Devoted to Preferred Candidate for Politically Sophisticated Subjects.	150
Fig. 5.1	First Impression Manipulation	163
Fig. 5.2	Impression Effect on Feeling Thermometer Ratings by Accountabil- ity, Affective Group	174
Fig. 5.3	Impression Effect on Feeling Thermometer Ratings by Accountabil- ity, Cognitive Group	175

Fig. 5.4	Estimated Vote Proportion by Accountability and Impression Type, Affective Group	176
Fig. 5.5	Estimated Vote Proportion by Accountability and Impression Type, Cognitive Group	176
Fig. 5.6	Changes in Feeling Thermometer Ratings, Affective Group	182
Fig. 5.7	Changes in Feeling Thermometer Ratings, Cognitive Group	183
Fig. 5.8	Effect of New Information on Preferences, Affective Group	184
Fig. 5.9	Effect of New Information on Preferences, Cognitive Group	185
Fig. 5.10	Preference Change, Early Poll Group	186
Fig. 5.11	Preference Change, Late Poll Group	187
Fig. 5.12	Proportion of Confirmatory Search After Poll	190
Fig. C.1	Effect of Accountability on Feeling Thermometer Ratings, Affective Group	234
Fig. C.2	Effect of Accountability on Feeling Thermometer Ratings, Cognitive Group	235
Fig. C.3	Vote Share by Impression Type and Accountability, Affective Group	236
Fig. C.4	Vote Share by Impression Type and Accountability, Cognitive Group	237
Fig. C.5	Effect of New Information on Feeling Thermometer Ratings, Affective Group.	241
Fig. C.6	Effect of New Information on Feeling Thermometer Ratings, Cogni- tive Group	242
Fig. C.7	Effect of New Information on Voter Preferences, Affective Group. . .	243
Fig. C.8	Effect of New Information on Voter Preferences, Cognitive Group. .	244

Introduction

A Hierarchy of Preferences?

The problem with democracy, according to many political theorists, has always been the people. That the average citizen possesses the requisite faculties to make good political decisions in the public interest has not been a popular position to take among philosophers, and the practice of questioning the competence of democratic citizens dates back to at least the works of Plato and Aristotle. In *The Republic*, Plato used the metaphor of a ship at sea to illustrate the folly of democratic principles. By Plato's estimation, the state is like a seafaring vessel adrift on the ocean. Each of the sailors aboard believes himself qualified to steer, although none has learned the art of navigation. The unskilled sailors attempt to gain control of the ship through force and deception but once in charge abandon their leadership responsibilities in order to spend their time eating and drinking. Even worse, the louts refuse to recognize the true commander among them—the “good-for-nothing” navigator, whom they see as nothing more than a “star-gazer” despite the fact that this learned individual has spent years honing his navigational abilities and alone has the proficiency and expertise to steer the craft (Bloom 1991: Book IV). Plato's message is clear: democracy places the supreme responsibility of good governance in the hands of the least qualified.

Plato's student Aristotle was somewhat more generous in his view of democracy,

granting that it may be possible for the masses to reach collective decisions that exceeded those of the elite in virtue, but he still viewed democracy as a corrupted form of government based on his belief that if given power, the poor are likely to appropriate the wealth and property of their betters, an unjust outcome (Aristotle et al. 1982: Book III). Hundreds of years after Plato and Aristotle, skepticism over citizen competence remained a hallmark of political theorizing; Machiavelli warned that the people often “desire their own ruin, and unless they are made aware of what is bad and what is good by someone in whom they have faith, the Republic is subjected to infinite dangers and damage,” (Machiavelli 1979: Book 1–53).

The lack of faith in the competence of citizens has continued into the modern epoch, even as some political philosophers have granted (perhaps grudgingly) that a representative form of democratic government could succeed. The influential thinker Montesquieu wrote that “the people, though capable of calling others to an account for their administration, are incapable of conducting the administration themselves,” (Montesquieu 1989: Book II). Writing in *Federalist* #68 about the proposed mechanism to elect the president, Alexander Hamilton expressed a similar sentiment, stating that while the “judicious” reasoning required to select an executive is beyond the capabilities of the electorate as a whole, a “small number of persons, selected by their fellow-citizens from the general mass, will be most likely to possess the information and discernment requisite to such complicated investigations.” Despite an obvious disdain for the political capabilities of the masses, Schumpeter—who wrote “... the typical citizen drops down to a lower level of mental performance as soon as he enters the political field. He argues and analyzes in a way which he would readily recognize as infantile within the sphere of his real interests. He becomes a primitive again. His thinking becomes associative and affective,” (Schumpeter 1942: p. 262)—still granted that people could elect suitable representatives to govern in their stead.

According to some theorists, even the citizenry’s limited power to elect represen-

tatives should be circumscribed. John Stuart Mill, while championing the right of each individual to live life free from government intervention, advocated for a plural form of voting, in which “more educated” and “more cultivated” people had multiple votes (Mill, “Thoughts on Parliamentary Reform”). Hamilton’s colleague James Madison believed the need for a legislative body not elected by the public and thus less susceptible to “sudden and violent passions” was so self-evidently true that he wrote “a position that will not be contradicted, need not be proved,” (*Federalist* #62). Lippmann took a similarly pessimistic position on voter competence, writing that “representative government...cannot be worked successfully, no matter what the basis of election, unless there is an independent, expert organization for making the unseen facts intelligible to those who have to make the decisions,” (Lippmann 1922).

The main fear of democratic critics is that many people lack the judgment to make good political decisions, defined either in terms of the interest of the state as a whole or in the interests of the voters. Plato reasoned that good political judgment was akin to medical expertise; a physician does not master the art of medicine in order to advance his or her own good, but instead to apply that skill to healing the sick. So too, concluded Plato, must political expertise be applied not to personal interest but to enhance the well-being of the republic. Unfortunately, not all people possess the requisite acumen to govern thusly. Plato believed that people were driven by one of three motivations: acquisitiveness, honor, or reason. Rule by the masses, who loved only material comforts, or the soldiers, who desired glory, would surely corrupt the republic and lead to its downfall. But a select class of people—who just so happened to be philosophers—possessed the necessary skill and temperament to govern justly. Since philosophers loved truth above all other things and were devoted to reason, they alone possessed the political judgment required to maintain a harmonious balance among the various factions of the republic and rule in the common good.

While Plato's functionalist view of political systems carries no force today, the modern interpretation of his theory maintains that many people lack the sophistication to know what is good for them politically. Consequently, people either fail to see which policies or politicians would best serve their interests or, worse yet, actively support those that are in fact contrary to them (Balbus 1971; Connolly 1972). Although political expertise is no longer held to be an inherent trait restricted to a few, sophisticated judgment is treated as a cultivatable skill that people may acquire by becoming informed about politics. Those citizens who expend the time and energy to learn about politics are rewarded as their preferences become enlightened or fully informed (Mansbridge 1983; Dahl 1989), making them less likely to be deceived about their objective political needs and more likely to hold political opinions in accord with their real interests (Balbus 1971; Connolly 1972). Among many modern political theorists, Plato's philosopher-kings live on in the form of a select class of political elites, distinguished from the majority of citizens not by the nature of their souls but by their motivation to attend to and learn about political matters.

Skepticism over the intelligence and competence of mass publics coupled with the enshrinement of adept political judgment in the hands of small elite have yielded a rather pervasive conceptualization of democratic performance that I term the *hierarchy of preferences* view. The tenets of this particular perspective are straightforward and familiar to even casual observers of politics: most people lack either the acuity, the motivation, or both, to thoroughly understand politics; as a consequence the political preferences of these individuals are ignorant and irrational. However, opinion quality increases as citizens become more informed until at the very pinnacle of the hierarchy we find those individuals with elite levels of political knowledge and consequently the most rational political preferences. According to the hierarchy of preferences perspective, the political attitudes of people at the bottom of the pyramid are based on sentiment, short-sighted, and easily manipulated by demagogues; the

political opinions of those at the top, however, are well-reasoned, logical, based in fact, and provide a valid blueprint for the attainment of both personal and societal interests. The opinions of political sophisticates are therefore qualitatively better than those of the teeming masses.

The hierarchy of preferences view is so ingrained in our thinking about political preferences that it has become part of folk psychology. We judge the validity of political attitudes by the information levels and intelligence of the person espousing them. We denigrate the political opinions of those we disagree with as “ignorant” or “uninformed.” We treat political questions as if they possess an objectively correct answer and those who fail to see this are irrational. Our political pundits reliably churn out essays based on the trope of uninformed citizens imperiling US democracy, particularly during election seasons: a recent article on the popular politics blog *Politico* wonders “How Much Do Voters Know?”; The Cato Institute, an influential think-tank, publishes a policy piece entitled “How Political Ignorance Threatens Democracy;” while a CNN pundit pleads, “Don’t Let Ignorant People Vote.” Even the *New York Times* has weighed in on the subject, with its resident ethicist opining that it is wrong for uninformed voters to “put their ignorance into action.”¹ Journalist Thomas Frank asks why working class citizens vote against their economic interests (Frank 2004) and political philosopher Jason Brennan argues that uninformed citizens have a duty not to vote, equating such participation with driving while drunk.²

The hierarchy of preferences theory has a strong intuitive validity. It is premised on a commonsense notion of opinion formation in which judgments result from logical

¹<http://www.politico.com/news/stories/0312/73947.html>
<http://www.cato.org/publications/policy-analysis/when-ignorance-isnt-bliss-how-political-ignorance-threatens-democracy>
<http://www.cnn.com/2011/OPINION/04/12/granderson.ignorant.vote/>
<http://ethicist.blogs.nytimes.com/2009/11/03/must-you-vote/>

²<http://blog.press.princeton.edu/2012/08/16/will-the-bad-voters-please-step-forward-more-from-jason-brennan/>

processes and is buttressed by a culturally shared valuation of reason as superior to sentiment. But is the hierarchy perspective correct? Intuitive theories—particularly those with 2000-year-old origins—often fail to withstand rigorous scientific inquiry. After all, as early as 1620, Francis Bacon grasped the essential human tendency to reason in a manner designed to confirm preordained conclusions, writing that “human understanding when it has once adopted an opinion (either as being the received opinion or as being agreeable to itself) draws all things else to support and agree with it,” (Bacon 2000: XLVI). The philosopher David Hume proposed that reason was subservient to the passions, pithily stating that it is “. . . little contrary to reason to prefer even my own acknowledged less good to my greater, and have a more ardent affection for the former than the latter,” (Hume 2012: Book III). Mill observed that the standards of appropriate conduct people strive to impose on others are not simply rational rules for a good society, but manifestations of prejudices, superstitions, social affections, envy, jealousy, arrogance, and “most commonly,” the ruling classes’ “desires and fears for themselves,” (Mill 1989). By at least 1924, or about twenty years after the American Political Science Association was founded, psychologists had recognized that “if we have nothing personally at stake in a dispute. . . we are remarkably intelligent about weighing the evidence and in reaching a rational conclusion. We can be convinced in favor of either of the fighting parties on the basis of good evidence. But let the fight be our own. . . and we lose our ability to see any other side of the issue than our own,” (Thurstone 1924; quoted in Nickerson 1998).

By the time the systematic, scientific study of political behavior had begun, there were already good theoretical reasons to question the hierarchy of preferences view. The nascent science of politics had a golden opportunity to adjudicate between two competing hypotheses as to the nature of political preferences. Was there an empirical basis for the claim that some political judgments were qualitatively superior to others, just as the medicinal judgments of a doctor were superior to those of a

layperson? Or were apparently reasoned political preferences nothing more than the mere “likings and dis-likings” (Mill 1989) of certain segments of society disguised as informed opinions?

At the outset of the scientific study of political opinions, it seemed that some researchers were disposed towards the latter position. In an essay analyzing the various conceptions of public opinion employed by political philosophers, psychologists, and historians, Binkley (1928) suggests that the view favored by democratic theorists, in which citizens “made it a practice, each in his own freedom, to arrive at logical conclusions with references to matters of public concern,” is a theoretical contrivance unconnected from “observation of diverse facts in the world.” Despite its lack of empirical support, Binkley noted that this perspective of public opinion did, however, make the “equation of government... more appealing to us intellectually” (Binkley 1928: p. 392). The psychologist Floyd Allport contributed the essay “Towards a Science of Public Opinion” to the inaugural issue of the journal *Public Opinion Quarterly* in which he reminded researchers that “the questions which make up the content of public-opinion phenomenon are usually not questions of ascertainable fact, but of *opinion*... there is, in such instances, no way of knowing whether the product of the interaction of individuals is of a higher or lower order so far as truth, or even value, is concerned,” (Allport 1937: p. 11, emphasis original). A later article by Allport (1940) posits three dimensions of public opinion measurement: sociological, which entails gauging opinion along an entire continuum of a social policy; intensity, which captures the degree of feeling which a person attaches to a certain opinion; and intentionality (which Allport calls the telic dimension), which adduces the steps a person is willing to take in order to realize the content of his or her opinion.³ No-

³Allport noted that no survey at the time included the telic dimension but believed including it would allow researchers to measure “the extent to which citizens can or cannot become agents in controlling the systems in which they operate,” (Allport 1940: p. 255)

tably absent from this list is a measure of opinion quality. At the very least, these works suggest that some social scientists were cognizant of the fact that the scientific study of opinion precludes the very type of value judgments upon which the hierarchy of preferences perspective depends.

And yet, between 1954 and 1964, three highly influential works were published that seemed to cement the hierarchy theory of political attitudes as an integral part of the empirical study of political behavior. Berelson, Lazarsfeld, and McPhee's *Voting* (Berelson et al. 1954) and Campbell, Converse, Miller, and Stokes' *The American Voter* (Campbell et al. 1960) both contained pessimistic assessments of citizen competence. Based on the lack of knowledge citizens had about politicians and policies, the authors of *Voting* concluded that "in any rigorous or narrow sense the voters are not highly rational," (Berelson et al. 1954: p. 310). Berelson, Lazarsfeld, and McPhee claimed that rather than make their voting decisions on the basis of principle or interest, many voters treat their political preferences as similar to "cultural tastes," and base them on "sentiment and disposition" rather than reasoned judgment (Berelson et al. 1954: p. 311).

The assessment of voter behavior in *The American Voter* is little better, as the authors state that the electorate is "almost completely unable to judge the rationality of government actions," or to "appraise either its goals or the appropriateness of the means chosen to serve those goals," (Campbell et al. 1960: p. 543). A few short years after the *The American Voter* appeared, Phillip Converse—inspired by his experiences collecting data for that project—continued the assault on voter competence with the article "The Nature of Belief Systems in Mass Publics," one of the definitive statements on the ideology—or lack thereof—of the American populace. In this essay, Converse established a hierarchy of his own based on the ideological content of the electorate's political beliefs. By Converse's reckoning, only about 15% of the electorate could be classified as "ideologues" or "near-ideologues"; that is, citizens

who were more or less able to ground their political beliefs on a “relatively abstract and far-reaching conceptual dimension,” (Converse 1964: p. 215). The rest, according to Converse, based their political beliefs on perceptions of how demographic groups might be helped or harmed by various policies, stereotypical associations between political parties and certain large-scale societal outcomes, or on party loyalty and the personal characteristics of politicians; some citizens (roughly 20%, according to Converse’s data) had no real political attitudes at all.

Each of these three works has been of fundamental importance to the discipline of political science, and each endorsed the notion that there was no conflict with using empirical data to pronounce normative judgments on the quality of political opinions. By describing the preferences of the electorate as “irrational” and “unsophisticated” due to its lack of political knowledge, these authors clearly took the position that some preferences—those of informed citizens—were by extension more rational and more sophisticated. Further, these works established some of the criteria by which sub-optimal political preferences are created: attitudes based on loyalty to parties, sentiment, habit, group interest, and the characteristics of politicians were all declared—by fiat, not by any empirical standard—to be less worthwhile and of lower quality than attitudes based on the reasoned consideration of facts. The endorsement of the hierarchy of preferences view by the authors of some of the most influential and rigorous early studies of political behavior arguably established it as the dominant theory of information and preferences among political scientists.

As evidence of the citizenry’s inattention towards politics mounted and concern over the implications of that ignorance for democracy increased, a generation of political theorists sought to provide the hierarchy of preferences doctrine with logical and theoretical force. In a typical example of this type of rhetoric, Balbus argues that any “adequate” political theory—normative or empirical—must acknowledge that people have both subjective interests, defined simply as what they desire, and objective in-

terests, defined as factors that influence their “life chances”, regardless of whether people perceive these interests as such (Balbus 1971: p. 152–153). In Balbus’ terms, a citizen who accurately divines his or her objective interests and subjectively desires those outcomes has achieved “consciousness.” However, when a person’s material interests are being impacted by various social and political forces that the individual remains unaware of, Balbus suggests that the individual suffers from “lack of consciousness”; on the other hand, “false consciousness” obtains when a person is aware that his or her life chances are being affected, but misperceives the cause or nature of this effect (Balbus 1971: p. 154). Connolly puts forth a similar argument, stating that treating expressed policy preferences and interests as synonymous “sanctions perverse normative judgments,” (Connolly 1972: p. 463). The problem, Connolly contends, is that such a conceptualization places undue emphasis on the articulation of political wants, an act that is inherently tied to socio-economic status, and ignores the interests of those demographics that have no specific policy preferences but may yet still be affected by certain outcomes. In order to ascertain a person’s “real interests,” Connolly offers the following thought experiment: a policy is in one’s true interest if, with complete knowledge of the consequences of that choice and its alternatives, one would nonetheless still hold the same preference (Connolly 1972: p. 472). Mansbridge uses the term “enlightened interests” to describe the “preferences that people would have if their information were perfect, including the knowledge they would have in retrospect if they had a chance to live out the consequences of each choice before actually making a decision,” (Mansbridge 1983: p. 25). Dahl proffers a similar definition, stating that “a person’s interest or good is whatever the person would choose with fullest attainable understanding of the experiences resulting from that choices and its most relevant alternatives, (Dahl 1989: p. 180).

The definitions of real interests coined by Balbus, Connolly, and others are clearly “non-operational” ones—that is, they cannot be investigated empirically—and the

very concept of enlightened interests, with its Platonic assertion of true preferences that exist outside the sense perception of most people but can be known via reasoning, appears antithetical to the tenets of observational science. But the notion of real interests has nonetheless provided a number of empirically-minded researchers a justification for claiming that the expressed political preferences of some citizens are problematic. For example, Althaus argues that uninformed voters “may believe a policy serves their interests, while someone with more perfect or complete information can see that the policy is diametrically opposed to them,” (Althaus 1998: p. 547). Chong, Citrin, and Conley assert that those who “lack sophistication about public affairs” can be “mistaken” about their interests (Chong et al. 2001: p. 543). Lau and Redlawsk (2006: p. 75) state “...we are equally reluctant to accept as correct any individual vote just because it was freely chosen by that individual.” Lupia observes that “many scholars and pundits argue that widespread voter ignorance leads to voting behavior and electoral outcomes that are meaningless representations of voter interests,” (Lupia 1994: p. 63). The proposition that “the most informed choice available to one in a particular context constitutes a judgment in serious pursuit of one’s real interests,” (Connolly 1983: p. 63) has become *de rigueur* among many political scholars, even among those doing empirical research.

To be sure, some researchers have challenged the prevailing “minimalist” view of citizen competence, although none of these rejoinders have been of sufficient force to dislodge the dominant hierarchical paradigm. An initial criticism of the literature on citizen competence challenged whether the incidence of political expertise in the population was as low as it appeared. Some political scientists suggested the documented inconsistencies in attitudes and non-ideological thinking were not an instance of lack of sophistication but a failure of measurement instruments and analysis strategy. For example, Lane (1962) used a series of in-depth personal interviews to reveal the nuanced and culturally-influenced ideologies of the “common man.” Brown (1970)

challenged Converse’s claim of over-time attitude instability by employing an experimental design in which subjects were asked to first locate themselves ideologically on 48 different issues and then were randomly assigned to complete the task again in either two, four, or six weeks time. Brown finds no differences between political sophisticates and non-sophisticates in this task and notes that while belief *persistence* is an empirical matter, using the concept of ideological consistency as a marker of expertise is problematic because consistency is defined in terms of the socialized “logic of the liberal democratic tradition” shared by most social scientists although not necessarily by the public at large (Brown 1970: p. 67). Pierce and Rose (1974) and Achen (1975) take a different tack on the methodological question, basing their analyses on the same types of panel data that Converse employed but arguing that once measurement error is accounted for, the political attitudes of the populace are quite stable (Converse 1974 provides a rejoinder to this critique).

Casting aside issues of measurement and conceptualization, a related criticism of the early sophistication literature held that the lack of coherency in political beliefs evident in the electorate was particular to one particular historical era and that changes in the political landscape had led to more ideological, and hence more politically sophisticated, citizens (Nie et al. 1976). This position, however, was soon rebutted by data suggesting that the apparent increase in ideological thinking was most likely due to changes in the question wordings on the National Election Surveys (NES) since Converse’s initial paper (Bishop et al. 1978). Subsequent investigations by Lewis-Beck et al. (2008) appear to confirm Converse’s initial hypothesis: using data from the 2000 NES, Lewis-Beck et al. estimated about 20% of population classify as “ideologues”, slightly more than the 11% rate reported in *The American Voter* and the 15% figure offered by Converse (1964). The proportion of citizens with no ideological content, 24%, was virtually the same as in the 1960s.

Although real questions over the conceptualization and measurement of ideol-

ogy remain, the debate over the importance of ideological thinking to discussions of political expertise was largely scuttled by Luskin (1987), who argued convincingly for indicators of political sophistication based on factual knowledge, political participation, and interest (see Lewis-Beck et al. 2008: p. 299–301). By the 1980s, the issues of measurement that arose after Converse had been resolved to a sufficient degree, so much so that both Kinder (1983) and Luskin (1987) declared the “distributional” question—that is, the relative frequency of political sophistication in the populace—solved. The conclusion? “[B]y anything approaching elite standards, the American public is extremely unsophisticated about politics. . .” (Luskin 1987: p. 889). Ultimately, neither the methodological critique nor the “changing American voter” argument succeeded at demonstrating that the electorate was more politically aware than it appeared.

A few years after Luskin had made his proclamation about the sophistication levels of the electorate, a second major theoretical response to the problem of an unsophisticated mass public gained traction. Researchers in this tradition acknowledged the truth that most citizens were not politically sophisticated, but maintained that voters could use a variety of cognitive shortcuts or heuristics to make judgments “as if” fully informed. For instance, Popkin claims that voters can use judgments of a candidate’s competence as well as incumbency status as heuristics when forming their vote preferences (Popkin 1991: p. 60–65). Sniderman, Brody, and Tetlock propose that voters use a likeability heuristic to generate competent political preferences (Sniderman et al. 1991: ch. 6) while scholars like Lupia and McCubbins (1998) and Boudreau (2009b) suggest that institutional cues provide voters with adequate information to make good decisions. Other proposed heuristics include party identification and endorsements (Lau and Redlawsk 2001), candidate appearance (Todorov et al. 2005), occupation (McDermott 2005), and socio-demographic characteristics (Cutler 2002), all of which are presumed to provide citizens with cognitive shortcuts that

obviate the need for encyclopedic levels of political knowledge.

The initially optimistic view that heuristic use provided most citizens with the cognitive tools necessary to make good political judgments despite their lack of knowledge about politics was soon tempered. A number of researchers argued that it was unclear whether people actually used heuristics and if they did, whether they were able to generate opinions on par with more informed attitudes. In support of this claim, researchers produced various simulations of public opinion in order to demonstrate that the “fully informed” opinions of the electorate would differ significantly from observed patterns. Delli Carpini and Keeter presented evidence suggesting that uninformed individuals are less likely to hold policy attitudes in line with their “enlightened group interests” (Delli Carpini and Keeter 1996: ch. 6). Althaus (1998) and Gilens (2001) both provided data indicating that citizen’s attitudes towards a wide variety of government policies are biased by a lack of information, while Bartels (1996) argued that political ignorance leads some voters to prefer candidates they otherwise would not were they more informed. Work from Lau and Redlawsk (2001) investigating heuristic use in an experimental setting appeared to corroborate one of the major critiques of the heuristic school; although their study indicated that most subjects did use some form of heuristic, these shortcuts were most effective for people who were already politically sophisticated.

In a pointed rejoinder to the literature on cognitive shortcuts, Kuklinski and Quirk noted that while political scientists have tended to focus on how heuristics “enhance competence,” many psychologists view their use as an impediment to good judgment, (Kuklinski and Quirk 2000: p. 166). Heuristic use oftentimes entails reliance on stereotypes, overconfidence, and biased interpretation of messages, all of which, in Kuklinski and Quirk’s estimation, degrade the quality of political attitudes. At present, research on heuristic use continues (Katz et al. 2011; Dancey and Sheagley 2013; Spezio et al. 2012), but no sustained theoretical or empirical challenge has

emerged to the claims of Bartels (1996), Delli Carpini and Keeter (1996), Kuklinski and Quirk (2000) and others that there is no substitute for an informed populace.

The prominence of political knowledge in conceptions of voter competence is such that it is important to note that even the sophisticated challenges to the hierarchy of preferences theory did not question its inherent assumptions. The methodological critique did not doubt the importance of political sophistication, merely its incidence in the population. Similarly, the heuristics view is premised on the ability of shortcuts to allow citizens to make decisions “as if” fully informed and does “not explicitly reject the traditional normative idea that citizens should know the facts,” (Kuklinski et al. 2000: p. 791). A survey of the literature on political knowledge and preferences thus leads to the inescapable conclusion that a good number of political scientists working in a variety of theoretical and empirical traditions have accepted the hierarchy of political preferences theory as an accurate accounting of the relationship between information, expertise, and political judgment. Consider the following three propositions, each of which quite within the mainstream of the literature and each that would be instantly recognizable to Plato and other critics of democracy as vindication of their views:

1. Political expertise is a specialized skill resulting from ability, motivation, and opportunity (Luskin 1990; Delli Carpini and Keeter 1996) possessed by only a very small segment of the population, most of whom tend to be members of socially privileged groups (Converse 1964, 1990; Neuman 1986; Price and Zaller 1993; Delli Carpini and Keeter 1996; Althaus 2003). Despite the fact that overall education levels have increased and information is ever easier to come by, the distribution of political expertise in the population has generally remained unchanged (Delli Carpini and Keeter 1996; Niemi and Junn 2005; Prior 2007). Thus, “expert” political judgment is concentrated within a very select population.

2. As a consequence of their expertise, political sophisticates engage in different processes of preference formation than do non-experts (Berelson et al. 1954; Knight 1985; Sniderman et al. 1990; Bartels 1996; Funk 1997; Converse 2000; Althaus 2003; Lau and Redlawsk 2006). Elites arrive at their policy preferences through a process of rational and logical reasoning, enumerating “potentially relevant considerations,” and coordinating “calculations... about alternative means and alternative ends,” in an effort to understand the implications of their attitudes (Sniderman et al. 1991: p. 165). They consider the “credibility and likely consequences of each party’s proposals, priorities, and political predicaments” prior to endorsing candidates, so as to avoid errors in voting (Bartels 1996: p. 205). And they work hard to “actively engage contrary points of view” and “to overcome their own biases,” (Brennan 2012: p. 10). In contrast, most non-experts lack the cognitive or motivational resources to reason correctly about politics.

3. By virtue of their more rational information processing strategies, experts reliably form preferences that are superior to opinions generated in other fashions. The preferences of experts are more consistent with their values and predispositions (Zaller 1992; Lau and Redlawsk 1997), less biased (Bartels 1996; Kuklinski and Quirk 2000), and more in line with their true interests (Mansbridge 1983; Delli Carpini and Keeter 1996; Althaus 2003). By implication, the rest of the people hold preferences that are detrimental to their own interests and perhaps to the system of democracy itself.

These three tenets are precisely the bricks upon which the hierarchy of preferences perspective has been built: a select political elite, possessed of uncanny insight and reasoning ability and who evince enlightened preferences, stands apart from the hordes of uninformed and misinformed voters who know not what is either good for themselves

politically or for the society as a whole.

Ironically, although many of the researchers cited above seem to strike a decidedly pro-democratic tone in their works, one would be hard pressed to see many substantial differences between the theory of political preferences they collectively espouse and the anti-democratic system envisioned by Plato. In the debate between the reason-centered conception of preferences championed by Plato and the passion-driven view espoused by Hume, the verdict is clear: decades of political science research have granted the imprimatur of scientific legitimacy to a philosophical position that co-existed with the belief in spontaneous generation and to the same folk theoretical understanding of preferences commonly used by media blow-hards to denigrate as ignorant and irrational the political views of ideological opponents.⁴ In light of the wide acceptance of the hierarchy view by philosophers, political scientists, and laypeople alike, perhaps the pessimistic view of democracy taken by many theorists is justified.

Questioning the Hierarchy

The hierarchy of preferences perspective has been an integral part of democratic theorizing for over 2000 years and has thoroughly infiltrated the thinking of academia and the laity alike. The proposition that some people possess more informed and therefore “better” political opinions than others seems as settled as the fact that the Earth goes around the Sun. But in this project I intend to demonstrate that the hierarchy view is wrong. My objection stems not from a normative desire to defend democracy (which I believe to be the least worst form of government) nor from an optimistic faith in the wisdom of the people (which I do not have) but from the more basic concern that

⁴Bill O'Reilly, the popular conservative firebrand, features on his show a segment called “Pinhead of the Week,” in which he lambastes an individual for his or her idiotic political preferences. Internet searches for the phrase “liberals are ignorant” yield almost 4 million results; a search of the phrase “conservatives are ignorant” produces almost 30 million!

the theory, such as it, simply does not comport with the portrait of information use and preferences that has been developed by psychologists over the last one hundred years. The hierarchy theory—and it is more of an intuitive notion than a rigorously stated theory—is ill-equipped to accommodate such a widely recognized psychological phenomenon as confirmation bias, which was known to Francis Bacon in the 1600s, and even worse suited to handle a variety of advances in our understanding of how people form attitudes and process information, including: automaticity and implicit attitudes (Bargh and Chartrand 1999; Greenwald and Banaji 1995), dual-process theories of information processing (Chaiken and Trope 1999), motivated reasoning (Kunda 1990), personality effects on political predispositions (Mondak and Halperin 2008), and genetic influences on political attitudes (Alford et al. 2005). The upshot of these various literatures is that the interplay between political preferences and information is far more complex than the simplified model suggested by the hierarchy view in which people “size up the situation, distinguish opposing interests, separate the interests of others from self-interest, and choose...” (Wildavsky 1987: p. 4). It is likely, as I will argue in forthcoming chapters, that people’s political attitudes are constrained by a plethora of psychological and sociological factors; it is even more likely that to the extent that information plays a role in political preferences, it is primarily used to rationalize and defend attitudes, not create them.

I have three main objectives in this project. First, I wish to demonstrate that the hierarchy theory does not hold up to critical scrutiny. The hierarchy view contains three principal components, namely: 1) there exists a small group of political sophisticates who 2) reason in a particular manner that 3) produces optimal political preferences. In my estimation, proposition (1) is unassailable; the evidence that most people do not think deeply about politics, are not interested in it, and know very little about it is vast and consistent and I have nothing to add on that score. Proposition (2) however, is still an open empirical question. I will discuss the mixed evidence for

this premise in Chapter 2 and investigate it more thoroughly with the experiments detailed in Chapters 4 and 5. My position in this project is that advanced “reasoning” displayed by political elites takes place *post hoc* (Lodge and Taber 2013); people become informed not to generate their opinions, but to rationalize them. Proposition (3) is undoubtedly the weakest link in the chain. To put it bluntly, there is no objective standard to judge what a good political preference and a bad political preference looks like, a troubling problem for any scientific theory and one which most researchers readily admit (Kuklinski et al. 2001; Druckman 2001a; Boudreau 2009a). However, as a variety of theoretical justifications have been offered for this proposition, I will focus on those claims in my critique rather than hinge my argument on the mere absence of evidence. My deconstruction of the hierarchy view is, I believe, a novel one in the political science literature: I propose to decouple the link between political sophistication, as currently conceptualized, and superior political opinions. I do this by demonstrating that a rather significant logical mistake lies at the heart of the notion of political expertise and further by showing that none of the commonly invoked theoretical justifications linking sophistication to quality preferences actually does any such thing. In fact, all of the most common rationales given to justify the superiority of expert political preferences apply equally well to non-expert opinions.

My second objective is to sketch out a non-hierarchical theory of the relationship between information and political preferences. I present this theory in Chapter 2. This theory dispenses with both the conceptually muddled idea of political expertise and the empirically un-testable notion of “better” or “worse” political preferences. My theory instead works from the following premises: first, political preferences are limited by a variety of psychological, sociological, and cultural factors. People have far less agency in determining their preferences than previously supposed; second, contrary to the heterogeneity principle, which holds that people of varying levels of sophistication form their preferences in different ways (Sniderman et al. 1991), I

contend that most people form most of their political preferences in the same manner, namely, on the basis of initial affective reactions to political stimuli; third, the degree to which people are informed about politics is a function of the social incentives they experience to rationalize, defend, and identify with their political opinions. I identify accountability as one of the prime social forces producing “informed opinions,” and contend that information search and retention primarily occurs as a reaction to the social expectation that people should have plausible reasons for their beliefs.

My final objective is to test a number of hypotheses drawn from the theory of non-hierarchical preferences. In Chapter 3, I use NES survey data to revisit the claim made by Bartels (1996) that the presidential preferences of uninformed voters would change if they were more informed. In Chapters 4 and 5, I present the results from two original experiments designed to test some core claims of my theory. First, I examine the processing strategies people use when forming political judgments and compare these to the strategies used for a comparable task that minimizes the influence of affect on decision-making. Next, I explore how various biases infiltrate political preferences and the degree to which these biases can be minimized by increased cognitive effort. Last, in the final chapter, I offer some concluding thoughts on the broader implications of my findings for understanding the relationship between information and political preferences.

Chapter 1

Toppling the Hierarchy

The hierarchy view of the relationship between information and political preferences is simple and straightforward. It consists of an independent variable, political expertise, linked to a dependent variable, opinion quality, via the causal mechanism of reasoning strategy. The primary deduction from the model is that as expertise increases, people engage in more effortful reasoning and better quality preferences result. However, the intuitive simplicity of the hierarchy views masks a number of heretofore unaddressed conceptual and theoretical problems. The reasoning process will be addressed more thoroughly in Chapter 2, but in this chapter I wish to critically evaluate both the way the concept of political expertise has been employed in the literature as well as its presumed theoretical connection to opinion quality.

First, I address the concept of political expertise and its applicability to preferences. Political knowledge scholars have treated political expertise as a particular instance of expertise in general and thus concluded that just as the judgments of a medical expert are superior to those of a novice, so too are the judgments of political sophisticates better than those of non-sophisticates. However, the problem in this formulation lies in the nature of the judgments experts make; as currently employed, the concept of political sophistication erroneously conflates mastery over the *objec-*

tive features of the political realm with expertise in generating *subjective* preferences within that domain. Second, I delve into the theoretical justifications offered to link political expertise with preference quality. Given that no objective measures exist to determine preference quality, the theory relating expertise to preferences should be particularly strong. This, as I will show, is not the case. There are three primary rationales offered in support of the claim that expert opinion outstrips non-expert opinion: 1) experts are more likely to hold opinions in line with their interests; 2) experts are less likely to hold biased opinions; and 3) experts are more likely to hold opinions consonant with their values and political predispositions. As I will show, none of these rationales have been developed to any degree of theoretical precision, and none of them provides any logical basis for rejecting the position that non-expert opinion is equal in quality to expert opinion.

1.1 In Search of Political Expertise

Political sophistication is often conceived of as the “political case” of the more general phenomenon of expertise (Luskin 1987: p. 861).¹ However, while it is typically easy to identify experts in fields such as medicine or history, the identification of political experts has been plagued by conceptual difficulties, so much so that Luskin declared the literature to be in “epistemic disarray,” (Luskin 1987: p. 856). Writing almost twenty years later, Tetlock said that when it comes to political expertise, “there was little agreement on either who had it or what it was,” (Tetlock 2005: p. 3). This difficulty seems puzzling given the common understanding of expertise. Generally speaking, an expert possesses a mastery over a body of objective facts relevant to

¹Following Luskin (1987), I use the terms “sophistication” and “expertise” interchangeably. Since political knowledge is one of the major indicators of expertise, I also use phrases such as “informed opinions” and “high information” voters to refer to sophistication.

a particular domain. This mastery of specific facts implies a concurrent acuity in certain types of judgments related to that domain; a medical expert is more likely to accurately deduce the cause of a malady than is a non-expert. Reasoning analogously, it seems straightforward to conclude that political experts demonstrate better political judgment than do non-experts. However, significant conceptual confusion lurks in the term “political judgment.” A failure to draw relevant theoretical distinctions among types of judgment has led many scholars to mistakenly conflate judgments over objective properties of a domain with judgments over subjective relationships between the stimulus and the perceiver. As a result, political scientists have assumed a type of expertise over preferences that likely does not exist.

To understand the relationship between the varieties of judgment and expertise, consider the case of a medical expert. The practical advantage of expertise comes from the ability to draw accurate conclusions under conditions of uncertainty; in a situation in which not all of the facts are available, expert judgment can save valuable time, money, and resources by identifying problems and solutions early in the decision-making process. When confronted with a sick patient, the doctor combines observations of a patient’s symptoms with a detailed understanding of various diseases in order to make a reasoned judgment about the possible causes and likely cures. Ideally, this initial judgment is either confirmed or disconfirmed as more complete information becomes available and oftentimes the doctor’s initial conclusion, whether right or wrong, is instrumental in producing certain desirable or undesirable consequences. Thus, the value of expertise in this instance is clear; accurate decisions under situations of incomplete information can lead to more positive outcomes, while poor decisions may lead to number of negative results. Because a physician’s judgments are objectively right or wrong, gauging expertise is not a particularly difficult empirical task; we could in principle devise a metric of proficiency based on success rates in diagnosis or treatment or some other criteria and rank doctors based on their

performance.

A medical diagnosis fits within the province of what Zajonc terms “cognitive” judgments (Zajonc 1980). Cognitive judgments are the result of appraisals of the objective properties of a stimulus and are (in theory if not always in practice) demonstrably true or false. Other examples of cognitive judgments including determining whether a suspect is innocent or guilty of a crime, estimating the distance between two objects, and all manner of scientific investigations. A distinguishing feature of cognitive judgments is that clear and objective standards exists for evaluating their quality (i.e., accuracy) and for making empirical claims of expertise.

By extension, expert political judgment should entail the ability to make successful cognitive judgments about the political world. For example, for any given political topic, a sophisticate may be able to successfully foresee which side of the issue each major party will take based on its historical prerogatives as well as its current ideological leanings. Similarly, experts may be able to divine the likelihood that a particular candidate will win an election or that a piece of legislation will be passed. These types of judgments about potential states of the political world can be classified as correct or incorrect and subjected to empirical scrutiny. In fact, Tetlock has spent twenty years studying cognitive judgments from political experts from government, think tanks, and academia (Tetlock 2005). The results from his study are complex, multifaceted, and numerous, but two findings in particular are worth noting. First, Tetlock finds that political expertise—defined in his work by such qualities as possession of a PhD, access to classified information, and years of experience in the field, among other factors—does not have a uniform effect on judgment. Expertise only improved predictive accuracy (and modestly, at that) for a certain type of thinkers Tetlock calls “foxes”. Foxes know many things about many topics, tend to be more centrist in their ideologies, and show less of a need for cognitive closure (Tetlock 2005: p. 75–81). Tetlock contrasts foxes with “hedgehogs”, who hold more specialized

knowledge and tend to focus on “one big idea” (Tetlock 2005: p. 73). For these individuals, expertise actually has a negative effect on predictive accuracy, which Tetlock suspects results from hedgehogs’ tendency to use their stores of knowledge to bolster and defend their beliefs and their failure to update their forecasts on the basis of new information. The main take away from this finding is that the effects of expertise are moderated by cognitive style; thus, not all “experts” benefit in the same way from their knowledge. This is a curious finding that I would suspect is not applicable to other types of expertise; presumably, physicians with cognitive styles that hampered their ability to make accurate judgments would be less likely to be considered experts in their fields than would those who more regularly make correct judgments.

Tetlock’s second major finding is that while foxes may outperform hedgehogs when it comes to predictive accuracy, the overall effects of expertise on good political judgment are not encouraging. Tetlock’s data reveals strong support for the view that experts have no particular skill or insight when it comes to predicting political outcomes. Comparing the performance of experts to a variety of “mindless” alternatives (such as simply assigning equal probabilities to each possible outcome), Tetlock concludes that “it is impossible to find any domain in which humans clearly outperformed crude extrapolation algorithms, less still sophisticated ones,” (Tetlock 2005: p. 54). Nisbett and Ross (1980) report similar findings in studies of the predictive abilities of stockbrokers, admissions officers, and personnel managers. These studies of professionals “making predictions in domains of which they have special knowledge and often years of training, and in which they commonly have had repeated opportunities for feedback on the accuracy of their predictions” find that human judges are unable to outperform simple actuarial formulas (Nisbett and Ross 1980: p. 141). From these findings, it is not unreasonable to conclude that the concept of expertise may simply be inapplicable to certain types of judgments.

Tetlock’s work on political judgment is suggestive although not definitive; as he

notes, critics may raise a host of objections to his methodological approach and operationalizations. At the same time, the very difficulties Tetlock encounters in attempting to “quantify the unquantifiable” (Tetlock 2005: ch. 1) as well as his underwhelming results underscores an important point; political expertise is not simply a particular instance of a more general phenomenon of expertise, as Luskin contends. To assert this proposition is to gloss over important analytical differences among various types of expertise. The relationship between expertise and judgment clearly differs within the domains of medicine and law, for example. The judgments of a medical expert are strictly cognitive in nature, concerned with deterministic properties of chemistry and biology. As such, the more complete the information the physician possesses, the more accurate judgments will be. In theory, a doctor who knew everything there was to know about the human body and its function would be inerrant in her judgment. This is not true, however, for a legal expert. Legal expertise entails judgments not over a presumptively deterministic material world but over a socially constructed body of knowledge. While the legal expert still likely has an advantage over a non-expert in predicting outcomes, there is an inescapable human element involved in these situations—namely, laws are interpreted by people. This factor introduces a major complication into the judgmental process that does not exist for purely scientific judgments. Thus, having complete knowledge of the law would not grant the legal expert perfect judgment in the same way that full information would benefit a physician because the nature of the judgments are quite distinct.

Whether the human element in politics implies that good political judgment does not exist—a position Tetlock calls “radical skepticism” (Tetlock 2005: ch. 2)—is a worthwhile empirical question in its own right deserving of further study. However, the relationship between political expertise and accuracy in judgments about the objective political world is not the primary question the literature on political sophistication examines. Instead, research has focused on the relationship between

information levels and the content of policy and candidate preferences (e.g., Carmines and Stimson 1980; Sniderman et al. 1991; Popkin 1991; Lupia 1994; Delli Carpini and Keeter 1996; Bartels 1996; Althaus 1998; Gilens 2001; Kuklinski et al. 2000; Gaines et al. 2007). These studies do not examine the ability of citizens to predict political outcomes—which we can appraise as correct or incorrect—but rather the entirely distinct phenomenon of the direction and structure of attitudes towards political stimuli. The concept of political expertise has thus been transplanted from its proper domain of cognitive judgments, which concern themselves with objective features of the world and are in principle quantifiable, to a qualitatively different type of judgment, one that describes not some objective feature of the world but rather the perceiver’s subjective relationship to an attitude object. Zajonc calls these sorts of judgments “affective” judgments (Zajonc 1980) because the objective qualities of the stimulus combine with the properties of the perceiver to produce a subjective appraisal. If it is unclear whether expertise leads to better cognitive judgments in politics, it is even less clear how sophistication could lead to subjective judgments that can be classified as “good” or “bad” or “better” or “worse” in any meaningful sense.

The lack of external standards by which to quantify the correctness of a political attitude stems from the nature of affective judgments. Affective judgments differ from cognitive judgments in that they comprise an interaction between the perceiver and the attitude object. As such there is an idiosyncratic component to affective judgments that is not reducible to the mere objective properties of the stimulus (Zajonc 1980). Examples of this sort of judgment include finding a person attractive, aesthetic preferences over certain types of food, art, or music, and various types of value judgments. Clearly, these types of judgments do not have a right or wrong answer; different people can arrive at vastly different affective judgments concerning the same stimulus object and each conclusion is equally valid. Nor would we expect these judgments to change solely based on the acquisition of more and more facts

about the target object. If someone dislikes the music of the Beatles, informing them of the number of hit records they produced or providing them with a detailed account of the theory behind their music is unlikely to sway his or her opinion, simply because liking or disliking is not just about the tangible properties of the stimulus. Of course, certain groups of people may declare that a particular piece of artwork or cuisine is “objectively” better than another, but such pronouncements are quite different from demonstrating empirically that a cognitive judgment is incorrect.

That many political judgments are affective judgments is indisputable. Expertise implies consensus; cognitive judgments may be wrong, but over time expert judgment converges on the correct answer. Many if not all political issues, however, are inherently contestable; there may be an expert liberal consensus and an expert conservative consensus and perhaps even an expert centrist consensus, but there are few cases in which almost all people of varying ideological stripes agree on the correct policy orientation. Expertise is also a culturally cumulative phenomenon—each generation benefits from the experiences and innovations of the previous ones. While Newton revolutionized the mathematical world with his *Principia*, today a bright high school student is expected to be proficient in the techniques he developed. Similarly, each generation of farmers does not have to re-invent the wheel; agricultural practices that work are passed down, while those that fail are discarded. If political expertise led to some sort of noticeable advantage in quality of life or opportunity, it would provide a comparable advantage to any group that developed it. And yet, a great many people never seem to have stumbled upon this potential benefit despite the ever-increasing availability of information.

Of course, there are cognitive elements to political issues, but these facts only take us so far. Although we can produce an objective answer to the question of whether the death penalty deters crime, we cannot use facts to determine whether it is an appropriate punishment for some horrific acts. Similarly, scientific inquiry can reveal

whether children raised in same-sex households are disadvantaged compared to their peers, but it cannot determine whether same-sex marriage is moral. Support for the death penalty or same-sex marriage ultimately comes down to a subjective preference and people can come to extremely disparate conclusions about the same set of facts (Bartels 2002; Gaines et al. 2007). It seems analytically necessary, then, to distinguish between cognitive and affective political judgments in our discussion of expertise. This distinction raises a number of perplexing theoretical questions, such as: what does it mean to possess expertise over subjective judgments? How would we measure that characteristic? What are the requisite components of subjective expertise? Does expertise over subjective judgments require expertise over objective judgments as well? Needless to say, the literature on political knowledge and preferences has not addressed any of these troubling issues; instead, it has concealed them by assuming that expertise is a general phenomenon with equivalent effects, regardless of the domain of expertise or the nature of the judgment.

We do not consult a baseball historian in order to find out which team we should root for. Nor do we ask a religious studies professor to which faith we should belong. We make clear distinctions in other fields of expertise between objective knowledge and subjective preferences. There is no reason not to do so in political matters as well. In one of his many articles on citizen competence, Converse illustrates the vast differences in political knowledge levels by invoking the example of noted political scientist Nelson Polsby. Polsby, says Converse, knew so much about Congress that he could “write on this topic, from memory and without repetition, as long as the food held out,” (Converse 2000: p. 334). In the context of Converse’s piece—which is on the capacity of the electorate to engage in issue voting—the implication of this expertise is that a person like Polsby brings a vast array of “contextual information” to his “political judgments,” (Converse 2000: p. 333).

Of course, the assumption here is that the superior knowledge Polsby has acquired

about the objective history and practices of politics informs his subjective policy preferences. There is no doubt that Polsby qualifies as a political expert; on questions of Congressional politics—and probably politics in general—most people would do well to defer to his judgment. But it is not apparent that Polsby’s encyclopedic knowledge of Congress grants him a special insight into his own preferences that other, less informed individuals lack. If it does, then the burden of proof is on those who make this claim to demonstrate it. Unfortunately, despite the frequency with which the claim that higher levels of political expertise lead to superior preferences is advanced, no such proof exists.

1.2 Determining Better or Worse Preferences

Many articles on political knowledge and preferences follow a similar template. The author typically starts out by noting the dismal empirical record on citizen information levels. This finding is then contrasted with the normative expectation that democratic citizens be informed about politics and a conclusion is reached that uninformed preferences have a detrimental effect on either the democratic system as a whole or the voters as individuals. At best, the author justifies this assertion with a passing reference to the connection between information levels and “interests” or “bias”; other times, no rationale is offered to explain precisely how and why some preferences are better than others. Having dispensed with this thorny theoretical problem to the apparent satisfaction of most editors, the author then moves on to the more tractable business of demonstrating why information is or is not as important as previously believed. The proposition that some political preferences are superior to others is apparently so self-evidently true that no positive demonstration of this claim is necessary.

Lacking empirical evidence of the quality of preferences, researchers who do wish

to press the claim that expert preferences are superior to others typically rely on at least one of three common theoretical justifications: the first strategy involves an appeal to interests, stating that political sophisticates are better able to link their preferences to their interests than are non-experts; the second claims that low-information preferences are by definition biased and therefore less optimal than more informed attitudes; and the third relies on consistency between a person's values and dispositions and his expressed political preferences, assuming that non-experts possess political opinions at odds with their core principles. Upon closer analysis, none of these defenses provides a sound theoretical justification for elevating certain political opinions over others. In fact, none of these rationales is particularly well-developed theoretically, and none establishes any sort of logical necessity between political expertise and the desired outcome. As I will show, all of the proffered explanations are entirely consistent with the claim that non-experts hold opinions that are of equal quality as those of the experts.

1.2.1 Appeals to Interest

One common approach in the literature is to link political sophistication with the pursuit of interests (e.g., Mansbridge 1983; Delli Carpini and Keeter 1996; Althaus 2003). According to this line of thought, expertise leads voters to promote candidates and policies more conducive to their interests, while a lack of knowledge about politics engenders support for policies against those interests. The problem with this position is not so much that the positive identification of political interests remains elusive, but that there is nothing inherent to the interest concept that implies the need for political expertise. According to most definitions, pursuing interest involves some form of utility maximization. Elster (2007) says that “interest is the pursuit of personal advantage, be it money, fame, power, or salvation.” Miller and Ratner (1998) define interest in terms of “reproductive fitness, utility maximization, reinforcement,

or the pursuit of pleasure,” while Sears et al. (1979) take self-interest to entail an attitude “which is directed towards maximizing gains or minimizing losses to the individual’s tangible private well-being.” Nothing in these definitions requires people to be well-informed about politics in order to pursue their interests. Only a particular conception of interests that first assumes that people have *many* rather than few political interests and then further assumes that the political interests people have concern *difficult* rather than easy issues establishes any logical need for expertise in order to act in one’s interests. But this perspective and its particular assumptions are only one way of thinking about interests and it is not clear why this specific theory should be privileged over alternative conceptions of interests that lack such stipulations. In fact, there are a number of ways to conceptualize interests that are perfectly compatible with the claim that there is no connection between levels of political expertise and the pursuit of interests.

As a starting point for an exploration of interests, consider a basic question: how many political interests do people have? The answer to this question is crucial, as the amount of information a person needs to hold preferences in line with her interests is a direct function of the number of interests she has. To illustrate with but one example of political decision-making, Lau and Redlawsk (2006) employ an election experiment in which each candidate was defined by 23 issue positions—are we to assume that voters have an interest in each and every one of these policies? If not all, then what proportion? Some research suggests that the electorate is divided into “issue publics,” concerned with only a small range of policies (Krosnick 1990; Fournier et al. 2003; Sides and Karch 2008). So perhaps voters only have a few interests; if that is the case, then they would not need to know vast amounts of information in order to express preferences consonant with their interests.

On a related point, do all people have the same number of political interests? If the number of interests a person has varies, then so too would the amount of information

required to act on those interests. The most informed individuals tend to be affluent (Delli Carpini and Keeter 1996: p. 161), so perhaps the wealthy have the luxury of indulging their interests in a wide variety of political topics while one or two issues become paramount for poorer individuals. If that were true, then both well-informed wealthy individuals and (comparatively) uninformed lower-class citizens might be equally adept at pursuing their interests.

The next relevant question for understanding the relationship between expertise and the pursuit of political interests concerns the complexity of the particular interests a person holds. Some political topics are held to be “hard” while others are “easy” (Carmines and Stimson 1980). Symbolic issues (Sears 1993) and moral issues would seem to be unconnected to political expertise (Pollock et al. 1993), suggesting that people of all levels of sophistication can discern their interests. Even on economic issues, which seem a good candidate for a “hard” issue that would be related to many people’s interests, there is some evidence that people need little expertise to guide their preferences. Enns and Kellstedt (2008) have demonstrated that the economic policy attitudes of citizens both high and low in sophistication move in concert and that both groups’ opinions respond to similar environmental cues. Using NES panel data and a large number of survey questions, Ansolabehere, Rodden, and Snyder, Jr. find some heterogeneity in the stability of policy preferences on economic and moral issues between high and low sophistication respondents, but conclude that “the difference between the two groups is small,” and that “all groups exhibit considerable policy content to their opinions,” (Ansolabehere et al. 2008). Thus, it may not be as difficult as some political knowledge scholars assume for citizens to generate meaningful opinions on a variety of political issues. The main take-away from this discussion is that when it comes to the pursuit of interests, the distribution of sophistication in the populace in and of itself tells us little about the degree to which voters are successfully maximizing their utility. Without knowing the quantity of interests people

possess and their complexity, there is no reason to suppose that the preferences of low information voters are any worse than those of political experts.

One unintended consequence of linking political expertise with successful pursuit of interests is that it diminishes the importance of the concept. The phrase “voting against one’s interests” is often intoned with a degree of gravity, and some worry that low-information citizens are particularly susceptible to elite manipulation, rendering democracy nothing more than an illusion (Iyengar 1987; Bennett 1992; Druckman 2001b). Oddly however, linking interests to political expertise implies that the most informed are just as susceptible to such subterfuge. Consider that the most informed think in more ideological and partisan terms (Hamill et al. 1985), hold positions similar to those of party elites (Zaller 1992), and appear to pay more attention to facts that fit their partisan schema (Jerit and Barabas 2012). Is this behavior evidence of following one’s interests, or is it simply a demonstration of group loyalty? As Converse notes, elites create ideologies by piecing together various policy positions based on “abstract” and “quasi-logical” reasoning. The purpose of this synthesis is to sell “packages” of political idea elements to “consumers,” (Converse 1964: p. 211). Surely any concern party elites have about the voters’ true interests is at best a secondary consideration to winning elections.

The ideological positions that define a party—particularly in a two-party system—at any given time thus represent a plethora of issue positions cobbled together in a way to maximize their appeal to voters (Downs 1957). To take a few modern examples, there is no objective reason that a person who has an interest in lower taxes should also have a complementary interest in unlimited gun rights or that a voter who believes same sex marriage should be legal also must support strong union laws. And yet, these idea elements go together in context of the current Republican and Democratic party platforms and are supported by a large number of elites. Now, it may be the case that elite support for the diverse issues that constitute party

platforms is in fact evidence of supporting policies in one's best interests. But it seems rather convenient—and somewhat improbable—that the interests of politically sophisticated citizens hew so closely to the platforms of the two dominant parties. A more plausible interpretation of this phenomenon is that candidates and parties craft messages for political advantage and these rationales are absorbed by the most politically attentive voters (Zaller 1992). If we accept that sophisticates both know their own interests *and* largely tend to follow the party line, it suggests not only that interests are little more than socially constructed and socially contingent phenomenon but also that political sophisticates are just as susceptible to elite manipulation as unsophisticated citizens. I suppose the charge of manipulation depends on whether citizens hold the “right” (i.e., partisan and ideological) types of political beliefs.

Lastly, linking political knowledge levels to interests unwarrantably presumes that people's political interests are primarily those expressed within the narrow confines of partisan politics. The range of issues that become politically contested is but a small subset of all possible issues (Truman 1951; Bachrach and Baratz 1962) and Bourdieu has criticized public opinion research for its tendency to solicit opinions on “problems” posed by the pollster rather than on those issues that people pose to themselves (Bourdieu 1990: p. 168–174). The ill-informed typically come from the disadvantaged ranks of society (Althaus 2003; DelliCarpini and Keeter 1996) and may be quite aware that the political system as currently constructed does not serve their interests; hence, they may have no need to become informed about the types of issues that comprise partisan debate. And while the well-worn adage that “knowledge is power” is often trotted out to justify a more informed citizenry, that clichè is at best half-true: an ignorant billionaire is immeasurably more politically powerful than the most informed beggar. Government is far more responsive to wealthy interests than to the concerns of the poor (Bartels 2008; Gilens 2012), suggesting that widespread political ignorance is in fact rational for large segments of the population (Downs

1957). In the United States, at least, some political elites erect as many barriers as possible to expanding the electorate, such as poll taxes, felon disenfranchisement, restriction of voting opportunities, and a variety of “voter fraud” laws that appear to disproportionately affect minorities (Atkeson et al. 2010).² Political choices are further restricted by certain laws and onerous requirements of time and money that diminish the viability of third-party candidates (Lewis-Beck and Squire 1995). To make the argument that the preferences of the least informed are unconnected to their political interests is to endorse an exceedingly conservative conceptualization of interest and ignore the possibility that many citizens are perceptive enough to realize that the current system simply does not serve their interests.

Scholars appeal to interest in studies of political knowledge as if there was some universally agreed upon theory of interests demonstrating the need for informed political opinions. And yet, as this discussion shows, there is nothing inherent in the term “interest” that implies a link between knowledge levels and utility maximizing behavior. I have suggested a few ways in which the presumed links between information, political preferences, and interests can be challenged and there are potentially many more theories of interest that are consistent with the claim that the preferences of poorly informed citizens are no worse than those of informed ones; the hard theoretical work of delineating a precise theory of interests simply has not yet been done. As it stands, the theory of interests intimated by political knowledge scholars, which assumes that citizens have many interests of a complex nature that are limited to the restricted range of issues encapsulated in partisan politics, is but one of many theories of interests we might adopt, and it seems that any theory of interests we might prefer is essentially arbitrary. To assert that informed political opinions are

²In American politics, such tactics are currently the purview of the Republican party, but there is no particular reason to believe that the Democratic party would not engage in similar practices were its power threatened by changing demographics.

superior to uninformed ones on the basis of appeals to interest is to forgo analytical rigor for convenience. Interests become a “catch-all” explanation (Wildavsky 1987) that serves to simply circumscribe the field of inquiry and halt the conversation, much as invoking a deity does during an explanation of natural phenomenon.

1.2.2 Information and Biased Opinions

Not all scholars base their theories of good judgment and information on appeals to interest. Bartels expressly dismisses as “mental experiments” various non-empirical attempts to determine individual or group interests (Bartels 1996: p. 221). Bartels and others (Gilens 2001; Kuklinski and Quirk 2000) instead argue that low information preferences are based on heuristic thinking and thus susceptible to bias and error. The genesis of this view comes from Kahneman and Tversky’s groundbreaking work on cognitive biases (Kahneman and Tversky 1972; Tversky and Kahneman 1971, 1973, 1974, 1981, 1983). In a number of experiments on decision-making, Kahneman and Tversky found that people employed unreliable heuristic rules when forming judgments. For example, people tend to exhibit a flawed reasoning strategy termed base-rate neglect in which judgments are premised on how well the qualities of the stimulus represent those associated with a larger class of objects rather the relative frequency of an occurrence. When told, for instance, that a person is quiet, studious, and drinks wine and asked to judge whether this individual is more likely to be a professor or a factory worker, people will tend to assume professor because the given characteristics (quiet, studious, wine drinker) seem more appropriate for an academic than a factory worker. However, this reasoning process is flawed because the subject is ignoring the fact that there are far more factory workers than professors (the base rate). Thus, it is more probable that the target is a factory worker, regardless of the traits provided.

Although many scholars argue that heuristic use facilitates good judgment (e.g.,

Gigerenzer and Todd 1999), others warn that reliance on heuristics may hamper decision-making. Kuklinski and Quirk argue that it is quite likely that heuristic use leads to “problematic judgments” and “suboptimal behavior” in the electorate (Kuklinski and Quirk 2000: p. 169), including reliance on stereotypes, overconfidence, and biased interpretation of messages. Dancey and Sheagley (2013) find that more informed citizens were also more likely to misidentify their senator’s position when he or she votes against the party line, a finding similar to Lau and Redlawsk’s result that heuristic use can be problematic when “non-stereotypical” candidates are evaluated (Lau and Redlawsk 2001). Despite this and other evidence of biased reasoning, there are at least two theoretical problems with asserting that the preferences of low-information voters are less biased than those of high information voters. The first issue harkens back to the previous discussion in this chapter on affective and cognitive judgments. Much like a clear standard exists to gauge expertise in cognitive judgments, so too can we determine bias for this class of judgments. However, establishing what a biased affective judgment looks like is not entirely clear. The second problem is that to make the claim that certain preferences are less biased than others requires some baseline for comparison. Without knowing the degree of bias in informed preferences, we cannot say whether uninformed preferences are less biased.

The first step in establishing the claim that certain political judgments are more or less biased than others is providing a clear definition of bias. Kahneman and Tversky rely on the following: “the presence of an error of judgment is demonstrated by comparing people’s responses either with an established fact...or with an accepted rule of arithmetic, logic, or statistics,” (Kahneman and Tversky 1982; quoted in Gigerenzer 1991). The bulk of the early research on heuristics focused on judgment problems with a right or wrong answer. Base-rate neglect, mentioned previously, is one instance of this: there exists a true proportion of academics and factory workers

in the world and ignoring this fact leads to an incorrect judgment as to the probability that any given individual is one or the other. Other biases explored by Kahneman and Tversky include the conjunction fallacy, in which people ignore the axiom that the probability of two events occurring must be less than the probability of one, and the certainty bias, in which subjects are more likely to prefer a sure thing than a probabilistic outcome even when the expected utility of the sure thing is less than that of the gamble. The heuristics and bias literature is therefore premised on the existence of a correct answer; without a correct answer to a reasoning problem, “it would make little sense first to identify ‘errors’ and ‘cognitive illusions’ and then to use these cognitive illusions to understand the principles of inductive reasoning,” (Gigerenzer 1991: p. 2).

Even with the type of judgments examined by Kahneman and Tversky, there is some dispute as to whether one correct answer actually exists. Gigerenzer rejects the claim that many of the reasoning problems employed in the errors and biases literature in fact meet this criteria (Gigerenzer 1991, 1996: see Kahneman and Tversky 1996 for a response to some of these critiques). In one illustration of this view, Gigerenzer examines the overconfidence bias, which occurs when subjects overestimate the probability that they have provided the right answer to a question (which has an objective correct solution). Demonstration of this bias usually entails comparing subjects’ subjective appraisal of how confident they are in their answer with the actual frequency of correct answers. So, if a sample indicates that they are 80% confident in their responses and yet the actual percentage of correct answers in the group is only 50%, an overconfidence bias is inferred. Gigerenzer challenges this conclusion on the grounds that a person’s degree of certainty on any one question tells us little about whether that individual is overconfident. In support of this claim, Gigerenzer presents results from an experiment in which each subject answered several hundred questions rather than one. After answering this large body of questions, participants

were then asked to estimate their proportion of correct answers. Results from this study found that people were fairly good at determining how many questions they got right, with judgments of success differing from actual performance by no more than 4 percentage points (Gigerenzer 1991: Table 1). Gigerenzer argues that the overconfidence bias and many other cognitive illusions disappear when tested using frequencies rather than single events.

Gigerenzer’s critique emphasizes the point that ascribing bias to a decision—even one with an ostensibly correct answer—can be problematic. When it comes to political beliefs, what exactly constitutes a correct preference? There are certainly no accepted facts or mathematical rules that link individuals to certain political attitudes. Obviously cognitive judgments about the political world can be biased; people may incorrectly estimate the proportion of registered Democrats or the percentage of the budget spent on foreign aid. We cannot say the same for affective judgments, particularly if political decisions simply reduce to picking the candidate that one likes best (Caprara et al. 2007) or supporting policies because one’s favored political party does so, regardless of the specific details of the proposal (Cohen 2003). At best, we can say there is a normative expectation that political decisions should be informed based on the assumption that they are “very hard” (Kuklinski and Quirk 2000: p. 167) to render. However, accepting this assumption leads to the circuitous reasoning that low-information preferences are biased because political preferences require high levels of information. Without an independent criterion besides level of information to judge the correctness of a political preference, any claim of bias is simply at the whim of the investigator (Kruglanski and Ajzen 1983: p. 3). Gigerenzer’s frequentist critique of Tversky and Kahneman’s work may apply equally well to the literature on political knowledge; after all, if people must live with the consequences of their “biased” decision-making election after election and yet feel no incentive to become informed or more interested in politics, then perhaps their decisions are not

so problematic after all.

As with appeals to interest, asserting that “unsophisticated” preferences are biased presumes a relationship between bias and expertise that has not been logically established. Strictly speaking, many of the errors detailed by the research on heuristics and biases are not functions of a lack of extensive knowledge, but instead result from a failure to apply a particular rule of reasoning. For instance, the conjunction fallacy and the certainty bias hinge on the application of one particular mathematical fact and it is not unreasonable to assume that someone who knows a great deal about politics is not as astute when it comes to the rules of probability. Other biases may be hardwired into the architecture of the brain. Carney and Banaji (2012) present evidence suggesting that the first impression bias—overweighting the importance of initial evaluations—is present even at the unconscious level, reflecting an automatic tendency to favor stimuli based on their order of presentation even when there is no normative reason to do so.

Still other biases may result from expertise; the more we know about a particular field, the more likely we may be to engage in biased reasoning to support our preconceptions. Research has found that prosecutors, doctors, and even scientists engage in biased reasoning patterns despite their explicit training in the scientific method and well-established professional norms for objectivity. For example, confirmation bias (Nickerson 1998) is a case where more information can be detrimental in the hands of experts. Burke (2005) finds that many prosecutors use evidence in a biased manner to confirm their preconceived notions of a suspect’s guilt. The aforementioned overconfidence bias can be problematic for doctors who presume that their expertise leads them to correct diagnoses, even before they have assessed all of the relevant facts (Croskerry 2003). Lau and Redlawsk (2001) report a potential political analogue; in an election study in which the candidates took non-stereotypical positions, politically sophisticated subjects did worse at selecting the candidate that held positions most

similar to theirs, presumably because their familiarity with politics led them to assume that if a politician held position x , he would also take position y . And scientists seem especially prone to a disconfirmation bias, in which valid evidence contrary to their viewpoints is summarily dismissed, impeding scientific progress (Barber 1962; Kuhn 2012). Taber and Lodge (2006) find evidence of disconfirmation bias in a political context: politically knowledgeable subjects were more dismissive of reasonable arguments that contradicted their existing policy preferences and also became more polarized in their attitudes after encountering information challenging their views.

In sum, researchers who assume that the preferences of low information voters are more biased than those of political experts are putting undue emphasis on information levels as a source of bias while ignoring other important factors that lead judgments to deviate from normative standards. Errors in judgment may primarily result from motivational and cognitive biases (Kruglanski and Ajzen 1983), neither of which is a function of the amount of factual knowledge a person holds. Motivational biases occur when reasoning is directed by some goal internal to the subject, such as ego enhancement or the need for effective control over a chaotic world. Cognitive biases result from the inherent limitations of the brain's information processing capabilities, including selective recall and the presumption of covariation among events that co-occur. If the sources of judgmental bias result from fundamental human desires to protect the ego or to feel in control of the environment or from the very structure of the brain itself, then it is not clear why we should presume that political experts are shielded from these errors simply by virtue of their extensive knowledge. At a minimum, the position that certain preferences are more or less biased than others requires measurement of both sets of judgments before any comparative claim can be advanced. To my knowledge, such an endeavor has not been undertaken in the political knowledge literature. Like appeals to interest, declarations of bias thus require readers to take for granted a proposition that has not been empirically or

theoretically demonstrated.

1.2.3 Consistency Criterion

In the years after Converse published his influential article on ideology, much of the research on political sophistication employed some measure of attitude consistency as an indicator of opinion quality. The logic behind this strategy was to use correlations among various political attitudes as a proxy for the level of constraint and the size and range of a person's political belief system. Luskin, however, argues that consistency measures of this sort are inappropriate indicators of expertise. In Luskin's words, "correlations tell little about sophistication. . . they are only aggregate measures, computed on a biased subset of the sample, and. . . deeply encrusted with extraneous covariation," (Luskin 1987: p. 869). Following Luskin's disavowal of correlational measures of various attitudes, political scientists have invoked a different sort of consistency to justify the claim that the preferences of political experts are superior to those of non-experts. This line of reasoning posits that sophisticates are better able to generate preferences in accord with their values and predispositions. Thus, Zaller argues that "citizens must. . . possess some minimum degree of information in order to recognize the relevance of their values for a given issue," and "the likelihood of resisting persuasive communications that are inconsistent with one's political predispositions rises with the person's level of political attentiveness," (Zaller 1992: p. 24,44). Althaus says that facts about the political world "are also crucial in helping people arrive at opinions that conform to their political predispositions. . .," (Althaus 2003: p. 19). Delli Carpini and Keeter make a similar claim, saying "the greater the store of information, the more often citizens will be able to connect their values with concrete matters of politics," (Delli Carpini and Keeter 1996: p. 229). As with statements linking interests to political preferences, claims about consistency of attitudes and values strike an intuitively plausible note. And yet, the precise

mechanisms linking values, attitudes, and information levels have yet to be specified.

The first question one might ask about the relationship between values and preferences is how much of a constraint do values place on the content of attitudes. Research certainly confirms that values are correlated with certain policy orientations as well as ideological leanings (Rokeach 1973; Feldman 1988; Schwartz 1994), but it is unclear whether those individuals who display atypical attitude and value pairings perceive them as inconsistencies in need of correction. Several features of values suggest otherwise. First, examining the relationship between specific values and political attitudes in a “piecemeal” fashion as has typically been done in political science studies (Feldman 2003) may lead to misleading conclusions about the degree of consistency between certain values and policy preferences. Values are part of a wider value system, and different values may be prioritized in different situations (Rokeach 1973). Thus, a political attitude that may appear to be inconsistent with one value may not be when the entirety of the value system is taken into account. This makes identification of value-attitude discrepancies difficult. Second, one defining feature of values is their versatility. Values “may be intended to apply equally to oneself and to others, to oneself but not to others, to others but not to oneself, to oneself more than others, or to others more than oneself,” (Rokeach 1973: p. 10). By implication, a person may feel no values conflict in opposing welfare for others while accepting benefits for himself. Third, attitude change from values inconsistency is only likely to result when an individual perceives a discrepancy between her values and her self-conception; that is, the inconsistency must create in the person some sense that she is not the kind of person she believes herself to be. Otherwise, the inconsistency will not be experienced as such (Rokeach 1973: p. 225). Given the low salience of many political issues, it seems unlikely that many topics will be so tied to an individual’s identity that attitude-value inconsistency will cause cognitive dissonance.

The presumed problem of attitude-value inconsistency may also rely on an overly

cognitive portrayal of values. Consider Delli Carpini and Keeter’s elucidation of the interrelationships between factual knowledge, attitudes, and values:

“...one’s attitude towards the welfare system does not flow directly from relevant core values like individualism or equality, but from the linkage of these values to what is known or believed to be true about the specific program and the environment in which it will operate. Does the welfare system actually weaken individual responsibility and initiative? Is the welfare system rife with clients who could work but simply do not want to? How long do people typically stay on welfare?” (Delli Carpini and Keeter 1996: p. 228).

Implicit in this formulation is the assumption that individuals will modify their attitudes to bring them more into concert with their values as a function of the factual information they possess. This view, however, ignores the rationalizing function of values. Indeed, Rokeach argues that “the process of rationalization, so crucial a component in virtually all the defense mechanisms, would be impossible if man did not possess values to rationalize with, (Rokeach 1973: p. 13). If a person who opposes welfare based on his value of personal responsibility finds out that are very few welfare cheats, he can just as easily justify his attitude by appealing to his value of fiscal conservatism.

Jonathan Haidt’s social intuitionist model of moral judgment emphasizes the *rationalized* nature of value judgments (Haidt 2001). Haidt presents considerable evidence that moral intuitions—automatic appraisals of the behavior or character of others—precede and direct judgment. Upon being confronted with a stimulus, people know immediately whether they approve or disapprove. Effortful cognition then occurs so that people may explain their moral judgments to others or attempt to persuade an audience of the rightness or wrongness of the behavior in question. Haidt argues that in cases of moral judgment, reasoning is directed towards bolstering a previously reached conclusion and not towards reaching an objective evaluation based on the merits of the situation. To return to Delli Carpini and Keeter’s welfare example, we do not know whether opposition to welfare is based on an intuitive rejection of the

policy (perhaps due to its association with race or stereotypical attributions to welfare recipients; see Gilens 1996; Henry et al. 2004), in which case additional facts are unlikely to change the attitude, or a reasoned appraisal of the costs and benefits of the policy. At least one study (Kuklinski et al. 2000) found that attempts to correct factually incorrect beliefs about welfare had little effect on attitudes.

Before asserting that low-information preferences are plagued by attitude-value inconsistency, a number of preconditions must be met. It must be shown that the attitude is inconsistent with the entirety of a person's value system, rather than one isolated value. Then it must be demonstrated that the disparity between values and attitude is related to a political topic that impacts the individual's self-esteem and that the resulting dissonance cannot be rationalized or justified (Gawronski and Strack 2004). Finally, the political issue in question should be complex enough that connecting values to attitudes requires some degree of sophistication. Pollock, Lilie, and Vittes find that on symbolic issues, such as abortion, flag burning, and gay rights, political expertise has no effect on citizen's ability to link values and attitudes (Pollock et al. 1993: Table 5), suggesting that any impact of political expertise on consistency is moderated by the nature of the political policy under consideration. Additional research from Goren (2004) indicates that people are able to connect political values such as self-reliance and militarism to policies, and the linkage between these values and preferences is not enhanced by sophistication. The conjunction of these elements suggests that value-attitude inconsistency might be problematic for a rather small subset of citizens. Of course, empirical investigation might find that my supposition is wrong, but as with invocations of interest and bias, the political knowledge literature has largely relied on conjecture rather than demonstration in advancing their claims about the presumed inferior quality of some political opinions.

The preeminent empirical investigation of the link among political predispositions and preferences is Lau and Redlawsk's correct voting measure (Lau and Redlawsk

1997, 2006; Lau et al. 2008). Lau and Redlawsk define a correct vote as a vote for the candidate whose policy positions and political values best match the expressed policy preferences and values of the voter. While Lau and Redlawsk's research is sometimes cited in works on political knowledge in support of the notion that more informed voters hold better quality preferences (e.g., Bartels 1996), and the authors themselves cite Dahl's (1989) explication of "fully informed" preferences for theoretical support of their research (Lau and Redlawsk 2006: p. 75), the argument of the authors need not comport with the hierarchy of preferences view endorsed by many political scientists. To see why, consider the methodology behind the correct voting measure. In ascertaining a correct vote, the authors take as a given the voters' expressed policy preferences and political values, which provide the framework for evaluating the subsequent vote choice. If the respondent is able to pick the candidate whose attributes (i.e., policy positions and values) provides the best match for her predispositions, then she has voted correctly.³ However, the methodology must be agnostic about the source of those preferences. Thus, if a voter adamantly opposes foreign aid based on the incorrect belief that it accounts for a quarter of the federal budget and subsequently votes for a candidate with isolationist views, he has voted correctly according to the Lau and Redlawsk measure, although I suspect many scholars would be uncomfortable normatively sanctioning this choice as a desirable one. Furthermore, the correct voting metric is not tied to any specific amount of policy interests or values. A voter who cares about one issue and votes accordingly has voted as correctly as one who carefully canvases thirty different policy issues before choosing the politician

³In some of their experimental tests of correct voting, the authors employ a different strategy. In these cases, after their votes, subjects are given the opportunity to review all the information available during the study and asked if they would like to change or keep their choices. While this measure has the advantage of tapping the subject's direct assessment of his or her vote, it also introduces a potential confound by making the subjects accountable for their decision. The effect of accountability to expert audiences (i.e., professors) is discussed in more detail in Chapter 2.

who most closely shares his views. So while political experts are more likely to vote correctly (Lau et al. 2008) nothing in the conception of correct voting requires a high degree of sophistication or a great attentiveness to a broad array of political issues for citizens to perform competently. In fact, based on survey data from a variety of election years as well as a number of controlled experiments, the authors estimate that upwards of 70% of voters vote correctly (Lau and Redlawsk 2006; Lau et al. 2008). Although whether that value is good or bad is open to interpretation, it is clear that many voters are quite able to link their political predispositions with the appropriate candidates.

Correct voting is the most clearly articulated and operationalized measure of preference quality to date, but still falls short as a justification for the claim that expert citizens exhibit qualitatively superior political opinions than others. The method places no stipulations on the number of political issues necessary to generate a correct vote, nor does it question the rational basis of political preferences. Voters are supposed to base their political opinions on accurate knowledge about policies and their ramifications, so much so that issue voting is taken to be the *sine qua non* of political sophistication (Carmines and Stimson 1980: p. 79). But while correct voting can determine whether citizens have acted consistently on their expressed preferences, there is no way to provide a comparable measure of the “correctness” of those preferences. Consequently, there is a steep trade-off between devising a measure which is empirically testable and one that satisfies the normative demands of an informed democratic citizenry. This deficiency underscores both the difficulty in providing an empirical basis for claims of superiority in political preferences as well as the general insufficiency of consistency measures to serve as a theoretical justification of the same.

1.3 Summary

Political scientists have offered a number of theoretical justifications for the claim that some political preferences are better than others. But upon closer scrutiny, these justifications are revealed to be at best incomplete and at worst mere semantic solutions. Linking expert political opinions with better pursuit of political interests depends on a very particular theory of interests but there is no reason to prefer this theory of interests to any other. Assertions that non-expert opinions are biased neglect the lack of an objective standard on which to base such claims and ignore the possibility that expertise leads to its own set of biases which may be just as egregious as the bias resulting from lack of information or effortful thought. Consistency theories have a stronger empirical basis, but researchers have failed to provide a convincing rationale that apparent inconsistencies in values and preferences are perceived as such by voters and are therefore problematic. Since most people do not place particular importance on their political beliefs, the proportion of people who are likely to care enough to form an opinion on a topic but at the same time be so “wrong” about it as to experience psychological distress is probably quite small.

The most convincing argument for the presumed quality of expert political preferences is simply tradition; we have assumed that some people have superior political opinions for so long we apparently take the proposition on faith. This phenomenon itself is quite interesting because generally speaking, we have a number of unkind words for “experts” who can provide no positive demonstration of their expertise—charlatan, fraud, fake, and quack come to mind. Even without considering the lack of evidence for opinion quality, the theoretical case for the link between political expertise and preference quality is surprisingly weak.

There may be a number of objections to my rejection of a link between political expertise and opinion quality. One complaint of the approach I am advocating may be that conceptualizing political judgments as nothing more than subjective tastes,

no different from preferences over food or fashion, trivializes politics. After all, the outcomes of political debates do have tangible consequences; at the time of this writing, politicians in over twenty states have refused to expand Medicaid coverage to their residents, meaning some people will probably not have access to health care they otherwise would have. However, I do not believe re-conceptualizing political judgments as affective judgments trivializes politics at all. In fact, all manner of affective judgments, including religious preferences, dating and relationship choices, and even the sports team one follows, exert powerful influences on people's lives. To say that a political preference is an affective judgment is not to diminish its importance in the least. Furthermore, the trivialization charge runs both ways. Assuming that someone's position (whether pro, con, or indifferent) on expanded health care coverage is rooted in ignorance, a lack of awareness of self-interest, or elite manipulation discounts the possibility that the preference, whatever its content, is sincerely held. And ascribing political indifference to a lack of sophistication neglects the extent to which people have chosen to "exit" the system—that is, remain politically aloof—rather than voice their concerns or stay loyal to the political order (Hirschman 1970).

A second criticism of my position is that it takes a "Pollyanna-ish" view of political preferences; if political opinions are subjective, then regardless of the content of a person's belief, the preference is always "correct." Although I do believe that a person's preference at any given time is indeed perceived by that person as correct, I do not argue that people cannot come to regret their choices or realize that they were mistaken; however, this realization typically occurs after the fact. Recognizing a mistake or a bad decision requires knowledge of the consequences of that choice; the definitions of enlightened and fully informed preferences offered by Connolly, Mansbridge, and Dahl all acknowledge this, stipulating that someone's true preference is the preference they would hold if they had complete information about the *outcomes*

of their choice and all of its alternatives. I am open to the possibility that political experts experience less regret with their choices than non-experts, although in order for increased knowledge to diminish the likelihood of making a bad decision, it must increase one's ability to predict outcomes; a skill research shows that people—even experts—are not particularly good at (Nisbett and Ross 1980; Tetlock 2005). Some work further suggests that people are not necessarily that skilled at predicting their own feelings in reaction to an event (Wilson and Gilbert 2005). People often engage in hindsight bias when reasoning; after made aware of an outcome, they tend to see that event as inevitable (Fischhoff 1975; Hawkins and Hastie 1990). Thus, it is easy to look back on a decision and “realize” that all the evidence was there to make the optimal choice, but this intuition seems to be yet another cognitive illusion.

Lastly, some may revolt at the position that the opinion of a person who opposes a policy because he falsely believes that the President is a Muslim (to invoke a topical hypothetical scenario) is equal in value in a democratic system to that of an expert whose support is grounded in a variety of economic and social benefits. Regardless of the weakness of the theoretical or empirical case for political expertise, it would seem that most people would agree that an informed opinion is better than an uninformed one. The assumption underlying the phrase “informed opinion” strikes at the heart of my conception of political preferences, which will be explained in greater detail in the next chapter. I dispute the claim that political opinions are “informed” in the normative sense of the word. At the very least, an informed opinion implies that the individual could take either side of an issue and the ultimate position results from the quantity and quality of evidence ascertained. In short, the information about the policy *causes* the resulting opinion. I argue that when it comes to preferences, many political scientists commit a form of the ecological fallacy: because a *person* is informed, they assume her *opinions* are informed. This need not be the case, though, as I will argue extensively in Chapter 2. My position is that if we take the individual

who dislikes a policy and attributes that opposition to factually incorrect beliefs about the President's religion and increase his level of political sophistication, we will end up with a person whose dislike is unchanged but who is better able to couch that opposition in terms that are more socially acceptable. We should not simply assume that because certain individuals are able to provide normatively satisfactory reasons for their opinions that those views were in fact generated by the proffered considerations.

1.4 Conclusion

The apparent intuitive plausibility of the hierarchy view of preferences has failed to withstand critical scrutiny. The political science literature has treated political expertise as a particular case of expertise in general. By that logic, it follows that expert political judgment is superior to non-expert judgment, just as expert scientific judgment is superior to non-expert. However, I have demonstrated that this analogy is false. The concept of expertise properly applies within the domain of cognitive judgments. Political opinions, however, are affective judgments which by their nature cannot be objectively determined to be better or worse or correct or incorrect. The conceptual confusion at the heart of the political expertise construct explains why providing a standard by which to evaluate political preferences has been so elusive. Outcomes are easily evaluated for other types of expertise: an expert mechanic is judged on his success at fixing an engine; an art expert stands a better chance at identifying the origin of an unknown painting than an amateur does; a chemistry expert can correctly predict how two substances will interact. Crucially, in each of these cases, the value of expertise applies to the objective properties of the domain of interest. To apply expertise to subjective judgments, however, is fallacious. An architect may have the specialized skill to design a house, but to say that her opin-

ion as to what type of house to prefer is superior to a non-architect's judgment is misguided. And yet, we assume that because some know a great deal about politics, their subjective attitudes are superior to those of people who are uninformed.

The conviction that elite political preferences are superior to others despite inadequate theoretical or empirical demonstration apparently runs so deep in our collective thinking that one political scientist was able to publish not one but two papers (Boudreau 2009a,b) in which subjects' responses to math questions were used as proxies for political preferences. This strikes me as a grave analytical mistake—political opinions are nothing like math problems—and yet extremely revealing. The fact that such measures are seen as appropriate indicators speaks to the desire to maintain a belief in the hierarchy of preferences despite its logical and empirical shortcomings. According to Kuhn (2012), scientific theories, even deeply flawed ones, oftentimes persist until a better alternative arises; thus we need a non-hierarchical theory of information and preferences to supplant the hierarchy view and in the next chapter I present a sketch of one such theory.

Chapter 2

A Non-Hierarchical Theory of Information and Political Preferences

My objective in this chapter is to sketch out a non-hierarchical theory of the relationship between information and political preferences. By “non-hierarchical” I mean that the theory contains no presumption that political opinions can be ranked, rated, or otherwise described as better or worse based on any standard that is not arbitrary. Consequently, my challenge is to explain why some people devote the time and energy to becoming politically informed—that is, to becoming “experts”—without reference to opinion quality based on notions of voter interests or biased judgments. I call the theory introduced in this chapter the *Social Affective Model* (SAM) and it contains three simple propositions. While I will show that these basic building blocks are well-supported empirically, these propositions in essence represent the ontological commitments upon which my theory of information use and political preferences rests.

Proposition number one is that preferences are affective judgments. By the term

“affective judgments” I mean two things: first, in the sense used by Zajonc (1980) introduced in the preceding chapter, affective judgments result from the interaction of the idiosyncratic characteristics of the perceiver and the objective properties of the stimulus; second, as the name implies, affective judgments are primarily based on affect—simple positive, negative, or neutral feelings towards a stimulus that are non-rational, immediate, and occur below the level of conscious awareness. Proposition number two is that information processing is motivated. Information is a resource which people employ to some end, regardless of whether they are consciously aware of this goal or not. Although there are many motives which may direct information processing, I argue that with political opinions, one of the primary aims of information use is to maintain beliefs that are rooted in affective responses. The third and final proposition is that political preferences are social. The attitudes and opinions people take (or fail to take) on political issues are subject to scrutiny, approval, and disapproval from family, friends, and peer groups—people must be *accountable* for their views. The expectation of accountability motivates people to become informed in order to provide a variety of rationales and justifications for their political views.

From these three propositions, I draw a number of conclusions that sharply differentiate the social affective theory of information use from the more traditionally accepted hierarchy of preferences (HOP) view. The prevailing assumption in the political knowledge literature suggests that many political attitudes are difficult to construct (Carmines and Stimson 1980; Sniderman et al. 1991; Kuklinski and Quirk 2000); I contend that preferences, being affective in nature, are easy. On a minority of issues, people have no problem knowing whether they are for or against it; for a great many political topics, individuals are simply indifferent. Furthermore, I reject the bifurcated view of political preference formation typically found in the literature; experts, the thinking goes, form their political attitudes in qualitatively different ways than do non-experts (Sniderman et al. 1990; Bartels 1996; Delli Carpini and

Keeter 1996; Funk 1997; Althaus 2003). I argue instead that preference formation is a homogeneous endeavor; on most issues most people form their attitudes in precisely the same way—on the basis of affective responses to political stimuli. Lastly, I propose that what separates well-informed citizens from less informed citizens is not some preternatural ability to know their own interests or to develop “correct” preferences, but instead the presence of social incentives that lead some people to expend increased effort in rationalizing, justifying, and defending their views.

2.1 Proposition #1: Political Preferences are Affective Judgments

What does it mean to say that preferences are affective judgments? There are two major implications of this proposition. First, preferences are rooted in affective reactions to stimuli. In its simplest conception, affect refers to feelings of positive and negative arousal. Positive affect encompasses experiences of “pleasurable engagement”, while negative affect comprises “aversive mood states;” these two evaluative structures have been found to be orthogonal rather than uni-dimensional constructs, meaning that low positive affect does not imply the existence of negative affect and vice-versa (Watson et al. 1988: p. 1063). These affective reactions are pre-conscious and occur almost immediately upon encountering an attitude object (Zajonc 1980; Bargh and Chartrand 1999; Bargh and Williams 2006). Furthermore, these reactions need not depend on a previous, cognitive evaluation of the stimulus. Murphy and Zajonc (1993) found that subliminal primes attached to neutral objects significantly influenced evaluations; subjects who received a positive prime (in this case, a smiling face) rated the stimuli more positively than those who received a negative prime (a frowning face), even though the primes were presented for mere milliseconds, outside of conscious awareness. Evidence of the role of affect in attitudes, judgments, and

evaluations is widespread in the psychology literature (see for example Chaiken and Trope 1999) and a variety of recent studies in political science demonstrate the applicability of automatic, pre-conscious affect to political judgments (Lodge and Taber 2005; Todorov et al. 2005; Burdein et al. 2006; Hassin et al. 2007; Neuman et al. 2007; Lodge and Taber 2013).

Although affect certainly seems to be an important component of political preferences, the important question of precisely where these reactions originate from remains. One possibility is that the affective component of an evaluation is external to and independent of the stimulus. In one classic demonstration of this phenomenon—which Lodge and Taber (2013) call affective transfer—a person’s evaluation of his or her mood can be influenced by the weather (Schwarz and Clore 1983); more recently Ackerman et al. (2010) found that evaluators had a more favorable impression of rèsùmès attached to heavy clipboards than to the exact same rèsùmès held by lighter clipboards. Another possibility is that, contrary to the affective primacy view, affect only results after some level of cognition has occurred (Lazarus 1982). Under this view, there is no affective response without some prior level of conscious information processing.

Determining the origin of affect in political preferences has important implications for a theory of information and political attitudes. If the affect that colors political decisions is external to the stimulus item, then it suggests the normatively troubling possibility some political attitudes are essentially random, as any number of cues in the environment may unconsciously influence judgment. And if affect only results from effortful cognition, it implies that evaluations are generated from reasoned appraisals of attitude objects, a very different relationship between information and preferences than the one I advance here. However, I believe there is good evidence to support the claim that many affective responses to political stimuli are created from the subject’s personality, values, psychological dispositions, and internalized cultural

norms; as such, these reactions occur after only a minimal encounter with the stimulus object and are not dependent upon prior cognition.

The position that evaluations result from the interaction of “some gross object features and internal states of the individual,” (Zajonc 1980: p. 159) is thus the second major implication of conceptualizing political preferences as affective judgments. In the last fifteen or twenty years, political scientists have amassed an impressive amount of evidence linking political attitudes to fundamental personality traits, values, psychological dispositions, culturally learned symbols and associations, and even genes. Consequently, our affective political leanings are part of who we are, just like our preferences over art, food, fashion, and music. The intrinsic nature of affective political reactions should provide some solace to normative theorists who worry that citizens are not apprehending their “true” interests.

Let us start with personality. Although psychologists have been studying personality for decades, the field of personality research began to burgeon after the development, validation, and increasing acceptance of the “Big Five” personality scale (McCrae and John 1992). Multiple studies across a variety of cultures confirms that human personality is composed of five major traits: openness to experience, agreeableness, conscientiousness, emotional stability (also called neuroticism), and extraversion (McCrae and Costa Jr. 1997). These traits appear to crystallize by age 30 and remain remarkably stable over the course of life (Costa Jr. and McCrae 1994; Soldz and Vaillant 1999). In some life outcomes, such as mortality, divorce, and occupational attainment, the effects of personality traits appear to be as large as those of socio-economic status and cognitive ability (Roberts et al. 2007).

In the political realm, a number of studies have confirmed the links between personality traits and political attitudes (Carney et al. 2008; Mondak and Halperin 2008; Gerber et al. 2010, 2011). These works all find that openness to experience is significantly related to more liberal ideological self-placement, while conscientiousness

reliably predicts more conservative ideologies. Furthermore, these personality effects extend to more specific economic and social policy opinions: for example, conscientious individuals are less supportive of abortion rights, civil unions, a government role in health care, and raising taxes on wealthy citizens, while people who are open to experience are more supportive of these policies (Gerber et al. 2010: Table 4a).

Like personality factors, psychological dispositions may also be a source of affective reactions to political stimuli. Dispositions are chronic tendencies to react in particular ways when presented with certain life scenarios. In a very broad sense, individual differences in the need to evaluate (Jarvis and Petty 1996) may condition the range of political issues people consider important. Some people appear to enjoy providing opinions on a diverse set of attitude objects, while others apparently feel no need to. Jarvis and Petty theorize that development of the need to evaluate stems from environmental and individual factors. Children who grow up in households in which certain types of evaluations are commonplace—for example, their parents may frequently comment on the attractiveness of others—may be more likely to engage in similar evaluative behavior when older. Additionally, motivations such as desire for control over one’s environment or a desire to express oneself may incentivize some individuals to evaluate objects more so than others. Thus it may be possible that the very range of political topics that a person can invest him- or herself in is limited by this disposition. Other dispositions that have been directly linked to political attitudes include fear of death and the need for cognitive closure. Terror management theory (Solomon et al. 1991) holds that existential fear and anxiety over impending mortality causes people to seek solace in stable, cultural worldviews; when mortality salience is high, those entities that seem to threaten this worldview are denigrated and scorned (Greenberg et al. 1990). Need for cognitive closure is a motivated tendency for “an answer on a given topic, any answer... compared to confusion and ambiguity,” (Kruglanski 1990: p. 337; Webster and Kruglanski 1994). People who exhibit a

strong need for cognitive closure hold a preference for order and structure in their lives, dislike ambiguity, and prefer predictable situations to unpredictable ones. In a wide-ranging meta-analysis of the literature on psychological dispositions and political ideology, Jost et al. (2003) find both fear of death and need for cognitive closure to be significantly associated with more conservative ideologies. Individuals who, either through innate psychological properties or through early environmental experiences, are more fearful or more desirous of concrete answers to problems thus appear to respond quite differently to political issues than those who lack these qualities.

Affective reactions to political stimuli may also derive from values. Values “pertain to desirable end states or behaviors” and so are themselves a sort of subjective preference, albeit one that “transcends specific situations” and “guides evaluation” (Schwartz and Bilsky 1990). A great deal of work explores the political ramifications of authoritarian and egalitarian values (for a detailed review see Jost et al. 2003) and some researchers have examined the impact of specifically political values such as support for economic individualism (Feldman 1988) and tolerance (Sullivan et al. 1981; Gibson 1992; Sullivan et al. 1993), but there remains a large amount of research to be done on values and political beliefs. Schwartz (1994) presents strong cross-cultural evidence for ten broad, universal values that result from the fundamental challenges of individual and group living shared by all human cultures. Some of these values, including security, conformity, benevolence, and universalism, have clear implications for political attitudes, although political scientists have not exploited Schwartz’s work to a great extent (Feldman 2003: p. 488). Other work argues that moral value judgments and emotions are strongly linked. Work by Rozin et al. (1999) on the moral emotions—disgust, contempt, and anger—and three moral codes of divinity, community, and autonomy has also gone largely unnoticed by political scientists. Rozin et al. argue that violations of ethical codes trigger emotional responses; transgressions of purity and divinity engender disgust, those of community and respect evoke con-

tempt, and violations of individual rights and freedoms cause anger. Research on the moral emotions suggests that individual differences in proclivities towards these affective reactions may condition political attitudes; in fact, some work finds that conservatives are more prone to feelings of disgust and this sensitivity manifests itself in opposition to issues such as abortion and same-sex marriage policy (Inbar et al. 2009).

Although our preferences for “desirable end states” may partially result from our psychological traits and characteristics, values are also undoubtedly shaped by culture as well. Consequently, culturally learned responses to certain behaviors and ideas may provide individuals with affective responses to many political issues. For example, one of the most studied distinctions is that of collectivist and individualist cultures. The meaning and importance of certain values will obviously differ between persons from a more collectivist culture, in which the well-being of the group is prioritized, and those from an individualist society where autonomy is valued. Triandis (2001) lists a variety of relevant differences: for instance, helping in-group members is seen as a duty among members of collectivist cultures and as a personal choice for those in individualist cultures while lying is seen as less negative by collectivist groups if it used to preserve the status and reputation of the in-group. Substantial variation in value norms can even exist within a culture. Snibbe and Markus (2005) detail a number of distinctions in how children in upper and lower socio-economic brackets are socialized. According to Snibbe and Marcus, lower income parents teach their children a “hard” view of individualism, in which self-reliance, self-discipline, and integrity are stressed whereas upper income caregivers emphasize “soft” individualism, which is marked by traits such as self-actualization and expression. Owing to the material and symbolic worlds they inhabit, lower income individuals predictably exhibit less of a sense of personal agency, more external locus of control, and more powerlessness (Snibbe and Markus 2005: p. 705). A more explicit investigation of the links between culturally

learned symbols and political attitudes comes from Sears' and colleagues work on symbolic politics (Sears et al. 1979, 1980; Kinder and Sears 1981; Sears and Funk 1991). The primary theoretical assertion behind symbolic politics is that "people acquire stable affective responses to particular symbols through a process of classical conditioning, most crucially relatively early in life," (Sears 1993: p. 16). Thus, at a young age, many people learn who the "good" and "bad" guys are and these political predispositions may persist into adulthood (Sears and Valentino 1997; Jennings et al. 2009).

Although a full accounting of the ways in which personality, dispositions, values, and culture interact to generate political preferences is beyond the scope of this project, there is substantial support for the claim that people are predisposed to react to certain types of political stimuli in an affective manner (Hibbing et al. 2013). People with strong values for conformity and tradition may automatically bristle at any political issue that upsets the status quo, while those with high levels of anxiety and worry may reflexively reject any policy that seems to make them less safe. Furthermore, political evaluation does not take place in a vacuum; issues are associated with people, groups, and political parties that may themselves be affectively charged and these visceral reactions may transfer to the attitude object (Lodge and Taber 2013). It is therefore highly likely that before any effortful conscious information processing of political stimuli begins, people already have an affective "anchor" guiding their opinions.

From the first proposition of the social-affective model of information use I draw two primary deductions about political opinions. First, many political preferences are likely *constrained* by factors outside the direct control of the individual. A major assumption of the HOP view is that people have freedom of choice when it comes to their political preferences; the thinking is that based on the available information, a person could theoretically take any side of the issue. But this assumption is likely

wrong for some subset of political issues. Someone who is not open to new experiences, has a low tolerance for ambiguity, values tradition and conformity, and has internalized a set of symbolic associations towards the sanctity of marriage is perhaps exceedingly unlikely to support same-sex unions, regardless of the facts relating to the practice.

It is fair to surmise that people do not consciously choose their personalities or their value systems; nor do people have agency over the families they are born into or the cultures in which they are raised. In fact, a growing field of research even suggests that some variance in political orientations is due to genetic factors (Alford et al. 2005; Hatemi et al. 2010). Hatemi et al. (2009) argue that although both familial influences (i.e., environment) and genetic factors influence political beliefs, the role of genes becomes more prominent as young adults leave their homes and shared environment effects diminish. Verhulst et al. (2012) go even further and claim that the effects of personality on political attitudes are mere correlations; the variations in preferences that appear to be due to differences in personality traits are actually due to underlying genetic factors. In light of this research, chastising people for holding attitudes “against their interests” assumes a level of conscious control over certain political opinions that may be illusory.

The second major deduction from the first proposition is that political preferences are easy. Conventional wisdom holds that political opinions, at least on some issues, are hard to form (Carmines and Stimson 1980; Kuklinski et al. 1982; Pollock et al. 1993; Kuklinski and Quirk 2001). Sniderman, Brody, and Tetlock wonder “How does the average American figure out what he favors and what he opposes politically? How ordinary people manage this—if indeed, they can manage it—is a deep puzzle...” (Sniderman et al. 1991: p. 14). Affect, however, makes political opinions easy. Regardless of the objective complexities that may underlie an issue, people are quickly able to determine if they favor, oppose, or are indifferent (the most likely option for

a number of issues) based on their affective reactions. Consider a study by Cohen (2003) in which liberal and conservative subjects were asked to judge the merits of either a “generous” welfare proposal or a “stringent” one. When liberals were told that the Democratic party endorsed the stringent plan, they were more supportive of it, while conservatives provided more positive views of the generous plan when informed that Republicans favored it, indicating that attitudes towards the policy apparently were based on party support, not the specific attributes of the programs. These results suggest that the positive affect induced by the party cues made the determination of support fairly easy for the subjects, regardless of the objective content of the programs.

It is my contention that personality, values, and cultural commitments provide people with an affective orientation towards a variety of political stimuli. Given the ubiquity of political discourse in American life, it is therefore likely that by the time most citizens reach adulthood, they have already internalized a number of affective reactions to political matters, whether these be in the form of a general “politics is not worth my time” malaise or in more specific evaluations based on idiosyncratic personality traits, dispositions, and values. Consequently, any evaluation of novel political information will nearly always be preceded by some sort of affective response (Lodge and Taber 2013). This response—based on factors outside the individual’s conscious control—not only provides people with a simple evaluation of a political attitude object, but also helps to determine the subsequent effect of information on preferences and beliefs.

2.2 Proposition #2: Information Processing is Motivated

Stipulating that political opinions are affective judgments does not completely specify the relationship between attitudes and information. For instance, people may be aware of an initial response to a political topic, but still decide to explore the issue more thoroughly before taking a “final” position. Or individuals may have their affective impressions challenged by information they were previously unaware of. Even those voters who have little interest in a topic oftentimes cannot avoid encountering it on television or through the conversations of friends. The relevant question thus becomes how people process information related to their political preferences. The answer, expressed in proposition two of the model, is that people process information in a motivated fashion. As Delli Carpini and Keeter rightly point out, information is a resource (Delli Carpini and Keeter 1996: p. 59) and people use resources to achieve specific ends. Regardless of whether people are consciously aware of these goals or not, political reasoning is a directed process.

Ever since Kunda (1990), many social scientists interested in cognition have come to accept that there are two main motivations that drive reasoning: accuracy goals, in which people attempt to arrive at the correct conclusion; and directional goals, in which people endeavor to rationalize a previously arrived at decision. Much of the literature on political knowledge seems to suggest that the major difference between sophisticates and non-sophisticates is the motivation they bring to preference formation. Non-sophisticates are presumed to engage in shallower, heuristic-based “System 1” type-processing, which requires little effort and results in less accurate judgments, while sophisticates use more in-depth, analytical “System 2” strategies that lead to more accuracy in their political opinions (Kahneman 2011). This formulation, however, erroneously conflates effortful processing with accurate processing;

as Kunda notes in her review, directional reasoning is not antithetical to systematic processing (Kunda 1990: p. 490). In fact, experts may be more prone to self-serving reasoning precisely because their knowledge of the topic facilitates construction of plausible rationales for their beliefs (Kunda 1990: p. 483). Kunda theorizes the major determinant of whether people are motivated by accuracy or directional goals is not the degree of effortful processing, but the nature of the reasoning task. When people are called to make judgments in which they have no personal stake in the outcome, accuracy motives are likely to predominate reasoning; however, when the judgment rendered has some implications for the decision-maker, directional motives become ascendant (Kunda 1990: p. 481).

Since reasoning is motivated, delineating the incentives attached to certain outcomes is paramount to understanding the relationship between information and preferences. Many of the incentives for directional reasoning fall under the rubric of “self-serving” bias (Pyszczynski et al. 1985). Maintaining positive self-esteem is crucial to psychological well-being, and Greenwald argues that the ego is akin to a “totalitarian” regime in its efforts to maintain a belief in “personal infallibility,” (Greenwald 1980). Simply put, people do not like to believe they are wrong, incompetent, or ineffectual. One manifestation of this ego-defensive orientation is cognitive conservatism, or the resistance to change in beliefs and attitudes (Greenwald 1980; Greenwald and Pratkanis 1984). People evince a variety of information processing strategies in order to avoid reaching conclusions they find unattractive or to admit that they are wrong. One such strategy is confirmation bias, the ubiquitous tendency to seek out evidence that supports one’s point of view while avoiding contrary data (Nickerson 1998). Another is belief persistence, in which people maintain their beliefs even after the evidential basis of those beliefs is discredited (Nisbett and Ross 1980; Lepper et al. 1986; Sherman and Kim 2002). A third is the rewriting of memory, in which people re-construct their memories in order to make it appear as if they had

always possessed some desirable attitude or knew some positive outcome was bound to occur (Greenwald 1980). These wide-spread and well-documented psychological phenomenon suggest that people have strong incentives to maintain their opinions and attitudes, even in cases in which the facts suggest otherwise.

The incentives for accurate reasoning in political opinions are less obvious. First, it is not entirely clear what an “accurate” political opinion is. As pointed out in the previous chapter, cognitive judgments can be accurate but it is uncertain how to apply an accuracy standard to an opinion or a preference. To define an accurate political opinion as one based on facts (how many? which ones?) begs the question as to whether our subjective beliefs are indeed the result of such a rational process. In any case, in the research reviewed by Kunda on accuracy motives, there were clear consequences for erroneous judgments: “accuracy goals are typically created by increasing the stakes involved in making a wrong judgment or in drawing the wrong conclusion, without increasing the attractiveness of any particular conclusion,” (Kunda 1990: p. 481). But political opinions typically lack any “costly consequences” (Lupia and McCubbins 1998); no one voter is going to sway policy outcomes by dint of his or her opinion, so no individual voter has an incentive to reason accurately strictly on the basis of the presumed effects of that policy.¹ It is conceivable that some people might have an intrinsic “need for competence” (White 1959; Elliot et al. 2002) that incentivizes them to seek the facts surrounding various political issues, but even that motive would not preclude someone from employing the facts in service of some pre-ordained (i.e., affect-based) conclusion. Any discussion of accuracy motives and political opinions soon runs into the same analytical roadblock encountered in Chapter 1; without an objective standard of accuracy, we are reduced to relying on

¹I do argue in the next section, however, that political beliefs can have important social and psychological consequences.

arbitrary metrics and definitions.

The major deduction from proposition two of the social-affective model is that information processing will be geared to reach whichever conclusion holds the most incentives.² If becoming informed does not result in any psychological or material benefits, then people will not expend the energy to do so (cf. the concept of rational ignorance in Downs 1957). Combining propositions one and two leads to the following deduction about political attitudes: if political preferences are based in affect and cognitive conservatism is incentivized, then it follows that people will strive to maintain and confirm their beliefs, even when confronted with inconvenient facts (Lodge and Taber 2000). A wealth of research supports this conjecture. Both Zaller (1992) and Jerit and Barabas (2012) find that the knowledge base of partisans is primarily composed of information favorable to their viewpoints, suggesting that people tend to seek out and retain attitude congruent information. Lau and Redlawsk (1997) directly asked study participants who had made decisions under incomplete information whether they would change their vote after allowing them to review all of the available data; a full 70% said they would not. In an experimental study, Kuklinski et al. (2001) asked subjects their opinions on welfare. Some of the respondents were randomly assigned to receive a set of key facts about the program, while another group were quizzed on their knowledge of these facts. Not surprisingly, most of the respondents were factually misinformed about the policy but correcting these fallacies had no measurable effect on evaluations. A later study by Nyhan and Reifler (2010) found that subjects actively *resisted* attempts to correct their factual misconceptions. Nyhan and Reifler asked participants to read a mock story about the presence of weapons of mass destruction (WMD) in Iraq prior to the US inva-

²Although I speak of incentives here, I do not mean to imply that people consciously calculate the costs and benefits of various processing strategies; I suspect in many cases people are unaware that they are reasoning in a directional manner.

sion. Some of the subjects were explicitly informed that a government report had found no evidence of WMD in Iraq, while others were not. After reading the story, subjects were asked whether they agreed that Iraq had an active weapons program and a WMD stockpile before the US attack. Only for very liberal subjects did the correction make them less likely to agree with the statement; for weak liberals and centrists, the manipulation had no effect. For conservative subjects, the correction actually made them more likely to agree that Iraq had WMD, a phenomenon Nyhan and Reifler term the “backfire effect.”

Even when people possess accurate information, they still may be motivated to interpret the data in ways favorable to their predispositions. In a related study on the Iraq War, Gaines et al. (2007) report that Democrats and Republicans both assimilated correct and current facts about the progress of the Iraq War during a panel study. But major differences existed in how these facts were interpreted by partisans. Democrats, who generally opposed the war, were more likely to interpret war casualty statistics as “large” or “very large” than were Republicans, who tended to support the military effort. The lack of evidence for the existence of WMD was interpreted by Democrats as a sign that they never existed, while Republicans believed that it indicated that the weapons had been smuggled out of the country or destroyed.

One particularly powerful example of directional political reasoning comes from a study by Redlawsk et al. (2010). The researchers asked subjects to evaluate four hypothetical political candidates during a simulated primary. After the subjects learned about the candidates and indicated their preferences, the researchers manipulated the subsequent information available so that the subject’s preferred candidate began to take more and more positions at odds with the subject’s previously stated political dispositions. Redlawsk, Civettini, and Emmerson do find that subjects began to downgrade their opinions and thus conclude that at some point motivated reasoners “get it” and begin to engage in a more rational updating process. However, based

on the data they report, that conclusion should be qualified. Participants in the study initially gave their preferred candidate favorability scores in the high sixty/low seventy range on a 101-point feeling thermometer. By the end of the study, these scores had declined for a majority of the subjects—but only by an average of about 8 points (Redlawsk et al. 2010: Figure 4). Even subjects who encountered nearly 80% incongruent information still gave their preferred candidate a final favorability score of just under sixty (Redlawsk et al. 2010: Figure 3). Considering that subjects were instructed to give scores of 50 for a neutral feeling and less than that for “cold” feelings, it appears that evaluators still felt warmly about their chosen politician even when four out of five pieces of information they learned about the candidate were contrary to their previously stated policy preferences.

Further confirmation of directionally motivated political reasoning comes from research carried out by (Taber and Lodge 2006). For these studies, subjects were asked to evaluate a number of pro and con arguments for gun control and affirmative action. Despite explicitly instructing subjects to “put their feelings” aside and try to be as objective as possible, Taber and Lodge find a strong prior attitude effect in the evaluation of arguments. For participants in favor of these policies, the pro arguments were rated as more effective while the opposite result obtained for those opposed to the policies. Furthermore, when subjects had the chance to freely choose which types of arguments to read, they tended to select arguments congruent with their beliefs and avoid those missives which challenged their positions. Lastly, among the most politically knowledgeable subjects, the exposure to opposing viewpoints did not moderate attitude strength as we might expect but instead lead to polarization—sophisticates held stronger opinions on the issues at the end of the study than they did at the beginning. These results present clear evidence of a desire on the part of subjects to maintain their existing beliefs, even when exposed to reasonable arguments from the other side of issue or presented with evidence suggesting their initial

appraisals were incorrect.

Propositions one and two lead to the further deduction of *homogeneity* in political preference formation and information processing. Currently, the literature assumes that experts and non-experts make up their minds in qualitatively different ways, which results in the presumably “superior” preferences of political experts. However, if our initial appraisals of political issues are rooted in affective responses to stimuli based on personality, values, and culture, and if people in general share a need for ego-affirming behavior, then it follows that most people form most of their political preferences in a similar fashion: first comes the initial reaction to the issue or candidate, and then comes the motivated search for information to bolster and confirm this evaluation. To reject this portrait of opinion formation is to presume that political experts differ from the mass of humanity in several significant ways. They must be able to override or dismiss their initial, pre-conscious reactions to stimuli, a proposition that some researchers argue is not altogether very common (Bargh and Chartrand 1999; Kahneman 2011). Further, sophisticates must react to different incentives, putting aside their egos and readily admitting mistakes in their quest to reason as objectively and rationally as possible about political matters. The principle of parsimony suggests we reject this assumption for the simpler theory that no such special abilities exist. After all, even trained scientists are not immune to lure of directional reasoning. Max Planck, one of many influential researchers who found his ideas opposed by the experts of his time, said somewhat bitterly, “A new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die, and a new generation grows up that is familiar with it,” (quoted in Barber 1962).

2.3 Proposition #3: Political Preferences are Social

The first two propositions of the social-affective model of information use create a dilemma of sorts; if people find it easy to form political preferences and primarily use information simply to confirm and rationalize those opinions, then why are some people so much more informed than others? The answer, I believe, lies in the unavoidably social nature of political preferences, which creates two main incentives for information acquisition. First, partisanship provides a social identity for many people (Campbell et al. 1960; Greene 1999, 2004; Green et al. 2004; Iyengar et al. 2012). One of the manifestations of high commitment to a social group is “identity expression,” which Ellemers, Spears, and Doosje state often involves “an attempt to create a distinctive identity by distinguishing and differentiating the group from outgroups in the comparative context,” (Ellemers et al. 2002: p. 169). In the political realm, identity expression might include absorption and internalization of the party elite’s rationales for certain policy positions (Zaller 1992), just as people who strongly identify with a religion assimilate its doctrines; it is perhaps no coincidence that Converse uses the term “true believers” to describe political ideologues (Converse 1964: p. 212). Second, as political preferences are subjective, contestable, and often contentious, people are likely to come into contact with those who question or disagree with their positions. Although we know what we like and need not justify our preferences to ourselves, there exists a social norm of *accountability*—when our beliefs and behaviors are inevitably challenged by others, we are expected to provide good reasons for our decisions (Kunda 1990; Tetlock 2002). The social context of judgment is often ignored in laboratory studies, an oversight Tetlock has criticized on a variety of occasions (Tetlock 1983b, 1985; Tetlock and Boettger 1989; Tetlock et al. 1989). Outside the laboratory, people’s decisions have social costs, often measured in

approval or opprobrium, which must be considered.

Accountability matters because our interactions with others is of fundamental importance to psychological well-being. Diener and Seligman (2004) find that “supportive, positive social relationships are necessary for well-being,” and Baumeister and Leary (1995) term the requirement of “frequent, non-aversive” interactions with others the “need to belong.” As evidence of this phenomenon, Baumeister and Leary cite a staggering amount of literature, demonstrating that people form social bonds easily and feel dismay at the dissolution of these ties, organize their cognitions around interpersonal and group concerns, experience positive affect when in stable relationships and negative emotion when deprived of social contact, and suffer a variety of adverse physiological and mental health effects when isolated from human interaction. The desire for positive social interactions and meaningful relationships motivates people to manage their public personas in an effort to accumulate reward, enhance self-esteem, and develop their public identities (Leary and Kowalski 1990: p. 37). People who score in the higher ranges of a scale of self-monitoring are particularly attuned to how they present themselves socially and how others are reacting to their behaviors (Gangestad and Snyder 2000). While the material consequences of holding any particular political opinion may be nil, the social consequences of evincing certain attitudes can be quite significant.

The primary deduction from proposition three is that political knowledge levels will vary as a function of accountability demands. When accountability is low, so too are the incentives to become informed. However, when accountability demands are high, individuals are motivated to learn about politics in order to both identify with their preferred partisan group and justify their beliefs to out-group members. This claim is quite consistent with what we know about the relationship between political discussion and political knowledge. According to data analyzed by Bennett et al. (2000), the rates at which Americans engage in political discussion—which seems a

fair proxy for accountability demands—have been fairly constant for the last forty years. Comparing data from 1960 and 1994, Bennett, Flickinger, and Rhine report that about one-quarter of citizens do not talk about politics at all. Fifty percent say they discuss politics “occasionally” or “from time to time”, and about 10% claim to talk about politics more than three or four times a week. These percentages map quite nicely onto the distribution of ideologues among the electorate reported by Campbell et al. (1960) and Lewis-Beck et al. (2008), both of whom estimated about 20% of the population to be devoid of ideological thinking and another 15% to be ideologically sophisticated. Bennett, Flickinger, and Rhine as well as Eveland (2004) report that increased frequency of political talk is significantly correlated with higher levels of political knowledge and Eveland and Hively (2009) further find that “dangerous” discussion—that is, discussion with people who hold views different from those of the respondent—increases the “density” of political knowledge structures, which is a measure of the extent to which subjects saw various political issues as inter-connected. The connection between sophistication and political talk confirms that political expertise has an important social dimension.

Although political expertise and political discussion go hand-in-hand, it does not necessarily mean that sophisticates engage in such debates in order to correct erroneous viewpoints or challenge questionable political positions. Rather it is likely that much of the conversation that occurs is geared towards “identity expression”; that is, affirming the validity of opinions by discussing them with others who share the same ideas. This conjecture is based on a number of factors. First is the principle of homophily (McPherson et al. 2001): people tend to associate with others that share similar values, beliefs, and outlooks on life. Recent research by Motyl et al. (2014) suggests that strong liberals and strong conservatives may be more likely to move out of communities that do not share their political views and that ideological incongruity between an individual and his or her community leads to an increased desire to

leave the area as well as a diminished sense of belonging. Next is the finding that people tend to talk politics with people who share the same preferences. In a series of studies, Huckfeldt and colleagues (Huckfeldt and Sprague 1995; Huckfeldt et al. 1995, 2000) find that respondents' discussion partners shared their presidential preferences about two-thirds of the time. Mutz (2006) draws a similar conclusion, arguing that levels of disagreement in discussion dyads are low, as is the frequency of discussion with those who do disagree. Lastly, people may avoid discussing certain contested political topics, often due to the anxiety and fear that result from expressing disagreement or from unequal power relations (Mansbridge 1983; Mutz 2002; Conover et al. 2002). Even when political discussion involves contestation, participants are likely to be engaged in preference justification and defense rather than a reasoned and persuasive exchange of ideas. Tetlock finds that when subjects expect to be accountable for judgments to which they are committed or when these judgments reflect on their character (as political opinions clearly do), they engage in a strategy of "defensive bolstering," in which the goal is to generate reasons "why they are right and would-be critics wrong" (Tetlock 2002: p. 455).

A second major deduction about the nature of political preferences comes from combining proposition one—that preferences are affective—and proposition three. Since political opinions are grounded in non-rational responses to stimuli, this deduction holds that the facts are far less crucial to the content of beliefs than is social acceptance, a conclusion that mirrors Festinger's concept of "social reality" (Festinger 1950). According to Festinger, the verity of a social belief comes not from any particular set of facts or evidence but instead "depends to a large degree on whether or not other people share (the) opinion and feel the same way. . . ." (Festinger 1950: p. 272). To illustrate, Festinger asks that we envision a continuum of beliefs, anchored at one end by physical reality. Beliefs about physical reality are constrained by the objective conditions of the world; people are unlikely to hold opinions that can be disconfirmed

by direct experience. Very few individuals believe they can fly, are impervious to pain, or can walk through walls because they have incontrovertible evidence that this is not so. At other extreme of the continuum opposite physical reality lies social reality. This end of the spectrum comprises pure value judgments—for example, believing that the death penalty is an appropriate sanction for certain crimes. Since facts have little bearing on value judgments, there is no constraint on the validity of this belief beyond that imposed by other people in the form of approval or opprobrium. In between these two extremes, however, there are a great many shades of gray; factual beliefs (such as the age of the Earth) can be rejected and unsubstantiated beliefs (such as the existence of angels) maintained simply because there is enough social consensus to sustain these types of opinions. Provided that attitudes are “anchored in a group of people with similar beliefs, opinions, and attitudes,” they need not be based on objective, verifiable facts (Festinger 1950: p. 273). Nor should we expect people to modify or abandon entrenched social beliefs simply on the basis of inconvenient empirical evidence. Locating political beliefs in social reality provides a compelling explanation for belief persistence even when people have the facts wrong (e.g., Kuklinski et al. 2000) as well as the acceptance of factually incorrect but socially compelling narratives, such as the belief that the Affordable Care Act includes “death panels” (Nyhan 2010) or that President Obama is a Muslim (Hollander 2010). These attitudes persist simply because among certain social groups, they are accepted as valid, providing the people who hold these beliefs social reinforcement for their views.

2.4 Summary: A Social-Affective Model of Information Use

To summarize, the non-hierarchical theory of political information use I have presented here conceptualizes political preferences as *affective judgments* situated in

social reality. The model, which I term the Social-Affective Model (SAM), is based on three simple propositions: political preferences are affective judgments, information processing is motivated, and political preferences are social. In conjunction, these axioms lead to the model of information use presented in figure 2.1. Upon encountering a political object, be it a candidate or policy, a subject experiences an affective reaction. This reaction may be strong or weak, positive, negative, or neutral, and is a function of the individual's personality, psychological dispositions, values, and early socialization experiences. The person's affective response is then checked against the social environment; absent any demands of accountability, the process stops and the individual feels no need to seek out information to support his or her preference. However, when faced with the expectation of accountability, an individual acquires information in order to provide socially acceptable rationales for his or her attitudes. People who experience continual accountability demands eventually become "experts," possessed of large stores of political information, while those who rarely expect to be accountable for their views remain "non-experts."

2.4.1 Comparison of SAM to the Hierarchy of Preferences Theory

The Social-Affective Model of information use departs in a number of meaningful ways from the hierarchy of preferences theory (HOP). Under HOP, political preferences are primarily cognitive in nature. They are presumed to be based on facts and evidence and amenable to reason and logic. This is in stark contrast to the SAM position, in which political opinions are mostly affective in origin. Whereas information is used to form cognitive judgments, it functions to rationalize affective ones. According to HOP, political reasoning is directed by an accuracy motive, in which citizens strive to consider the costs and benefits of diverse policies and candidates and subsequently base their evaluations of these political entities on factually correct information and

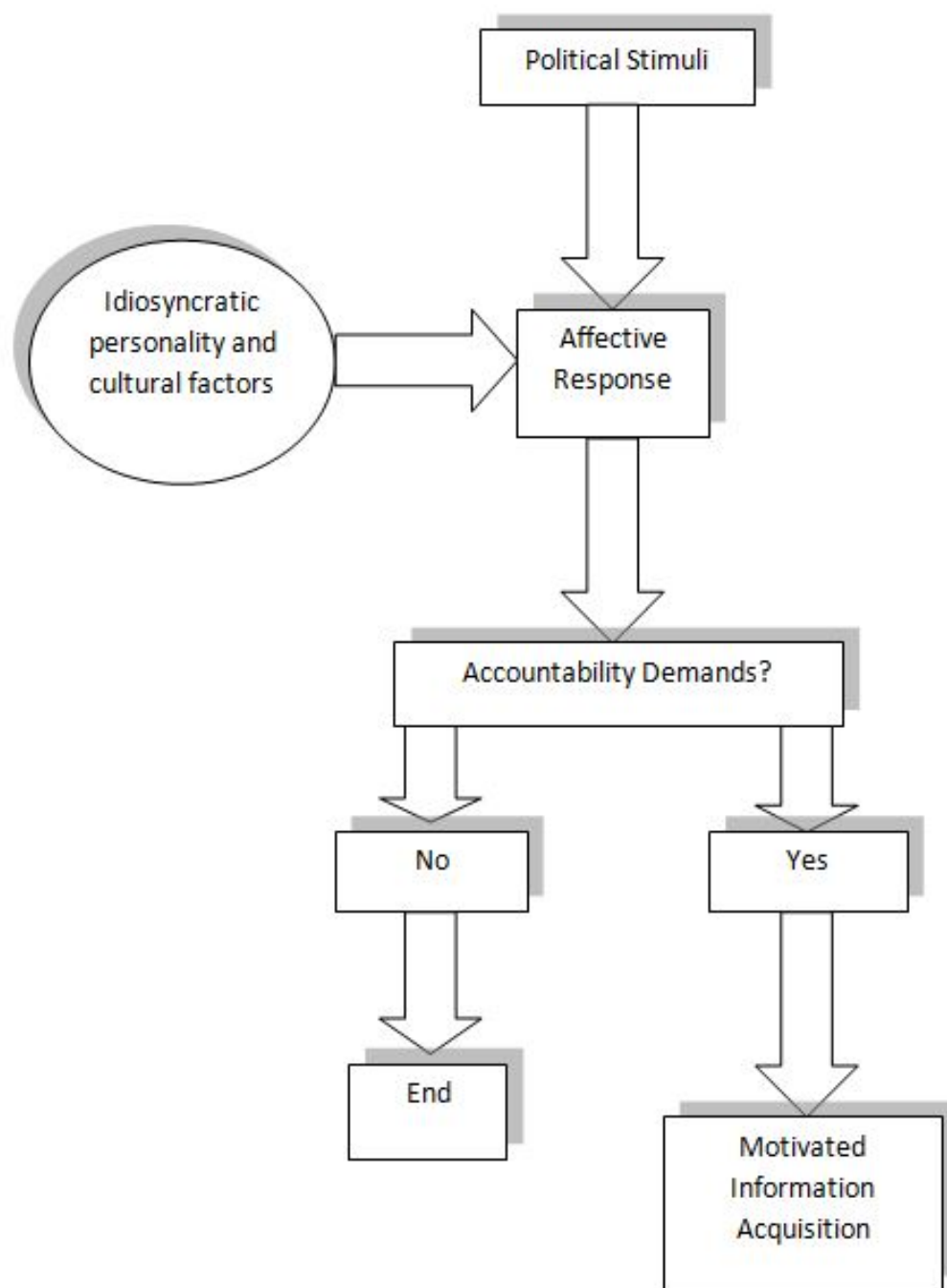


Figure 2.1: A Social-Affective Model of Information Use

calculations of potential consequences. SAM, however, proposes that political reasoning is directed, driven by the ego-satisfying incentive to maintain beliefs. Lastly, the HOP theory includes a conception of opinion-quality, contending that certain individuals hold higher quality subjective preferences than others and that this quality derives from the amount of information the opinion is purportedly based upon; this proposition is entirely lacking in SAM, which instead argues that most information acquisition follows preference formation and that political attitudes are essentially incommensurable.

2.4.2 Compatibility of SAM with the Existing Literature on Political Knowledge and Preferences

The Social-Affective Model of information use is entirely compatible with our current understanding of political information and preferences and is in some domains better able to explain findings that the HOP theory has little answer for.

1. **Distribution of Knowledge Levels:** Nothing in SAM should be construed as indicating that previous estimates of the distribution of political expertise in the electorate are incorrect. The principal contribution SAM makes is a theoretical framework for explaining this distribution. The HOP position is that political expertise helps people discover and advance their political interests; however, the distribution of knowledge is contrary to this assertion. The people who are the most informed—wealthy, educated, white males—are the best represented in government. According to the logic of collective action, these individuals should have the weakest incentive to learn about politics because the system already serves them quite well. Conversely, the least informed are the ones whose “interests” are most often ignored by the political system: the poor, minorities, and the less educated. Either we accept that despite advances in

education and the increasing availability of information that a large percentage of the population is suffering from “false consciousness” or we acknowledge that there is little connection between information and interests. SAM adopts the latter approach. Wealthy, educated people are more informed about politics for the same reason that urban, lower-class adolescents do not play lacrosse: the presence of cultural incentives that reward and encourage certain types of behaviors and attitudes.

2. **“Non-Attitudes,” Response Instability, and Attitude Crystallization:**

The SAM position is not that people have attitudes on every political issue or even a large proportion of them. Rather, it is that on some issues people have a positive or negative affective reaction, while on others they have little to no response and are thus ambivalent (Zaller and Feldman 1992). In the common parlance of the literature, we would consider people to have non-attitudes on these topics. At any given time, responses on these issues are created from top of the head considerations (Zaller 1992) and susceptible to differences in question wording, interviewer effects, question order and other such problems that plague survey research (Krosnick 1999). Even in cases in which people do have an affective response of some magnitude to an issue, some response instability is to be expected. This is simply because affective judgments, by their nature, are an interaction of the internal states of the perceiver, which can be fluid, and the fixed properties of the object. However, to the extent that people are repeatedly called upon to explain their opinions on certain issues, their views are likely to crystallize.

3. **Dual-Process Theories, Online Processing, and Automaticity:** This is an area in which the antiquated HOP theory suffers. None of the philosophers and political theorists who developed the hierarchy of preferences view and

many of the early political scientists who endorsed it had any knowledge of the profound impact the unconscious has on behavior or attitudes, nor of the inherent limitations of conscious information processing. These recent advances raise a number of troubling problems for the HOP theory: for example, when explicit and implicit attitudes differ, which is in the person's "true" interests and how do we determine this? Are automatic attitudes and beliefs inherently biased? If so, are we cognitively equipped to overcome these impulses? If experts are more likely to process information online (McGraw et al. 1990), which involves discarding specific information while retaining its affective impact, then how are they to update their preferences in light of new facts if they do not remember the old facts that formed the basis of their opinion? Needless to say, SAM avoids many of these difficulties by acknowledging the inherently affective (and automatic) nature of political opinion.

4. **Correct Voting:** Correct voting, in which sophisticates have been found to vote for candidates whose attributes are consistent with their previously stated policy positions, follows directly from SAM. Recall that in Chapter 1, it was noted that correct voting takes policy stands as a given; in order for the correct voting metric to work, people are not able to learn or change their views on policies between the measurement stage and the vote stage. Otherwise, their votes will be less "correct," even if their previously stated policy positions were in error. SAM simply provides a way of understanding this consistency. Since sophisticates are more accountable for their views than non-sophisticates, they discuss them more often, and have more crystallized opinions. Therefore there is a greater correspondence between their professed policy orientations and the candidates they vote for. However, SAM does not discount the possibility that the policy preferences of sophisticates result from their candidate preferences; that is, as a consequence of liking a certain politician, sophisticates begin to

adjust their policy stands to more closely match those of the candidate.

5. **The Rationalizing Voter:** Lodge and Taber's *The Rationalizing Voter* (2013) contains many of the same idea elements in SAM. Lodge and Taber's John Q. Public model of political evaluation is premised on automatic reactions to political stimuli and the primacy of affect and one of their main arguments is that "deliberation serves to rationalize rather than cause," (Lodge and Taber 2013:p. 21). Lodge and Taber argue that when citizens evaluate politicians, they dredge up a variety of considerations relative to the target, but this recall is in fact biased by their affective responses. How these considerations got into the voter's memory is incidental to Lodge and Taber's theory, as is the question of why some people have more considerations than others. The contribution of SAM comes from its attempt to explain the *active* process whereby citizens become informed (cf. Zaller 1992 and his model of passive information acquisition).

6. **Deliberation, Persuasion and Attitude Change:** As I stated at the outset of the chapter, SAM is a sketch of theory, and my focus has been on a theoretical account of why some people are more informed about politics than others. Consequently, discussions of deliberation, persuasion and attitude change are beyond the scope the current project. However, I do not wish to imply that people do not change their attitudes in response to new information or that they are immune to persuasion by rational argument. Under SAM, though, such attitude change is most likely to occur under several limiting conditions. First, the issue must be one on which the individual does not have a strong affective response. Second, the person must not have a strong partisan identity and the topic must not be the subject of partisan division. Finally, the reputational consequences for attitude change should be minimal. Public opinion polling on

the Iraq war provides a suggestive example of this process. In 2006, during the Bush presidency, 82% of Republicans believed the Iraq war would succeed, while only 34% of Democrats did. After the election of Barack Obama in 2008, Democrat support for the conflict steadily climbed, peaking at about 56% by 2010; however, Republicans with a favorable view of the war effort decreased to 68%. Now, in 2014, when the war is no longer a partisan issue and has largely faded from the public consciousness, there is a general consensus among both Republicans and Democrats that the war was a failure, with only about 37% saying otherwise.³ Since both Republican and Democratic Presidents have had a hand in the war and there is little social gain involved in hewing to the party line, the costs of disavowing the war effort (and likely “remembering” that one was against it all along) are low.

2.5 Conclusion

Now that an overview of a Social-Affective Model of political information use has been presented, it is time to turn to empirical investigations. In the next chapter, I address a key claim made by proponents of the hierarchy of preferences theory: that political preferences will change as people become more informed. I re-examine the empirical bases of this claim and find that previous demonstrations of an “information effect” in presidential preferences are likely no more than a methodological artifact. In Chapters 4 and 5, I report the results of two experiments designed to explicitly test some of the implications of the Social-Affective Model.

³<http://www.people-press.org/2014/01/30/more-now-see-failure-than-success-in-iraq-afghanistan/>

Chapter 3

Reconsidering Information Effects and Collective Preferences

At the conclusion of his highly influential article on information levels and collective presidential preferences, Larry Bartels suggested that few of the interesting questions related to political sophistication and democratic performance would be addressed “until political scientists are convinced that information matters,” (Bartels 1996: p. 222). To that end, Bartels’s piece presented evidence indicating that presidential voting preferences were skewed by citizens’ lack of political knowledge. Other work by Delli Carpini and Keeter (1996), Althaus (1998, 2003), and Gilens (2001) struck much the same note, arguing that information deficiencies among the populace lead people to hold political preferences they would otherwise not if more politically engaged. This “information matters” literature not only fits comfortably within the dominant hierarchy of preferences model of political expertise but also presents a direct empirical challenge to the Social-Affective Model of information and preferences introduced in the previous chapter. Thus, in this section, my goal is to critically appraise the findings from this research in an effort to adduce whether they do in fact demonstrate that information matters.

One of the primary deductions from the hierarchy of preferences (HOP) view of political attitudes is that political attitudes will change as citizens become more informed, either about the political system in general (Delli Carpini and Keeter 1996) or about policy-relevant facts (Gilens 2001). If low-information opinions are more likely to be biased, less likely to serve the interests of the voter, and less likely to be consistent with the voter's values and predispositions, then it follows that these deficiencies will be "corrected" as the person becomes more informed and his or her preferences become "enlightened." Demonstration of such an information effect—if one were to exist—is an analytically daunting task. Ideally, one would have to randomly assign not simply a greater store of political information to subjects but also the requisite political expertise required to process these facts in order to gauge whether the characteristic processing styles of experts and the contextual information they possess truly causes differences in preferences.

Needless to say such a research program is not possible; however, to the extent that experimental studies illuminate the relationship between information and preferences, the results are not particularly congruent with the HOP perspective. For example, Barker and Hansen (2005) found that politically sophisticated subjects who were made to process candidate information in a systematic way exhibited less consistent preferences (as judged by their previously indicated party identification). In their experimental studies of correct voting, Lau and Redlawsk discovered that subjects who attempted the most rational information gathering strategies (i.e., they tried to examine as much information as possible on each of the candidates), were less likely to vote correctly. Lau and Redlawsk speculate that this result indicates the possibility that "bad information" crowds out "good information," (Lau and Redlawsk 2006). Ahn, Huckfeldt, and Ryan conducted a highly stylized experiment on information and political judgment and found that while having one piece of information was better than zero, additional units of information had declining marginal value (Ahn et al.

2010: p. 773). And Cohen (2003), Nyhan and Reifler (2010), Kuklinski et al. (2000), and Gaines et al. (2007) all find very limited effects of information on preference change.

It is quite possible that an experimental setting is simply not able to capture the process whereby political experts form and update their opinions over time. Consequently, scholars have turned to other ways of determining the impact of information on political preferences, such as deliberative polling (Fishkin 1991). With deliberative polling, participants are invited to spend a weekend learning about a topic, discussing it with others, and forming an opinion. While such efforts do result in opinion change, it is difficult to say precisely what role information as such—as opposed to the social aspects of the setting—plays in preference updating. Nor is it clear that the type of deliberations engaged in during deliberative polling mirror the process by which most political experts develop their attitudes. Other researchers have relied on a potential methodological solution: statistical imputation. Simultaneously developed by Bartels (1996) and Delli Carpini and Keeter (1996), statistical imputation involves estimating the vote probabilities or policy attitudes of a sample, imbuing the respondents with higher levels of information, and then re-estimating preferences; any resulting differences are attributed to the changes in political information and indicative of the attitudes the citizenry would hold were it more knowledgeable about politics.

The literature on “information effects” (Bartels 1996; Delli Carpini and Keeter 1996; Althaus 1998, 2003; Gilens 2001) suggests that profound differences exist between observed public opinion and the attitudes citizens would hold if “fully informed”: for example, Bartels (1996) finds that voter ignorance provided both Democratic and incumbent candidates an electoral advantage in the 1972–1992 presidential elections; Delli Carpini and Keeter (1996) contend that a more informed populace would hold policy attitudes more in line with their “enlightened” group interests; Althaus (1998) reports a host of differences, including that an informed populace would

be more supportive of government spending on services and less inclined to maintain high defense budgets; and Gilens (2001) argues that a sample of citizens from 1988 who were more aware of specific policy facts would want the government to spend more on environmental issues and less on prison construction.

The outcomes generated by statistical imputation have been favorably cited as suggestive evidence of the impact of information deficiencies on collective preferences (e.g., Converse 2000; Galston 2001) and appear to contradict the Social-Affective Model (SAM) of information use that I presented in the previous chapter. One of the main hypotheses of SAM is that higher information levels among certain segments of the populace are an indication of a social need to justify and defend political preferences; thus, SAM predicts no enlightening effect occurs as low information citizens acquire more information—instead, SAM predicts that existing preferences will simply crystallize. Therefore I endeavor to show in this chapter that the results produced by statistical imputation are far from convincing evidence of the enlightening impact of increased information levels.

Using Bartels's previous work on information levels and presidential preferences as a test case, I demonstrate that although statistical imputation does produce significant changes in voter decisions, it is unlikely that these differences are in fact indicative of the effect of information on preferences. Specifically, I show that these changes vary with the type of information measure used, fail to support a number of hypothesized relationships between information and preferences, and are most likely attributable to shifts in the values of respondents that inadvertently occur during the imputation process. The primary conclusion of my analysis is that previous estimates of the effects of voter ignorance on vote choices are incorrect; my results also imply that other projections of fully informed opinions based on statistical imputation may be invalid as well.

3.1 Statistical Imputation and the Hierarchy of Preferences

The statistical imputation technique is implicitly premised on the hierarchy of preferences theory of political judgment. The method begins by modeling political attitudes as a function of political knowledge and a variety of fixed demographic predictors (Bartels 1996: p. 207; DelliCarpini and Keeter 1996: p. 238–239; Althaus 1998: p. 548). A measure of political information is interacted with each of the demographic characteristics in order to generate two sets of parameter estimates: an “uninformed” vector of coefficients which represents the impact of each predictor on attitudes when subjects are relatively ignorant about political matters and an “informed” vector which describes the relationship between the predictors and political opinions when subjects are well-versed in politics. Once these parameters are estimated, researchers then imbue more information to the respondents by maximizing each person’s political knowledge score. Preferences are then re-calculated for these hypothetical “fully informed” individuals and any resulting differences in attitudes are attributed to an information effect.

The fundamental assumptions behind the statistical imputation method are similar to those of the hierarchy of preferences position. First, the method assumes that the most informed survey respondents arrived at their preferences as a consequence of the information they possess. In other words, informed individuals use their knowledge in order to form and update their political preferences. Second, imputation presumes that the preferences of low-information voters will be “corrected” as they acquire new information. That is, people are at least somewhat willing to consider their political preferences as erroneous or in need of updating when confronted with new facts. Third, the imputation model further assumes that political opinions largely result from the voter’s consideration of his or her fixed demographic circumstances

and the policy proposals or politician in question; essentially, any differences in political attitudes among individuals in similar demographic conditions are attributed to differences in information levels, rather than potential disparities in values, personality, and cultural worldview.¹ Last, by arguing that “information matters,” these models assume that uninformed voters are holding biased or “unenlightened” political attitudes that in some way are problematic for either the voters themselves or the democratic system as a whole. In sum, the statistical imputation method presumes that political opinions are at least in part cognitive judgments which are improved via the consideration of additional information, which is essentially the same position taken under the HOP view of political preferences.

3.2 A Skeptical Take on Statistical Imputation

It appears that the intuitive plausibility of collective information effects coupled with the disciplines’ general acceptance of the hierarchy of preferences theory have allowed the imputation results to escape critical scrutiny. The literature on statistical imputation has gone largely unchallenged; although it has been eleven years since the last work using imputation to examine the preferences of American citizens appeared and almost twenty since the first, I know of only one response that questions the information effects generated from imputation, and that work focuses on the link between political expertise and turnout, not preferences (Levendusky 2011). The vigorous scholarly debate that arose on the question of political sophistication after Converse has not been repeated in the wake of the claims made by the imputation literature, perhaps because many political scientists share the core belief that the attitudes and

¹To be fair, the researchers were limited by the variables available on the National Election Surveys that form the bases of their research; however, the surveys do contain various measures of values such as egalitarianism, authoritarianism, and moral traditionalism as well as some other indicators of individual-level differences, such as the subject’s perceived intelligence.

opinions of political naïfs cannot possibly be as “good” as those of political experts.

There are, however, several rather problematic components to the imputation model and the theory underlying it that should be causes for concern. Most glaringly, statistical imputation interprets regression coefficients as causal effects, an analytically precarious position. Although the mantra of “correlation is not causation” (Holland 1986) is well-known among statisticians and social scientists, there are certain conditions in which causal inferences may be drawn from observational data. These conditions are fairly restrictive however: to make a causal claim based on a regression estimate, the conditional independence assumption (CIA) must hold (Angrist and Pischke 2008). This assumption stipulates that regression coefficients have a casual interpretation conditional on the additional covariates in the model; however, if a particular regression model fails to account for any unobserved causal influences on the dependent variable, estimates of causal effects from cross-sectional data are likely to be incorrect.

One of the problems with using cross-sectional data to advance causal claims is the issue of selection bias; estimates of causal effects are biased to the extent that the key predictor variable is not independent of the outcome of interest. In terms of the relationship between information levels and presidential preferences studied by Bartels, the outcome is Republican vote and the “treatment” is information level. To adduce the causal effect of information on preferences with observational data, it must be the case that presidential preference is independent of political knowledge levels. Otherwise, the estimates of an information effect are going to be influenced by a selection bias. Suppose for instance that individuals who are high in the personality trait of emotional stability are more likely to be informed about politics and also more likely to see themselves as conservative (in fact, Gerber et al. (2011) find this very relationship). Consequently, more emotionally stable individuals (with more conservative beliefs) are going to “self-select” into the more informed category, implying

that their treatment is not independent of their political preferences.

If the conditional independence assumption holds, however, than the selection bias issue can be ignored and the regression coefficients generated from observational data have a causal interpretation. The CIA states that conditional on the covariates included in the model, the treatment and outcome variables are independent. In other words, once accounting for (i.e., controlling for) the other predictors in the model, the only differences between the subjects is the treatment. Now, the clear problem with the CIA is that it assumes that the covariates in the model are the correct ones; the CIA is also called “selection on observables” because the necessary covariates to control are “assumed to be known and observed,” (Angrist and Pischke 2008: p. 53–54). If certain variables with a causal impact on the dependent variable are not included in the model, omitted variable bias is introduced (a critique of the imputation literature raised by Levendusky 2011). In effect, to invoke the CIA in a regression model is to assert that there is no omitted variable bias. And to do that, one must assume that “the regression you’ve got is the one you want,” (Angrist and Pischke 2008: p. 62).

Given the nature of predictors included in the imputation models, the CIA is unlikely to be satisfied, a position even the proponents of imputation apparently recognize. Bartels cautions that his results represent not just a more informed electorate, but one that is “more interested in and sophisticated in thinking” about politics (Bartels 1996: p. 204), while Althaus suggests other potential confounds: cognitive styles, contextual information stored in memory, confidence, and interpersonal networks (Althaus 2003: p. 101). The vast differences among informed and uninformed individuals make it highly probable that the imputation models have violated the CIA, and it is worth wondering just exactly how much of the simulated opinion changes are due to differences in cognitive ability, memory, confidence, and social networks rather than information levels.

A second major concern with the imputation literature is theoretical: our ability to make predictions as to the nature of “fully informed” opinion is hampered by the lack of any clearly specified theory as to what these hypothetical opinions should look like. For example, Althaus (1998) analyzes 45 different economic, social, and foreign policy issues, but offers no *a priori* predictions as to which direction fully informed opinion should move. Rather, he interprets the existence of any significant difference in attitudes as evidence of an information effect. Strictly speaking, however, statistically significant differences between two values are a function of sample size; given a large enough set of cases, a researcher can always find significant differences between two estimates (Cohen 1994). Making the case that information matters based simply on statistically significant differences between expressed and “fully informed” opinion means that all disparities in attitudes generated by imputation, regardless of direction, are held to be supportive of the theory; the only way to falsify the claim would be to consistently find no changes in opinion, an unlikely scenario given that the imputation models currently employed in the literature assume that only fixed demographics and information affect preferences. The sheer number of omitted variables virtually guarantees that some differences exist between the opinions of well-informed and less-informed individuals; however, without a set of hypotheses as to the nature of these differences, we are unable to determine when the imputation results are wrong, a theoretically problematic position.

When predictions are offered, they often ignore the cultural and idiosyncratic factors that influence how people interpret facts. Consider Gilens’ hypotheses that, all else equal, “knowledge of a decline in federal efforts to protect the environment” will lead to a “preference for increasing federal spending in that area,” (Gilens 2001:p. 382). Here, Gilens appears to be relying on the “socialized logic of the liberal democratic tradition” (Brown 1970:p. 67); to many political scientists and other academics, it probably seems elementary that knowing that federal efforts to

protect the environment have declined would naturally result in a preference for more spending. But the assumptions lying behind Gilens' hypothesis are quite significant; to highlight a few, Gilens assumes that people agree that the federal government has a proper role to play in climate protection, that protecting the environment should be a priority of the government, that spending more on the issue is a proper use of taxpayer monies, and that a decline in spending on the environment is a problem that needs to be addressed. Certainly those citizens who reject these positions would not likely to be swayed by knowing the current state of federal spending on climate concerns.

Importantly, Gilens' supposition that recognition of a decrease in federal spending necessarily engenders a preference for a subsequent increase in funding ignores the cultural dimension of political preferences. As Kahan, Jenkins-Smith and Braman argue, people do not disagree about policy outcomes merely because of ignorance of certain facts but rather because their commitment to certain cultural worldviews leads them to "accept or reject empirical claims. . . based on their vision of a good society," (Kahan et al. 2011: p. 148). As evidence of this cultural cognition hypothesis, Kahan et al. (2012) find that citizens with the highest levels of scientific literacy were the *most* polarized on the issue of climate change. Those respondents who endorsed an egalitarian worldview saw climate change as more of a problem than did those people who possessed an individualist mien, and these differences were only exacerbated by increased scientific knowledge. Similarly, people who are more religious are less likely to believe that humans evolved from an earlier species even as their general scientific knowledge increases (Kahan 2014).

Personal prejudices and biases also influence how people respond to factual information. A recent study examined white New Yorkers' attitudes towards the controversial "stop-and-frisk" policy employed by the police (Hetey and Eberhardt 2014). Before asking for the subjects' opinions, the researchers manipulated a statistic de-

tailing the percentage of blacks in prison. Half of the sample was told that the prison population was 40.3% black while the other was given the figure of 60.3%. The subjects were then informed that a federal judge had found the practice unconstitutional and were asked if they would be willing to sign a petition to end the tactic. Despite providing the subjects with precise statistics as to the racial composition of the nation's prisons, people in the majority-black condition perceived the prison population as significantly more black than the figure presented and also claimed that they were more concerned about crime than were participants in the plurality-black condition. Furthermore, subjects in the majority-black prison condition were less likely to express a willingness to sign the petition to end stop-and-frisk. Thus, both groups of subjects were exposed to the same fact—that stop-and-frisk was found unconstitutional—but the impact of that fact on their attitudes was conditional on what they perceived the racial composition of the prison population to be. It appears that at the very least, then, any predictions about the relationship between policy attitudes and informed opinions need to account for underlying differences in the values and beliefs of respondents.

Delli Carpini and Keeter (1996) take a different approach to hypothesizing information effects, making predictions about the nature of informed opinions based on the concept of “enlightened” interests. However, this analysis strategy also is not without its shortcomings. In some cases, the predictions are clear and fairly uncontroversial. For instance, Delli Carpini and Keeter hypothesize that people who have experienced economic hardship will be more supportive of liberal economic policies and that this support will increase as a function of information levels. The authors do find that the simulated fully informed opinion of those respondents who had experienced the most economic strife to be more liberal (Delli Carpini and Keeter 1996: p. 243). In other cases, though, the logic of the predictions is somewhat murky. Delli Carpini and Keeter's results indicate that fully informed men would be more supportive of

abortion rights, although why this preference is indicative of enlightened interests is unclear; the authors suggest, *post-hoc*, that the pattern “could result from more knowledgeable men believing that a women’s right to choose is also in their interest or believing that the right to choose is legal and just regardless of those interests,” (Delli Carpini and Keeter 1996: p. 244).

In another result that has no obvious theoretical interpretation, Delli Carpini and Keeter find that on domestic issues, fully informed married men become more conservative, while fully informed married women become more liberal. Considering that political similarity appears to be one of the stronger predictors of mate choice (Alford et al. 2011), an unintended consequence of the more enlightened populace implied by Delli Carpini and Keeter’s results may be less happy marriages! On the whole, the main theoretical problem with the enlightened interest approach to predicting preferences is that information is forced to do “double duty”; arguing that the policy preferences of more informed individuals represent the ideal position and then demonstrating that information leads citizens to hold more enlightened opinions is tautological (Kuklinski and Quirk 2001: p. 300). The lack of a clear objective standard for determining quality political opinions hinders successful analysis.

3.3 Information Effects in Presidential Preferences Reconsidered

It is with these methodological and theoretical pitfalls in mind that I critically re-examine the validity of information effects on presidential preferences generated via statistical imputation. In a widely cited and influential paper, Bartels contends that uninformed voting costs Republican candidates about two percentage points of support on average and non-incumbent candidates roughly five (Bartels 1996: p. 220). I use the statistical imputation method on NES data to examine elections from 1992–

2008 and submit the results to a number of analyses in order to determine whether interpreting the outcomes as information effects is warranted. First, I investigate whether the substantive results produced by statistical imputation are robust to alternative specifications of the political knowledge variable. Second, I test the fully informed preferences generated by the model against a number of specific hypotheses on the relationship between information and judgments. Lastly, I consider the extent to which the information effects resulting from imputation are in fact confounded with the influence of certain values on presidential preferences. In all, the results from my analyses suggest that interpreting the results of statistical imputation as information effects is mistaken.

3.3.1 Information Effects in the 1992–2008 Presidential Elections

The goal of this section is to delve into the nature of information effects generated by imputation. My working hypothesis is that the changes in preferences produced by imputation are most likely a statistical artifact of the technique rather than a valid representation of the impact of information on vote choices. For the subsequent analyses, I employ a probit regression model similar to that used by Bartels (1996). The dependent variable is reported Presidential vote choice, coded 1 if the respondent indicated he or she voted for the Republican candidate and 0 if the respondent voted for the Democratic candidate.² The primary independent variable is a measure of the respondent's political information. As Bartels does, I use the NES interviewer's subjective rating of the subject's political information. These ratings are on five-point

²As Bartels did in his original work, I did not consider third party candidates in order to facilitate comparisons both across election years and with the previous work on information effects. Only subjects who indicated a preference for the Republican or Democratic candidate were included in the analysis. Cases with missing values were excluded.

scale, ranging from “very high” to “very low”; Bartels recodes this scale to values of .95 (“very high”), .80, .50, .20, and .05 (“very low”) and I retain this coding scheme for my analysis.

In keeping with Bartels’s work, the model also includes twenty demographic variables, each of which is interacted with the information variable in order to allow the effect of political knowledge to vary with the various demographic characteristics of the respondents.³ In this model, the main effects represent the impact of each variable on an “uninformed” respondent’s vote preference (i.e., when the information variable is set to zero, its theoretical minimum) while the interaction terms are interpreted as the impact of that same characteristic on a “fully informed” respondent (i.e., when the information variable is at one, its theoretical maximum).

To test the robustness of the results, I also estimated the models using a more objective measure of political information based on a number of factual political knowledge questions included in each survey.⁴ I summed the correct responses to these questions and then broke the respondents down into quintiles based on their scores. This measure was then recoded into the same scale as the subjective measure of information for ease of comparability of results. The theoretical expectation is that the imputed preferences from the models using objective and subjective measures will be comparable.

Bartels provides two standards by which to judge the impact of information effects

³These demographic variables are: Age, Age², Income, Education, Black, Female, Married, Homemaker, Homeowner, Retired, Clerical, Professional, Union Household, Urban, East, West, South, Protestant, Catholic, Jewish. For comments on the utility of such “kitchen sink” regression models, see Achen (2002) and Schrodtt (2014).

⁴These questions varied somewhat from survey to survey, but generally included recognition of political figures, awareness of which party controlled the House and/or Senate, and ideological placement of Presidential candidates and parties. Specific questions used are reported in the Appendix. Bartels is unique among the researchers using statistical imputation in employing the subjective measure of information (see Delli Carpini and Keeter 1996: Appendix Two; Althaus 1998: p. 548; and Gilens 2001: p. 382)

Table 3.1: Log-likelihood Tests

Election Year	<i>Subjective Measure</i>			<i>Objective Measure</i>		
	Log- likelihood of Base Model	Log- likelihood of Informa- tion Effects Model	p -value of difference $\chi^2_{(21)}$	Log- likelihood of Base Model	Log- likelihood of Informa- tion Effects Model	p -value of difference $\chi^2_{(21)}$
1992 ($n = 1337$)	-782.36	-763.58	.010	-784.09	-766.60	.019
1996 ($n = 961$)	-549.27	-534.69	.084	-545.04	-538.57	.879
2000 ($n = 1011$)	-569.98	-551.69	.013	-571.76	-557.35	.097
2004 ($n = 778$)	-449.25	-443.37	.923	-453.06	-440.76	.217
2008 ² ($n = 1482$)	-807.69	-792.94	.042	-789.33	-746.32	.000

¹ Source: 1992–2008 NES

² The 2008 data has two fewer IVs and thus 19 degrees of freedom for the log-likelihood test

in presidential elections. First, the presence of an information effect is inferred if the unconstrained model (i.e., the model than includes political information and its interactions) provides a better fit to the data (as judged by a significant improvement in log likelihood) than does a model that includes only the demographic variables (see Bartels 1996:p. 208–209). In Table 3.1, I present the results of this analysis for the 1992 – 2008 elections. As Table 3.1 shows, the information effects models generally yield a statistically significant improvement over the simple demographic model. In each survey year, adding the subjective measure of political information and its interactions resulted in an improvement to the log likelihood, and this improvement was statistically significant ($p < .05$) in three of the five samples; in a fourth sample, the improvement was significant at $p < .10$. These results are quite similar to Bartels’s original findings, in which a statistically significant improvement in log likelihood occurred in three out of the six election years studied. The results from the objective measure are more or less in agreement with those produced by the subjective measure, with only the results from the 1996 election producing an obvious discrepancy.

It must be noted that the log-likelihood test employed by Bartels (and also Althaus

1998) may be a too lenient one to judge the presence of information effects. To investigate the usefulness of the log-likelihood test, I replaced the information variable in the model with another variable that has little theorized relationship to presidential vote: the number of survey-eligible adults in the household. I then checked to see if including this variable and its interactions would produce similar improvements in log-likelihood. The results are suggestive; in all five election years, adding this variable increased the log-likelihood of the model. In three out of five cases, the increases were significant (p values of .000, .013, .525, .231, and .014). Based on these results, we should be somewhat skeptical that the increase in log-likelihood in the model is in and of itself indicative of an information effect on preferences.⁵

The next step in Bartels' analysis strategy is to calculate both the average and aggregate deviation from a fully informed vote for the sample (see Bartels 1996: p. 216). This entails generating in-sample predictions for each respondent's Republican vote probability based on the parameters provided by the probit analysis and then calculating the hypothetical "fully informed" Republican vote probabilities by changing each respondent's level of political information to the highest rating and then recalculating the subject's Republican vote probability.⁶ The average deviation from a fully informed vote is derived by taking the absolute value of the difference between the respondent's observed Republican vote propensity and his or her hypothetical fully

⁵The case presented here is for illustrative purposes only. I did not systematically add different variables until I hit upon one that made my point. Instead, I simply choose one of the first variables in the dataset that I could find that was present in the all the surveys and seemed unlikely to bear on presidential vote preferences, a non-trivial task considering the types of questions asked on the NES

⁶Note that this approach differs significantly from Bartels's (see Bartels 1996: p. 205 and 222). Bartels apparently only used interaction terms and ran two models: one using the information variable and its interactions to represent fully informed vote preferences and one using 1 – the information score and its interactions to estimate uninformed choices. However, standard practice with interaction terms is to include the main effects in the model. Furthermore, Bartels's method is unnecessarily complex, as the model used here generates both uninformed preferences and informed preferences simultaneously, with no need to generate these values separately. As will be shown, this simpler method produces results that are substantively similar to those of Bartels' model.

informed vote probability; the aggregate deviation results from taking the average of the signed (i.e., positive or negative) deviations for each sample.⁷

For the elections studied here, these calculations result in average deviations from a fully informed vote in the range of about five to twelve percentage points and aggregate deviations on the order of two to ten points (Table 3.2). The findings based on the subjective measure of political knowledge are quite consistent with those reported by Bartels, who found average deviations in the range of seven to twelve percentage points and aggregate deviations on the order of two to six points. However, interpretation of these results is complicated by the disparate estimates generated when using the objective measure of political knowledge. In the 1992 election, the objective model yields no significant change in preferences, while the subjective model does. For the 2004 and 2008 elections, the measures generate *opposite* predictions.

The failure of the subjective and objective measures to produce similar results is troubling, given that repeated studies have shown that the subjective measure of information correlates well with more objective indicators.⁸ A number of explanations for the discrepant results suggest themselves: the measures could be tapping two different types of political knowledge; the predictions from one measure may be indicative of actual information effects while the other set is spurious; or neither set of estimates could be attributable to information effects. However, our ability to evaluate the validity of the disparate outcomes produced by the two measures is impeded by the lack of theoretical expectations. Since we have no predictions as to which direction the preferences of a fully informed electorate should shift, we cannot

⁷Vote probabilities were calculated using the “predict” function in the GLM statistical package for R. The first set of predictions were based on the parameters from the model and respondent’s observed levels of information. For the “fully informed” predictions, all subjects’ knowledge levels were set to the highest value.

⁸See the reports to the NES Board of Governors by Zaller (1986) and DelliCarpini and Keeter (1992) available at <http://electionstudies.org/resources/papers/pilotrpt.htm>

Table 3.2: Estimated Deviances from Fully Informed Votes

Election Year	<i>Subjective Measure</i>		<i>Objective Measure</i>	
	Average Deviation (%) from Fully Informed Vote	Aggregate Deviation (%) from Fully Informed Vote	Average Deviation (%) from Fully Informed Vote	Aggregate Deviation (%) from Fully Informed Vote
1992	7.65	-2.06 ⁴	5.98	-.322
(<i>n</i> = 1351)	(.279)	(.343)	(.227)	(.279)
1996	9.73	5.77 ⁴	7.89	6.93 ⁴
(<i>n</i> = 965)	(.391)	(.465)	(.361)	(.381)
2000	10.95	7.73 ⁴	8.45	2.44 ⁴
(<i>n</i> = 952)	(.425)	(.493)	(.360)	(.446)
2004	5.49	-2.84 ⁴	9.08	4.39 ⁴
(<i>n</i> = 756)	(.273)	(.321)	(.412)	(.503)
2008 ²	5.57	-3.24 ⁴	12.51	10.14 ⁴
(<i>n</i> = 1507)	(.222)	(.251)	(.473)	(.509)

¹ Source: 1992–2008 NES, weighted results

² Standard errors in parentheses

³ Negative deviations indicate more support for the Democratic candidate, while positive ones indicate more support for the Republican candidate

⁴ difference between predicted vote and fully informed vote significant at $p < .05$

say which set of projections, if any, is consistent with our hypotheses.⁹ In the next analysis, I address this deficiency by examining fully informed preferences in light of three specific hypotheses.

3.3.2 Hypothesis Testing: Information and Preferences

Without a set of *a priori* predictions as what fully informed preferences look like, it is difficult to determine when the changes produced via imputation should be attributed to information effects rather than to randomness or some other unknown or unaccounted for factor. In order to judge the validity of the information effects produced by imputation, I examine how well the preferences produced by imputation support

⁹Bartels suggests the hypothesis that uninformed voting likely favors the incumbent as people are reluctant to support candidates they are unfamiliar with (Bartels 1996: p. 201). Results from the subjective measure support this hypothesis, although this hypothesis offers no guidance as to how to interpret the findings in the years in which no incumbent ran.

three hypotheses drawn from the literature on political sophistication. According to the research, well-informed citizens hold more stable opinions, have more polarized beliefs, and are presumed to be more aware of their “enlightened” political interests (Converse 1964; Zaller 1992; Delli Carpini and Keeter 1996; Althaus 2003). If the effects of imputation are indicators of the changes in attitudes that occur as information levels increase, we predict the results to link demographic interests and values with party platforms, to yield stability in preferences, and to create more polarized opinions.

To investigate the first two hypotheses, I analyzed the fully informed preferences of ten diverse demographic groups (Table 3.3). While no particular theoretical concerns guided the selection of these groups, the intent was to choose groups which captured a wide array of political interests as well as groups which plausibly have reason to support one party or the other. Although determining conclusively which party’s policies and values best serve a particular demographic group’s interests is not possible, this endeavor at least serves to test the face validity of the projected fully informed voting tendencies.¹⁰ With this caveat in mind, I predicted that five of the demographic groups selected would become more Democratic in their presidential preferences as they became more informed, while the remaining five would become more Republican.

In Table 3.3, I list the average percentage point change in Republican vote probability for each group over the five elections. As the table indicates, the “enlightened interests” hypothesis is not well supported. The subjective measure yields four cor-

¹⁰Among the works using statistical imputation, Bartels (1996) expressly dismisses “non-empirical” attempts at determining a particular group’s political interests and simply asserts that low-information preferences are subject to bias or error. Delli Carpini and Keeter (1996) and Althaus (2003) are more explicit in arguing that more informed voters have a better grasp of their “true” interests, although precise determinants of those interests remains elusive. Gilens (2001) is silent on this question.

Table 3.3: Demographic Groups and Fully Informed Vote Trends 1992–2008

	Change in Republican Vote Probability ¹	
	<i>Subjective Measure</i>	<i>Objective Measure</i>
Groups Predicted to Become More Democratic		
Single Females (<i>n</i> = 1272)	+1.9	+2.5
Young Voters ² (<i>n</i> = 520)	+1.8	+4.7
Southern Blacks (<i>n</i> = 380)	+4.0	+3.2
Urban Lower Income ³ (<i>n</i> = 904)	+2.1	+4.8
Eastern Urbanites (<i>n</i> = 665)	−0.5	+1.9
Groups Predicted to Become More Republican		
Southern Whites (<i>n</i> = 1618)	−1.1	+6.6
Married Homeowners (<i>n</i> = 2883)	+2.1	+5.5
Non-Urban Whites (<i>n</i> = 2213)	+0.5	+6.7
Upper Income Whites ⁴ (<i>n</i> = 1841)	−0.9	+3.9

¹ Cell entries are percentage point changes in Republican vote probability. Negative values indicate more Democratic preferences and positive values indicate more Republican preferences

² Includes voters 18–25 years old

³ Low income defined here as income in the 33rd percentile or below

⁴ Upper income defined here as income in the 67th percentile or above

rect predictions out of ten, while the objective measure gets five right out of ten. By chance alone, we would expect four successes out of ten about 20% of the time and five successes, about 25%. Notably, the objective measure predicts *all* groups would be more Republican in their voting preferences if fully informed, while the subjective measure suggests seven out of ten would. If we take these results at face value, they suggest that political ignorance is costing the Republican party votes from demographic groups as diverse as southern Blacks, young voters, single women, and the urban poor. This conclusion certainly seems contrary to conventional wisdom, but it is not impossible that the conventional wisdom is wrong.

Perhaps the stability hypothesis is a better test of the purported information effects from the model. This hypothesis is agnostic about which party a fully informed demographic should move towards, but instead stipulates these preferences should be stable over the course of a Presidential term. If making voters more informed makes them more aware of the “credibility and likely consequences of each party’s proposals, priorities, and political predicaments,” (Bartels 1996: p. 205), and if those party positions are relatively unchanged from one election to the next, then we should expect fully informed vote preferences to move in a predictable direction. Research suggests that the ideological positions expressed by presidents are fairly stable from term to term (see Poole and Rosenthal 2001: Figure 3B), so the policies that led a demographic group to support a party in one election should engender support for that same party in the next election.¹¹

In Figures 3.1 and 3.2, I present the changes in fully informed Republican vote probability for the ten demographic groups. With five elections, each group could reverse the direction of its preferences a maximum of four times. The subjective measure of information effects indicates two reversals for nine out of the ten groups and one reversal for the remaining group, or in 48% of the cases. If the preference reversals occurred randomly, we would expect this many changes about 25% of the time. The objective measure does better, with three groups showing no reversals and four groups only one, but still predicts reversals in roughly 28% of the cases, a rate we would expect about 12% of the time if the changes were random.¹² The comparative stability of this measure is undoubtedly due to its overwhelming tendency to make

¹¹Strictly speaking, preference stability is a property of individuals, not groups. However, if information helps people in similar demographic circumstances assess the impact of particular policies on their well-being and these policies remain relatively fixed, then there should be some evidence of this information effect at the group level.

¹²If the preferences take on two values (pro-Democrat or pro-Republican) and there are five years, there are 2^5 or 32 different ways to arrange preferences. Eight of these permutations, or 25% of them, generate two reversals. Four (12.5%) generate one reversal.

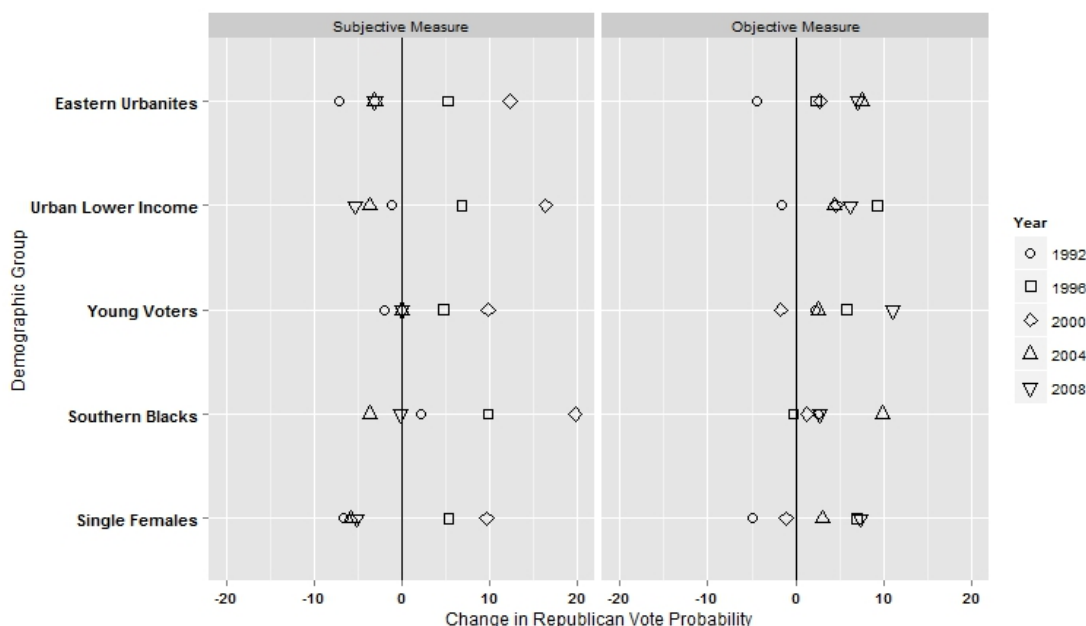


Figure 3.1: Change in Republican Vote Probability for Selected Demographic Groups. The x-axis shows the percentage point change in Republican vote probability for each group. Negative values indicate the demographic would vote more Democratic if fully informed, while positive values indicate it would vote more Republican

groups more Republican. According to this metric, there are only 8 instances out of 50 (16%) in which groups became more Democratic in their preferences. Compare this to the 28 cases out of 50 (56%) in which the subjective measure makes groups more Democratic.

The changes in preferences by demographic group predicted by statistical imputation do not provide strong support for the stability hypothesis, but perhaps granting information to voters polarizes their preferences. With a dichotomous vote choice, we can test this hypothesis in the following manner: given that a respondent voted for a particular candidate, does imputation make the subject more or less likely to support this candidate? For example, in the 2008 election Republican voters (as determined by their expressed vote choice) had an average predicted Republican vote probability of 64%, while the fully informed Republican vote probability of this group is 71%. Thus, the imputation model predicts that these voters are even more likely to vote

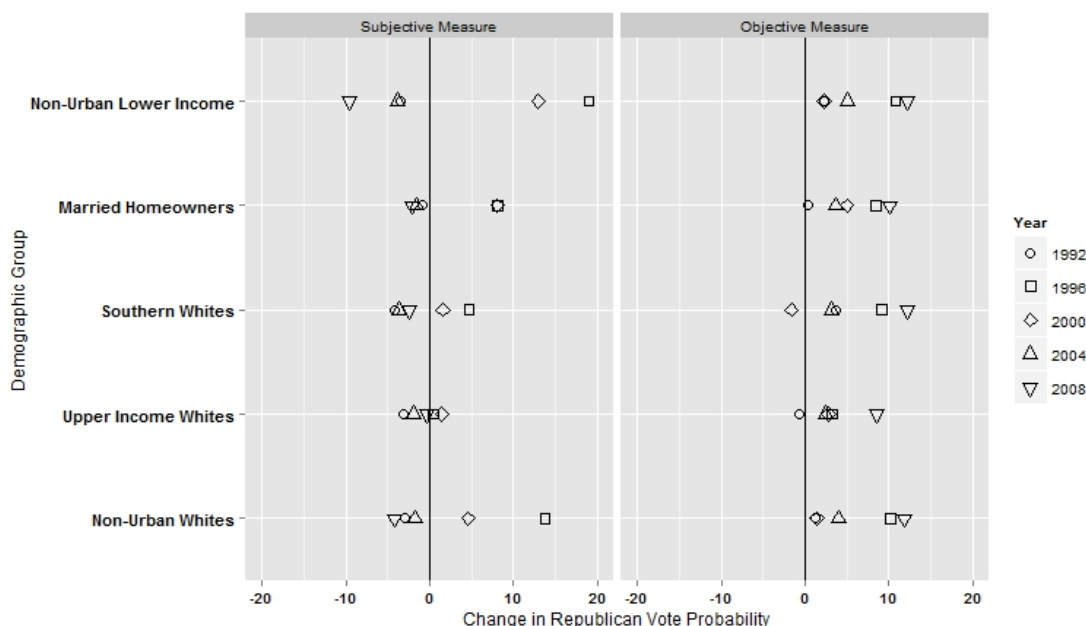


Figure 3.2: Change in Republican Vote Probability for Selected Demographic Groups. The x-axis shows the percentage point change in Republican vote probability for each group. Negative values indicate the demographic would vote more Democratic if fully informed, while positive values indicate that it would vote more Republican

Republican if fully informed, an indication of polarized preferences.

Based on the results generated from the model using the subjective measure of information, fully informed Democratic voters become more polarized (i.e., have lower Republican vote probabilities) in three out of the five elections, although the net effect of imputation is to make this group more Republican by about 2 percentage points (Figure 3.3). For Republican voters, imputation increases their Republican vote probability in two elections but makes them more Democratic by 1.1 points in their preferences overall. According to the objective measure, Democratic supporters would be polarized in only one election (and by less than one percentage point) and the overall trend is again to move these voters towards the Republican party (by 6 points). In keeping with the pattern of results so far, the objective measure has Republican voters more polarized in four elections as well as in their overall proclivities (by 3.6 points).

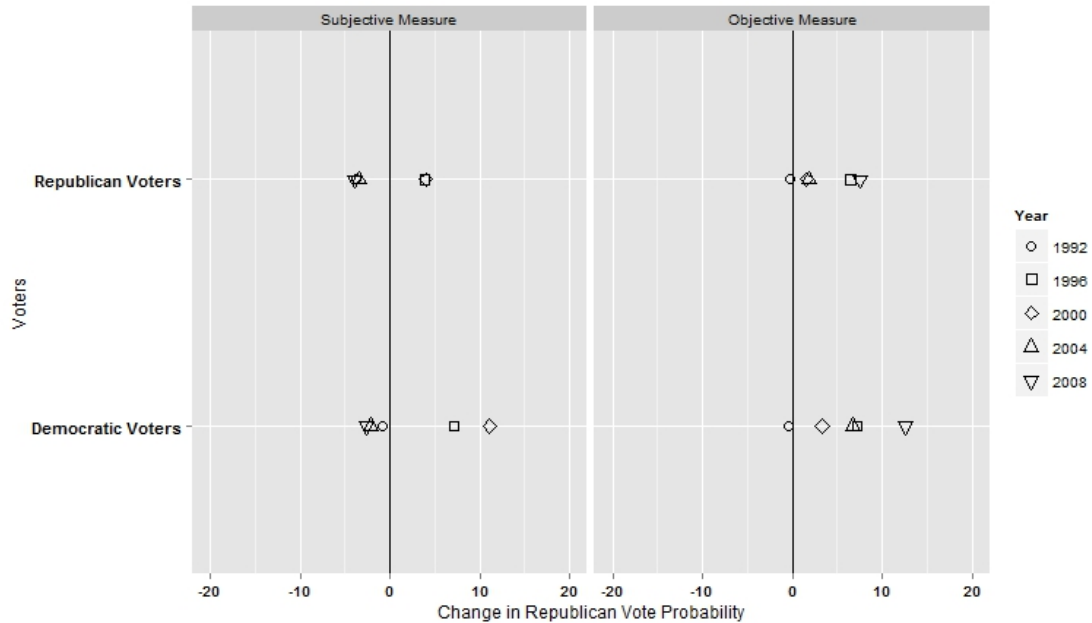


Figure 3.3: Change in Republican Vote Probability by Party Preference. Voting preference was determined by the subject's response to the NES post-election question on vote choice. The x-axis shows the percentage point change in Republican vote probability. Negative values indicate the group would be more Democratic in its preferences while positive values indicate more Republican support

If we hold that the results of imputation are indicative of information effects, then changing political knowledge has a far more complex influence on preferences than what has been hypothesized here. The projections from the subjective model suggest counterintuitive voting trends for a number of demographic groups, indicate a high degree of volatility in preferences from election to election, and overall fail to polarize either Democratic or Republican voters. The results from the objective model are somewhat more consistent, with fewer preference reversals and a polarizing effect on Republican voters, although these findings are tempered by the tendency of the objective measure to simply make all groups of voters studied more Republican. The one clear trend in the data is for imputation to make preferences more Republican in nature, although there is no obvious theoretical reason for this pattern. This suggests that these trends may not be attributable to information at all, but due to some other

factor conflated with the information measures. I explore this possibility next.

3.4 A Social Affective Explanation of Information Effects

The failure of the imputation method to produce fully informed preferences consistent with a number of hypothesized information effects raises the possibility that the results generated by the method are not valid estimates of the impact of political ignorance on collective opinion. This conclusion would be further supported if it could be shown that some unaccounted for and thus omitted variable was in fact driving the preference changes created through imputation. The social affective model suggests that the respondents' values may be one such confound. If more informed subjects differ from the less in their values, then the imputation process may also inadvertently change the values of respondents in concert with information levels.¹³

The NES surveys contain a battery of questions designed to gauge authoritarian and egalitarian values and I used these items to create 0–1 scales of authoritarianism and egalitarianism.¹⁴ These variables are a likely confound as they are related to political predispositions (Jost 2006) and correlated with levels of political knowledge. Among the NES respondents studied here, more authoritarian individuals possess lower levels of factual knowledge ($r = -.305$, $n = 4480$, $p < .000$) and are perceived as

¹³Of course, it could be the case that increasing political knowledge causes people to change their values, in which case the imputation results may still be interpreted as an “information effect” even if the changes are largely due to shifts in values. As I suggest in Chapter 2, however, I think it far likelier that people use information to justify their value judgments rather than to “enlighten” their political perspectives. Furthermore, from an analytical perspective, it would be desirable to estimate the impact of changes in information when other potential confounds are held constant.

¹⁴The authoritarian values scale was not asked during the 1996 survey, so the subsequent analyses exclude data from that year. Responses were coded 0 if subjects choose the less egalitarian or authoritarian answer, .5 if they said “it depends”, and 1 if they selected the more egalitarian or authoritarian option.

less informed as well ($r = -.219, p < .000$). More egalitarian respondents are slightly less informed according to the objective measure ($r = -.052, n = 4591, p < .000$), but are not rated as such by the NES interviewers ($r = .043, p < .003$). Since the most and least informed differ from each other in their degree of authoritarianism and egalitarianism, it is quite possible that imputation is changing not just the information levels of these respondents, but their values as well.

In order to parcel out the changes in voter preferences that are likely due to changes in values, I did the following: first, I used linear regression to predict each respondent's egalitarianism and authoritarianism scores based on information levels and the twenty demographic variables in the information effects model; second, I imputed full information to the sample and used the parameters from the first model to generate new values for egalitarianism and authoritarianism in order to simulate the changes in each value that result from the imputation process; last, I re-ran the basic information model, but interacted the egalitarian and authoritarian values generated in step two above with each of the demographic variables.¹⁵

My analysis suggests that as a result of the imputation process subjects experienced an average absolute change in authoritarianism of .21 points and a change in egalitarianism of .14 points. Furthermore, the absolute effect of these changes on Republican vote probability was on par with the changes produced by Bartels's information effects model: about 8 points on average for the information effects model, compared to 5 points from the authoritarian model and 11 points for the egalitarian model (Figure 3.4). However, assessing the aggregate impact of these changes on preferences is complicated by the fact that more authoritarian voters are more

¹⁵Thus, the final models included political knowledge, authoritarianism, egalitarianism, and the twenty demographic variables and their interactions. My thanks to an anonymous reviewer for suggesting this analysis. The results from the 1992 Election year are presented in the Appendix for illustrative purposes. Model results from the remaining years are available from the author upon request.

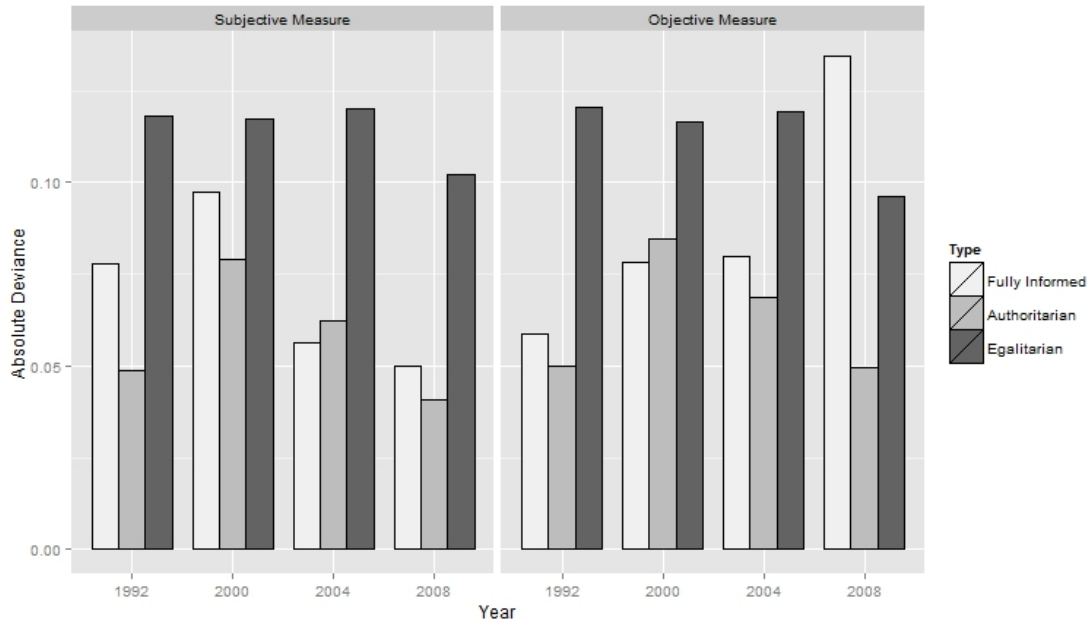


Figure 3.4: Absolute Change in Fully Informed Republican Vote Probability for Three Different Models. The bars represent the absolute average deviation in Republican vote probability resulting from three different imputation processes. Results are shown using both subjective and objective measures of political information

conservative in their political ideologies while more egalitarian ones are more liberal (Jost et al. 2003); thus, subjects who are simultaneously made less authoritarian and less egalitarian (as the correlations from the objective measure suggest) as a result of imputation will have their preferences affected in conflicting ways. To address this difficulty, I divided the sample into four groups based on the patterns of value change implied by the simulation (Table 3.4): two groups were composed of subjects for whom the predicted value changes were “conflicted”—these subjects either became simultaneously more authoritarian and more egalitarian or less authoritarian and less egalitarian. The remaining two groups were composed of subjects with “congruent” value shifts—after imputation, these subjects either were more authoritarian and less egalitarian or less authoritarian and more egalitarian.

As Table 3.4 demonstrates, imputation not only alters the mean score of the values of the respondents, but it reduces the variance as well. Thus, respondents in a

Table 3.4: Estimated Effect of Imputation on Respondents' Values

	Conflicted Values Group		Congruent Values Group		Total
	<i>More Auth., More Egal.</i>	<i>Less Auth., Less Egal</i>	<i>More Auth., Less Egal.</i>	<i>Less Auth., More Egal.</i>	
<i>Objective Measure</i>	<i>n = 911</i>	<i>n = 1498</i>	<i>n = 818</i>	<i>n = 1240</i>	<i>n = 4467</i>
Authoritarianism	.354 (.212)	.759 (.194)	.281 (.216)	.775 (.174)	.593 (.294)
Imputed Auth.	.556 (.127)	.519 (.131)	.474 (.147)	.558 (.121)	.529 (.134)
Egalitarianism	.480 (.146)	.758 (.139)	.807 (.133)	.484 (.133)	.634 (.202)
Imputed Egal.	.645 (.084)	.614 (.088)	.660 (.089)	.618 (.087)	.630 (.089)
<i>Subjective Measure</i>	<i>n = 1048</i>	<i>n = 1332</i>	<i>n = 863</i>	<i>n = 1224</i>	<i>n = 4467</i>
Authoritarianism	.380 (.222)	.768 (.191)	.305 (.226)	.789 (.170)	.593 (.294)
Imputed Auth.	.585 (.126)	.542 (.137)	.505 (.156)	.585 (.141)	.558 (.143)
Egalitarianism	.491 (.148)	.764 (.137)	.812 (.129)	.489 (.134)	.634 (.202)
Imputed Egal.	.658 (.087)	.623 (.088)	.670 (.088)	.625 (.088)	.641 (.090)

¹ Variables range from 0 – 1; cell entries are mean values with standard deviations in parentheses

variety of demographic conditions are becoming more similar in their levels of authoritarianism and egalitarianism, a phenomenon that surely influences their vote choices. First, consider the presidential preferences of subjects in the conflicted values groups (Figure 3.5). The changes in values produced by imputation pulls these subjects' vote propensities in opposite directions: for example, imputation suggests that the subjects in the top two panels of Figure 3.5 have become more authoritarian, and consequently the authoritarian model predicts Republican candidate preferences; at the same time, the imputation process has also led these voters to become more egalitarian, and so the egalitarian model reacts accordingly, driving these voters towards the Democratic party. For the respondents in the lower panels of Figure 3.5, this trend is reversed; the individuals have become less authoritarian due to imputation

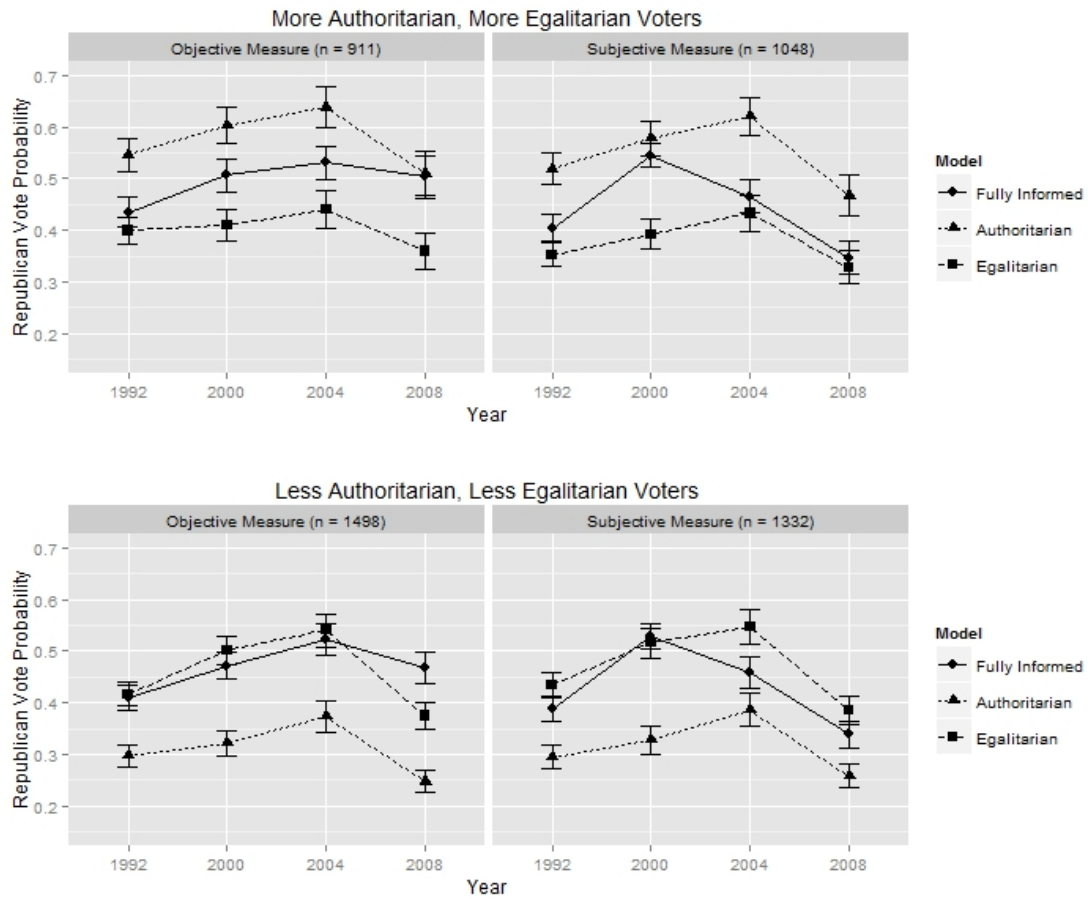


Figure 3.5: Predicted Republican Vote Probabilities for Three Different Models. The solid line represents predicted vote probabilities from the fully informed imputation model, in which each respondent's information level is changed to the maximum. The dashed lines represent the predicted Republican vote probabilities generated from the predicted changes in subjects' authoritarianism and egalitarianism levels that result during imputation. Error bars indicate 95% confidence intervals. The respondents shown here are those in which the imputation model is predicted to produce conflicting changes in the subjects' values

and therefore the authoritarian model predicts them to hold Democratic presidential preferences; however, the concurrent predicted decrease in egalitarianism pushes them towards the Republican candidates.

The pattern of results presented here makes it difficult to isolate the purported information effects from those resulting from value changes. In some cases (such as in panels 2 and 4 of Figure 3.5), the "fully informed" predictions are nearly indistin-

guishable from the predictions generated by one or the other of the values models; in others (e.g., the 2000 and 2004 predictions in panel 1 of Figure 3.5), the fully informed preferences appear to lie almost halfway between the probabilities predicted by the authoritarian and egalitarian models, which is what we would expect if the information model were simply trying to accommodate the conflicting tendencies in vote probability resulting from concurrent value changes. Based on these results, we cannot conclusively identify an information effect from imputation; in more than half the years analyzed here, the predicted fully informed vote probabilities are quite similar (i.e., their 95% confidence intervals overlap) to the projections we would get by changing either the respondents' authoritarianism or egalitarianism scores and maintaining their current information levels; in the remaining instances, the fully informed vote probabilities lie between the estimates from the authoritarian and egalitarian models, implying that we cannot rule out the possibility that these fully informed estimates are merely a compromise between two divergent voting proclivities generated by incongruent shifts in authoritarianism and egalitarianism.

Now let us examine the results from subjects with congruent value shifts. Figure 3.6 shows the predicted Republican vote probabilities for subjects in which the changes in values implied by the imputation process are working in the same direction; about half of these individuals are predicted to become more authoritarian and less egalitarian (and thus more Republican) as a result of the imputation process, while the rest become less authoritarian and more egalitarian (and consequently more Democratic). If the imputation results are confounded with these concurrent changes in values, it follows that fully informed tendencies for these voters should be more Republican (Democratic) than would be implied by the authoritarian (egalitarian) model alone. This is indeed the case, as Figure 3.6 demonstrates. However, keep in mind that the nature of the models makes testing the simultaneous effects of changes in authoritarianism and egalitarianism infeasible; to do so would involve a full set of

interactions for both values and therefore over sixty predictor variables.¹⁶ And yet, the impact of changing just one of the values likely accounts for a good deal of the resulting information effects; the 95% confidence intervals of the fully informed point predictions overlap with those of the values predictions in eleven of the sixteen instances. These results strongly suggest that a large portion, if not the entirety, of the information effects produced by statistical imputation for these subjects is actually due to inadvertent changes in one of the two values studied here.

3.5 Conclusions

The imputation literature purports to demonstrate the extent of the biases in collective opinion caused by political ignorance. Its methodological and theoretical assumptions are wholly consistent with the hierarchy of preferences view and its primary results have not met with much of a sustained scholarly challenge. However, the analyses presented in this chapter suggest that the case that information matters is not yet closed. A closer look at the imputation results reveals that the estimates of informed opinion may be misleading. As I have demonstrated, the imputation results are not robust to different types of political knowledge measures and regardless of the measure used, produce a variety of incongruous outcomes. The fully informed presidential preferences generated via imputation make a number of demographic groups with little in common uniformly more Republican in their preferences and these preferences are also quite volatile, shifting direction from election to election despite the fact that the national policy platforms of the parties are relatively stable. Nor does the increased information granted through imputation appear to have a polarizing

¹⁶I did attempt to gauge the vote probabilities when both egalitarianism and authoritarianism changed. However, the model failed to converge for the 2008 data. For the remaining years, the 95% confidence intervals of the fully informed predictions and those of the values predictions overlapped in nine out of the twelve cases.

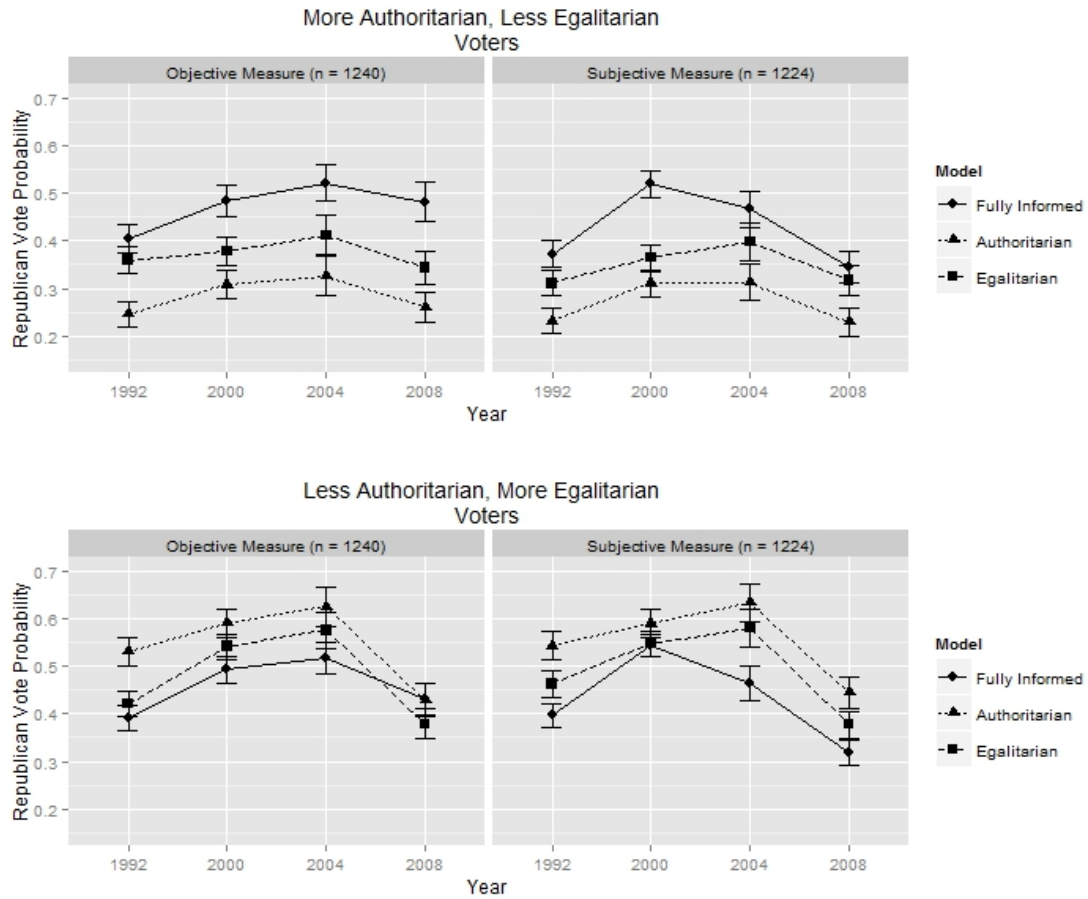


Figure 3.6: Predicted Republican vote probabilities for three different models. The solid line represents predicted vote probabilities from the fully informed imputation model, in which each respondent's information level is changed to the maximum. The dashed lines represent the predicted Republican vote probabilities generated from the predicted changes in subjects' authoritarianism and egalitarianism levels that result during imputation. Error bars indicate 95% confidence intervals. The respondents shown here are those in which the imputation model is predicted to produce congruent changes in the subjects' values

effect on voters, as we would expect based on the literature on confirmation bias. The failure of the imputation method to produce results consistent with our theoretical expectations as to the effects of increased knowledge on political preferences makes it difficult to accept the conclusions from the imputation method as valid indicators of the effects of political enlightenment on collective preferences.

More importantly, I have demonstrated that the information effects produced by imputation are hopelessly confounded with the values of respondents. It is simply not clear to what extent the simulated opinions result from changes in information or from changes in the authoritarianism or egalitarianism of the subjects. Although the statistical imputation literature purports to estimate how the preferences of individuals in similar material circumstances differ as a function of information, what it is likely demonstrating is how the preferences of certain people would change if they were qualitatively different individuals, with different values, personality traits, and even cognitive abilities.

To illustrate the vast gulf between informed and uninformed citizens, I use data from the 2012 NES, which contains for the first time measures of the “Big Five” personality traits and a battery of vocabulary questions to adduce general intelligence, as well as the standard measures of authoritarianism, egalitarianism, and moral traditionalism. I coded each of these measures to have a mean of zero and a standard deviation of 1 and compared the scores of subjects in the bottom 20th percentile of a measure of political knowledge with those at the top (Table 3.5).¹⁷ On all of the variables except traditionalism and egalitarianism, significant differences emerge between the most and least informed. Importantly, the more informed are smarter, less authoritarian, more conscientious, more emotionally stable, and more agreeable.

¹⁷Political knowledge levels were based on the answers to 15 factual political knowledge questions, listed in the appendix.

Table 3.5: Differences Between Most and Least Informed

	Least Informed ²	Most Informed ³	Difference	<i>p</i> value
IQ	-.81	.71	-1.52	.000
Traditionalism	-.16	-.13	-.03	.686
Authoritarianism	.55	-.56	1.10	.000
Egalitarianism	.06	.06	.00	.938
Extraversion	-.21	.00	-.21	.005
Conscientiousness	-.37	.10	-.47	.000
Openness	-.29	.10	-.39	.000
Stability	-.31	.20	-.51	.000
Agreeableness	-.09	.07	-.16	.029

¹ Source: 2012 NES

² Sample sizes range from 321 to 360

³ Sample sizes range from 457 to 461

⁴ All variables coded to mean = 0 and SD = 1

While a precise accounting of how each of these traits influences political preferences is beyond the scope of this project, these results make it clear that imputation changes more than just the information levels of respondents.

While the results presented here certainly cast some doubt as to the presumed impact of information effects on the political attitudes of the electorate, there is a limit to how much we can glean from survey data about the relationship between political information and preferences. In the next two chapters, we turn to experimental analyses of the processing strategies used by subjects when forming a political judgment. First, in Chapter 4, I examine how people approach cognitive and affective judgments in order to determine if they treat the two types of judgments differently. Then, in Chapter 5, I investigate the impact of accountability on bias and epistemic freezing in political preference formation.

Chapter 4

Accountability and Information Processing Strategy

In essence, both the hierarchy of preferences (HOP) theory and the social-affective model (SAM) are sketches of the relationship between information and preferences. The HOP position is that information stands in relation to political attitudes in the same way that it does to scientific discoveries. When it comes to political opinions, the HOP model assumes that “truth” matters; citizens need to keep an open mind about various issues, base their beliefs on factually true information, and attempt to be logical and consistent in their views. Otherwise, biased and incorrect opinions result. The SAM view is fundamentally different. Under SAM, the relationship between information and preferences is akin to that found in aesthetic judgments. This is not to say that information does not matter or is not factored into a decision; however, the SAM view contends that when it comes to political preferences, people will view facts in the most favorable way towards their beliefs, discount or ignore contrary evidence, and be largely unconcerned with inconsistencies in their attitudes. In short, to the extent that political views can be rationalized and do not cause undue social opprobrium, people will engage in directional information processing in order

to maintain and bolster their beliefs.

Proponents of the HOP position do not dispute that people engage in confirmatory and biased reasoning patterns. However, according to the hierarchy of preferences view, such behavior is problematic and leads to sub-optimal political judgments—consequently, the HOP view asserts that political sophisticates are less likely to engage in these substandard processing strategies than are non-sophisticates. The Social-Affective model rejects this position; according to SAM, experts and non-experts alike form political preferences in very similar ways and for both groups, the relationship between information and preferences is the same: information is processed in a directional manner in order to rationalize and support beliefs that have their origins in affective reactions to stimuli. Observed differences in knowledge between political sophisticates and novices are indicative not of increased processing during preference formation, but rather of differences in the social incentives attached to the ability to provide reasonable and rationale explanations for political beliefs. Thus, the differences in processing strategy between experts and non-experts are of degree, not kind.

In this chapter, I explore the information processing strategies of subjects engaged in a political preference formation task. My primary objective is to determine whether the information processing strategies of participants more closely adhere to the expectations of the HOP model of political judgment or to the “biased” behaviors predicted by the social-affective theory. To that end, I investigate how the accountability motive influences processing behaviors. Since accountability has been shown to increase the cognitive effort of subjects during judgment tasks, the results presented in this chapter speak to the information processing strategies used by those who are more invested with political matters—that is, political experts. Consistent with the expectations of SAM, I find that increasing the motivation of subjects making a political judgment by holding them accountable leads to more directional patterns of

information search. Furthermore, my findings demonstrate that such behavior is not due to a lack of awareness of the normative standards of “good” decision-making. My results are more supportive of the view of information and political preferences put forth by the social affective model than by that of the hierarchy of preferences perspective.

4.1 Experimental Design

The conventional wisdom in political science holds that the preferences of low information citizens are subject to bias. According to HOP, such bias is presumed to result from the inadequate processing strategies of the less informed, particularly the unreliable use of heuristics and the insufficient consideration of available evidence. A major tenet of HOP is that biases in political judgment could thus be mitigated were citizens to engage in more effortful and deliberative information processing strategies; in effect, the hierarchy of preferences view presumes that people are able to employ the practices necessary for making an accurate judgment, but generally fail to use them due to a lack of motivation. This view, however, rests on two major assumptions which may be questioned. First, it relies on the supposition that people have the ability to employ “appropriate” processing techniques. It is one thing to know in an abstract sense that some information should not be privileged simply because it was encountered first, but it is not altogether clear that resisting such bias is under one’s conscious control or even that people realize when they are falling prey to such cognitive tricks. If some of the elements of decision-making are involuntary or automatic, then “trying harder” may not reduce bias in information processing. Second, the HOP position assumes a unitary relationship between information use and various types of decision tasks. It could be the case that people accept that certain information processing strategies are appropriate and try to employ them for

cognitive judgments, but do not believe these strategies apply to affective judgments. In this instance, the extent to which motivation increases or decreases bias would be conditional on the nature of the judgment being made.

In order to investigate strategies of political judgment, I designed a 2 (decision-task) x 2 (accountability) between-subjects experiment in which participants were asked to evaluate three fictional politicians competing during a primary election.¹ I use a primary rather than general election in order to eliminate the dominant effect of party identification on vote decisions; presumably, subjects will have an easier time differentiating Democratic and Republican candidates on key issues than they would in a primary in which the politicians often take similar issue positions.

Each politician was defined by 35 unique pieces of information, including 19 policy stands, 10 demographic characteristics, and 6 general interest topics (e.g., campaign slogans, scandals, and anecdotes about personality). For this study, I employed the Dynamic Processing Tracing Environment (DPTE) software, which allows researchers to track the information processing strategies of subjects while they are making a decision. With DPTE, information items appear on the computer screen at random (Figure 4.1). Each item contains a headline which indicates the type of information available; if the subject wishes to learn more about a particular topic, she can click on the headline with the mouse. This brings up the full information item for the subject to read (Figure 4.2). While reading the item, information continues to appear and disappear in the background. This represents the “cost” of acquiring information—as subjects read one item, they may miss the opportunity to view other pieces of information that they may find useful (see Lau and Redlawsk 2006 for a more detailed description of dynamic process tracing). In this experiment, six items appeared on

¹Subjects were asked to “register” for either the Democratic or Republican party before the study began. Independents were asked to take part in the primary of the party they felt closest to.



Figure 4.1: Sample View of the Dynamic Process Tracing Environment. On each screen, subjects had the option of selecting any one of the six headlines. The headlines refresh every 10 seconds whether participants select a headline or not

the screen at a time and were refreshed every 10 seconds. The study lasted for up to 12 minutes, although subjects could decide to vote early after the 8 minute mark.

4.1.1 Manipulations

The first manipulation varied the type of judgment subjects made. A number of studies have examined the processing strategies of participants during political decision-making (e.g., Lau and Redlawsk 1997, 2006; Barker and Hansen 2005; Redlawsk et al. 2010). However, to my knowledge none have attempted to compare the processing strategies used during a political preference task with those used during a comparable decision, a necessary strategy in order to determine whether the information process-

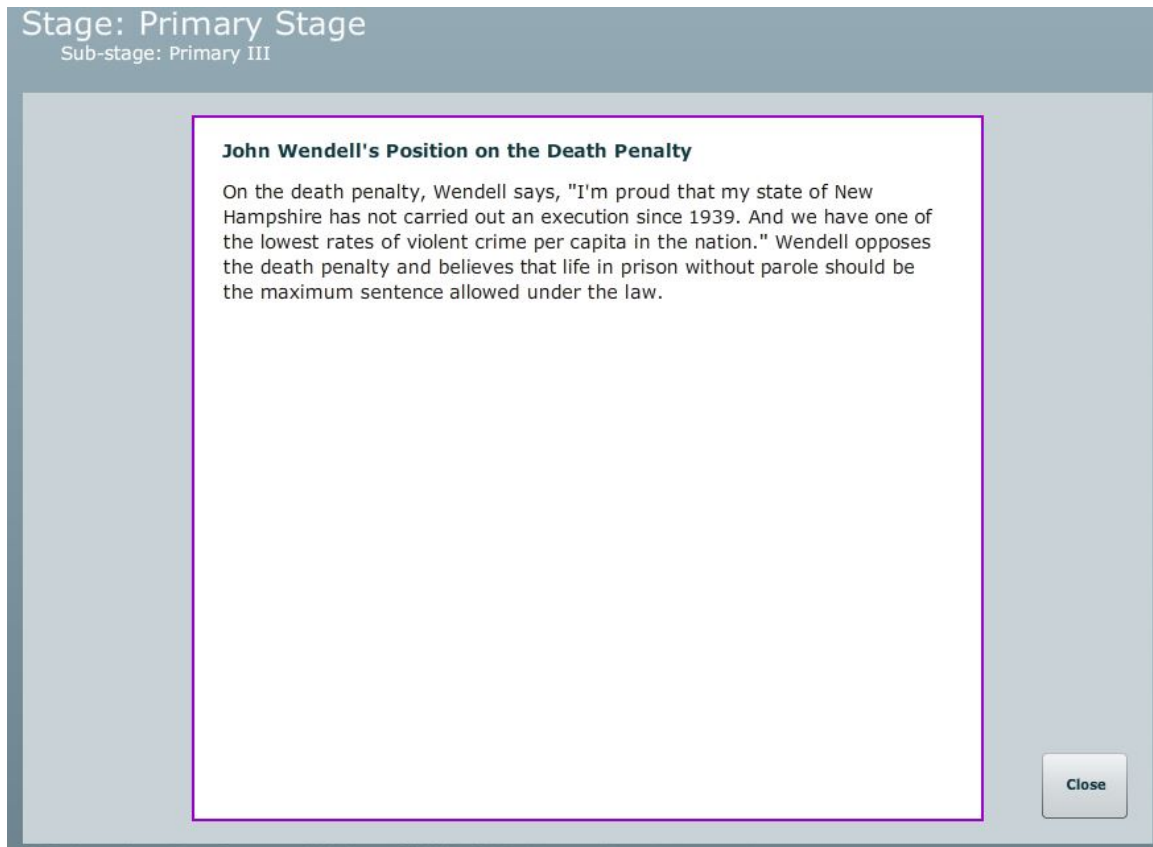


Figure 4.2: Sample Information Item. Clicking on a headline brings up more information on the topic of interest. While the subject reads this information, the headlines continue to refresh in the background

ing strategies people use when forming a political preference differ from those used during other types of judgment. To investigate this possibility, half of the subjects were randomly assigned to a condition in which they were simply asked to vote for their preferred candidate. Since this decision involves a subjective preference, I term this group the “affective task”.

To remove any personal stake the subjects might have in the outcome of the decision, I asked the remainder of the participants to, in effect, vote for someone else. These subjects are engaged in a “cognitive task,” since the decision does not involve the subject’s own beliefs and preferences. The subjects in this condition were instructed to “put themselves in another’s shoes” and determine which candidate’s

policies and values best matched those of a fictional voter with particular demographic details and core political values. Although the task for this manipulation is artificial and has no real world analogue, the judgment these subjects were asked to make is tantamount to most normative conceptions of voting: given values, demographics, and material interests, voters are supposed to link these concerns to the policies and political values of candidates. Furthermore, this manipulation creates a decision-task in which the subjects can simultaneously be motivated to make a good decision while also remaining indifferent to the particular outcome.

The second manipulation varied the expectation of accountability. Following the work of Tetlock on accountability (Tetlock 1983a,b, 1985; Tetlock and Boettger 1989; Lerner and Tetlock 1999), half the subjects were informed that that they would be expected to explain their decision at the end of the study.² The other half received no such instructions, although they too were asked to explain their choices at the conclusion of the experiment. For this study, accountability serves a dual role. First, the manipulation provides motivation; when subjects in laboratory experiments are made accountable for their decisions, they oftentimes engage in more effortful processing and avoid some common judgmental biases (Lerner and Tetlock 1999). Second, accountability is a key component of the SAM model of information and political preferences. According to SAM, the expectation of accountability motivates subjects to *appear* more informed in order to justify their political opinions.

Although in some instances accountability diminishes cognitive biases such as order effects and numerical anchoring, it has also been shown in some instances to exacerbate biased strategies, even while increasing effortful processing (Tetlock 2002; Tetlock et al. 1989). Particularly, accountable subjects are more likely to engage in

²The text of the manipulation read as follows: “After the primary stage is over, be prepared to explain some of the major factors in your decision. You will be asked to list as many reasons for your vote choice as you can recall.”

biased processing strategies when they have already committed to a position or when they believe their judgment reflects on their competence or character (Tetlock 2002). Thus, accountability will not only illuminate how subjects process information when more motivated, it will also reveal something about the nature of political preferences. To the extent that accountability reduces biases in processing, it suggests that people may indeed be striving for accuracy when forming political opinions. However, if accountability *increases* bias, it would indicate that directional motivations are at play during preference formation.

For the purposes of this study, I define biased information processing strategies as those that fail to conform to two principles commonly championed in the political knowledge and expertise literature. The first is simply the *quantity* of information used during the decision-making process. A major contention of many scholars is that low-information preferences are more susceptible to bias and error than are high-information preferences; thus, all else equal, increased information acquisition is a sign of a less biased processing strategy. Although it is true that political experts may be more likely to employ heuristics successfully than non-experts and therefore need fewer pieces of information to reach a decision, even experts may be led astray when the candidates are non-stereotypical (Lau and Redlawsk 2001). Thus, in an impression formation task with hypothetical candidates that the subjects know nothing about, we may assume that acquiring more information rather than less is the more normatively prized behavior.

The second indicator of biased processing is the *comparability* of search. Berelson, Lazarfeld, and McPhee (1954: p. 308), Sniderman, Brody, and Tetlock (1991: p. 161), and Bartels (1996: p. 205) all suggest that a hallmark of sophisticated thinking is knowledge of the potential political alternatives for any given question. Recognition of these alternatives logically requires voters to attempt to investigate the policy positions of each of the available candidates, at least on those issues that the citizen

finds most relevant. Consequently, I assume that a biased information processing strategy is one that is confirmatory in nature, in which the subject's attention is devoted to his or her preferred politician and the alternatives go unexamined.

4.1.2 Hypotheses

The major hypotheses I test are designed to elucidate the differences between the HOP and SAM visions of information processing. My main working hypothesis is that all subjects will attempt to make accurate judgments during the cognitive task (i.e., that is, when asked to vote for someone else) and directional judgments during the affective task. In essence, I am supposing that participants will on the one hand recognize and employ some of the dictates of good information processing when the outcome of their decision has no particular personal relevance for them, but on the other fail to use these strategies when forming an affective judgment in which they may have some attachment to a particular result. Since all else equal, cognitive judgments are improved by increased consideration of information as well as a balanced approach to alternatives, I hypothesize the following:

H1a: Subjects engaged in the cognitive task will access more information than will subjects engaged in the affective task

H1b: Subjects engaged in the cognitive task will engage in a more balanced search strategy (i.e., attempt to devote equal attention to each of the available alternatives) than will subjects engaged in the affective task

H1c: Subjects engaged in the cognitive task will spend more time, both on individual items and during the experiment itself, processing information than will subjects engaged in the affective task

H1d: The marginal value of additional information will be higher in the cognitive task than it is in the affective task

Second, I hypothesize that accountability demands will engender more effortful processing strategies for all subjects; however, consistent with the literature on both motivated reasoning and accountability, I contend that the results of this increased cognitive effort will differ by decision task. Performance on cognitive tasks will become “de-biased” and more closely resemble the processing strategies normatively prized by political scientists, while the behavior of subjects engaged in the affective task will become more “biased”—that is, subjects will engage in more directional reasoning. I operationalize this hypothesis as follows:

H2a: Since more information is typically crucial to good cognitive decisions, accountable cognitive subjects will examine more information than unaccountable cognitive participants

H2b: Since balanced information strategies are more important during cognitive judgments, accountable subjects in the cognitive condition will exhibit a more balanced consideration of information while accountable subjects in the affective condition will use more confirmatory search strategies

H2c: Since good cognitive judgments require increased attention, accountable subjects in the cognitive task will spend more time processing information, at both the item and experiment level, than will non-accountable cognitive subjects

HOP predicts that political experts form their preferences in a qualitatively superior way to non-experts, while SAM does not. If HOP is correct, then search strategies of experts will be less biased than and incorporate more information than those of non-experts. I operationalize this hypothesis as follows:

H3a: Political experts will examine more pieces of information than non-experts

H3b: Political experts will engage in more balanced search strategies than non-experts

Finally, I propose that directional reasoning is easier to do than is accurate reasoning and that subjects will have more confidence in their decisions because their answers feel valid, regardless of the nature or amount of information they process. Therefore, I test the following hypothesis:

H4a: Subjects in the affective task will perceive their decision as easier and have more confidence in their choices than will subjects in the cognitive task, controlling for the amount of information considered

In sum, the fundamental question this study investigates revolves around how increasing motivation—in this case, accountability—affects the underlying information processing strategies of subjects. If, as HOP suggests, the problem with low information preferences is that citizens have not used the “proper” reasoning strategies, these problems should be somewhat alleviated as voters put more effort into their decisions and attitudes. But if political judgments are effectively affective judgments, then motivating subjects may not lead to less biased and more normatively desirable information processing strategies.

4.1.3 Data and Measures

Data for this experiment was collected from September 15th through September 20th 2013 on Amazon’s Mechanical Turk service (Berinsky et al. 2012; Buhrmester et al. 2011). The recruitment notice asked for subjects to take part in a psychological study on decision-making and offered each participant \$1.25 for their time; 176 subjects agreed to take the study, although six cases were removed due to errors in the delivery of the experiment. The study was restricted to US citizens 18 years of age and older. Pertinent demographic and political characteristics of the sample ($n = 170$) are reported in Table 4.1 and group sizes are presented in Table 4.2. No claim is made that the sample is representative of any particular population.

Table 4.1: Demographic Characteristics of the Sample

Measure	modal category (%)	mean	sd	range
Gender	female (51%)			
Race	white (78.8%)			
Marital Status	married (50.6)%			
Has Children	no (65.3%)			
Religion	no affiliation (41.2%)			
Party ID	Democrat (57.6%)			
Age		35.55	11.82	18–67
Education	college grad (45.9%)	5.36	1.17	1–7
Income	\$50,000–\$75,000 (24.7%)	4.58	2.03	1–9
Conservatism	liberal (31.7%)	3.25	1.62	1–7
Political Interest		3.22	1.05	1–5
Discuss Politics		2.79	1.15	1–5
Political Knowledge		2.97	.96	0–5

¹ Note: for ordinal variables, higher values indicate more of the trait/characteristic in question

Table 4.2: Experimental Group Sizes

Group	<i>N</i>
Affective	85
Accountable	39
Not Accountable	46
Cognitive	85
Accountable	45
Not Accountable	40

¹ Note: The Hansen and Bowers omnibus test (Hansen and Bowers 2008) indicates all groups are balanced on the relevant co-variates shown in Table 4.1

To measure political expertise, subjects self-reported their interest in politics, the frequency with which they engaged in political discussion, and answered five political knowledge questions (taken from Delli Carpini and Keeter 1993). The mean of these three items was taken to form a single scale of political engagement (Cronbach's alpha: .689). I dichotomized the subjects into groups of low political engagement ($n = 75$) and high engagement ($n = 95$) based on the median of the scale.

To measure depth of search, I simply use the number of unique information items the subjects accessed during the study. I employ two measures to operationalize

comparability of search. The first is derived from Lau and Redlawsk (2006: p. 111). To create this measure, I looked at every policy item examined by the subjects and then determined if they compared the politician's stance on that policy to the position of at least one of the other alternatives. By dividing the number of comparative searches by the total number of unique policy searches, I have a metric of what proportion of the information the subjects accessed was comparative in nature with higher values indicating more comparative search.

I also used a more simplistic measure based on the proportion of information items accessed about the subject's preferred candidate (that is, the candidate the subject eventually voted for). Since there are three candidates, a balanced search pattern results when participants devote 33.3% of their attention to their preferred candidate; positive deviations from this proportion indicate more confirmatory search patterns. To measure processing time, I calculated the average number of seconds subjects spent examining an item using the time spent during the first encounter with the item.³ I also looked at the total time spent in the study after the "early voting" option appeared. To gauge the value of information, I calculated the percent change in rate of information acquisition from the first minute of the study to the last minute in which a subject opened an item; for example, a subject who began the study by accessing five items per minute and ended it by opening two per minute evinced a 60% decrease in the rate of information acquisition. This decrease can be indicative of the declining marginal value of new information—if subjects have already made up their minds, then novel information is less valuable and subjects have less need of

³In some cases, subjects examined the same item more than once. These subsequent examinations are typically of a shorter duration than the first open, suggesting that subjects may have opened the item inadvertently or perhaps wanted to quickly remind themselves of some fact or position. The time spent examining the item during the first open is thus an appropriate measure of the effort spent processing information.

it.⁴

4.2 Results

4.2.1 Manipulation Checks

To ensure that subjects in the cognitive and affective task were engaging in different decision tasks, I determined whether decision group had a significant effect on voting choices. If the subjects in the cognitive task were simply voting for their favorite candidate rather than following the directions, we would expect that the final vote decisions of both the affective and cognitive group to be similar. Since vote choice is a categorical variable, I used a chi-square contingency table to determine if preferences were dependent upon group assignment. As expected, candidate preferences were significantly associated with group assignment ($\chi^2 = 10.93$, 2 df, $p < .004$). Specifically, the liberal candidate enjoyed far greater support among the subjects in the affective group than he did in the cognitive group (Figure 4.3).

In order to test whether the accountability manipulation worked, I examined the number of words subjects entered for an open-ended question at the end of the study. Since accountability demands have been repeatedly shown to increase cognitive effort (Tetlock 2002; Lerner and Tetlock 1999), the expectation is that accountable subjects will have thought more about the task and thus be able to provide a more extensive accounting of their decision. In support of this prediction, accountability significantly increased ($p < .013$) the amount of words provided in support of preferences among all subjects. Accountable subjects generated 53.4 words (SD: 32.8) in support of their

⁴Of course, it could also mean that subjects are simply getting tired. However, if this is the case, then we would expect subjects in all conditions to be equally fatigued and experience similar declines. If significant differences emerge by manipulation, then it is reasonable to surmise that this measure is tapping motivation rather than cognitive limitations.

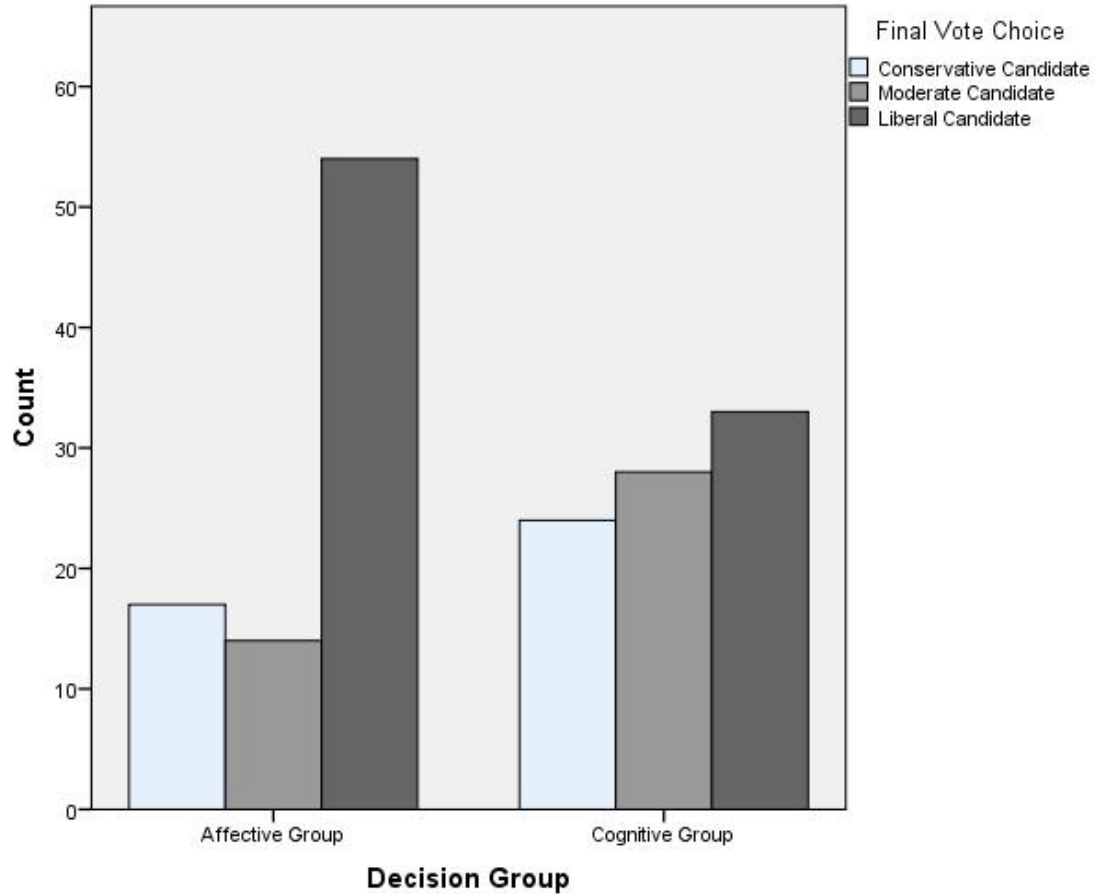


Figure 4.3: Final Vote Choices by Decision Group. This bar chart shows the number of subjects voting for each candidate by decision task. If the manipulation had failed, we would expect a similar distribution of preferences in both groups, but that is not the case

choices compared to the 42.0 (SD: 26.0) words produced by members in the non-accountable group.⁵ I also investigated the amount of time subjects in each group spent answering this question. While non-accountable subjects spent an average of 117.5 seconds (SD: 83.1) generating their responses, accountable participants spent 142.7 (SD: 105.0, $p < .042$, one-tailed). Based on this evidence, it seems reasonable to

⁵The effect of accountability was consistent for both decision tasks; in the cognitive group, accountable subjects produced 52.2 words compared to the 40.6 words in the non-accountable condition. For the affective task, accountable participants generated 54.8 words compared to the 43.2 words in the non-accountable condition.

Table 4.3: Descriptive Statistics: Total Items Accessed

Decision Type	Accountability	mean	sd	<i>N</i>
Affective	Not Accountable	44.09	23.07	46
Affective	Accountable	43.44	23.41	39
Cognitive	Not Accountable	39.92	18.03	40
Cognitive	Accountable	47.22	21.78	45

conclude that the accountability manipulation did in fact affect subjects' motivation during the study.

4.2.2 Effect of Decision Task on Search Strategy

My first set of hypothesis concern the relationship between decision task (affective or cognitive) and information processing strategy. I begin by looking at the performance of subjects in the “non-accountable” condition ($n = 86$); the behavior of these subjects represents a baseline of sorts in understanding how participants treat two ostensibly different types of decision tasks. Hypothesis 1a predicts that subjects performing the cognitive task would attempt to form more accurate judgments and therefore recognize that acquiring more information during the study would be instrumental towards this goal. The mean number of unique items opened for all groups is reported in Table 4.3 . To check my first hypothesis, I ran a factorial analysis of variance (ANOVA) with a planned comparison between the subjects in the non-accountable affective condition and those in the non-accountable cognitive condition (Tables 4.4 and 4.5). Based on the analysis, hypothesis 1a is not supported. Subjects in the affective group looked at 44.0 unique pieces of information (SD: 23.0) compared to the 39.9 items (SD: 18.3) examined by subjects in the cognitive condition; thus, affective participants looked at more information, although the difference is not statistically significant ($p < .377$).

Next, I hypothesized that subjects engaged in the cognitive task would perform a more balanced search and attempt to consider all three candidates equally (Hypoth-

Table 4.4: ANOVA Results: Total Information

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Decision Type	1	0.00	0.00	0.00	1.0000
Accountability	1	468.78	468.78	0.99	0.3203
Decision:Accountability	1	667.80	667.80	1.42	0.2358
Residuals	166	78315.79	471.78		

Table 4.5: Planned Comparison: Total Information Search by Decision Type

Contrast		
Non-Accountable Condition	Difference	4.16
	SE	4.69
	Sig.	.377
	95% CI of difference	−3.60–11.92

Table 4.6: Descriptive Statistics: Comparability of Search

Decision Type	Accountability	mean	sd	<i>N</i>
Affective	Not Accountable	0.466	0.206	46
Affective	Accountable	0.511	0.225	39
Cognitive	Not Accountable	0.446	0.221	40
Cognitive	Accountable	0.493	0.208	45

esis 1b). To investigate this, I first performed a factorial ANOVA with a planned comparison between the non-accountable affective and cognitive groups, using Lau and Redlawsk's comparability of search measure as the dependent variable. Mean values of this variable for all groups are reported in Table 4.6. This prediction fails as well (Tables 4.7 and 4.8); 46.6% (SD: 20.6) of all searches performed by subjects in the affective group were comparative, a rate indistinguishable from the 44.6% (SD: 22.0) in the cognitive group ($p < .672$). Similarly, there were no significant differences in the proportion of search devoted to the subjects' preferred candidate by decision type (Tables 4.9 and 4.10). Subjects in the affective group devoted 40.7% (SD: 10.5) of their search to the candidate they eventually voted for, while those in the cognitive group focused 41.4% (SD: 12.5) of their information acquisition on their favored politician.

Hypothesis 1c states that subjects performing the cognitive task would spend

Table 4.7: ANOVA Results: Comparability of Search

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Decision Type	1	0.01	0.01	0.22	0.6405
Accountability	1	0.09	0.09	1.93	0.1664
Decision:Accountability	1	0.00	0.00	0.00	0.9743
Residuals	166	7.63	0.05		

Table 4.8: Planned Comparison: Comparability of Search by Decision Type

Contrast		
Non-Accountable Condition	Difference	.020
	SE	.046
	Sig.	.672
	95% CI of difference	-.057-.096

Table 4.9: Descriptive Statistics: Preferred Candidate Search Proportion

Decision Type	Accountability	mean	sd	N
Affective	Not Accountable	0.407	0.105	46
Affective	Accountable	0.472	0.125	39
Cognitive	Not Accountable	0.415	0.126	40
Cognitive	Accountable	0.440	0.103	45

more time processing information, both at the item level and during the study as a whole. Mean values of time spent for all groups are listed in Table 4.11. The planned comparison between non-accountable cognitive and affective subjects supports the first part of this hypothesis (Tables 4.12 and 4.13); subjects in the cognitive condition spent 10.1 seconds (SD: 4.7) examining each item they accessed, compared to the 7.2 seconds (SD: 6.6) spent by subjects in the affective task ($p < .011$). However, both groups ended the study after the same amount of time (Tables 4.14 and 4.15): participants in the affective condition spent an additional 1.8 minutes (SD: 1.6) in the

Table 4.10: ANOVA: Preferred Candidate Search Proportion

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Decision Type	1	0.00	0.00	0.24	0.6255
Accountability	1	0.09	0.09	6.55	0.0114
Decision:Accountability	1	0.02	0.02	1.20	0.2754
Residuals	166	2.18	0.01		

Table 4.11: Descriptive Statistics: Time Spent on Tasks

	Decision Type	Accountability	mean	sd	<i>N</i>
Time Spent	Affective	Not Accountable	7.28	6.64	46
(seconds)	Affective	Accountable	8.30	4.36	39
Per Item	Cognitive	Not Accountable	10.17	4.78	40
	Cognitive	Accountable	8.32	4.59	45
Extra Time Spent	Affective	Not Accountable	1.86	1.60	46
(minutes)	Affective	Accountable	1.71	1.51	39
in Study	Cognitive	Not Accountable	2.15	1.68	40
	Cognitive	Accountable	1.79	1.55	45

Table 4.12: ANOVA: Time Spent Per Item

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Decision Type	1	88.55	88.55	3.25	0.0733
Accountability	1	7.34	7.34	0.27	0.6046
Decision:Accountability	1	86.79	86.79	3.18	0.0762
Residuals	166	4523.70	27.25		

Table 4.13: Planned Comparison: Time Spent Per Item by Decision Type

Contrast		
Non-Accountable Condition	Difference	−2.88
	SE	1.12
	Sig.	.011
	95% CI of difference	−5.11– −.066

study after the early vote choice became available (at the eight minute mark of the study), while the remaining subjects spent 2.1 minutes (SD: 1.6), a non-significant difference ($p < .410$).

Lastly, Hypothesis 1d predicted that information would have a higher marginal value for subjects in the cognitive task than for subjects in the affective task. Mean

Table 4.14: ANOVA: Extra Time Spent in Study

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Decision Type	1	1.19	1.19	0.47	0.4929
Accountability	1	2.77	2.77	1.10	0.2959
Decision:Accountability	1	0.51	0.51	0.20	0.6549
Residuals	166	418.36	2.52		

Table 4.15: Planned Comparison: Extra Time Spent in Study by Decision Type

Contrast		
Non-Accountable Condition	Difference	-.293
	SE	.343
	Sig.	.394
	95% CI of difference	-.971-.384

Table 4.16: Descriptive Statistics: Decline in Information Acquisition

Decision Type	Accountability	mean	sd	<i>N</i>
Affective	Not Accountable	0.451	0.404	46
Affective	Accountable	0.441	0.341	39
Cognitive	Not Accountable	0.229	0.411	40
Cognitive	Accountable	0.318	0.517	45

Table 4.17: ANOVA: Decline in Information Acquisition

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Decision Type	1	1.23	1.23	6.80	0.0099
Accountability	1	0.07	0.07	0.37	0.5464
Decision:Accountability	1	0.10	0.10	0.58	0.4480
Residuals	165	29.95	0.18		

changes in the rate of information acquisition for all groups are reported in Table 4.16. This prediction was supported (Tables 4.17 and 4.18), as subjects in the cognitive and non-accountable group saw their rate of information access decrease by 22.8% (SD: 41.0%) from the start of the experiment to the final minute of information gathering as compared to the 45.1% (SD: 40.4%) decrease in the performance of subjects in the affective and non-accountable group ($p < .017$).

Table 4.18: Planned Comparison: Decline in Information Acquisition

Contrast		
Non-Accountable Condition	Difference	.223
	SE	.093
	Sig.	.017
	95% CI of difference	.070-.376

4.2.2.1 Summary of Results

To summarize the findings thus far, we see that decision task had little effect on many of the subjects' overt information gathering behaviors. No statistically distinguishable differences emerged in the total amount of information accessed, the comparability of search, or the proportion of search devoted to the preferred candidate. Nor did subjects in the cognitive task spend more time in the study than did those in the affective group.

However, the experiment did reveal some subtle differences in processing behavior among the cognitive and affective decision-makers. Unmotivated (i.e., non-accountable) affective subjects spent less time looking at the items they opened than did the subjects in the cognitive group and became less interested in acquiring information as the study wore on. And yet, subjects in the affective condition opened roughly the same amount of items as those in the cognitive condition did. This pattern—similar total information search coupled with decreasing information acquisition—suggests a "front-loaded" pattern of information processing (Figure 4.4). As shown in Figure 4.4, there is a pronounced difference in information acquisition between the two groups in the first third of the study, with affective subjects looking at more information early in the experiment. In fact, after the four minute mark, the affective group had viewed 21.9 items (SD: 9.3), significantly more ($p < .003$) than the 16.5 (SD: 6.8) items in the cognitive group.⁶ However, in the remainder of the study, both groups looked at the same amount of information: 22.1 (SD: 15.5) in the affective group and 23.4 (SD: 13.1) in the cognitive group ($p < .686$). One possible interpretation of this data is that subjects in the affective group sampled a greater amount of information early in the study and then became less interested in the items

⁶A MANOVA analysis of the total items opened in each minute reveals a significant effect ($p < .051$) of decision task.

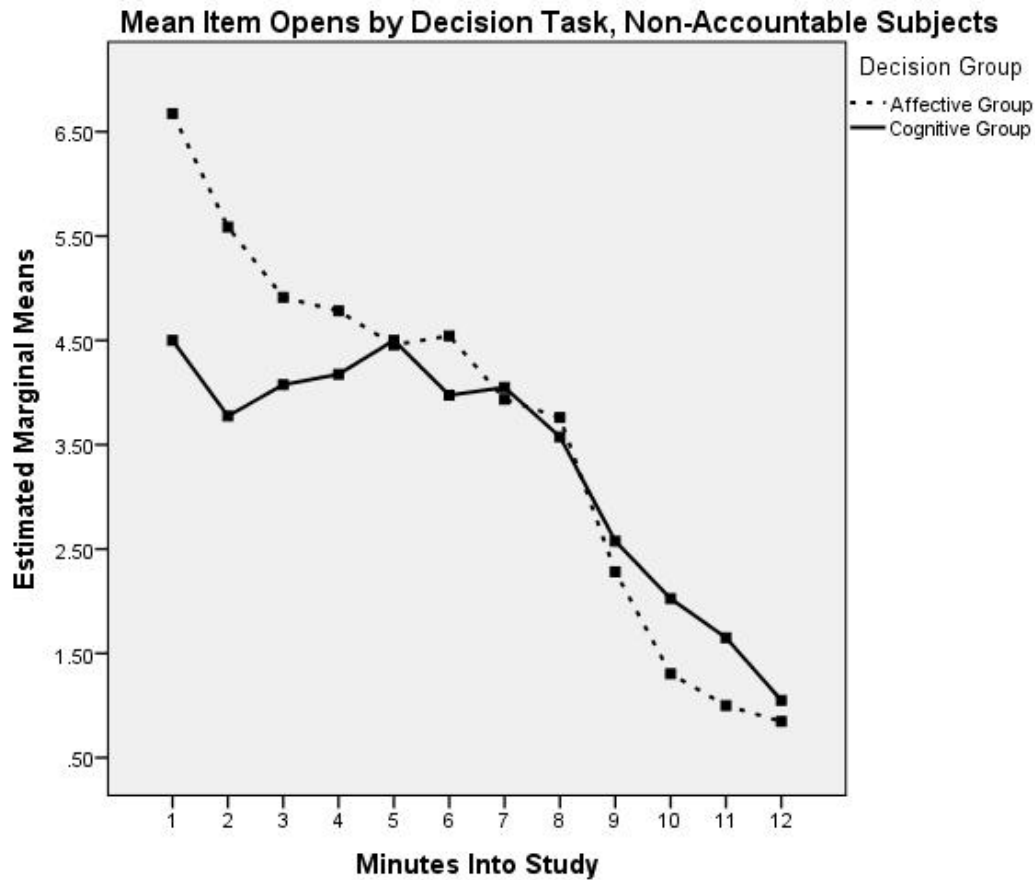


Figure 4.4: Mean Item Opens Per Minute by Decision Task. The y-axis shows the number of item opens while the x-axis marks the time into the study. So, for example, members of the affective group examined about seven items in the first minute, while the participants in the cognitive group looked at less than five

later in the study because their decision had already been made.

Despite these differences, the study did not find the predicted disparities in total information accessed, balance of search, or in additional time spent making the decision. One possible explanation for this lack of results could be that the distinction between cognitive and affective tasks is not as meaningful as I had assumed for processing strategy. Another possibility is that subjects in both groups were incentivized in basically the same way during the decision task; that is, participants in both the affective and cognitive treatment groups may have performed in a minimally acceptable manner given the experimental demand and the payment offered. If this is the

case, the introduction of the accountability motive—which in theory increases cognitive effort—to the process may reveal hitherto unrealized differences in the nature of cognitive and affective decisions.

4.2.3 Effect of Accountability on Search Strategy

Accountability should encourage more effortful information processing among subjects in the various decision tasks; if affective and cognitive tasks are fundamentally different, then accountability should illuminate these differences as subjects try to make a “good” decision within the confines of each type of judgment. Hypothesis 2a proposes that accountability will motivate subjects in the cognitive task to attempt to make better decisions, which entails examining more information. To analyze this, I ran an ANOVA with planned comparisons between accountable and non-accountable cognitive subjects and accountable and non-accountable affective subjects (Table 4.19).⁷ This hypothesis is supported: accountable cognitive subjects examined 47.2 pieces of information compared to the 39.9 pieces opened by the non-accountable cognitive subjects ($p < .062$, one-tailed). The accountability effect is especially pronounced at the early stage of the study: after four minutes, accountable cognitive subjects had opened 21.2 items while non-accountable cognitive subjects had opened 16.5 ($p < .004$). Although this early effect faded as the study progressed, it seems evident that accountability provided the cognitive subjects with an initial motivation to acquire more information.

There was no similar effect for subjects in the affective task, however. Accountable subjects in the affective condition accessed 43.4 unique pieces of information, while non-accountable one examined 44.0 ($p < .891$). Nor was there any evidence of

⁷For this section, only the results of the planned comparisons are reported as the ANOVA tables and means for all dependent variables were presented in the previous section.

Table 4.19: Planned Comparison: Accountability Effect on Information Search

Contrast		
Cognitive Condition	Difference	-7.29
	SE	4.72
	Sig.	.124
	90% CI of difference	-15.10–.510
Affective Condition	Difference	.651
	SE	4.72
	Sig.	.891
	90% CI of difference	-7.16–8.47

an initial attempt among accountable subjects to view more information—in the first four minutes, both affective groups viewed a similar number of items. While non-accountable voters examined 21.9 items, accountable ones opened 21.0 ($p < .629$). The disparate effects of accountability on information acquisition is potentially significant in understanding how subjects understand the nature of their political preferences. When presumably motivated to make a better decision for a judgment in which they had no stake in the outcome, subjects in the cognitive condition recognized the need to examine more information. But when asked to choose the candidate they preferred, accountable subjects in the affective group did not equate better decisions with requiring more information.

Hypothesis 2b predicts that accountable subjects in the cognitive task will engage in less biased and hence more balanced search strategies while accountable participants in the affective group will be motivated to use more directional strategies. Looking first at Lau and Redlawsk's comparability of search measure, planned comparisons (Table 4.20) provide no support for this hypothesis: although the proportion of comparative searches was slightly higher in both cognitive and affective conditions, the increases were not statistically significant.

Moving to the proportion of search devoted to the preferred candidate, we find partial support for the hypothesis. Non-accountable participants assigned to the cognitive task manipulation allocated 41% of their search (SD: 12.5%) to information

Table 4.20: Planned Comparison: Accountability Effect on Comparability of Search

Contrast:Comparability of Search		
Cognitive Condition	Difference	−.047
	SE	.047
	Sig.	.316
	95% CI of difference	−.139−.045
Affective Condition	Difference	−.045
	SE	.047
	Sig.	.339
	95% CI of difference	−.137−.047
Contrast:Preferred Candidate Search Proportion		
Cognitive Condition	Difference	−.026
	SE	.025
	Sig.	.301
	95% CI of difference	−.075−.023
Affective Condition	Difference	−.064
	SE	.025
	Sig.	.011
	95% CI of difference	−.114− −.015

about their preferred candidate, while accountable subjects devoted 44% (SD: 10.3%) of their search to their eventual choice ($p < .301$), suggesting that the fundamental distribution of search was unchanged by accountability in the cognitive task. During the affective task, however, search distribution became *more* biased when subjects were accountable: 47% (SD: 12.5%) of the information accessed by accountable subjects in the affective group compared to 40% (SD: 10.5%) in the non-accountable group ($p < .011$).

Interestingly, subjects in the cognitive and affective tasks once again displayed fundamental differences in their minute by minute behavior (Figure 4.5). Accountable cognitive subjects began the experiment using a relatively balanced search strategy and became more biased (i.e., spent more of their time looking at their favored candidate) as the study wore on; a reasonable interpretation of this data is that

subjects were undecided early in the study and gradually became more confident in their decisions—and hence more confirmatory in their search patterns—as the study continued. Affective and accountable participants, however, engaged in biased search from the very first minute of the experiment and more or less maintained their confirmatory search for the duration of the study. This behavior seems to suggest that affective and accountable subjects knew almost immediately which candidate they preferred and dedicated their search efforts to confirming that choice.⁸

In terms of the impact of accountability on processing time and time spent in the study, Hypothesis 2c expects that accountable cognitive subjects would spend more time processing information and more time performing the decision task. These predictions were not supported (Table 4.21). Among subjects in the cognitive condition, accountability had a marginally statistically significant effect on processing time, although the direction of the difference was opposite of the prediction. Accountable subjects spent 8.3 seconds (SD: 4.5) looking at items, while non-accountable subjects spent 10.1 (SD: 4.7) seconds ($p < .105$). Non-accountable cognitive subjects elected to spend 2.1 additional minutes (SD: 1.68) in the study after given the opportunity to opt-out, while accountable participants spent 1.7 (SD: 1.5, $p < .291$).

Lastly, accountability had no apparent effect on the marginal value of information during the study (Table 4.22). In the absence of accountability, cognitive subjects experienced a 22.8% (SD: 41.0%) decline in the rate of information acquisition during the study, while accountable subjects saw an 31.7% (SD: 51.6%) decrease ($p < .336$). Consistent with my expectations, accountability had no effect on processing time or the rate of information acquisition for members of the affective group (Tables 4.21

⁸Consider that across all subjects in the study, information about the preferred candidate made up 44.1% (SD: 11.3) of all the information participants viewed. Thus, the fact that affective and accountable subjects reached this threshold in the very first minute suggests an early desire to seek out information about their favored politician.

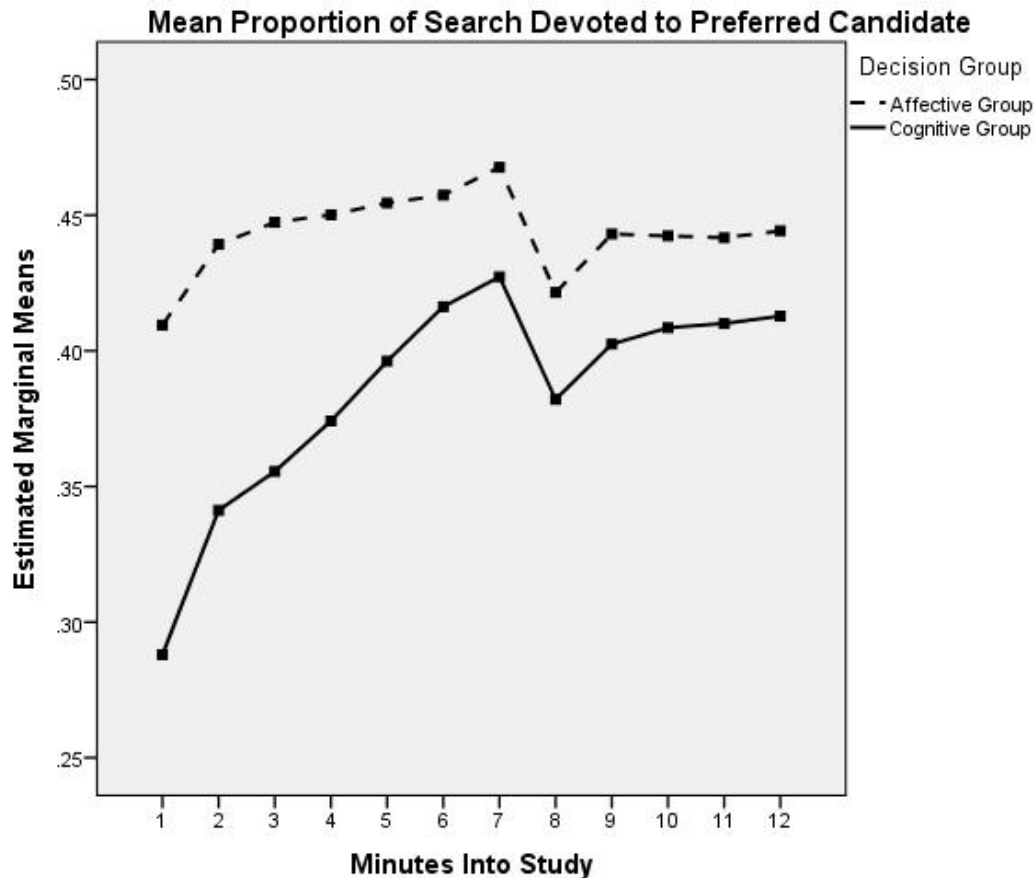


Figure 4.5: Proportion of Search Devoted to Preferred Candidate. The y-axis shows what percentage of all information examined pertained to the subject's favored politician. The x-axis shows the number of minutes into the study. The proportions calculated are cumulative; for example, at the four minute mark, about 45% of all the information affective subjects had gathered to that point in the study was about the preferred candidate

and 4.22).

4.2.3.1 Summary of Results

The introduction of accountability into the information processing task provides insight into certain elements of political judgment. It appears that some features of the decision task were little affected by accountability: particularly, motivating subjects had no impact on the time they spent processing items, their willingness to spend more time on the task, and the extent to which they engaged in comparative searches.

Table 4.21: Planned Comparison: Accountability Effect on Time Spent

Contrast:Time Spent (in seconds) Per Item		
Cognitive Condition	Difference	1.84
	SE	1.13
	Sig.	.105
	95% CI of difference	−.393–4.08
Affective Condition	Difference	−1.01
	SE	1.13
	Sig.	.371
	95% CI of difference	−3.26–1.22
Contrast:Extra Time Spent (in minutes) in Study		
Cognitive Condition	Difference	.365
	SE	.345
	Sig.	.291
	95% CI of difference	−.316–1.04
Affective Condition	Difference	.146
	SE	.346
	Sig.	.672
	95% CI of difference	−.536–.829

Table 4.22: Planned Comparison: Accountability Effect on Change in Information Acquisition

Contrast		
Cognitive Condition	Difference	−8.90
	SE	9.30
	Sig.	.336
	95% CI of difference	−27.20–9.30
Affective Condition	Difference	1.10
	SE	9.30
	Sig.	.910
	95% CI of difference	−17.30–19.50

At the same time, motivating subjects did reveal two significant behavioral changes by decision task. When held accountable, subjects in the cognitive task examined more pieces of information but did not change the proportion of search focused on their preferred candidates. Conversely, participants performing an affective task did not increase information acquisition under accountability, but did devote more of their attention to their favored politician.

These results are consistent with the SAM claim that increasing the motivation of individuals during political preference formation leads to more directional patterns of information processing. Contrary to the HOP view, motivating subjects to make good political judgments did not trigger increased information search in the subjects. Nor did motivation lead subjects to consider more information about the other alternatives but rather to spend more of their focus on their preferred option. This pattern of results suggests that increased motivation can actually exacerbate rather than mitigate certain normatively undesirable processing behaviors (i.e, confirmatory search) during political decisions.

4.3 Effect of Political Expertise on Information Processing

The previous analyses indicate that when given a decision task which minimizes their personal stake in the outcome, motivated subjects will increase the amount of information they process with no increase in their propensity to engage in confirmatory search. For the affective task, however, in which subjects presumably do have some investment in the outcome, motivation has no effect on information acquisition but increases confirmatory search patterns. These results seem contrary to some of the normative expectations of the voting decision, but we have yet to determine if these tendencies are moderated by political expertise. Based on a political engagement

Table 4.23: Descriptive Statistics: Total Information by Sophistication Level

Decision Type	Sophistication Level	mean	sd	<i>N</i>
Affective	Low Sophistication	41.432	21.864	37
Affective	High Sophistication	45.604	24.062	48
Cognitive	Low Sophistication	42.053	18.239	38
Cognitive	High Sophistication	45.191	21.945	47

scale constructed from the subjects' interest in politics, frequency of political discussion, and level of political knowledge, I divided the participants into groups of high ($n = 95$) and low sophistication ($n = 75$).

Hypothesis 3a states that sophisticates will examine more information than non-sophisticates. Mean values of total information search by sophistication and decision task appear in Table 4.23 . A factorial analysis of variance using both decision type (affective group or cognitive group), political sophistication (high or low), and accountability as factors finds no significant effect of sophistication on unique item opens (Table 4.24); nor is there a significant interaction between decision task and sophistication ($p < .992$). Over the course of the study, sophisticates opened 45.40 items while non-sophisticates looked at 41.74 ($p < .268$). Sophisticates responded to accountability in the same way as the entire sample, with politically savvy subjects engaged in the cognitive task increasing their information intake under the expectation of accountability from 41.2 pieces to 50.5 ($p < .078$, one-tailed). And although expert accountable subjects in the affective task did increase the information viewed to 49.6 items from 42.1, this change is not statistically significant ($p < .145$, one-tailed).

Next, we turn to the question of whether political sophisticates engage in a more balanced search strategy than do non-sophisticates, as predicted by Hypothesis 3b. The percentage of comparative searches by sophistication level and decision task appear in Table 4.25. On this score, sophisticates do better than non-sophisticates according to a factorial ANOVA (Table 4.26): 50.9% of all policy searches were com-

Table 4.24: ANOVA: Total Information Search by Sophistication

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Decision Type	1	0.00	0.00	0.00	1.0000
Sophistication	1	559.47	559.47	1.20	0.2753
Accountability	1	603.96	603.96	1.29	0.2570
Decision:Soph.	1	0.25	0.25	0.00	0.9816
Decision:Accountability	1	855.29	855.29	1.83	0.1778
Soph.:Accountability	1	1096.91	1096.91	2.35	0.1273
Decision:Soph.:Acc.	1	710.43	710.43	1.52	0.2191
Residuals	162	75626.07	466.83		

parative for sophisticates compared to 44.1% for non-sophisticates ($p < .044$). However, when it comes to the proportion of search dedicated to the preferred candidate, a factorial analysis of variance (Table 4.27) finds no difference between sophisticates and non-sophisticates, either overall ($p < .948$) or by decision task ($p < .457$). Motivated sophisticates exhibited patterns of behavior consistent with the sample as whole: for subjects in the affective task, the proportion of search dedicated to the preferred candidate increased to 46% from 40%; for subjects in the cognitive task, confirmatory search was relatively flat, increasing to 43% from 42%. Importantly, accountable sophisticated subjects displayed the same tendency to immediately engage in confirmatory search patterns by the first minute of the study when they expected to be accountable (Figure 4.6). In sum, these results suggest that while sophisticates do better than non-sophisticates in terms of comparing more alternatives, they still demonstrate the same propensity towards confirmatory search when motivated.

4.4 Perception of the Decision-Task

The HOP presumption is that voting is a difficult task; it requires a certain degree of cognitive effort and attention. However, to deem a particular exercise “difficult” necessarily raises the question: Compared to what? To investigate this question, subjects were asked at the conclusion of the study to rate on a seven-point scale

Table 4.25: Descriptive Statistics: Search Distribution by Sophistication Level

	Decision Type	Sophistication Level	mean	sd	<i>N</i>
Comparability of Search	Affective	Low Sophistication	0.464	0.222	37
	Affective	High Sophistication	0.504	0.209	48
	Cognitive	Low Sophistication	0.429	0.188	38
	Cognitive	High Sophistication	0.505	0.229	47
Preferred Candidate Proportion	Affective	Low Sophistication	0.445	0.120	37
	Affective	High Sophistication	0.431	0.118	48
	Cognitive	Low Sophistication	0.426	0.109	38
	Cognitive	High Sophistication	0.430	0.120	47

Table 4.26: ANOVA: Comparability of Search by Sophistication

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Decision Type	1	0.01	0.01	0.22	0.6391
Sophistication	1	0.14	0.14	3.10	0.0802
Accountability	1	0.12	0.12	2.60	0.1089
Decision:Soph.	1	0.03	0.03	0.55	0.4597
Decision:Accountability	1	0.01	0.01	0.12	0.7270
Soph.:Accountability	1	0.02	0.02	0.41	0.5245
Decision:Soph.:Acc.	1	0.03	0.03	0.56	0.4541
Residuals	162	7.38	0.05		

Table 4.27: ANOVA: Preferred Candidate Proportion by Sophistication

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Decision Type	1	0.00	0.00	0.23	0.6286
Sophistication	1	0.00	0.00	0.09	0.7653
Accountability	1	0.08	0.08	6.34	0.0128
Decision:Soph.	1	0.01	0.01	0.64	0.4248
Decision:Accountability	1	0.01	0.01	1.01	0.3168
Soph.:Accountability	1	0.01	0.01	0.45	0.5037
Decision:Soph.:Acc.	1	0.00	0.00	0.13	0.7215
Residuals	162	2.17	0.01		

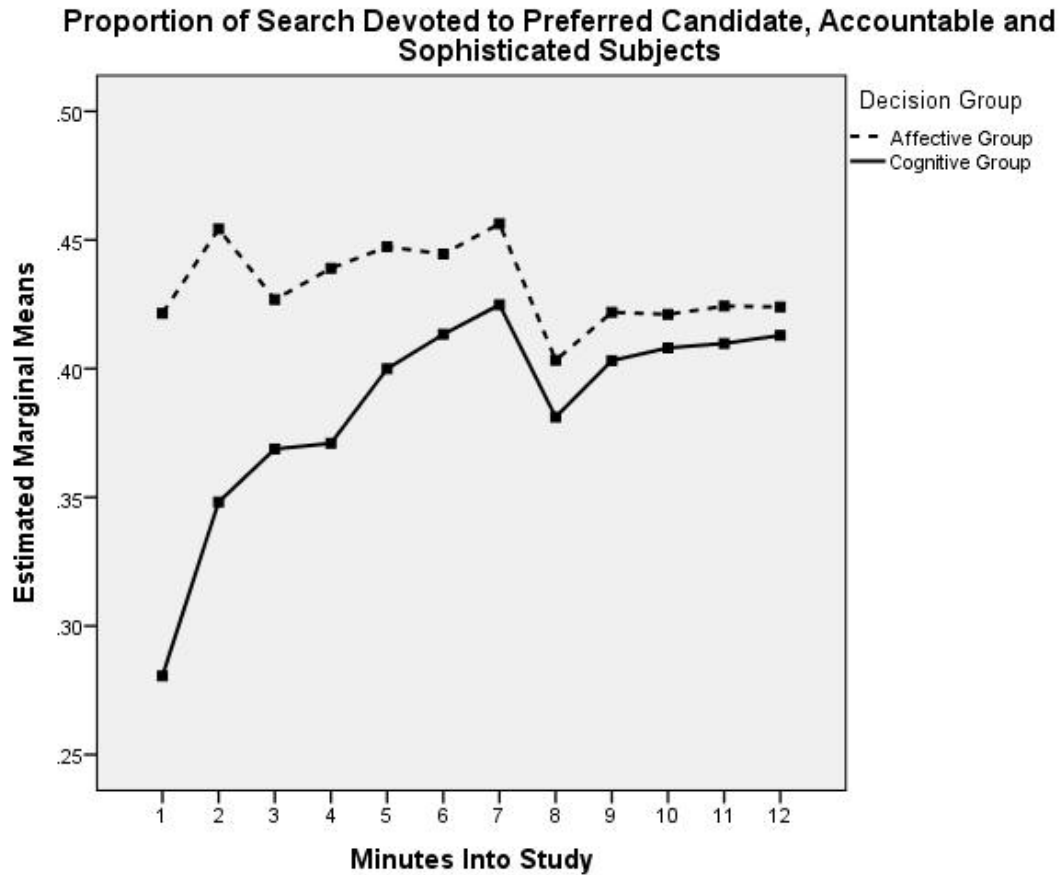


Figure 4.6: Proportion of Search Devoted to Preferred Candidate for Politically Sophisticated Subjects. The y-axis shows the proportion of information viewed that pertained to the subject's favored politician. The x-axis marks the number of minutes into the study. Proportions are cumulative, representing the percentage of all search up to that point in the study dedicated to the preferred candidate

how difficult they found the decision (higher numbers correspond to more difficulty). Although neither group found the task very difficult (M: 2.7, SD: 1.3), as predicted by Hypothesis 4a, participants in the affective group found the decision significantly easier (M: 2.4, SD: 1.3) than did those in the cognitive group (M: 3.0, SD: 1.2; $p < .000$), even when holding the amount of information accessed constant.⁹ Further-

⁹In fact, there was no correlation between perceived difficulty of the decision task and the amount of information subjects looked at ($r = -.023$, $p < .765$), suggesting that participants did not see their choices as becoming easier as more information was accessed (or harder as less was examined).

more, affective-decision makers were significantly more confident (at $p < .003$) in the “correctness” of their choice than were cognitive decision-makers: 5.17 (SD: 1.5) compared to 4.0 (SD: 1.6), again controlling for total information accessed.¹⁰

Accountability had no effect on perception of difficulty, but there was a significant accountability by decision task interaction on subjects’ level of confidence in their judgments ($F_{1,166} = 5.059, p < .026$). In the affective group, accountable subjects were more confident in their decisions than non-accountable ones, while the accountable cognitive participants were less sure of their choices than non-accountable subjects. In this study at least, subjects in the affective group did not find the task of sorting through 105 unique pieces of information about three distinct candidates in a limited amount of time particularly difficult. And under the expectancy of accountability, they became more sure of the correctness of their decision even while examining less information (proportionately), about the other candidates.

What is it about the affective task that made it easier than the cognitive task? The obvious explanation is simply that the two groups were not engaged in the same type of processing. The mental task of the cognitive group ostensibly involves examining information, recalling the material conditions and values of the fictional voter, and then deciding whether the candidate’s positions were a good match. According to some theories of voter preferences, this is precisely the process citizens are presumed to engage in for themselves when forming their attitudes (Lodge and Taber 2013: e.g.,). And it is certainly the process that many advocates of the value of being politically informed endorse; people are supposed to consider relevant political alternatives, calculate costs and benefits of policies, and generally engage in some degree of effort cognition when forming their preferences. I would like to suggest that the affective task was easier than the cognitive task precisely because the subjects were *not* engaged

¹⁰No correlation existed between confidence and total information acquisition ($r = .032, p < .683$).

in this type of analytical processing. The affective task is easier because, consistent with the SAM theory, people know what they like and dislike almost effortlessly.

4.5 Discussion

We may envision at least three distinct relationships between information processing and political preferences. One possible scenario is that people are not aware of or are not able to employ the conventional practices of good judgment; in this case, making people more informed or more politically engaged is unlikely to result in less biased preferences because the information processing strategies of individuals are themselves deficient. If this were true, then Plato's vision of philosopher-kings would be accurate: only some subset of the population would possess the cognitive capacities to reason correctly about political preferences, while the majority would be doomed to holding opinions that were in some way flawed, regardless of motivation level. A second possibility is that people do know the processing strategies that result in better preferences and are able to use them, but only when properly motivated. This version of reality perhaps comes closest to the perspective of many HOP proponents; almost all citizens could develop more optimal political preferences if they devoted the time and energy to becoming informed about civic matters. Finally, it could be true that people do recognize the practices of good judgment and can apply them when motivated, but do not believe those practices apply to all types of decisions. Thus, engaged individuals may employ better processing strategies for certain judgments, but reject these strategies when it comes to forming political preferences. This, of course, is the position endorsed by the SAM theory of political information use and one antithetical to the hierarchy of preferences model.

Of these possibilities, the data presented here seem most supportive of this last scenario. When performing the cognitive task, motivated subjects seemed to un-

derstand that acquiring more information would likely improve the quality of their decisions. Subjects in this condition also appeared to maintain their motivation to consider information throughout the duration of the experiment and refrained from engaging in confirmatory search patterns for the first half of the study. We may thus conclude that these decision-makers attempted to process information in ways that are normatively prized by academics. However, these norms were not applied to the affective task. Motivated voters did not feel the need to increase the amount of information they accessed, suggesting that they did not believe that quantity of information was a factor in the quality of their decisions. Motivation was also no guard against a declining interest in becoming informed, as subjects engaged in the affective task became less diligent about examining information as the study progressed. Lastly, and most importantly, making voters accountable *increased* their tendency to engage in confirmatory search patterns. Although subjects in the cognitive group did not begin focusing their attention on their preferred choice until the midpoint of the experiment, accountable subjects in the affective group started to show biased search patterns from the very first minute of the experiment and continued this confirmatory behavior until the end of the experiment. Clearly, study participants treated their own voting decisions as distinct from the decisions in the cognitive task, even though both judgments ostensibly involved the same components—linking candidates and their policies to a variety of material and expressive interests.

At this juncture, it is worth revisiting the subjects' responses to the open-ended question at the conclusion of the study on the reasons for their preferences. As reported earlier in the chapter, accountable subjects were more voluble in explaining their choices. However, accountable and non-accountable subjects viewed the same amount of information during the length of the study: 43.1 items (SD: 20.8) for non-accountable subjects and 46.4 (SD: 22.4) for accountable ones ($p < .321$). Furthermore, there was no difference in the length of time accountable and non-accountable

subjects spent examining individual items (8.6 seconds in the non-accountable condition versus 8.3 in the accountable; $p < .701$). A researcher who had to infer sophistication only from the outward sign of ability to explain choices may thus conclude that accountable subjects looked at more information or processed it more deeply, but there is no evidence of that in this data. The only difference between the two groups was the social expectation of accountability. This serves as a reminder that the degree to which a person may appear more informed does not necessarily tell us anything about the actual process of preference formation.

The results presented here are certainly intriguing, but skeptical readers may have a number of concerns. For instance, readers may question why on average subjects in both tasks accessed the same amount of information. In fact, subjects in the affective task looked at more information than did those in the cognitive task, which is contrary to my initial predictions. I think to address this question, we must distinguish between the amount of information accessed and the amount of information used to make a decision—these two quantities need not be equivalent.

While process tracing experiments have their advantages, ultimately researchers cannot pinpoint the precise moment at which a subject makes his or her decision. However, the behavior of the subjects offers some clues as to when a decision takes place. Notably, subjects in the affective task manipulation looked at significantly more information in the first four minutes of the study than did subjects in the cognitive task while also spending less time per item than their counterparts in the cognitive task. After this initial burst of information acquisition, their motivation to access information declined to greater extent than did the motivation of subjects in the cognitive condition. Additionally, accountable subjects in the affective group immediately focused their attention on their preferred candidates, while their counterparts in the cognitive group did not exhibit the same degree of confirmatory search until the sixth minute of the study. The behavior of subjects in the affective group is

therefore consistent with the interpretation that these subjects quickly surveyed the available information, formed a preference, and then spent the rest of the time confirming their beliefs. Consequently, although the overall means of information search are equal, it is likely that subjects in the affective group actually made their decision based on fewer pieces of information than did subjects in the cognitive group.

Another major question with the results detailed here is that whether the behaviors of the subjects during this short experiment tell us anything about political judgment outside the laboratory. I submit that they do, for the following reasons. First, by focusing on processing strategy rather than the outcome of the decision task (cf. Lau and Redlawsk 1997, 2006), the findings of this experiment speak to the fundamental ways in which participants approached the vote choice. I do not think that participants choose in any conscious way their information processing strategies; instead, I contend that the behaviors exhibited here are indicative of habitual approaches to various judgmental tasks. Second, the accountability manipulation, while effective, was still a fairly weak one. Subjects were likely taking the study in the comfort of their own homes and only had to answer to a faceless researcher with whom they had no actual interaction. And yet merely suggesting that participants would need to explain their decisions produced a significant effect on processing strategies. Last, the results presented here are fully compatible with a host of research that finds that people oftentimes form immediate, affective preferences towards attitude objects (Zajonc 1980; Lodge and Taber 2005; Todorov et al. 2005) and that confirmation bias is an ubiquitous psychological phenomenon (Nickerson 1998).

4.6 Conclusions

Predictions from the hierarchy view of political judgment fared less well than those from the social-affective model in this experimental test (Table 4.28). In general, my

study provides support for the claim that the political preference formation strategies of the subjects studied here are a directional, rather than accuracy-based, decision task. Although I do not claim that my sample is representative of the population as a whole, it is well-educated, white, and fairly affluent, some of the typical indicators of political expertise. And yet, its performance on a political preference task revealed a number of inherent biases in information processing. Further, when the behavior of more sophisticated subjects was examined directly, the evidence that they engaged in any normatively better decision-making strategies was mixed—although experts engaged in more comparative searches, they did not examine significantly more information than non-sophisticates and were equally prone to confirmatory search patterns. Motivating the subjects via accountability served to increase rather than attenuate information-processing behaviors typically considered undesirable. At the same time, the performance of subjects during a decision-task that did not involve their own preferences revealed that, when motivated, people could apply some of the conventions of objective information processing to the decision. This distinction suggests that accuracy motives and directional motives may dominate different types of decision tasks and that people do not regard political preferences as the types of judgments that require normatively desirable processing strategies. In the next chapter, I further explore this distinction by testing the effects of accountability on political preferences. I investigate the effects of a common judgmental bias—the primacy effect, or the “first impression” bias—on political preferences and whether accountability serves to enhance or decrease the extent of this bias. I also test directly whether subjects formed a preference early in the information gathering process and whether this opinion persisted despite the consideration of new information.

Table 4.28: Summary of Results

Condition	Hypothesis	Description	Significant Finding?	Favorable to HOP	Favorable to SAM
No Accountability	1a	Total Search	X	-	-
	1b	Distribution of Search	X	-	-
	1c	Time of Search	$\frac{1}{2}$	NP	$\frac{1}{2}$
	1d	Value of Information	✓	X	✓
Accountability	2a	Increased Search:Cognitive Condition More Confirmatory	✓	NP	✓
	2b	Search: Affective Condition	✓	X	✓
	2c	Increased Time Spent	X	-	-
Both Groups	3a	Expert Info Search	X	-	-
	3b	Expert Distribution of Search	✓	$\frac{1}{2}$	$\frac{1}{2}$
	4	Perception of Task	✓	X	✓

¹ Note: NP = No Prediction

Chapter 5

Accountability and the Nature of Political Preferences

In the previous chapter, I presented evidence suggesting that accountability demands led subjects to employ processing strategies that diverged significantly from some of the dictates of good political judgment championed by political scientists and theorists. In this chapter, I take a closer look at the nature of political preferences and the extent to which accountability impacts belief persistence and first impression biases. Primacy effects are well-documented in the psychological literature (Tetlock 1983b; Carney and Banaji 2012) and represent a common judgmental bias at odds with the normative prescriptions for effective decision-making; the order information is received should have no effect on judgment, but it certainly appears that information encountered early in the decision-process has greater weight in evaluation than that considered later. Belief persistence, or “epistemic freezing,” occurs when an individual accepts a given hypothesis as true and no longer updates his or her preferences. Epistemic freezing is held to be conditional upon two factors: a person’s capacity to imagine alternative hypotheses and her motivation to do so (Kruglanski and Freund 1983).

Quite clearly, the hierarchy of preferences model of political information use and the social affective model make very different predictions as to the incidence of belief persistence and first impression bias in political preference formation. According to HOP, it would seem that undue emphasis on information order clearly constitutes a judgmental bias; if good political preferences result from reasoned consideration of evidence, then basing decisions on the arbitrary presentation of information can be nothing less than an error. HOP's relationship to belief persistence is slightly more complicated. On the one hand, consistency in political opinions has long been a hallmark of the hierarchy view (Converse 1964; Zaller 1992; Delli Carpini and Keeter 1996). On the other, a "foolish" consistency in preferences is incompatible with the conception of political expertise. Sophisticated voters are supposed to change their preferences, but only for the "right" reasons (Delli Carpini and Keeter 1996: p. 234–235; Druckman 2001a). While it is not exactly clear what constitutes such a factor, it stands to reason that HOP supporters would predict more effortful cognition will allay the effects of first impression bias on political preferences as well as delay the onset of epistemic freezing, particularly in an information-rich environment.

The social affective model treats primacy effects and belief persistence very differently. Since SAM eschews any qualitative judgments about the content of preferences (i.e., there are no "good" or "bad" preferences, only preferences), the theoretical interest in first impression bias stems from what its incidence reveals about the nature of political preferences. To the extent that such a bias exists and is resistant to increased motivation, primacy effects in political preference formation speak to the inherently affective nature of political beliefs. Epistemic freezing is a crucial component of the SAM theory of political information and preferences. According to SAM, preferences crystallize early in the judgmental process; a person's initial affective reaction—whether positive, negative, or neutral—influences subsequent reasoning. Furthermore, SAM hypothesizes that one's initial orientation towards a political at-

titude object will only become more settled as accountability demands (and thus cognitive effort) increases; the more one is called on to defend or justify a political preference, the stronger the commitment to that view becomes.

Using an information-processing experiment similar to the one detailed in the previous chapter, I examine the effects of decision-task and accountability on first impression bias and belief persistence. I find that accountability had some ability to reduce first impression biases in political judgment, but even motivated subjects still were influenced by an initial cue. My results also reveal that a large portion of subjects made their vote choices within the first half of the study, regardless of the decision task. Further, new information had little influence on preferences. As predicted, accountability showed some ability to mitigate these tendencies for cognitive decision-makers but not so for affective ones.

5.1 Experimental Design

The results presented in this chapter come from an experiment with the same basic contours as the one employed in the preceding chapter: participants were randomly assigned to a 2 (decision-task) x 2 (accountability) between-subjects design. Once again, participants were asked to evaluate three fictional politicians competing during a primary election using the DPTE software.¹ Each politician was defined by 35 unique pieces of information, including 19 policy stands, 10 demographic characteristics, and 6 general interest topics (e.g., campaign slogans, scandals, and anecdotes about personality). The candidates were designed to embody ideological positions along the spectrum of beliefs currently viable within the Republican and Democratic parties. Thus, one candidate (hereafter referred to as the “partisan” candidate), took

¹Subjects were asked to “register” for either the Democratic or Republican party before the study began. Independents were asked to take part in the primary of the party they felt closest to.

strongly partisan stances on a variety of issues; for example, the partisan Republican candidate’s abortion policy called for an end to all abortions, with no exceptions for rape or incest. Another candidate (hereafter, the “moderate” candidate) evinced more moderate, “Beltway” type positions; the moderate Democrat’s position on abortion, for instance, is that he is pro-choice, but supports reasonable restrictions on the practice. The final candidate (hereafter, the “odd” candidate) supported positions that are more at the fringes of mainstream partisan discourse. The odd Republican took a variety of strong Libertarian positions, such as ending the war on terror and questioning the legality of drone strikes, while the odd Democrat held positions typical of a “Blue Dog” Democrat—for example, he is against abortion and rejects same-sex marriage. The primary phase lasted for up to 10 minutes, although subjects could opt out of the primary after the 8 minute mark.

As in the experiment detailed in the previous chapter, half of the subjects were asked to simply vote for their preferred candidate, or to make an affective judgment. The remaining subjects were once again presented with a fictional voter profile and asked to decide which politician best matched the voter’s interests; in effect, to render a cognitive judgment. Similarly, half of the subjects were instructed that they would be expected to explain their decisions at the end of the experiment, while the rest were given no such expectancy of accountability. The instructions for the decision-task and accountability manipulations were the same as those used in the experiment presented in the previous chapter.

5.1.1 Manipulations

In order to manipulate primacy effects, subjects were randomly assigned to either a “Partisan”-favored or “Moderate” favored condition. Just prior to beginning the information search stage of the study, participants were shown a poll of previous

results.² In the partisan condition, subjects saw that the partisan candidate was winning the election, while the moderate candidate was in second place; these positions were reversed for the subjects in the moderate condition. In both cases, the odd candidate was in last place (Figure 5.1). Throughout this chapter, I use the term “positive impression” to refer to the group in which a particular candidate was ranked first and “neutral impression” for the manipulation in which the candidate was ranked second.

In order to measure belief persistence, subjects were randomly assigned to either an early poll or late poll condition. Recall from the previous chapter that subjects in the affective task saw their rate of information acquisition decline throughout the study; furthermore, accountable affective decision-makers begin engaging in confirmatory search patterns from the very first minute of the primary. This behavior led me to surmise that subjects had formed a preference fairly early in the study, perhaps within the first minute. Thus, for this study half of the subjects were asked after one minute and thirty seconds to rate the candidates and indicate which one they would vote for at that juncture. The remaining subjects were asked the same questions at the four minute mark, the halfway point of the study. Altogether, the final study comprised a 2 (decision-task) x 2 (accountability) x 2 (first impression type) x 2 (poll timing) between-subjects design.

5.1.2 Hypotheses

As with the previous study, the hypotheses considered here are derived from the theorized differences in affective and cognitive judgments. From the HOP perspec-

²Subjects were recruited from Amazon’s MTurk service, as were subjects in the previous study, and were told that the study was the second part of an investigation into the political beliefs and attitudes of the MTurk community. The poll was described as a summary of the preferences of the previous participants.

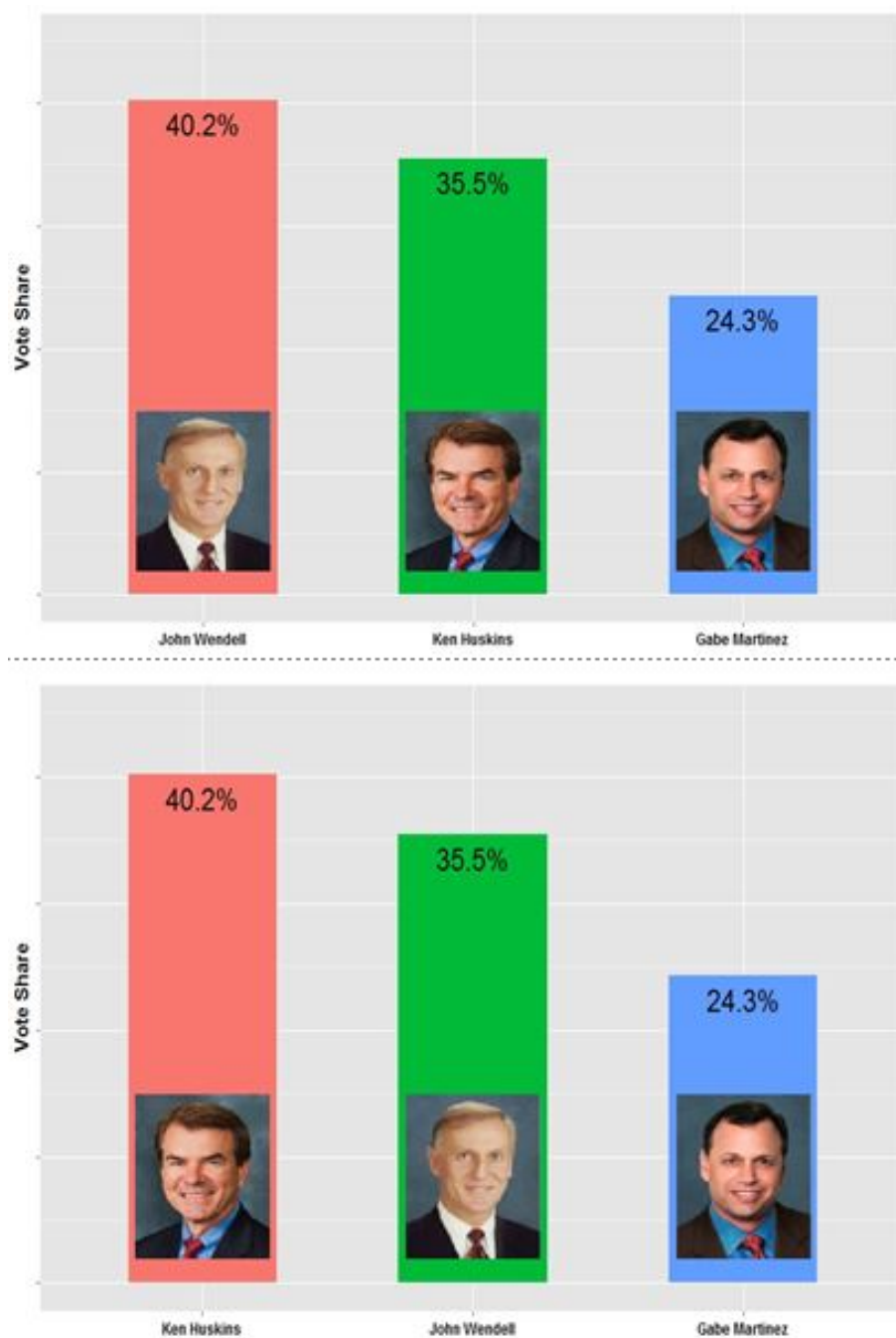


Figure 5.1: First Impression Manipulation. Prior to beginning the information search stage, subjects were presented with one version of the above poll results and led to believe that they represented the preferences of prior study participants

tive, political preferences are cognitive in nature; thus, primacy effects and epistemic freezing should be reduced when subjects are motivated to make a good judgment, particularly when information is readily available. Conversely, the SAM position is that political attitudes are affective judgments in which directional reasoning goals are ascendant. Thus, SAM predicts that first impression biases and belief persistence will be *increased* when subjects are motivated, even when new information is easily acquired.

The first set of hypotheses concern the effects of first impressions on political preferences. A number of studies have demonstrated that primacy bias is reduced when subjects are made accountable for their decisions (Tetlock 1983b; Kruglanski and Freund 1983; Schadewald and Limberg 1992; Kennedy 1993; Webster et al. 1996). However, these studies largely asked subjects to make cognitive judgments such as weighing the guilt or innocence of a suspect or evaluating financial statements. When people have already committed to a decision, accountability is likely to increase biased reasoning as people engage in the practice of “defensive bolstering” in order to justify and defend their beliefs (Tetlock et al. 1989; Tetlock 2002). Since SAM holds that people form political preferences easily and attempt to justify these preferences once formed, it follows that any first impression bias will be exacerbated under accountability demands as people attempt to maintain their initial beliefs. Thus, the following hypotheses on first impressions are tested:

H1a: Accountability expectations will reduce the extent of first impression biases for subjects in the cognitive task

H1b: Accountability expectations will increase the extent of first impression biases for subjects in the affective task

The next set of hypotheses address epistemic freezing. When making a cognitive judgment, individuals are expected to keep an open mind and be willing to change

their preferences as new information arrives. Thus, motivated subjects in the cognitive group should be more resistant to epistemic freezing than unmotivated ones. With affective judgments, people should make up their minds faster and be less willing to change them in light of new information and SAM predicts that this tendency will only increase under motivation. It follows that:

H2a: Accountability demands will reduce cognitive freezing in the cognitive condition but increase its incidence in the affective condition

H2b: More subjects in the affective and early poll condition will exhibit epistemic freezing than will those in the cognitive and early poll condition

Lastly, one of the main claims of the social affective model of information use is that accountability demands increase the effort devoted to preference rationalization. Therefore, even though affective subjects are hypothesized here to make up their minds early in the study, the increased cognitive effort produced by accountability will be directed towards confirming their preferences. I state this hypothesis accordingly:

H3: Accountable affective group members will engage in more confirmatory search and more preference rationalization than will non-accountable participants condition

Like the study discussed in Chapter 4, which dealt with the ways in which participants processed information when making a political judgment, the results from this experiment will provide insight into the nature of political preference formation. The hierarchy of preferences view contends that proper political beliefs are based on the reasoned appraisal of candidates in light of one's interests and values; as such, they should not be swayed by incidental factors such as candidate popularity or be formed on the basis of minimal information. To the extent these phenomenon occur, they should be attenuated by more effortful cognition. In contrast to the HOP view,

the social affective model asserts that political preferences are by their nature far more susceptible to contingent influences. Once a person likes or dislikes a politician or policy—regardless of the reason for this initial affective orientation—it becomes difficult to sway his judgment.

5.1.3 Data and Measures

Data for this experiment was collected from April 14th through April 24th 2014 on Amazon’s Mechanical Turk service. The recruitment notice asked for subjects to take part in a psychological study on decision-making and offered each participant \$1.25 for their time; 436 subjects agreed to take the study, although ten cases were removed due to errors in the delivery of the experiment.³ Subjects were told that the study was the second in a two-part investigation into the political attitudes and beliefs of the MTurk community; individuals who had taken the study described in Chapter 4 were barred, as were non-US citizens and those younger than 18 years of age. Pertinent demographic and political characteristics of the sample ($n = 426$) are reported in Table 5.1. No claim is made that the sample is representative of any particular population. On average, subjects spent about 25.5 minutes (SD: 6.8) taking the study.

To measure first impression bias on preferences, I asked subjects to evaluate the candidates on a 101-point feeling thermometer. For affective subjects, the instructions were to rate how warmly they felt towards the candidates, with scores of 100 indicating the most positive reaction. In the cognitive condition, the instructions asked subjects to rate how suitable they felt the candidate’s positions and values to be for their fictional voter, with scores of 100 indicating the most suitable. Presumably, if a first impression bias from the manipulation exists, subjects will rate a particular candidate

³The study was delivered online and in some cases server errors caused the program to freeze.

Table 5.1: Demographic Characteristics of the Sample

Measure	modal category (%)	mean	sd	range
Gender	male (50.4%)			
Race	white (78.8%)			
Marital Status	married (51.5%)			
Has Children	no (64.6%)			
Religion	no affiliation (42.6%)			
Party ID	Democrat (53.5%)			
Age		34.12	11.48	18–74
Education	some college (36.4%)	5.42	1.14	1–7
Income	\$50,000–\$75,000 (19.2%)	4.76	2.18	1–9
Conservatism	liberal (21.3%)	3.39	1.62	1–7
Political Interest		3.04	1.03	1–5
Discuss Politics		2.68	1.11	1–5
Political Knowledge		2.92	1.05	0–5

¹ Note: for ordinal variables, higher values indicate more of the trait/characteristic in question

more favorably when that candidate is presented as the “winning” politician than when the same candidate is portrayed as the second-place option. Additionally, I looked at the vote proportion garnered by the candidates; if vote shares differed by the impression manipulation I interpret that as a signifier of susceptibility to the cue.

To measure epistemic freezing, I use two measures. The first simply exploits the random assignment to poll timing group. By comparing the feeling thermometer ratings and vote proportions of subjects in the early polling group to those of the subjects in the late polling group, the degree to which evaluations have changed during the study can be adduced. The second measure is a variable created to determine the proportion of subjects who changed their minds: if the subject’s poll preference during the study and final vote preference at the end of the study were not the same, the subject was deemed to have changed his or her mind and the variable was scored as 1; if the poll preference and final vote preference were the same, no opinion change occurred and the variable was coded as 0.

To measure confirmation bias in information search, I examined the search behavior of subjects after they participated in the poll. For those subjects who did not

change their minds, I examined the proportion of additional search focused on the favored candidate. Furthermore, I created a variable using the subjects' open-ended responses to two questions at the end of the study. The first asked them to provide as many reasons as they could for their candidate selection. The second asked them to provide reasons for rejecting the other two candidates. To measure the degree of effort spent on confirming preferences, I divided the number of words written about the rejected candidates by two (since there were two options) and subtracted this value from the number of words produced about the favored candidate. Again, higher values of this variable indicate more effort spent justifying one's choice.

5.2 Results

5.2.1 Manipulation Checks

To ensure that the accountability manipulation worked, I use the same manipulation check as I did in the previous chapter: total words provided to an open-ended question asking subjects to explain the reasons for their choices. As in the previous experiment, accountable subjects provided significantly more words than non-accountable ones: 80.7 (SD: 48.7) versus 69.3 (SD: 44.4; $p < .012$).⁴ Additionally, accountable subjects devoted more time to answering the open-ended questions, taking an average of 231.6 seconds (SD: 148.4) to respond compared to the 204.3 seconds (SD: 150.9) the non-accountable subjects took ($p < .031$, one-tailed). These results are again consistent with previous research indicating that accountability leads to greater cognitive effort.

In the previous chapter, I used subjects' final preferences as an indicator of the success of the decision task manipulation. However, since I attempted to manipulate

⁴The longer responses in this study compared to the previous one is due to the fact that there were two open-ended questions in the current study. The first asked specifically for reasons for the preferred candidate, while the second asked subjects to discuss the rejected candidates.

preferences (via first impressions) in this study, final vote choices may not accurately reveal whether subjects were in fact engaged in two distinct types of decision-making.⁵ Instead, I looked at subjects' perceptions of the decision task to gauge whether the manipulation worked. The results from the experiment in Chapter 4 indicated that cognitive participants found the task more difficult and had less confidence in their choices than did subjects in the affective task. This pattern replicates here. On a seven-point scale of difficulty, subjects in the cognitive group found the decision to be significantly more difficult than did subjects in the affective group: 3.7 (SD: 1.5) compared to 3.0 (SD: 1.6, $p < .000$). Similarly, the cognitive group was significantly less confident in the "correctness" of its choice, 5.1 (SD: 1.3) versus 5.5 (SD: 1.4) in the affective group ($p < .020$). The decreased confidence and increased difficulty experienced by the cognitive group is a likely indicator that it was engaged in a different type of processing task than was the affective group.

The impression manipulation was presented to the subjects directly before the information search portion of the experiment. On average, subjects examined the poll results graphic for 9.8 seconds (SD: 8.0) before closing the screen and proceeding to the dynamic information board. The time spent examining the poll results did not differ significantly from the 9.2 seconds (SD: 8.4) seconds subjects spent reading the information items (mean difference: -.59 seconds, t value -1.140, $p < .255$). There were no significant differences in time spent examining the poll results by decision group or accountability group.

⁵That being said, a chi-square test of vote choice by decision task finds a significant association ($\chi^2 = 7.477$, 2 df, $p < .024$).

5.2.1.1 A Note on Analysis Strategy

For my subsequent analyses of first impression effects and epistemic freezing, I focus herein on the results for the moderate candidate in order to simplify the discussion. Quite simply, presenting the results for both the moderate and partisan candidates for an experiment with 16 different groups quickly becomes overwhelming and makes it difficult to keep track of all of the results. Furthermore, at this stage of the research I do not have any reason to suspect that the effects of the manipulations would vary by the ideological nature of the candidates; consequently, any discussion of observed differences in behavior by candidate ideology would be merely *post-hoc* speculation. However, in order to present a complete accounting of the results, a parallel analysis for the partisan candidate as well as comprehensive summary of the findings are presented in the Appendix.

5.2.2 Effects of First Impressions on Candidate Preferences

Because analyses of variance are difficult to follow with three- and four-way interactions, I present the effects of the first impression cue on feeling thermometer ratings using linear regression (Table 5.2). For this analysis, I have coded the variables so that the constant represents the early poll feeling thermometer rating given by the non-accountable, affective group participants in the neutral impression group. The main effects in the model therefore show the changes in thermometer ratings relative to this “default” group for each of the experimental manipulations.

For subsequent analyses in this chapter, I estimate causal effects by the method of first differences Imai et al. (2008) which computes the average change in the dependent variable when moving from one treatment group to the other. The results reported here employ the standardized methodology common to the Zelig statistical software (Imai et al. 2012); after estimating the parameters of the model, Zelig calculates effects of interest based on one thousand simulated draws from the model. The

Table 5.2: OLS Regression, Feeling Thermometer Rating

	Feeling Thermometer
Constant	54.321*** (3.865)
Cognitive Group	-4.783 (5.571)
Accountable Group	-2.363 (5.690)
Late Poll	-0.681 (5.628)
Positive Impression	9.286* (5.466)
Cognitive x Accountable	1.887 (8.638)
Cognitive x Late Poll	8.835 (7.991)
Cognitive x Positive Impression	-0.491 (7.589)
Accountable x Late Poll	-2.587 (7.971)
Accountable x Positive Impression	-9.509 (7.721)
Late Poll x Positive Impression	-18.481** (7.881)
Cognitive x Accountable x Late Poll	6.426 (12.046)
Cognitive x Accountable x Positive Impression	5.789 (11.309)
Cognitive x Late Poll x Positive Impression	12.364 (11.018)
Accountable x Late Poll x Positive Impression	26.229** (11.010)
Cognitive x Accountable x Late Poll x Positive Impression	-29.166* (16.137)
N	427
R ²	0.057
Adjusted R ²	0.022
Residual Std. Error	20.454 (df = 411)
F Statistic	1.647* (df = 15; 411)

*p < .1; **p < .05; ***p < .01

feeling thermometer ratings and vote shares as well as the first differences reported herein are therefore based on the distribution of these one thousand draws.

First, the regression results reveal that the impression manipulation influenced the early impressions of the subjects as predicted. As noted previously, the early poll appeared one and half-minutes into the primary. At this point in the study, subjects had viewed 8.1 (SD: 4.65) pieces of information overall and 2.48 (SD: 1.89) items about the moderate candidate in particular. There were some marginally significant differences in total information acquisition by experimental group: cognitive subjects opened 8.5 items compared to the 7.5 items in the affective group ($p < .114$) and non-accountable subjects opened 8.5 items versus the 7.5 items in the accountable group ($p < .094$). In terms of moderate-candidate specific information, the impression manipulation significantly influenced the number of items opened. In the positive cue condition, subjects opened 2.6 items while those in the neutral cue condition opened 2.1 ($p < .023$). It is on the basis of this information that the following feeling thermometer ratings and vote choices obtain.

In the affective group, the estimated thermometer rating for the candidate is 54.4 (SD: 3.94) in the neutral group and 63.6 (SD: 3.81) in the positive group ($p < .043$, one-tailed). Among cognitive subjects, the neutral impression group gave the politician a 49.5 (SD: 4.06) score while those in the positive impression group rated the candidate at 58.2 (SD: 3.56; $p < .054$, one-tailed). To translate these feeling thermometer evaluations into preferences (i.e., votes); I ran a logistic regression with vote choice as my dependent variable, coded one if the subject voted for the moderate candidate and zero otherwise (Table 5.3). I then estimated the vote share of the politician by impression group using the feeling thermometer ratings reported above and the parameters from the logit model.

In the affective and non-accountable group, the effect of the impression cue was to boost the vote share of the moderate candidate to 37.9% (SD: 6.8) from 13.3%

Table 5.3: Logistic Regression, Moderate Candidate Vote

	Moderate Vote
Feeling Thermometer	0.098*** (0.021)
Cognitive Group	1.809 (1.164)
Accountable	0.599 (1.144)
Late Poll	-1.383 (1.208)
Positive Impression	1.390 (1.190)
FT x Cognitive	-0.023 (0.018)
FT x Accountable	-0.008 (0.018)
FT x Late Poll	0.018 (0.018)
FT x Positive Impression	-0.014 (0.018)
Constant	-7.280*** (1.364)
N	427
Log Likelihood	-185.104
AIC	390.208

* $p < .1$; ** $p < .05$; *** $p < .01$

(SD: 4.2; $p < .027$, one-tailed). A similar change in preferences occurred in the non-accountable cognitive group, with support for the moderate candidate increasing to 38.5% (SD: 6.3) in the positive cue condition from 15.9% (SD: 5.2) in the neutral group ($p < .026$, one-tailed).

My first hypothesis predicts that accountability will reduce this impression effect among cognitive subjects while increasing it among the affective subjects. However, accountability in fact reduced the impression effect on feeling thermometers for both groups (Figures 5.2 and 5.3). In the affective and accountable group, feeling thermometer ratings were virtually identical in both impression conditions: 51.73 (SD:

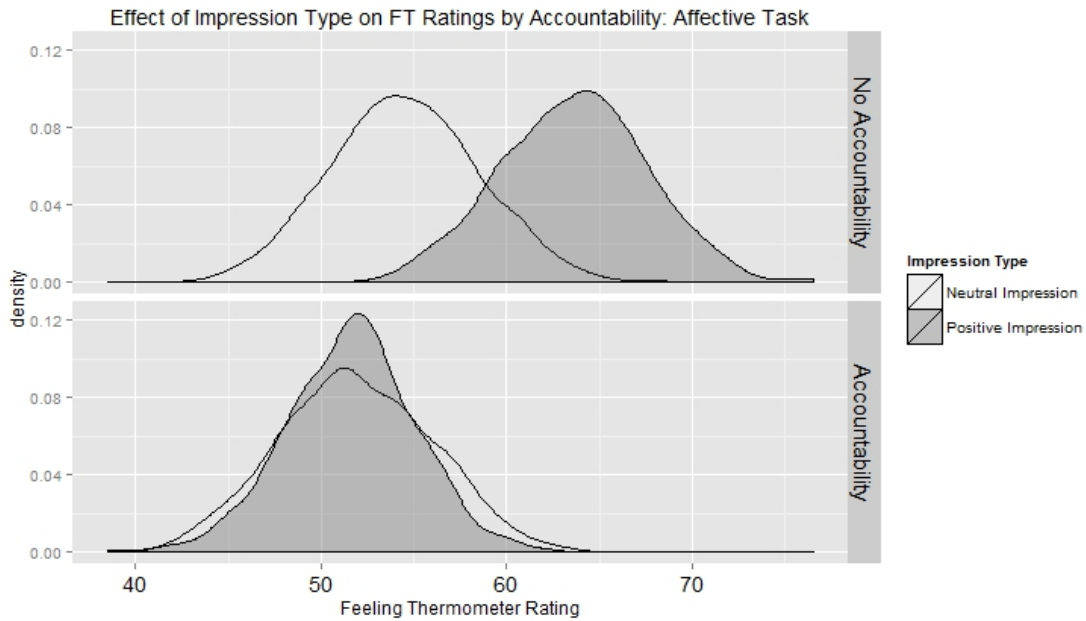


Figure 5.2: Impression Effect on Feeling Thermometer Ratings by Accountability. The figure shows the estimated feeling thermometer ratings based on 1000 simulated draws from the regression model presented in Table 5.3. While the evaluations of non-accountable subjects were influenced by the manipulation, no such effect occurred among accountable participants.

4.02) in the neutral group and 51.75 (SD: 3.34) in the positive group. In the cognitive and accountable group, the feeling thermometer ratings in the positive group were 54.2 (SD: 3.69) and 49.4 (SD: 5.2) in the neutral group, a non-significant difference ($p < .475$).

Interestingly however, even while accountability eliminated much of the impression bonus on feeling thermometer ratings, it had less of an effect on “correcting” the subjects’ underlying preferences; the positive impression still resulted in a significant increase in the proportion of participants voting for the moderate candidate over that in the neutral impression group (Figures 5.4 and 5.5). Within the affective and accountable group, 12.4% (SD: 4.3) of the subjects in the neutral impression group were estimated to vote for the moderate candidate while 21.5% (SD: 5.8) of those in the positive group were ($p < .035$, one-tailed). Similarly, in the cognitive

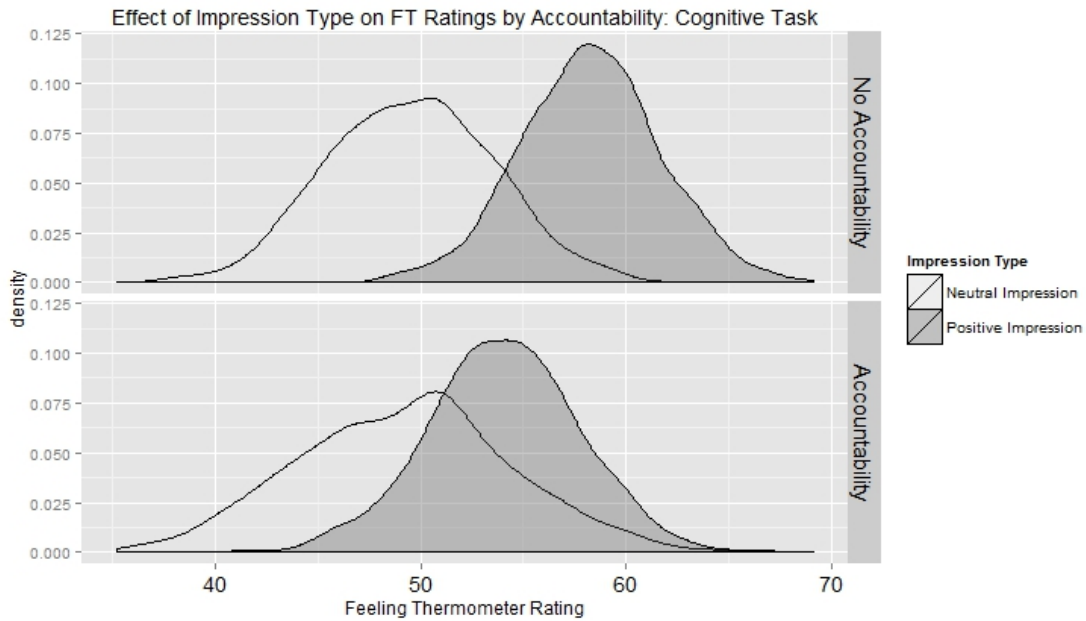


Figure 5.3: Impression Effect on Feeling Thermometer Ratings by Accountability, Cognitive Group. The figure shows the estimated feeling thermometer ratings based on 1000 simulated draws from the regression model presented in Table 2. While the evaluations of non-accountable subjects were influenced by the manipulation, no such effect occurred among accountable participants.

and accountable group, the positive first cue increased support for the moderate candidate to 36.5% (SD: 6.6) from 18.5% (SD: 6.2; $p < .022$, one-tailed). Thus, while accountability had some ability to temper the feeling thermometer evaluations of the subjects in the presence of an impression cue, accountable subjects in the positive condition still preferred the moderate candidate more than did their counterparts in the neutral condition.⁶

⁶While it may seem counterintuitive that voting preferences would change even though feeling thermometer ratings did not, the logistic regression in Table 5.3 shows a positive effect for impression group; consequently, even when controlling for the influence of feeling thermometer rating, subjects in the positive cue group showed a greater preference for the moderate candidate.

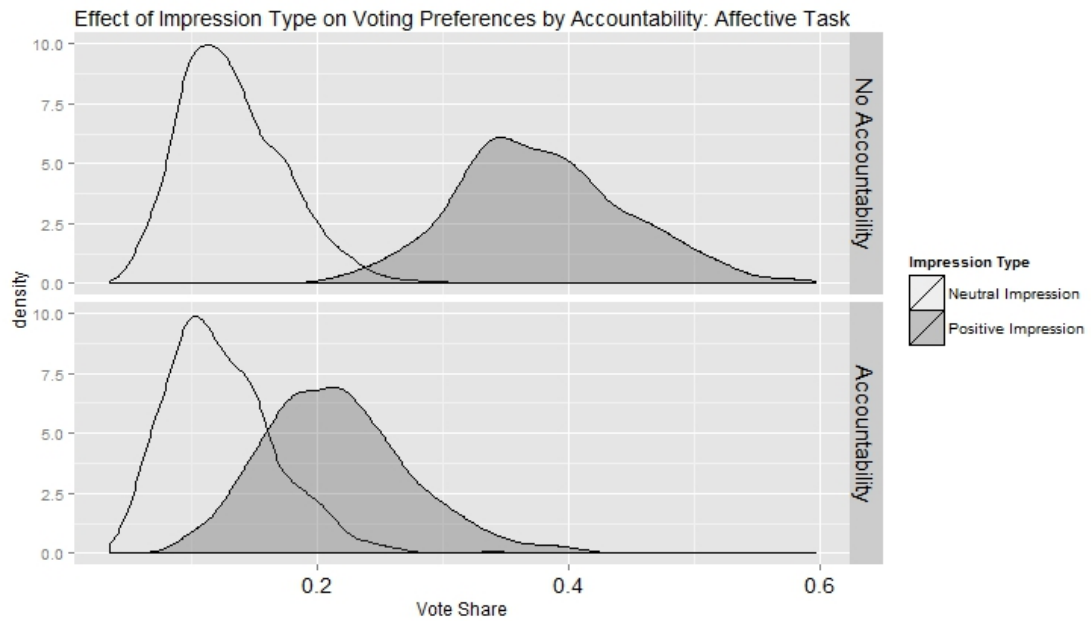


Figure 5.4: Estimated Vote Proportion by Accountability and Impression Type. In both the non-accountable and accountable groups, vote share increased significantly in the positive cue condition.

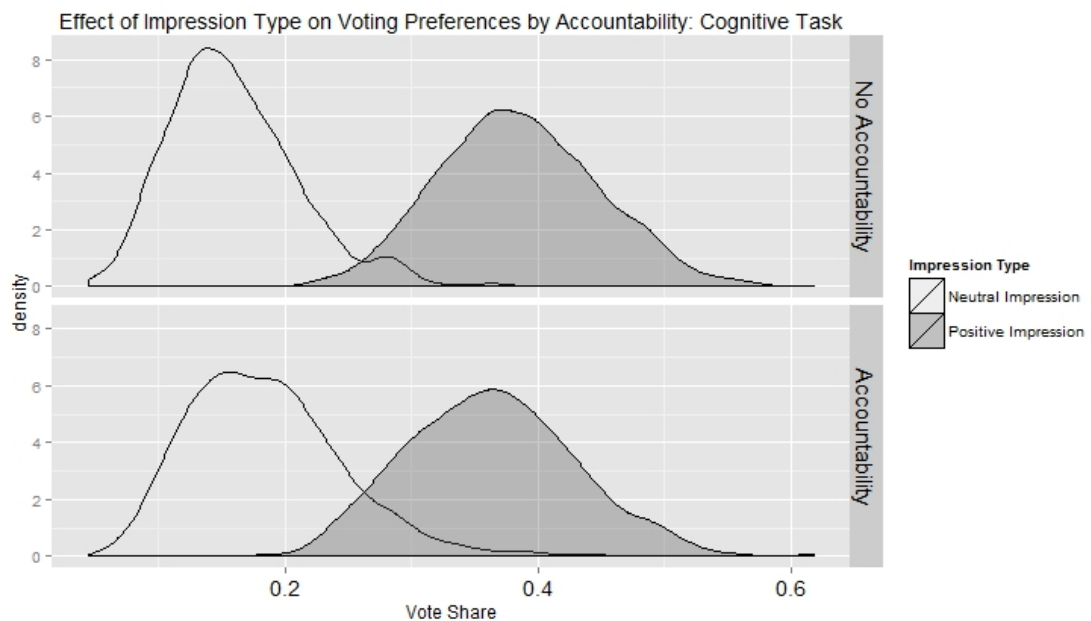


Figure 5.5: Estimated Vote Proportion by Accountability and Impression Type, Cognitive Group. In both the non-accountable and accountable cognitive groups, vote share increased significantly in the positive cue condition.

5.2.2.1 Summary of Results

The results presented here are consistent with previous work that shows the expectation of accountability can lessen the influence of first impression biases (Tetlock 1983b). Overall, the data fail to support hypothesis one: although accountability did reduce bias in the cognitive group, it did so in the affective task as well. Still, the results here provide some support for the SAM perspective; accountable subjects in the affective group were indeed influenced by the manipulation, as the neutral cue group and the positive cue group evinced different collective preferences for the moderate candidate. So although relative to the non-accountable group the impact of the manipulation was reduced, the initial cue nevertheless changed the subjects' preferences even when they were presumably motivated to make a good decision. This finding suggests that a first impression bias in preferences may not be mitigated simply by increased cognitive effort and thus speaks to the affective nature of political preferences.

5.3 The Effect of Accountability on Epistemic Freezing

The next question to address concerns the degree to which subjects are responsive to new information. After all, even if the impression manipulation had an effect on the participants' initial preferences, such influence may be inconsequential if the voters' judgments change as they become more informed. To adduce the extent to which initial evaluations and preferences freeze, we now turn to an analysis of the poll time manipulation. The second poll appeared after four minutes of information search, at which time the subjects had viewed 22.1 (SD: 10.6) unique items in total and 7.6 (SD:

4.7) items about the moderate candidate.⁷ In essence, subjects had nearly tripled the amount of information considered at this point in the study.

First, we look at the change in feeling thermometer ratings from the early poll to the late poll in the affective group. Among non-accountable subjects, feeling thermometer ratings were unchanged in the neutral impression group. While early pollsters gave the moderate candidate a rating of 54.2 (SD: 3.83), late pollsters rated him at 53.6 (SD: 4.14; $p < .911$). In terms of vote share, support for the moderate declined to 8.7% (SD: 3.3) from 13.1% (SD: 4.1), although not significantly so ($p < .169$).

In the positive cue condition, however, new information did significantly change the preferences of non-accountable affective subjects. Feeling thermometer ratings dropped rather precipitously, from 63.5 (SD: 3.8) in the early poll group to 44.3 (SD: 3.7) in the late ($p < .000$). Vote shares declined dramatically as well, from 37.5% (SD: 6.5) in the early poll group to a mere 6.8% (SD: 3.7) in the late ($p < .000$). Among the affective and non-accountable subjects, then, we see that new information had little effect on the preferences of the neutral cue group. However, the positive cue group did update their beliefs as a function of the new data they acquired, suggesting that it resisted epistemic freezing.

Turning to the non-accountable subjects in the cognitive group, feeling thermometer ratings in the neutral impression group changed to 57.7 (SD: 4.0) in the late poll group from 49.5 (SD: 4.0), although the change was not statistically significant ($p < .149$). Nor was there a significant difference in the vote preferences between the early and late poll groups; the moderated candidate received 15.8% (SD: 5.1) of the vote

⁷Again, there was a marginally significant effect of accountability on total information access, with accountable subjects opening 20.8 items to the 23.5 items in the non-accountable condition ($p < .065$). No other significant effects by manipulation emerged for total information acquisition or moderate candidate information acquisition.

in the early poll condition and a statistically similar 19.5% (SD: 5.2) share in the late ($p < .411$). We may thus conclude that increasing information did little to affect the judgments of non-accountable cognitive subjects in the neutral condition.

Similar results obtained in the positive cue group. Late poll feeling thermometer scores were virtually identical to those in the early poll condition: 60.2 (SD: 3.8) in the late group versus 58.2 (SD: 3.3) in the early ($p < .686$). As one might expect based on these values, the vote preferences of non-accountable subjects in the positive cue condition were unchanged as well. The moderate candidate received 38.1% (SD: 6.3) of the vote in the early poll condition and 34.2% (SD: 6.7) in the late ($p < .535$). Regardless of impression cue, it would appear that non-accountable subjects did not shift their preferences as a result of the new information they acquired.

To summarize the results thus far, it appears that the value of new information was practically nil for most of the non-accountable subjects (Table 5.4). Only one group—the affective subjects in the positive cue condition—demonstrated a clearly significant change in preferences from the early poll to the late. These results are squarely in line with the notion of belief persistence put forth by many psychologists; once an impression is formed, even on the basis of scant information, it becomes difficult to change. Of course, the question of interest now becomes whether introducing accountability to the decision tasks studied here can alter the incidence of epistemic freezing observed among the participants.

Hypothesis 2a predicts that the introduction of accountability will reduce epistemic freezing in the cognitive condition while increasing it in the affective group. It therefore should be the case that accountable cognitive subjects become more responsive to new information while accountable affective ones become less. Looking first at the accountable affective group, feeling thermometer ratings in the neutral impression group were unchanged from the early poll to the late. The early poll subjects gave the moderate candidate a 51.7 (SD: 4.2) score, comparable to the 48.7 (SD: 3.7)

Table 5.4: Information Effects by Experimental Group

<i>Feeling Thermometer Ratings</i>		Information Effects?	
		No Accountability	Accountability
Group	Affective x Neutral Impression	No	Yes
	Affective x Positive Impression	Yes	No
	Cognitive x Neutral Impression	No	Yes
	Cognitive x Positive Impression	No	No
<i>Voter Preferences</i>			
Group	Affective x Neutral Impression	No	Yes
	Affective x Positive Impression	Yes	No
	Cognitive x Neutral Impression	No	No
	Cognitive x Positive Impression	No	No

rating received in the late poll group ($p < .590$). Despite the lack of movement in feeling thermometer ratings, the model does predict a marginally significant change in voter preferences among accountable subjects. While the moderate candidate garnered 12.5% (SD: 4.4) support in the early poll group, his vote share dropped to 6.3% (SD: 3.0) in the late poll group ($p < .078$).

In the positive impression condition, feeling thermometer scores for the moderate candidate were statistically indistinguishable in the early and late conditions; 51.7 (SD: 3.5) and 56.0 (SD: 3.9; $p < .422$). So too was the proportion of subjects voting for the moderate candidate, with 20.9% (SD: 5.6) of early responders supporting the

politician and 20.0% (SD: 5.5) doing so in the late ($p < .860$). So while the non-accountable subjects in the positive impression updated their preferences from the early poll to the late, introducing accountability actually made the preferences of the positive cue group *more* resistant to new information.

Focusing now on the accountable cognitive subjects, we find a marginally significant change in feeling thermometer ratings in the neutral impression group. While the early poll group gave the moderate candidate a rating of 48.9 (SD: 5.1), this score increased to 61.0 (SD: 4.7) in the late poll group ($p < .078$). Vote shares, however, remained similar in both groups: 18.4% (SD: 6.3) in the early poll condition and 26.9% (SD: 6.3) in the late ($p < .114$). New information had no effect in the positive cue condition, on either feeling thermometer ratings—54.0 (SD: 3.7) in the early group compared to 57.4 (SD: 57.4) in the late ($p < .532$)—or on vote proportions, which registered 22.9% (SD: 6.4) and 21.0% (SD: 6.1) in the early and late groups respectively ($p < .709$).

These data make it difficult to give Hypothesis 2a a fair test, simply because information had so little effect on judgment (Figures 5.6 through 5.9). Significant information effects appeared in only 4 of the 16 instances examined here, lending credence to the claim that “cognitive conservatism” is a hallmark of attitudes and judgment (Greenwald 1980). It is worth noting however, that in the affective group, the significant information effect found in the neutral impression group was eliminated by the introduction of accountability—that is, making subjects accountable made them less responsive to new information than were the non-accountable participants. Similarly, in the one case in which accountability influenced the cognitive group, it was to make subjects more responsive to new information. This pattern of results is at least consistent with my predictions in Hypothesis 2a: accountability made affective

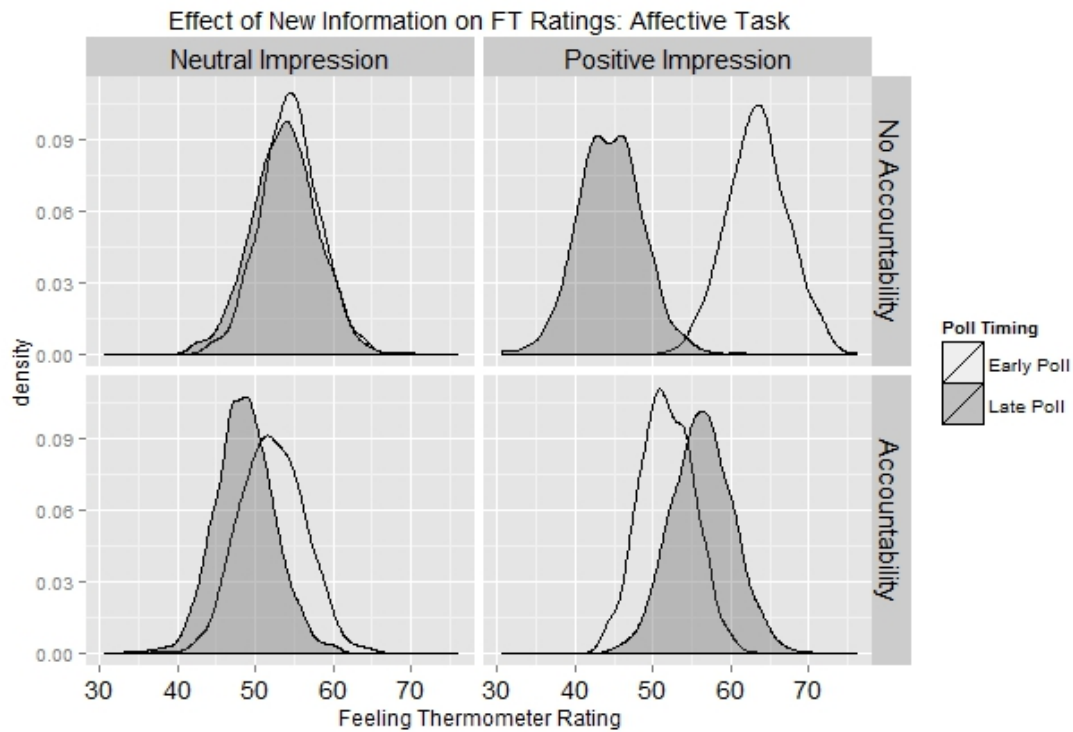


Figure 5.6: Changes in Feeling Thermometer Ratings by Impression Type and Accountability. For subjects in the affective condition, new information had the greatest influence on non-accountable subjects in the positive impression group

subjects more rigid in their judgments while making cognitive ones less.⁸

5.3.1 Effect of Accountability on Final Preferences

The previously detailed results only speak to the incidence of preference change in the first four minutes of the study. While it seems likely that early impressions would be the most susceptible to updating as a function of new information, it could also be the case that subjects needed more time to reach their final decisions. Thus, to complete the analysis of epistemic freezing, we now turn to an examination of subjects' final

⁸As detailed in the Appendix, including the results from the partisan candidate provides little additional insight into the relationship between epistemic freezing and accountability. On the whole, information seldom mattered to evaluations.

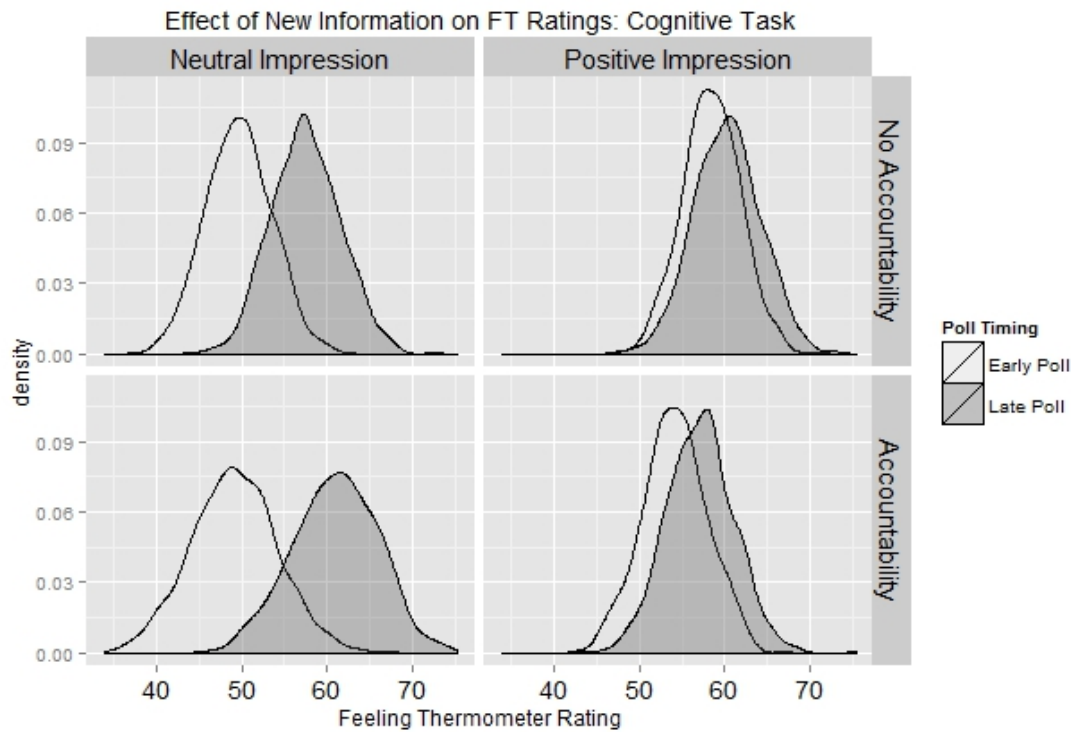


Figure 5.7: Changes in Feeling Thermometer Ratings by Impression Type and Accountability, Cognitive Group. For subjects in the cognitive condition, new information had the greatest influence on accountable subjects in the neutral impression group

preferences for the manipulated candidates.⁹ I created a simple measure of opinion change by comparing subjects' initial poll preferences to their final vote decisions. If a subject expressed the same preference from the first poll (either early or late) to the final one, I coded the variable 0; otherwise, the subject was deemed to have changed his mind and the variable was coded 1. Among those subjects who indicated an initial preference for one of the manipulated candidates, a full 78% of subjects did not alter their preferences during the study. Tellingly, of subjects in the early poll group ($n = 161$)—who were polled after only one and half minutes of information search—72%

⁹About 80% of the subjects (338/426) voted for either the partisan or moderate candidate in the initial polls.

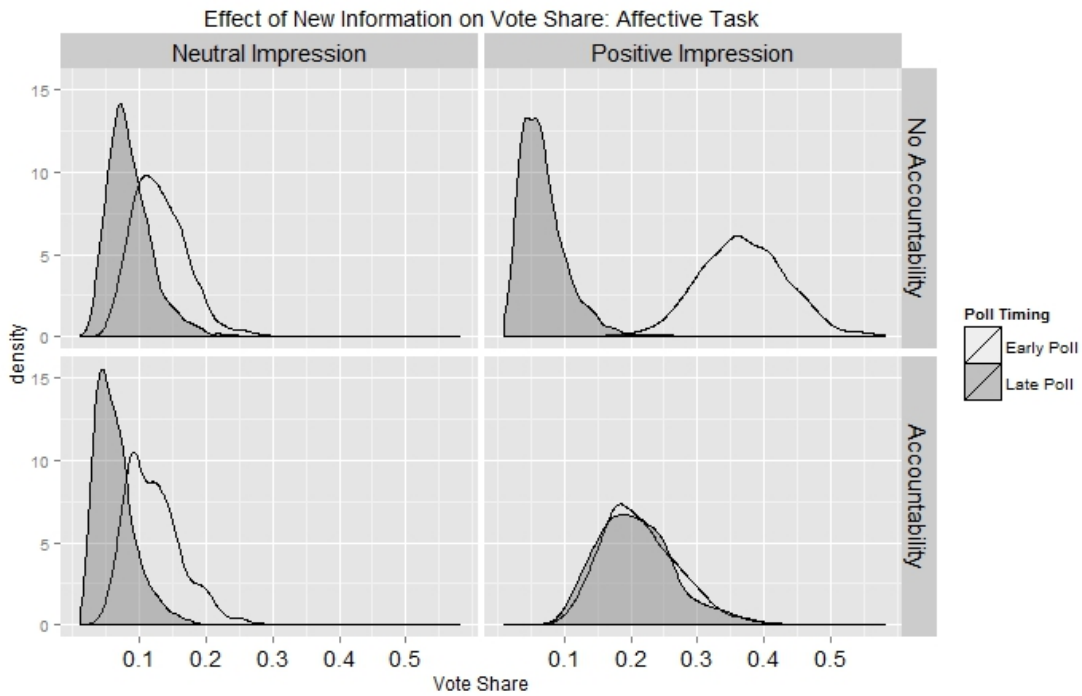


Figure 5.8: The Effect of New Information on Preferences by Accountability and Impression Type. In general, new information had little effect on preferences for the moderate candidate. Notably, only non-accountable subjects in the positive impression group demonstrably changed their preferences as they became more informed. Accountable subjects in this group, however, did not update their beliefs

did not change their preferences. Almost thirty percent of all subjects in the study therefore made up their minds on the basis of about 8 pieces of information!

In order to more fully understand the effects of decision task, information, and accountability on epistemic freezing, I used a logistic regression model with my dichotomous indicator of opinion change.¹⁰ I first investigated Hypothesis 2b, which states that preference change will be greater in the cognitive early poll condition than in the affective early poll condition. Contrary to my prediction, however, there were no significant differences in opinion change in the early poll group, either by decision task or under accountability demands (Figure 5.10). Based on the simulations from

¹⁰Model results are presented in the Appendix.

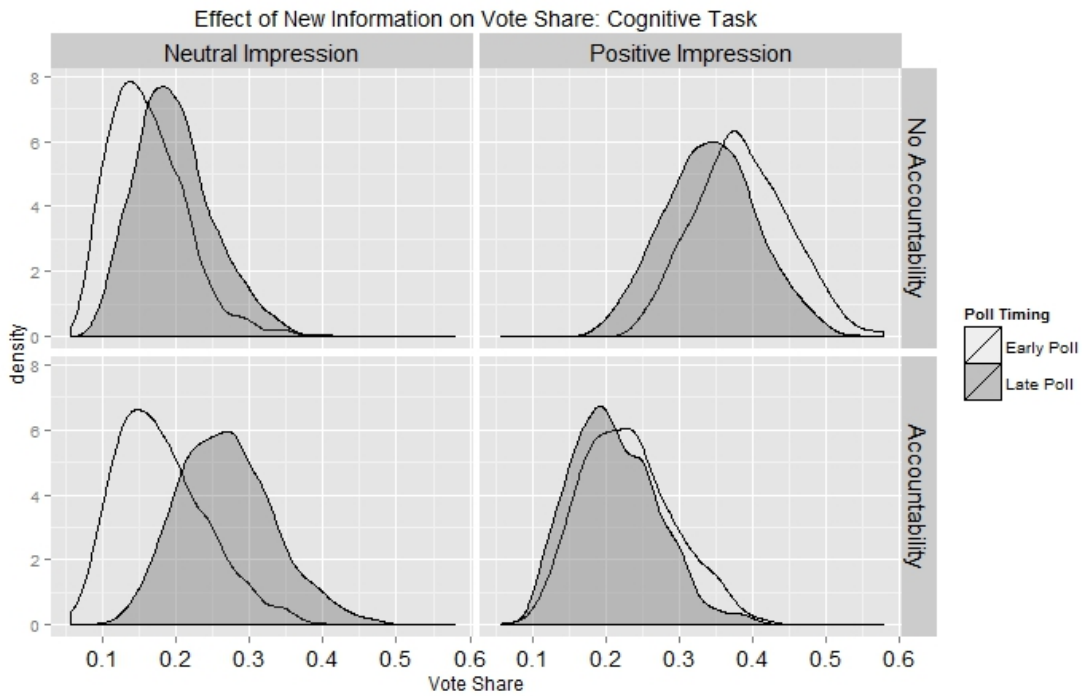


Figure 5.9: The Effect of New Information on Voting Preferences by Accountability and Impression Type, Cognitive Group. The greatest change in preferences for the cognitive group occurred among the accountable subjects in the neutral impression condition. Otherwise, new information had scant influence on judgment

the logistic regression, about 25.0% (SD: 6.5) of subjects in non-accountable cognitive condition changed their preferences from the early poll to the final decision compared to the 18.9% (SD: 6.1) in the non-accountable affective condition ($p < .485$). And although accountability did increase the proportion of preference change in both the early poll groups, neither of the changes were significant (Figure 5.10). In the affective group, the proportion of subjects changing their final preference increased to 31.2% (SD: 7.2) from 18.5% (SD: 5.6; $p < .161$) under accountability demands, while in the cognitive group the percent rose to 38.6% (SD: 8.0) from 25.3% (SD: 6.7; $p < .189$).

Given the lack of results in the early poll group, we might expect similar non-findings in the late poll group as well; after all, if most subjects were unwilling to change their preferences even when their judgments were based on limited informa-

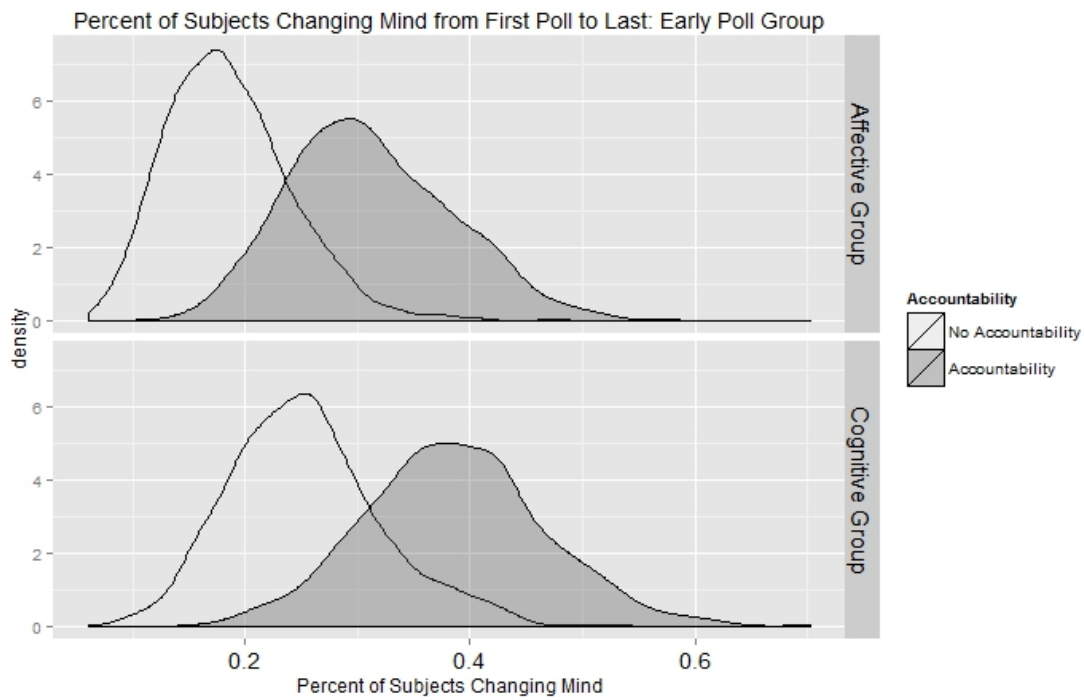


Figure 5.10: Proportion of Subjects Changing Their Preferences from the First Poll to the Final Decision. Although accountability increased the proportion of preference change in both groups, neither change was significant

tion, then it is not likely subjects in the late poll group—who have examined more considerations—would act any differently. In fact, among the non-accountable subjects, no significant differences emerge in preference change among the cognitive and affective groups. In the affective group, 22.4% (SD: 6.0) of the subjects expressed a final preference different from their initial one, while 13.7% (SD: 5.2) in the cognitive group did ($p < .260$). However, under the expectation of accountability, cognitive subjects became more willing to change their minds, while affective subjects became less, as predicted by Hypothesis 2a (Figure 5.11). Among accountable affective decision-makers, only 7.5% (SD: 4.6) changed their minds from the late poll to the final vote, while 26.8% (SD: 7.0) did in the cognitive group ($p < .027$). This result is particularly notable because it indicates that subjects performing a cognitive task were more able to keep an open mind—in effect, to admit that their initial judgments

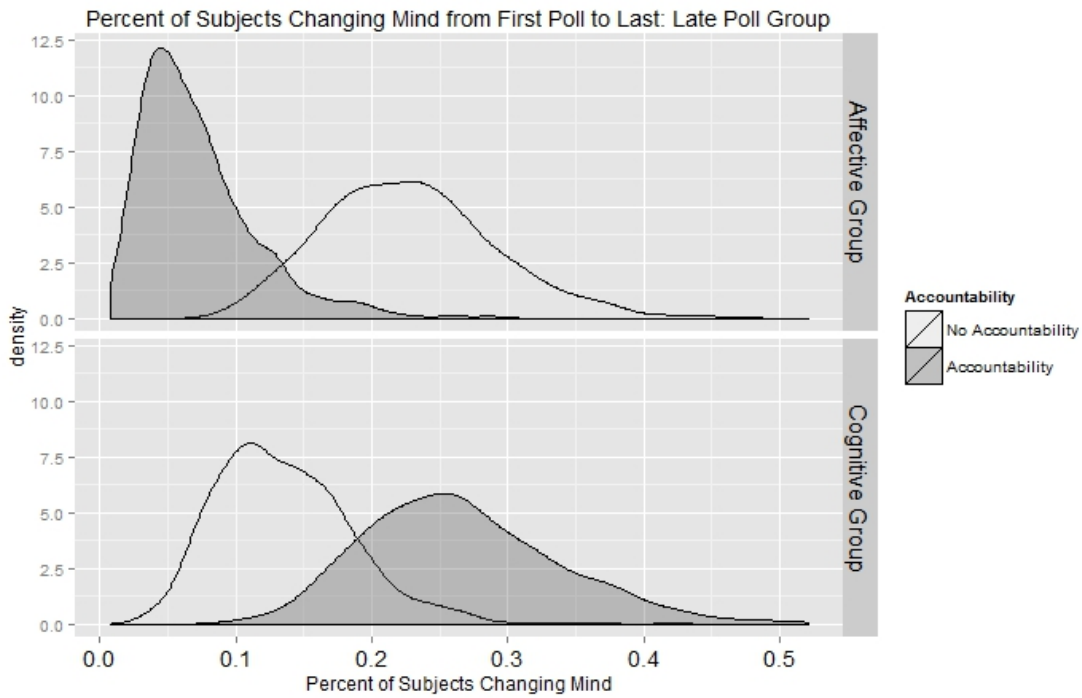


Figure 5.11: Proportion of Subjects Changing Their Preferences from the First Poll to the Final Decision, Late Poll Group. Accountability had divergent effects on epistemic freezing among subjects in the late poll group. While cognitive decision-makers were more likely to change their preferences under accountability, affective decision-makers were less

were wrong—when motivated than were subjects engaged in an affective task, even after examining a significant amount of information.

5.3.1.1 Summary of Results

The results on epistemic freezing tell a story of the limited ability of information to alter preferences. Among all subjects (including those who voted for the “odd” candidate), 70.7% did not change their opinion from the first poll to the last poll. If we assume that none of these subjects made up their minds prior to the early poll (at the one and a half minute mark), then we can conclude that a majority of participants used somewhere between 20 and 40% of all the information accessed to form their judgments. This finding underscores a crucial point of the SAM theory

of information use: the amount of an information an individual *considered* during a decision task does not necessarily comport with the amount of information used to *form* a judgment. Assuming that because someone “looks” informed that he or she holds informed opinions is a questionable proposition.¹¹

The results further demonstrate that increased cognitive effort (i.e., accountability) can reduce epistemic freezing—but only for certain decision tasks. While accountability had some salutary effect on the incidence of epistemic freezing in the cognitive condition, no comparable results obtained in the affective condition. In the one instance that accountability influenced the preference updating of the affective group, it was the non-accountable subjects who appeared to be more reactive to new information. Additionally, in the case of the late poll group, accountability actually increased the degree of belief persistence for the affective decision makers. The divergent effects of accountability on epistemic freezing during affective and cognitive judgments are supportive of the SAM claim that people treat information differently during affective and cognitive tasks.

5.4 Accountability and Confirmatory Processing

The limited effects of accountability on primacy bias and epistemic freezing imply that increased cognitive effort does not necessarily protect voters from falling victim to certain types of cognitive biases. The question now becomes to what end is the presumably more effortful cognition of the accountable subjects applied? The data from the experiment in Chapter 4 suggests that accountable voters spent a larger proportion of their information search on their preferred candidate and the design here

¹¹Consider as well that subjects who eventually changed their mind ($n = 124$) looked at the same amount of information as those who did not ($n = 302$): 40.7 items in the opinion change group compared to 44.3 in the no change group ($p < .148$)

allows me to more directly examine the extent of confirmatory search. Hypothesis 3 proposes that accountability will lead affective decision makers to engage in more confirmatory search patterns and to spend more effort in justifying their preferences. In effect, the increased mental effort generated by accountability is predicted to be directed at justifying to others preferences which the participants themselves need little information to form.

I operationalized confirmatory search by examining the proportion of information examined about the subject's preferred candidate *after* the subject had participated in the initial poll. For this analysis, I only include subjects who did not change their minds ($n = 301$); this ensures that the results pertain to participants who 1) exhibited a preference, and 2) maintained this preference throughout the study. Further information sought about this initial preference may rightly be characterized as confirmatory in nature. Overall, these subjects devoted 43% (SD: 14.6) of their post-poll search to their preferred candidate.

A 2 (decision task) x 2 (accountability) ANOVA (Table 5.5) with a planned comparison between the accountable and non-accountable subjects in the affective group finds the predicted effect of accountability on confirmatory search ($F_{1,297} = 3.53, p < .061$). After registering their choice (in either the early or late poll), accountable subjects devoted 45.2% of their search to the candidate they preferred compared to the 42.2% in the non-accountable group. This difference is largely driven by the behavior of subjects in the affective condition (Figure 5.12); this group increased their confirmatory search to 46% (SD: 17.3) from the 42% (SD: 12.4) in the non-accountable group ($p < .044$, one-tailed).¹² The increase in the cognitive group was half as large and not statistically significant (44% vs. 42%, $p < .204$, one-tailed).

¹²The 46% rate obtained here is quite similar to the 47% proportion found among accountable and affective subjects in the study detailed in Chapter 4.

Table 5.5: ANOVA: Confirmatory Search Proportion

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Accountability	1	0.08	0.08	3.53	0.0611
Decision Type	1	0.01	0.01	0.41	0.5248
Accountability:Decision	1	0.01	0.01	0.30	0.5843
Residuals	297	6.39	0.02		

Table 5.6: Planned Comparison: Accountability Effect on Confirmatory Search

Contrast		
Affective Condition	Difference	.040
	SE	.023
	Sig.	.088
	95% CI of difference	-.006-.085

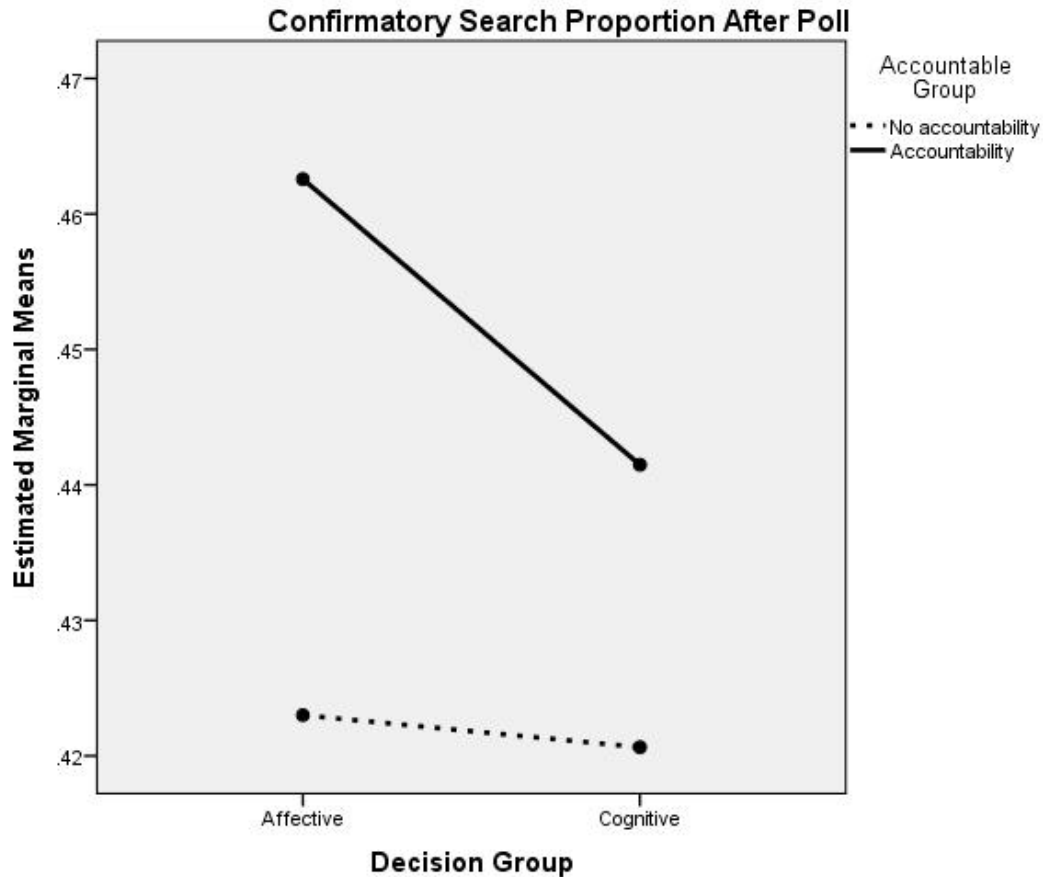


Figure 5.12: Proportion of Confirmatory Search After Poll. The figure shows the percentage of information accessed about the subject's preferred politician after they indicated their choice in one of the early polls. Accountability increased the incidence of confirmatory search, particularly in the affective group

As another indicator that the increased cognitive effort of the accountable subjects was dedicated to bolstering their choices, I examined the open-ended responses participants provided at the end of the study. Subjects first provided the reasons they supported the candidate they did, and then were asked to state why they rejected the other candidates. Consistent with the results from the previous study, accountable subjects produced more total words than non-accountable subjects: 69.3 words (SD: 44.4) in the non-accountable condition compared to 80.7 (SD: 48.7) in the accountable group ($p < .012$). But all of this difference is due to an increase in justification for the preferred candidate. Accountable and non-accountable groups wrote the same amount about the rejected candidates, 33.2 (SD: 24.2) in the non-accountable group versus 34.7 (SD: 25.1) in the accountable condition ($p < .520$). When justifying their preferred option, though, accountable subjects generated 45.9 words (SD: 31.0) while non-accountable ones left 36.1 (SD: 25.3; $p < .000$).

These results are particularly meaningful because both accountable and non-accountable subjects examined the same amount of information about their preferred candidates: 20.2 (SD: 10.4) in the non-accountable condition compared to 18.8 (SD: 8.7) in the accountable group ($p < .128$). At the same time, accountable subjects looked at significantly fewer ($p < .008$) pieces of information about the rejected candidates on average, 12.9 (SD: 7.1), compared to the 15.1 (SD: 10.1) items in the non-accountable group. Thus, accountable subjects looked at less information about the candidates they disliked and engaged in the same degree of rationalization as non-accountable subjects, but rationalized their preferred option more while considering the same amount of information as their non-accountable counterparts. These results strongly suggest that to extent that accountable subjects expended increased cognitive effort, it was geared towards preference rationalization.

5.5 Discussion

The preceding study reveals a number of important facets of political preferences. Namely, while there is no doubt that certain judgmental biases infiltrate political reasoning, it is not clear that these biases can be overcome by increased cognitive effort. While boosting cognitive effort via accountability certainly led to some reduction in these biases, they were by no means eliminated. And even if heightened motivation is able to mitigate some biases, we must take seriously the possibility that increased attention to the decision task exacerbates other judgmental shortcomings. Although the effects of accountability on increasing and decreasing first impression bias and epistemic freezing was mixed, there can be no doubt that accountability increased the effort devoted to confirmatory search, suggesting that more effortful cognitive strategies are not a panacea when it comes to political attitudes. In sum, the data reported here provide good reason to believe that in terms of political preference formation, the information processing of the subjects was more geared towards confirming and justifying beliefs than towards reaching “accurate” conclusions, whatever that may mean.

Skeptics may again question whether this short study tells us anything about political preferences outside the laboratory. Consider the following, though: the participants in this study had absolutely no affective attachment to any of the candidates. And yet, they quickly formed judgments about them and committed to these opinions even in an information rich environment in which they had to exert a minimal amount of effort to become more informed. Furthermore, the experiment was designed in the context of a simulated primary; thus, the candidates were all members of the “in-group” and shared many similar policy outlooks. Now consider how the mechanisms at work in this artificial environment would function in the real world. Candidates from the rival party—and the policies they endorse—will likely engender automatic suspicion and distrust, thus making people less likely to give their positions

a fair hearing; certain policy issues become “litmus” tests for group identification and enjoy wide-spread in-party support, suggesting a strong social component to endorsing certain policy stands; and long-standing and public loyalties to certain parties and politicians commit people to particular viewpoints regardless of new developments and facts. All of these factors would seem to produce even stronger affective reactions—and thus more directional reasoning—than the stimuli used in the study. Add to this the comparatively higher costs of attention and information acquisition outside of the lab and the lack of strong incentives favoring opinion change and it seems likely that the mechanisms captured in this study are very much at work in everyday settings.

Finally, although the study here presumed that subjects would have some interest in the decision task and therefore a modicum of valenced affective reactions to the hypothetical candidates, I wish to suggest that the consequences of a lack of affect towards political attitude objects functions in a similar fashion. That is, a neutral or aversive reaction to politics will only be increased when subjects are motivated. Just as political experts experience social incentives to be informed about politics and discuss and justify their views, many others operate under precisely the opposite reward system: being uninterested in politics is the prevailing norm. I would predict that motivating these individuals to “think harder” about politics and their interests would simply lead them to rationalize their lack of interest in politics. However, transplant these political novices into social settings in which political discussion and exposition is the standard and a political expert may well result.

Chapter 6

Political Expertise as Legitimizing Myth

The hierarchy of preferences conception of political opinion has been part and parcel of the academic study of politics for a long time. And in that time, few sustained theoretical or empirical challenges to the doctrine have emerged. To be sure, scholars have danced around the edges of the theory, suggesting that perhaps we have failed to accurately measure the incidence of political expertise of the populace or maybe that voters compensate for their lack of knowledge in some manner, but the fundamental premises of the hierarchy position have rarely been questioned. In this project, I have presented a variety of counters to the hierarchy view, both theoretical and empirical. At this juncture, I wish to briefly review some of my main positions and findings.

6.1 Theoretical Objections

My major critique of the claim that political information facilitates the development of “enlightened” or expert political preferences is that such a view fails to account for the nature of political judgments. To assert that political opinions require a quantity of (presumably factually accurate and relevant) information is to presume

that there exists some sort of correct or proper preference that one arrives at through a combination of reasoning, logic, and evidence. Under this position, citizens are cast as naive scientists charged with discovering their true political interests. To the extent that voters rely on faulty evidence or improper reasoning, then, their judgments are biased or in error, just as are the conclusions of a doctor who relies on incorrect theories of physiology or disease transmission. The dominant hierarchy of preferences model of information use argues that information matters to preferences because it assumes that political preferences are cognitive judgments that should be responsive to objective facts and circumstances.

In this project, however, I have argued that this cognitive conception of political preferences is incorrect. Instead, I propose that political judgments are affective judgments situated in social reality; our opinions and views on politicians and policies are not discovered through the careful appraisal of facts and figures, but rather are *created* through an interplay of our psychological attributes, our cultural and social backgrounds, and our value systems. By implication, the relationship between information and political preferences is quite different from that supposed by the cognitive view of attitudes. Under the affective notion of political judgment, information serves our preferences, not the other way around. Information is a tool, and people primarily use it to justify, rationalize, and defend beliefs that have their origins in a complex interaction of idiosyncratic personal and environmental factors.

The main conclusion I draw from this re-conceptualization of the nature of political judgments is that expert political preferences are a chimera. The fact that some people are vastly more informed about politics tells us nothing about the ultimate origins of their preferences; the ability to present a wide range of intellectually sophisticated justifications for a particular view point does not imply that the view was in truth generated by those considerations. What I suggest in this work though is that the illusion of expertise does tell us something about the social incentives some

people experience to provide explanations and rationalizations of their viewpoints. Political experts are not motivated by the desire to form enlightened preferences, but they are driven by the need to present their opinions as such.

6.2 Empirical Findings

I will be the first to acknowledge that the empirical results presented in this work are far less conclusive than I would like. In particular, I hoped to find a much sharper distinction between cognitive and affective tasks in information processing strategy as well as more definitive differences in the effect of accountability on judgment. That being said, I think there are two key findings which appeared in both my experimental studies that are particularly meaningful for my theory of the relationship between information and political preferences.

First, in both experiments I found that the expectation of accountability significantly increased the amount of words subjects offered in support of their preferences. At the same time, in neither experiment did accountability increase the total information subjects viewed during the task. To me, this finding speaks to the operative motivations during preference formation. When subjects expected to be accountable for their choices, they appeared to dedicate increased effort to explaining their choices without demonstrating a concurrent effort to expand the quantity of information their judgments were presumably based upon. This suggests that at least for the subjects studied here, the demand for accountability was not a demand for increased information but rather increased justification.

Second, both experiments also found a similar pattern of confirmatory search among accountable subjects. While total information search did not increase under accountability demands, the proportion of attention spent on the preferred candidate did, registering just under 50% in both studies. This finding again presents another

window into the nature of political preferences. Subjects presumably interpreted “explain your decision” as “concentrate more on the preferred option.” Of course, this result is entirely in line with the large literature on confirmation bias—people tend to seek out information that supports their beliefs and the data from the two experiments detailed in this project are no different.

Taken together, I believe these two results speak to the illusory nature of political expertise. Based on outward appearances, accountable subjects appeared more “informed” than non-accountable ones, at least as judged by their ability to explain their choices. And yet, these accountable subjects examined the same amount of information as the non-accountable participants while devoting more of their focus to their preferred politician. We may imagine the mechanisms at play here writ large outside the laboratory; while the politically sophisticated have been feted for their allegedly more rational and more informed opinions, it could be simply the case that they are better able at disguising the nature of their preferences behind a veneer of socially acceptable rationalizations.

6.3 Normative Concerns

Although my objections to the hierarchy of preferences view are mainly focused on theoretical and empirical concerns, there is an important normative dimension to the hierarchy perspective that deserves some attention. Given the ample evidence that the model of information processing ingrained in the hierarchy view is suspect, why has the theory persisted for so long with so little dispute?

The simplest answer to this question is that the hierarchy view is basically correct about the relationship between information and preferences and that I am wrong. Undoubtedly, I am on some or perhaps many of the specific claims I have advanced here. But the general thrust of my argument is, I believe, correct. As I have detailed,

confirmation bias has been known to thinkers for hundreds of years. Economists by and large accept that a person's expressed choices are in fact his or her *true* preferences and, to my admittedly limited familiarity with the literature, generally focus on the rationality of the behavior employed to achieve a given end while eschewing any comment about the particular outcome a person might desire. Moral theorists such as Hume and Adam Smith have recognized and championed the primary role of affect in thought and action, while philosophers like Mill and Nietzsche have astutely pointed out that while the preferences of the powerful are often dressed up in elaborate rationales, they are ultimately nothing more than the "likings and dislikings" of a particular group of the population. Extensive psychological work on automaticity, the unconsciousness, cognitive biases, and affective primacy has been on-going for the last forty years, with many of its results standing in direct contrast to the portrait of information use advocated in the hierarchy of preferences perspective.

Surely some of the lack of critical attention to the implications of each of these strands of thought and empirical results for the standard model of information and political preferences is due to mere inertia; after all, the hierarchy view has been around for many years and not only are venerable scientific theories subject to confirmation bias, in which more and more work is devoted primarily to simply reinforcing the theory (Kuhn 2012; Greenwald et al. 1986), there is also a more general tendency among individuals for a "status quo" bias as well (Samuelson and Zeckhauser 1988). In keeping with the spirit of the work I have presented in this project, it stands to reason that researchers would have little incentive to challenge a dominant paradigm. But I think there is a deeper reason for the persistence of the hierarchy model of political information use: it serves an important—though not altogether salutary—normative role as a legitimizing myth in a democratic system (Sidanius and Pratto 2001).

Legitimizing myths, which are part of Sidanius and Pratto's theory of social dom-

inance orientation, are “attitudes, values, beliefs, stereotypes, and ideologies that provide moral and intellectual justification for the social practices that distribute social value within the social system,” (Sidanius and Pratto 2001: p. 45). In a social system in which some groups have power and others do not, legitimizing myths play an important role in maintaining social cohesion—particularly to the extent these myths are endorsed by both the “haves” and “have-nots.” Widespread acceptance of these myths provides a culturally acceptable explanation for the distribution of power and privilege within a society and thus reduces the incidence of overt conflict between dominant and subordinate groups.

Sidanius and Pratto contend that in addition to consensus, the power of legitimizing myths comes from the degree to which they are embedded within other cultural norms as well as the level of certainty—either moral, religious, or scientific—attached to the truth value of the myth. As I have detailed earlier, the hierarchy view of political preferences holds powerful sway in our society. Partly this is because the hierarchy model, with its the notion that some people fail to protect their political interests due to their own intellectual and personal failings, resonates strongly with many other culturally cherished ideas, such as the myth of rugged individualism, the doctrine of personal responsibility, and the celebration of rationality over sentiment. And partly it is due to the fact that, on the whole, political science has endorsed the hierarchy perspective (or at the very least, failed to repudiate it) despite its clear shortcomings as an empirical theory.

Legitimizing myths come in two varieties: hierarchy-enhancing myths, which serve to sharpen the distinctions between privileged and unprivileged groups; and hierarchy-attenuating myths, which attempt to blur the boundaries between the powerful and powerless. As examples of hierarchy-enhancing myths in American society, Sidanius and Pratto suggest classical racism and the Protestant work ethic; among the hierarchy-attenuating myths they note are feminism and the universal rights of

man (Sidanius and Pratto 2001: p. 46). The power of the hierarchy of preferences view comes from the fact that it is at once a hierarchy-enhancing myth and a hierarchy-attenuating one. The hierarchy of preferences position is perhaps so seductive because it contains a strong element of egalitarianism in its formulation; if political expertise leads to enlightened preferences, then all it takes for some down-on-his-luck Horatio Alger to protect his political interests and share in the fruits of prosperity is the motivation to read the paper or watch the news—after all, political information is cheap and readily available. And if certain citizens are too lazy, too dim, or too busy watching reality television to expend the effort to figure out how to vote in their interests, well, then the fault lies at their feet. At the heart of the hierarchy perspective is the eternal optimism that just about anyone can become a political expert and make the right choices for both the individual and the democratic society as a whole.

The idealistic promise of enlightened political interests gives cover to its more insidious hierarchy-enhancing aspects. After all, if some types of political preferences are superior to others, it is not difficult to predict which groups in society will happen to hold the inferior ones. Elites have no end of justifications for why certain political preferences—particularly those that would upset the status quo—are simply unfeasible. Policies that are outside the boundaries of “rational” political discourse are summarily rejected as ludicrous and un-serious, their proponents tarred as fringe radicals who do not understand how the real world works. If there is any doubt as to the conservative nature of political expertise and its ability to stifle any challenges to the dominant hierarchy, consider how the media treat political pundits. As many critics have noted, there is rarely any penalty for these “experts” when it turns out their predictions are wrong. They continue to get treated as authorities and their opinions are received with deference, regardless of the actual success these pundits have in foreseeing outcomes or advocating policies that work in the way they are intended to. Unsurprisingly, these experts reliably take positions on most questions

that comfortably fit within a very narrow framework of what issues constitute a “problem” and what solutions are politically viable (i.e., acceptable to elites). It is interesting to speculate how these pundits fit into the view of information and preferences endorsed by many political scientists; by any objective standard commonly used in the discipline, they would certainly qualify as experts. And yet, their beliefs, attitudes, and opinions are dutifully centrist and beholden to elite orthodoxy. Must we conclude that these individuals best know their true interests? Or are they too victims of “false consciousness” who are being manipulated by even more powerful elites?

The hierarchy of preferences myth provides the politically powerful with the necessary justification to dismiss, ridicule, and denigrate political opinions that threaten their standing. The net effect of the myth is to constrain the range of political alternatives while simultaneously propagating the belief that the set of options endorsed by elites represents the rational and correct policy prescriptions. At the same time, the myth offers the tantalizing promise that all individuals can achieve “enlightened preferences,” although I suspect that many of those disaffected with politics have come to realize that the some preferences are more enlightened than others. What makes a political preference acceptable is not the logic, rationality, or evidence behind it, but its relationship to the preferences of the more powerful segments of society. As Mill observed in *On Liberty*, one of the “grand determining principles of the rules of conduct... has been the servility of mankind towards the supposed preferences or aversions of their temporal masters.”

As long as the hierarchy of preferences myth is in place, we will continue to view the political attitudes and opinions of large swathes of society as misinformed, uninformed, or simply mistaken. And we will continue to attribute these deficiencies primarily to the failings of the individual. But there is another way, suggested by some scholars of public health. Just as political scientists have been concerned with the

supposedly poor political judgment of many citizens, some public health officials have expressed a similar consternation with the poor decision-making tendencies of certain segments of society, particularly low-income individuals. Despite the widespread availability of information about the dangers of smoking or poor eating habits and the presence of prominent public health campaigns to raise awareness of these issues, research finds that people from lower socio-economic backgrounds continue to engage in these destructive behaviors at higher rates than do those from wealthier environments. To some health experts working under the assumption that our interests are determined through reason, the problem of poor health decision reduces to deficiencies in individual behaviors. According to this line of thinking, these populations act against their own health interests due to a failure to heed the relevant facts. But other scholars have preferred to see the decision-making of these disadvantaged demographics as situated in a particular social, cultural, and economic context. Ascribing poor choices to the moral or intellectual deficiencies of the individual neglects to consider the systematic factors which contribute to behaviors which seem irrational from a more privileged perspective. One study found, perhaps not surprisingly, that economic and psychosocial hardships experienced during childhood were predictive of poor health judgments in adulthood, leading its authors to conclude that “economic policy is public health policy,” (Lynch et al. 1997: p. 818). Education and information alone cannot solve judgment problems if we ignore the extent to which the roots of our choices lie in social, cultural, and psychological processes.

It may be time for political scientists to likewise embrace a broad, socio-psychological approach to political preferences. After all, the current perspective, which posits that good judgment results from increased political engagement, must come to terms with the empirical finding that overall levels of political knowledge and interest have been fairly stagnant over decades despite increases in education and a proliferation of news media. Perhaps it is time to seek answers to political preferences in different

places. Rather than ask “Why would a person in severe economic hardship vote for a candidate based on his or her position on same-sex marriage?” we might instead ask, “What social, cultural, and economic conditions have created an environment in which the expressive benefit a person gains for supporting a candidate with a certain position on same-sex marriage outweigh other concerns?” By seeking the determinants of behavior in terms of systematic constraints on the range of political preferences people see as viable or desirable, we may gain any number of heretofore undiscovered insights into the roots of political opinions.

6.4 Future Research Directions

The sketch of the theory of information and preferences I have presented in this project suggests a variety of future research directions. First and most obviously, there are a great number of documented biases in the cognitive psychology literature, so an exploration of the type of biases that may be offset by increased cognitive effort as well as those that may be exacerbated would shed more light into the nature of political preferences. Next, much more work needs to be done to uncover the processing strategies of political experts. Although I did not find much evidence in these studies that more sophisticated subjects behaved differently than less sophisticated, there may be environments in which they do. And of course, it would be instructive to carry out similar studies on policy preferences; candidate preferences may be susceptible to certain types of biases because of our automatic tendencies to judge other people. Thus, it may well be the case that people use more rational processing strategies when evaluating policy options.

Other, more novel avenues of investigation include examining the processing styles of high and low socio-economic status citizens. Some research suggests that wealthier, college-educated individuals are more prone to preference rationalization, so it may be

instructive to see if that is the case in terms of political opinions. If I am correct about the social nature of information use, then it might also be worthwhile to examine the links among political information levels, impression management, and well-being. It could be the case that under instances of status threat or identity challenge, the motivation to become informed increases as people attempt to stave off attacks on their egos. People who face these accountability demands and are able to provide sufficient rationalizations for their beliefs may experience more self-esteem and well-being than those who cannot. Lastly, to the extent that political expertise functions as a legitimizing myth, we should expect to see higher levels of political information among people who score high on scales of social dominance. Further, we might also find that individuals in lower status groups who are well-informed about politics are so because of a need to rationalize and justify their position in the hierarchy.

Appendix A

Appendix to Chapter 3

A.1 Political Knowledge Questions

The list below contains the questions used to construct the objective political knowledge scales used in the analyses.

1992 NES V925113, V925951, V925952, V925915, V925916, V925917, V925918, V925919, V925920, V925921

1996 NES V961010, V961072, V961073, V960379, V960380, V961189, V961190, V961191, V961192

2000 NES V001210, V001356, V001357, V001382, V001383, V001447, V001450, V001453, V001456

2004 NES V045089, V045090 V045160a, V045162, V045163, V045164, V045165, V045263, V045264

2008 NES V085066, V085067, V085119a, V085190a, V085190b, V085120, V085121, V085122, V085123¹

¹At the time the analysis was performed, the office recognition questions for 2008 were not yet

2012 NES ineq_incgap_x, candrel_dpc, candrel_rpc, preknow_prestimes,
 preknow_sizedef, preknow_senterm, preknow_medicare, preknow_leastsp,
 ptycons_ptyconswh, cses_poliinfo, cses_poliinfofour, libcpre_dpc,
 libcpre_rpc, libcpre_ptyd, libcpre_ptyr

A.2 Probit Models

Probit models for each of the survey years are presented here. Percentiles used for the income variable are as follows: 0–16th, 16–33rd, 33rd–67th, 67th–95th, above 95th.

Note that the coefficients shown in Table A.1 were generated by two different processes. Bartels estimated two separate models in order to generate the “informed” and “uninformed” vectors while I used one complete interaction model to simultaneously generate both sets of values (for further details, refer to Chapter 3). The results in Table A.1 are based on the NES interviewer’s subjective rating of the respondent’s level of political information; results using the objective measure appear in Table A.2. The dependent variable for all models is vote preference, coded 0 if the subject preferred the Democratic option and 1 if he or she preferred the Republican candidate. The “uninformed” column of results represents the estimated impact of each covariate on Republican vote probability when information levels are at their theoretical minimum, while the “informed” columns shows the effect of each when information levels are at their theoretical maximum.

coded. Results for these four questions were hand-coded by the author based on the open-ended responses provided by the respondents.

Table A.1: Replication of 1992 Information Effects Model

	<i>Bartels's Model</i>		<i>Replication</i>	
	Uninformed	Informed	Uninformed	Informed
Age	0.000 (0.038)	-0.043 (0.027)	-0.001 (0.039)	-0.047 (0.061)
Age^2	-0.00004 (0.0038)	0.0004 (.0002)	-0.00001 (0.0004)	0.0004 (0.001)
Education	0.001 (0.053)	.096 (0.033)	0.024 (0.046)	0.018 (0.067)
Income	0.828 (0.563)	0.399 (0.329)	0.122 (0.126)	0.038 (0.184)
Black	-2.285 (0.479)	-1.063 (0.319)	-1.862*** (0.428)	0.693 (0.644)
Female	0.326 (0.269)	-0.420 (0.153)	0.521** (0.262)	-1.002*** (0.370)
Married	-0.035 (0.265)	0.335 (0.166)	0.035 (0.273)	0.481 (0.402)
Homeowner	0.029 (0.263)	0.178 (0.164)	0.208 (0.270)	-0.168 (0.394)
Homemaker	0.033 (0.394)	0.290 (0.298)	0.059 (0.358)	0.272 (0.547)
Retired	-0.334 (0.386)	0.531 (0.281)	-0.697 (0.459)	1.409** (0.682)
Clerical	-0.494 (0.349)	0.367 (0.214)	-0.358 (0.385)	0.786 (0.570)
Professional	0.492 (0.404)	-0.242 (0.207)	1.235** (0.506)	-1.434** (0.662)
Union	-0.655 (0.306)	-0.168 (0.191)	-0.526* (0.296)	0.322 (0.431)
Urban	0.299 (0.297)	-0.450 (0.168)	-0.132 (0.243)	-0.086 (0.352)
East	0.594 (0.363)	-0.569 (0.208)	0.730** (0.355)	-1.363*** (0.506)
South	-0.048 (0.281)	-0.128 (0.179)	0.216 (0.292)	-0.455 (0.424)
West	-0.644 (0.337)	0.098 (0.207)	-0.230 (0.325)	0.104 (0.461)
Protestant	0.539 (0.342)	0.935 (0.226)	0.513* (0.272)	-0.131 (0.397)
Catholic	-0.635 (0.388)	0.868 (0.251)	-0.644** (0.325)	0.930* (0.476)
Jewish	-2.610 (1.954)	-0.221 (0.563)	-2.639 (2.004)	1.695 (2.353)
N	1,337		1,323	
Log Likelihood	-763.582		-729.00	

*p<0.1; **p<0.05; ***p<0.01

Table A.2: 1992 Information Effects Model, Objective Measure

	Uninformed	Informed
Age	−0.017 (0.030)	−0.013 (0.048)
Age^2	0.0002 (0.0003)	0.00001 (0.0005)
Education	0.010 (0.037)	0.017 (0.054)
Income	0.160* (0.093)	−0.010 (0.141)
Black	−1.368*** (0.303)	−0.071 (0.555)
Female	0.438** (0.202)	−0.883*** (0.291)
Married	0.095 (0.202)	0.364 (0.307)
Homeowner	0.332* (0.200)	−0.413 (0.302)
Homemaker	−0.011 (0.289)	0.414 (0.440)
Retired	−0.142 (0.381)	0.558 (0.554)
Clerical	−0.130 (0.277)	0.563 (0.440)
Professional	0.515 (0.358)	−0.486 (0.478)
Union	−0.131 (0.221)	−0.336 (0.338)
Urban	−0.205 (0.190)	−0.015 (0.281)
East	0.178 (0.262)	−0.564 (0.388)
South	−0.198 (0.228)	−0.198 (0.333)
West	0.130 (0.264)	−0.349 (0.380)
Protestant	−0.277 (0.215)	1.078*** (0.315)
Catholic	−0.515** (0.249)	0.823** (0.370)
Jewish	−1.887 (1.591)	1.027 (1.888)
Information	0.240 (1.253)	
Constant	−0.437 (0.774)	
N	1,337	
Log Likelihood	−766.578	
% Correctly Classified	71.0%	

*p < .1; **p < .05; ***p < .01

Table A.3: 1996 Information Effects Model, Subjective Measure

	Uninformed	Informed
Age	0.007 (0.057)	-0.046 (0.084)
Age^2	-0.0001 (0.001)	0.0005 (0.001)
Education	0.059 (0.063)	-0.038 (0.094)
Income	0.164 (0.165)	-0.093 (0.240)
Black	-26.858 (569.814)	26.971 (599.807)
Female	-0.846*** (0.313)	0.789* (0.450)
Married	-0.380 (0.322)	0.944** (0.464)
Homeowner	0.327 (0.373)	-0.169 (0.537)
Homemaker	0.672 (0.543)	-0.687 (0.842)
Retired	-0.244 (0.550)	0.513 (0.807)
Clerical	0.353 (0.512)	-0.907 (0.786)
Professional	0.272 (0.479)	-0.770 (0.643)
Union	-0.769** (0.388)	0.016 (0.552)
Urban	0.502* (0.300)	-0.681 (0.446)
East	-0.255 (0.407)	-0.252 (0.583)
South	0.408 (0.365)	-0.858 (0.535)
West	0.422 (0.399)	-0.969* (0.582)
Protestant	-0.267 (0.362)	1.174** (0.528)
Catholic	-0.624 (0.408)	1.217** (0.596)
Jewish	-5.874 (1,878.118)	0.121 (2,801.668)
Information	1.324 (2.260)	
Constant	-1.079 (1.520)	
N	961	
Log Likelihood	-534.692	
% Correctly Classified	69.1%	

*p < .1; **p < .05; ***p < .01

Table A.4: 1996 Information Effects Model, Objective Measure

	Uninformed	Informed
Age	−0.035 (0.037)	0.008 (0.057)
Age ²	0.0003 (0.0004)	−0.0001 (0.001)
Education	0.091** (0.045)	−0.115* (0.068)
Income	0.159 (0.116)	−0.094 (0.174)
Black	−1.661*** (0.546)	−1.091 (1.767)
Female	−0.403* (0.220)	0.140 (0.332)
Married	−0.034 (0.224)	0.371 (0.337)
Homeowner	0.015 (0.251)	0.310 (0.384)
Homemaker	0.350 (0.405)	−0.257 (0.622)
Retired	0.102 (0.395)	−0.143 (0.599)
Clerical	−0.106 (0.344)	−0.289 (0.547)
Professional	−0.451 (0.332)	0.258 (0.456)
Union	−0.588** (0.263)	−0.144 (0.392)
Urban	−0.083 (0.218)	0.217 (0.328)
East	0.095 (0.285)	−0.697 (0.431)
South	−0.019 (0.266)	−0.255 (0.394)
West	0.047 (0.292)	−0.349 (0.436)
Protestant	0.024 (0.274)	0.750* (0.409)
Catholic	0.141 (0.294)	0.044 (0.435)
Jewish	−5.166 (164.218)	0.272 (228.254)
Information	1.428 (1.651)	
Constant	−0.716 (1.060)	
N	961	
Log Likelihood	−538.574	
%Correctly Classified	70.8%	

*p < .1; **p < .05; ***p < .01

Table A.5: 2000 Information Effects Model, Subjective Measure

	Uninformed	Informed
Age	−0.033 (0.038)	0.015 (0.062)
Age^2	0.0003 (0.0004)	−0.0002 (0.001)
Education	0.058 (0.056)	−0.139* (0.081)
Income	0.271* (0.155)	−0.199 (0.216)
Black	−2.850*** (0.623)	2.222** (0.898)
Female	−0.505* (0.303)	0.513 (0.435)
Married	−0.111 (0.281)	0.522 (0.413)
Homeowner	0.301 (0.325)	−0.144 (0.483)
Homemaker	−0.882 (0.559)	1.878** (0.875)
Retired	−0.424 (0.477)	0.653 (0.673)
Clerical	−0.242 (0.423)	0.213 (0.654)
Professional	−1.284** (0.548)	1.583** (0.733)
Union	−0.737** (0.373)	0.528 (0.534)
Urban	−0.361 (0.269)	0.413 (0.384)
East	−0.126 (0.380)	0.241 (0.551)
South	0.447 (0.337)	−0.187 (0.493)
West	−0.212 (0.379)	0.103 (0.545)
Protestant	−0.058 (0.327)	0.504 (0.475)
Catholic	−0.757** (0.341)	1.205** (0.500)
Jewish	−1.452 (1.597)	0.212 (2.002)
Information	0.713 (1.796)	
Constant	0.317 (1.181)	
N	1,011	
Log Likelihood	−551.699	
% Correctly Classified	68.0%	

*p < .1; **p < .05; ***p < .01

Table A.6: 2000 Information Effects Model, Objective Measure

	Uninformed	Informed
Age	0.011 (0.027)	-0.063 (0.051)
Age^2	-0.0001 (0.0003)	0.001 (0.001)
Education	0.036 (0.038)	-0.133** (0.065)
Income	-0.017 (0.104)	0.275* (0.159)
Black	-1.602*** (0.308)	0.265 (0.659)
Female	-0.232 (0.192)	0.058 (0.305)
Married	0.132 (0.184)	0.301 (0.311)
Homeowner	0.023 (0.205)	0.370 (0.361)
Homemaker	-0.437 (0.346)	1.426** (0.630)
Retired	-0.121 (0.320)	0.179 (0.518)
Clerical	0.329 (0.265)	-0.913* (0.483)
Professional	0.165 (0.328)	-0.519 (0.490)
Union	-0.266 (0.221)	-0.196 (0.377)
Urban	-0.230 (0.171)	0.236 (0.279)
East	0.065 (0.246)	0.042 (0.398)
South	0.474** (0.215)	-0.233 (0.368)
West	-0.390 (0.251)	0.453 (0.410)
Protestant	-0.080 (0.214)	0.617* (0.354)
Catholic	0.002 (0.214)	0.025 (0.361)
Jewish	-1.019 (0.859)	-0.257 (1.223)
Information	2.293 (1.485)	2.293 (1.485)
Constant	-0.511 (0.801)	
N	1,011	
Log Likelihood	-557.359	
% Correctly Classified	67.8%	

*p < .1; **p < .05; ***p < .01

Table A.7: 2004 Information Effects Model, Subjective Measure

	Uninformed	Informed
Age	0.099* (0.054)	-0.074 (0.075)
Age^2	-0.001 (0.001)	0.001 (0.001)
Education	0.024 (0.074)	0.001 (0.097)
Income	-0.0002 (0.001)	0.001 (0.002)
Black	-1.700*** (0.533)	-0.319 (0.815)
Female	-0.305 (0.348)	-0.134 (0.470)
Married	-0.060 (0.353)	0.281 (0.489)
Homeowner	-0.174 (0.370)	0.169 (0.535)
Homemaker	0.214 (0.523)	0.599 (0.744)
Retired	-0.273 (0.583)	0.704 (0.763)
Clerical	0.712 (0.563)	-0.262 (0.781)
Professional	0.974* (0.575)	-0.789 (0.746)
Union	-0.825** (0.388)	0.422 (0.535)
Urban	-0.413 (0.397)	0.220 (0.537)
East	0.330 (0.487)	-0.478 (0.653)
South	0.542 (0.408)	-0.736 (0.565)
West	0.499 (0.455)	-1.025 (0.632)
Protestant	0.137 (0.461)	0.199 (0.622)
Catholic	0.109 (0.500)	-0.362 (0.659)
Jewish	-0.392 (1.568)	-0.525 (1.878)
Informed	1.620 (2.188)	
Constant	-2.038 (1.590)	
N	789	
Log Likelihood	-448.066	
% Correctly Classified	68.9%	

*p < .1; **p < .05; ***p < .01

Table A.8: 2004 Information Effects Model, Objective Measure

	Uninformed	Informed
Age	0.020 (0.048)	0.043 (0.071)
Age^2	-0.0001 (0.0005)	-0.001 (0.001)
Education	0.142** (0.060)	-0.245*** (0.087)
Income	0.001 (0.001)	-0.002 (0.002)
Black	-1.993*** (0.439)	0.553 (0.713)
Female	-0.087 (0.283)	-0.403 (0.409)
Married	0.226 (0.300)	-0.152 (0.450)
Homeowner	-0.169 (0.321)	0.249 (0.509)
Homemaker	-0.038 (0.489)	0.937 (0.758)
Retired	-0.471 (0.466)	1.006 (0.655)
Clerical	1.038** (0.438)	-0.898 (0.642)
Professional	-0.184 (0.507)	0.784 (0.689)
Union	-1.107*** (0.330)	0.837* (0.483)
Urban	-0.546* (0.311)	0.405 (0.458)
East	-0.166 (0.412)	0.253 (0.590)
South	0.089 (0.333)	-0.027 (0.493)
West	0.224 (0.392)	-0.596 (0.574)
Protestant	-0.011 (0.404)	0.364 (0.583)
Catholic	-0.317 (0.426)	0.246 (0.608)
Jewish	-1.341 (1.436)	0.666 (1.742)
Information	2.248 (1.891)	
Constant	-1.776 (1.272)	
N	789	
Log Likelihood	-440.760	
% Correctly Classified	71.5%	

*p < .1; **p < .05; ***p < .01

Table A.9: 2008 Information Effects Model, Subjective Measure

	Uninformed	Informed
Age	0.053 (0.036)	-0.098* (0.051)
Age^2	-0.0004 (0.0004)	0.001* (0.001)
Education	0.196*** (0.057)	-0.209*** (0.076)
Income	-0.200 (0.141)	0.593*** (0.190)
Black	-2.983*** (0.936)	0.144 (1.385)
Female	-0.573** (0.265)	0.437 (0.348)
Married	-0.008 (0.269)	0.251 (0.364)
Homeowner	0.336 (0.287)	-0.243 (0.404)
Homemaker	0.012 (0.439)	-0.037 (0.624)
Retired	-0.218 (0.499)	-0.028 (0.645)
Union	-0.499 (0.401)	0.353 (0.537)
Urban	0.047 (0.283)	-0.111 (0.368)
East	-0.101 (0.428)	0.321 (0.579)
South	0.024 (0.416)	0.567 (0.551)
West	-0.696 (0.455)	0.731 (0.604)
Protestant	-0.003 (0.308)	0.849** (0.413)
Catholic	-0.630* (0.379)	1.218** (0.504)
Jewish	2.772 (2.048)	-3.997* (2.371)
Information	1.735 (1.600)	
Constant	-2.794** (1.162)	
N	1,482	
Log Likelihood	-792.947	
% Correctly Classified	72.1%	

*p < .1; **p < .05; ***p < .01

Table A.10: 2008 Information Effects Model, Objective Measure

	Uninformed	Informed
Age	−0.029 (0.031)	0.029 (0.047)
Age^2	0.0005 (0.0003)	−0.0004 (0.0005)
Education	0.227*** (0.054)	−0.377*** (0.077)
Income	−0.105 (0.121)	0.421** (0.173)
Black	−2.585*** (0.771)	−0.383 (1.237)
Female	0.350 (0.213)	−0.737** (0.298)
Married	−0.018 (0.217)	0.221 (0.317)
Homeowner	0.370 (0.249)	−0.330 (0.371)
Homemaker	−1.309*** (0.453)	2.129*** (0.694)
Retired	−1.013*** (0.366)	1.190** (0.514)
Union	−0.279 (0.308)	0.011 (0.434)
Urban	−0.008 (0.225)	−0.163 (0.316)
East	0.163 (0.334)	0.048 (0.478)
South	0.138 (0.321)	0.524 (0.449)
West	−0.135 (0.358)	0.123 (0.491)
Protestant	−0.078 (0.255)	1.149*** (0.366)
Catholic	−1.046*** (0.316)	2.136*** (0.455)
Jewish	3.095* (1.763)	−4.391** (2.149)
Information	3.854** (1.531)	
Constant	−3.201*** (1.022)	
N	1,482	
Log Likelihood	−746.324	
% Correctly Classified	73.0%	

*p < .1; **p < .05; ***p < .01

A.3 Values Models

Presented for illustrative purposes are the values models from the 1992 NES data used to generate the results reported in 3.4.

Table A.11: Predicting Values, 1992 NES: Subjective Measure of Information

	Authoritarianism	Egalitarianism
Information	−0.093*** (0.036)	0.037 (0.025)
Egalitarianism	−0.285*** (0.041)	
Authoritarianism		−0.136*** (0.020)
Age	−0.005 (0.003)	0.001 (0.002)
Age ²	0.00004 (0.00003)	−0.00002 (0.00002)
Education	−0.029*** (0.004)	0.003 (0.003)
Income	−0.020** (0.009)	−0.022*** (0.006)
Black	0.179*** (0.025)	0.213*** (0.017)
Female	−0.070*** (0.017)	0.012 (0.012)
Married	0.008 (0.019)	−0.021 (0.013)
Homeowner	0.022 (0.020)	−0.016 (0.014)
Homemaker	0.0002 (0.029)	−0.033* (0.020)
Retired	0.053 (0.032)	−0.005 (0.022)
Clerical	−0.018 (0.027)	−0.006 (0.019)
Professional	−0.061** (0.028)	−0.007 (0.019)
Union	0.035* (0.020)	0.012 (0.014)
Urban	−0.002 (0.018)	0.023* (0.012)
East	0.007 (0.023)	−0.004 (0.016)
South	0.027 (0.021)	−0.029** (0.014)
West	−0.037 (0.024)	−0.003 (0.016)
Protestant	0.064*** (0.020)	−0.047*** (0.014)
Catholic	0.081*** (0.023)	−0.001 (0.016)
Jewish	−0.112** (0.053)	0.031 (0.036)
Constant	1.285*** (0.082)	0.700*** (0.059)
N	1,213	1,213
R ²	0.274	0.227
Adjusted R ²	0.260	0.213

*p < .1; **p < .05; ***p < .01

Table A.12: 1992 Authoritarian Vote Model: Subjective Measure

	Main Effects	Interactions
Authoritarianism	-1.076 (1.652)	
Egalitarianism	-3.246*** (0.526)	0.840 (0.861)
Informed	-1.448*** (0.470)	1.968*** (0.710)
Age	-0.062 (0.041)	0.042 (0.061)
Age ²	0.001 (0.0004)	-0.0004 (0.001)
Education	0.116** (0.052)	-0.014 (0.077)
Income	0.002 (0.111)	0.166 (0.174)
Black	-0.894* (0.532)	-0.134 (0.697)
Female	-0.132 (0.207)	0.116 (0.323)
Married	0.365 (0.236)	-0.029 (0.363)
Homeowner	0.421* (0.252)	-0.619 (0.395)
Homemaker	0.125 (0.369)	0.001 (0.585)
Retired	-0.154 (0.467)	0.496 (0.666)
Clerical	-0.548 (0.336)	1.261** (0.528)
Professional	-0.010 (0.276)	0.324 (0.503)
Union	-0.275 (0.267)	-0.269 (0.407)
Urban	0.067 (0.223)	-0.303 (0.339)
East	-0.310 (0.294)	0.267 (0.456)
South	-0.013 (0.265)	-0.332 (0.401)
West	-0.091 (0.278)	-0.091 (0.091)
Protestant	0.750*** (0.235)	-0.834** (0.365)
Catholic	0.837*** (0.283)	-1.674*** (0.450)
Jewish	-3.223* (1.801)	5.039 (3.556)
Constant	1.670 (1.093)	
N	1,213	
Log Likelihood	-595.709	
AIC	1,283.418	

*p < .1; **p < .05; ***p < .01

Table A.13: 1992 Egalitarian Vote Model: Subjective Measure

	Main Effects	Interactions
Egalitarianism	-1.453 (2.887)	
Authoritarianism	0.922 (0.585)	-0.856 (0.904)
Informed	1.139 (0.712)	-2.343** (1.133)
Age	-0.103 (0.068)	0.096 (0.104)
Age ²	0.001 (0.001)	-0.0004 (0.001)
Education	0.305*** (0.076)	-0.321*** (0.118)
Income	0.069 (0.188)	0.013 (0.290)
Black	-2.583*** (0.863)	2.082* (1.109)
Female	0.153 (0.375)	-0.374 (0.574)
Married	0.239 (0.394)	0.163 (0.608)
Homeowner	-0.343 (0.434)	0.562 (0.655)
Homemaker	-0.027 (0.576)	0.319 (0.914)
Retired	0.458 (0.618)	-0.424 (1.002)
Clerical	0.089 (0.550)	0.117 (0.837)
Professional	0.412 (0.571)	-0.337 (0.867)
Union	-1.222*** (0.405)	1.366** (0.627)
Urban	-0.152 (0.371)	0.140 (0.586)
East	-0.293 (0.467)	0.214 (0.712)
South	-0.514 (0.429)	0.443 (0.670)
West	0.156 (0.514)	-0.439 (0.787)
Protestant	0.054 (0.439)	0.369 (0.675)
Catholic	-0.893* (0.490)	1.240* (0.745)
Jewish	-3.387** (1.419)	3.526* (2.074)
Constant	0.276 (1.887)	
N	1,213	
Log Likelihood	-587.493	
AIC	1,266.986	

*p < .1; **p < .05; ***p < .01

Table A.14: Predicting Values, 1992 NES: Objective Measure of Information

	Authoritarianism	Egalitarianism
Information	−0.176*** (0.030)	0.010 (0.021)
Egalitarianism	−0.280*** (0.041)	
Authoritarianism		−0.137*** (0.020)
Age	−0.003 (0.003)	0.001 (0.002)
Age ²	0.00003 (0.00003)	−0.00002 (0.00002)
Education	−0.025*** (0.004)	0.004 (0.003)
Income	−0.015 (0.009)	−0.022*** (0.006)
Black	0.150*** (0.026)	0.214*** (0.017)
Female	−0.085*** (0.017)	0.010 (0.012)
Married	0.008 (0.019)	−0.021 (0.013)
Homeowner	0.019 (0.020)	−0.016 (0.014)
Homemaker	0.010 (0.029)	−0.034* (0.020)
Retired	0.061* (0.032)	−0.006 (0.022)
Clerical	−0.021 (0.027)	−0.005 (0.019)
Professional	−0.063** (0.027)	−0.006 (0.019)
Union	0.025 (0.020)	0.012 (0.014)
Urban	0.003 (0.018)	0.023* (0.012)
East	0.004 (0.023)	−0.003 (0.016)
South	0.025 (0.021)	−0.029** (0.014)
West	−0.038 (0.023)	−0.003 (0.016)
Protestant	0.060*** (0.020)	−0.045*** (0.014)
Catholic	0.072*** (0.023)	0.0003 (0.016)
Jewish	−0.106** (0.052)	0.033 (0.036)
Constant	1.232*** (0.082)	0.704*** (0.059)
N	1,213	1,213
R ²	0.290	0.226
Adjusted R ²	0.277	0.211

*p < .1; **p < .05; ***p < .01

Table A.15: 1992 Authoritarian Vote Model: Objective Measure

	Main Effects	Interactions
Authoritarianism	−0.710 (1.657)	
Egalitarianism	−3.198*** (0.518)	0.796 (0.854)
Information	−0.722* (0.405)	1.374** (0.592)
Age	−0.054 (0.041)	0.030 (0.061)
I(Age^2)	0.0005 (0.0004)	−0.0003 (0.001)
Education	0.081 (0.050)	0.019 (0.075)
Income	−0.005 (0.111)	0.150 (0.175)
Black	−0.976* (0.533)	0.005 (0.703)
Female	−0.130 (0.208)	0.180 (0.325)
Married	0.327 (0.236)	0.017 (0.362)
Homeowner	0.493** (0.251)	−0.704* (0.393)
Homemaker	0.146 (0.362)	−0.082 (0.578)
Retired	−0.044 (0.464)	0.336 (0.664)
Clerical	−0.551* (0.330)	1.243** (0.522)
Professional	0.001 (0.274)	0.350 (0.499)
Union	−0.309 (0.267)	−0.202 (0.405)
Urban	0.132 (0.227)	−0.403 (0.345)
East	−0.281 (0.293)	0.214 (0.455)
South	−0.031 (0.263)	−0.330 (0.399)
West	−0.111 (0.276)	0.125 (0.459)
Protestant	0.694*** (0.231)	−0.772** (0.360)
Catholic	0.738*** (0.279)	−1.562*** (0.446)
Jewish	−3.215* (1.789)	4.960 (3.519)
Constant	1.483 (1.098)	
N	1,213	
Log Likelihood	−595.496	
AIC	1,282.993	

*p < .1; **p < .05; ***p < .01

Table A.16: 1992 Egalitarian Vote Model: Objective Measure

	Main Effects	Interactions
Egalitarianism	-1.297 (2.889)	
Authoritarianism	0.949 (0.586)	-0.822 (0.902)
Information	0.714 (0.600)	-0.913 (0.950)
Age	-0.095 (0.068)	0.076 (0.104)
Age ²	0.001 (0.001)	-0.0003 (0.001)
Education	0.320*** (0.077)	-0.372*** (0.118)
Income	0.061 (0.188)	0.016 (0.289)
Black	-2.357*** (0.867)	1.804 (1.118)
Female	0.138 (0.376)	-0.267 (0.572)
Married	0.234 (0.393)	0.147 (0.605)
Homeowner	-0.388 (0.435)	0.678 (0.655)
Homemaker	-0.032 (0.577)	0.316 (0.911)
Retired	0.514 (0.617)	-0.539 (0.999)
Clerical	0.118 (0.553)	0.052 (0.842)
Professional	0.435 (0.570)	-0.379 (0.864)
Union	-1.150*** (0.408)	1.270** (0.630)
Urban	-0.144 (0.372)	0.104 (0.587)
East	-0.280 (0.465)	0.191 (0.708)
South	-0.552 (0.429)	0.517 (0.669)
West	0.150 (0.514)	-0.416 (0.785)
Protestant	0.050 (0.439)	0.340 (0.674)
Catholic	-0.898* (0.489)	1.237* (0.743)
Jewish	-3.332** (1.396)	3.366* (2.032)
Constant	0.181 (1.886)	
N	1,213	
Log Likelihood	-589.933	
AIC	1,271.867	

*p < .1; **p < .05; ***p < .01

Appendix B

Appendix to Chapter 4

B.1 Experiment Stimuli

Presented here are the fictional voter profiles subjects were provided with prior to beginning the cognitive task. All subjects in the same primary received the same profile. The profiles were also made available again half-way through the study for those participants who wished to refresh their memories.

Democratic Version

Your goal is to pick the best candidate for the following voter:

- Name: Curt Jensen
- Race: White (non-Hispanic)
- Age: 38
- Hometown: St. Louis, MO
- Education: Technical School Graduate
- Occupation: Tool & Die Maker (union-member)
- Income: \$58,000 per year

- Family: Married and has two daughters, ages 16 and 9
- Religion: Methodist (Protestant)
- Church Attendance: about 2-3 times a month
- Party Identification: Weak Democrat
- Ideology: Moderate
- Political Behavior: Curt voted for Barack Obama in 2008 and 2012, although he initially supported John Edwards in the 2008 Democratic primary. In 2004, Curt voted for George W. Bush because he did not believe it wise to change the President in the midst of two wars. He has voted for Democratic Senator Claire McCaskill in both 2006 and 2012.
- General Political Outlook: Like many Americans, Curt is often turned off by the constant bickering of partisan politicians. He wishes that elected officials would focus on getting things done that help the people and stop the petty political games. Curt believes that politicians too often look out for the wealthy and special interests and do not pay enough attention to the average American
- Economic Concerns: Curt is not against paying his fair share of taxes—although of course he would not mind if they were lower—but he is disgusted by what he sees as a ridiculous amount of government waste. In Curt's view, the government spends too much money on frivolous projects and policies. Curt gets angry when he reads about corporations and wealthy individuals avoiding taxes and wonders why the average American does not get similar tax breaks. At the moment, Curt's job is his family's sole source of income as well as the provider of its health insurance, so losing his job would be devastating. Curt's daughter intends to go to college in two years and paying for it will be a major challenge

- **Social Concerns:** Curt values family, community, and fairness. As a parent, he sometimes is concerned about the type of world his daughters will live in and wants them to grow up in a safe and secure environment. Curt tends to see many moral issues in black and white; some behaviors are simply right or wrong, regardless of any extenuating circumstances. At the same time, Curt is not sure that the government should be regulating morality. For many social issues that do not directly affect Curt or his family he believes the government should let people make their own choices. On law and order issues, Curt has little sympathy for criminals; one of his favorite sayings is “If you do the crime, you serve the time.”
- **National Security Concerns:** Curt considers himself very patriotic. He initially supported the wars in Iraq and Afghanistan as justified responses to terrorism, but he became frustrated at how the wars were managed. Curt is in favor of many of the government’s tactics to combat terrorism, but he does not want to see those techniques used against American citizens. He believes that the current problems with Islamic fundamentalists are not simply about religious differences but have their roots in foreign policy approaches. He would like to see America cut back on some of its influence in the Middle East.

Republican Version

Your goal is to pick the best candidate for the following voter:

- Name: Curt Jensen
- Race: White (non-Hispanic)
- Age: 38
- Hometown: St. Louis, MO
- Education: Technical School Graduate

- Occupation: Tool & Die Maker (non-union member)
- Income: \$58,000 per year
- Family: Married and has two daughters, ages 16 and 9
- Religion: Methodist (Protestant)
- Church Attendance: about 2-3 times a month
- Party Identification: Weak Republican
- Ideology: Slightly Conservative
- Political Behavior: Curt voted for John McCain in 2008 and Mitt Romney in 2012. In 2004, Curt voted for John Kerry because he was angry at how George W. Bush was handling the wars in the Middle East. He has voted Republican in each of the last two Senate elections.
- General Political Outlook: Like many Americans, Curt is often turned off by the constant bickering of partisan politicians. He wishes that elected officials would focus on issues that matter and stop the petty political games. Curt believes that politicians too often look out for the wealthy and special interests and do not pay enough attention to the average American.
- Economic Concerns: First and foremost, Curt would like to pay less in taxes. While he believes the government can provide important services, he is disgusted by what he sees as a ridiculous amount of government waste. In Curt's view, the government spends too much money on frivolous projects and policies. Curt gets angry when he reads about corporations and wealthy individuals avoiding taxes and wonders why the average American does not get similar tax breaks. At the moment, Curt's job is his family's sole source of income as well as the provider of its health insurance, so losing his job would be devastating. Curt's

daughter intends to go to college in two years and paying for it will be a major challenge.

- **Social Concerns:** Curt values family, community, and fairness. As a parent, he is concerned about the type of world his daughters will live in and wants them to grow up in a moral environment. Curt tends to see many issues in black and white; some behaviors are simply right or wrong, regardless of any extenuating circumstances. At the same time, Curt is against government overreach and does not want government making more and more laws to regulate people's behaviors. For many social issues that do not directly affect Curt or his family he believes the government should let people make their own choices. On law and order issues, Curt has little sympathy for criminals; one of his favorite sayings is "If you do the crime, you serve the time."
- **National Security Concerns:** Curt considers himself very patriotic. He initially supported the wars in Iraq and Afghanistan as justified responses to terrorism, but he became frustrated at how the wars were managed. Curt is in favor of many of the government's tactics to combat terrorism, but he does not want to see those techniques used against American citizens. He believes that the current problems with Islamic fundamentalists will not end through mere diplomacy and he favors a strong US military.

Appendix C

Appendix to Chapter 5

C.1 Parallel Analysis of the Partisan Candidate

In Chapter 5, I presented results on first impression bias and epistemic freezing pertaining to evaluations of the moderate candidate, although the nature of the first impression cue meant that the popularity of both the moderate and the partisan candidate were manipulated (see Figure 5.1 in Chapter 5). Focusing on the moderate candidate was an arbitrary choice, so here I present a parallel analysis of first impression bias and epistemic freezing for evaluations of the partisan candidate. In general, the results from both candidates are fairly similar. A summary of the key results for both candidates appears in Tables C.3 and C.4.

C.1.1 First Impression Effects

First, I present the effects of the first impression cue on feeling thermometer ratings using linear regression (Table C.1). For this analysis, I have coded the variables so that the intercept represents the early poll feeling thermometer rating given by the

non-accountable, affective group participants in the neutral impression group.¹ The main effects in the model therefore show the changes in thermometer ratings relative to this “default” group for each of the experimental groups.

As noted previously, the early poll appeared one and a half-minutes into the primary. At this point in the study, subjects had viewed 8.1 (SD: 4.65) pieces of information overall and 2.90 (SD:1.95) items about the partisan candidate in particular. There was a significant difference in partisan candidate information acquisition by experimental group: cognitive subjects opened 3.1 items compared to the 2.6 items in the affective group ($p < .039$), but no effects for impression type ($p < .721$) or accountability ($p < .353$).

Starting the analysis with the non-accountable affective group, the estimated thermometer rating for the partisan candidate is 62.6 (SD: 4.01) in the neutral group and 55.03 (SD: 3.92) in the positive group ($p < .079$, one-tailed). This result is somewhat perplexing because feeling thermometer ratings were *lower* in the positive cue condition than they were in the neutral impression group. One possibility is that affective subjects—who ultimately preferred the partisan candidate by an almost two-to-one margin—were “rallying” around their candidate when he was presented as the second place option.² Another possibility is that the disparate results are merely noise; after all, the regression coefficient for impression group does not reach traditional levels of statistical significance. In any case, if we accept that the feeling thermometer ratings do in fact differ by impression manipulation (even if the direction is different than expected), then we can still examine whether accountability eliminated this discrepancy.

Among the non-accountable cognitive subjects, the impression manipulation failed.

¹That is: affective task = 0, early poll = 0, non-accountable group = 0, and neutral first impression = 0.

²In the affective condition, the partisan candidate ended up with 60.5% of the vote.

Table C.1: OLS Regression Results: Partisan Feeling Thermometer Rating

	Feeling Thermometer
Constant	62.750*** (4.015)
Cognitive Group	-9.250* (5.353)
Accountable Group	-4.368 (5.421)
Late Poll	1.065 (5.730)
Positive Impression	-7.857 (5.677)
Cognitive x Accountable	2.454 (7.582)
Cognitive x Late Poll	1.954 (7.879)
Cognitive x Positive Impression	9.280 (7.882)
Accountable x Late Poll	2.946 (7.888)
Accountable x Positive Impression	6.016 (8.019)
Late Poll x Positive Impression	10.322 (8.185)
Cognitive x Accountable x Late Poll	13.488 (11.153)
Cognitive x Accountable x Positive Impression	7.412 (11.746)
Cognitive x Late Poll x Positive Impression	-6.302 (11.444)
Accountable x Late Poll x Positive Impression	-1.426 (11.435)
Cognitive x Accountable x Late Poll x Positive Impression	-26.095 (16.760)
N	427
R ²	0.070
Adjusted R ²	0.036
Residual Std. Error	21.243 (df = 411)
F Statistic	2.065** (df = 15; 411)

*p < .1; **p < .05; ***p < .01

The neutral impression group gave the politician a 53.4 (SD: 3.52) score while those in the positive impression group rated the candidate at 55.0 (SD: 4.21; $p < .775$). Thus, while the impression manipulation influenced the feeling thermometer ratings of both the cognitive and affective groups for the moderate candidate, it only had a marginally significant influence on those of the affective group for the partisan candidate.

Again, I translated these feeling thermometer evaluations into preferences (i.e., votes) via a logistic regression with vote choice as my dependent variable, coded one if the subject voted for the partisan candidate and zero otherwise (Table C.2). I then estimated the vote share of the politician by impression group using the feeling thermometer ratings reported above and the parameters from the logit model.

Even though feeling thermometer ratings in the affective and non-accountable group differed by impression manipulation, the vote share of the partisan candidate was not significantly affected. In the neutral group, the partisan candidate captured 46.7% (SD: 6.7) of the vote, virtually the same as the 44.5% (SD: 7.8) share in the positive impression group ($p < .760$). However, a significant change in preferences occurred in the non-accountable cognitive group, with support for the partisan candidate increasing to 48.1% (SD: 7.0) in the positive cue condition from 34.7% (SD: 5.8) in the neutral group ($p < .038$).

The question now becomes what effect accountability, if any, has on these results. Hypothesis 1a predicts that accountability will increase the impression bias among the affective group while decreasing it in the cognitive group. However, while accountability in fact eliminated the impression effect on feeling thermometers for the affective group (Figure C.1), it exacerbated the impression bias for thermometer ratings in the cognitive group (Figure C.2). In the affective and accountable group, feeling thermometer ratings were virtually identical in both the impression conditions: 58.1 (SD: 3.70) in the neutral group and 56.4 (SD: 4.30) in the positive group

Table C.2: Logistic Regression, Partisan Candidate Vote

	PartPoll
Feeling Thermometer	0.091*** (0.009)
Cognitive Group	1.691** (0.777)
Accountable	1.445* (0.772)
Late Poll	1.644** (0.796)
Positive Impression	0.276 (0.789)
FT x Cognitive	−0.031** (0.013)
FT x Accountable	−0.030** (0.013)
FT x Late Poll	−0.023* (0.014)
FT x Positive Impression	0.007 (0.014)
Constant	−5.910*** (0.640)
N	427
Log Likelihood	−179.563
AIC	379.126

* $p < .1$; ** $p < .05$; *** $p < .01$

($p < .772$). In the cognitive and accountable group, the feeling thermometer ratings in the neutral group were 51.5 (SD: 3.79) and 66.0 (SD: 5.4) in the positive group, a significant difference ($p < .032$).

In terms of vote share, the impression cue influenced the preferences of the accountable subjects in both the affective and cognitive groups (Figures C.3 and C.4). Among the participants in the affective group, vote share for the partisan candidate increased to 41.3% (SD: 6.9) in the positive impression condition from 32.1% (SD:

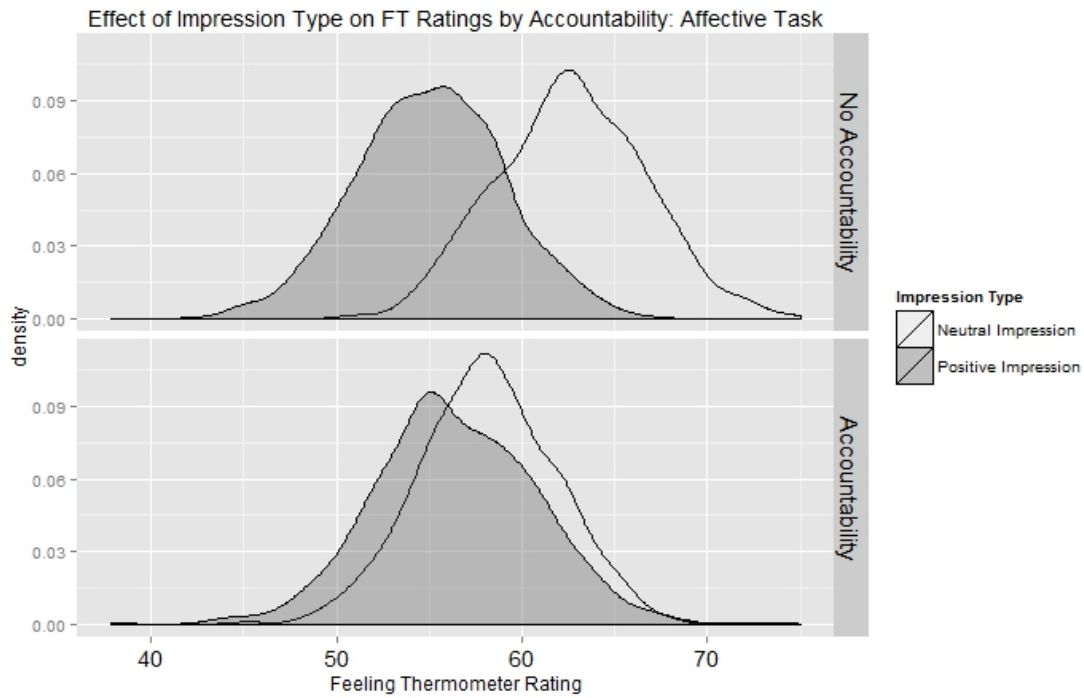


Figure C.1: Effect of accountability on feeling thermometer ratings in the affective group. Accountable subjects showed no difference in thermometer rating by impression type, suggesting that any bias due to the manipulation was eliminated

6.0) in the neutral cue group ($p < .056$; one-tailed).³ Similarly, vote shares in the cognitive condition increased to 63.1% (SD: 7.3) in the positive impression group from 26.0% (SD: 6.0) in the neutral condition ($p < .000$).

C.1.1.1 Summary of Impression Effects

The relationship among impression cues, accountability, and preferences for the affective group was fairly consistent for both the partisan and moderate candidate (Table C.3). In terms of feeling thermometer ratings, both candidates saw their ratings differ by impression type in the non-accountable condition and this discrepancy

³Even though feeling thermometer ratings in the impression conditions were virtually identical for accountable subjects, as the logistic regression in Table C.2 shows, each point of feeling thermometer rating was “worth” more in terms of vote share in the positive impression group.

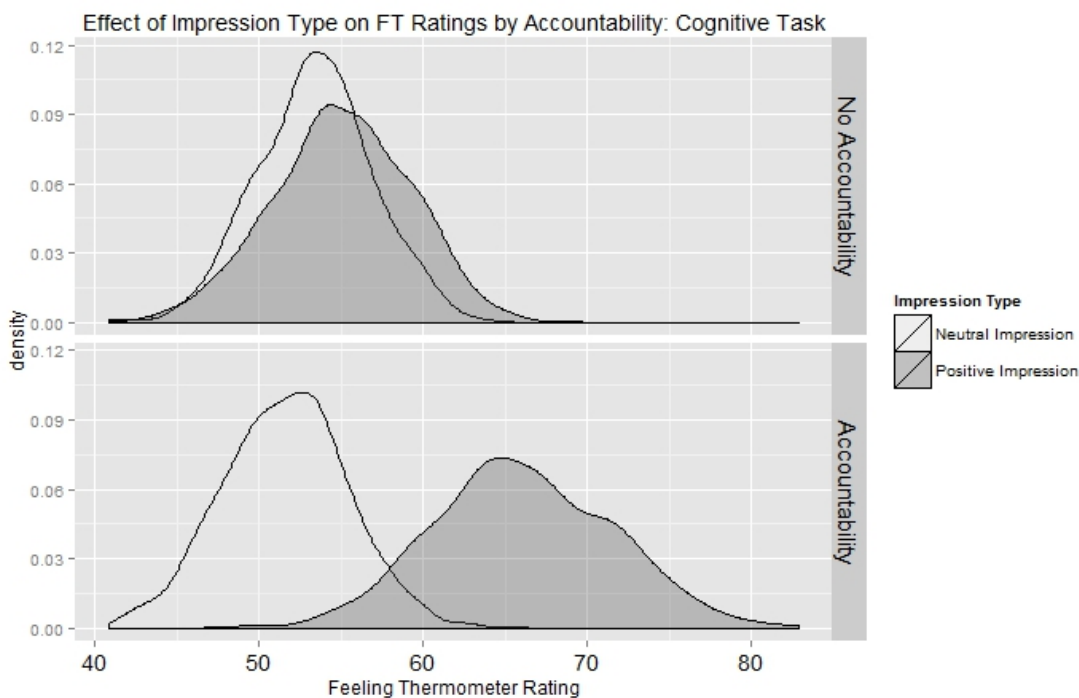


Figure C.2: Effect of accountability on feeling thermometer ratings in the cognitive task. For cognitive subjects, accountability lead to different evaluations by impression type, suggesting that any impression effect was enhanced by the motivation

disappeared among accountable subjects. On that score, then, Hypothesis 1a is definitely not supported—accountability eliminated impression biases in the affective group rather than increasing them. However, a different story emerges when examining the subjects' voting preferences. For the moderate candidate, vote share increased in the positive cue condition for both the accountable and non-accountable subjects, suggesting that increased cognitive effort did not eliminate the first impression bias. For the partisan candidate, vote share only increased for the *accountable* subjects in the positive cue condition. Taken together, the results on vote choices suggest that not only does accountability fail to eliminate first impression biases (as in the case of the moderate candidate), it can also introduce them as well (as in the case of the partisan candidate). These results suggest that some types of biases in political judgment may not be alleviated by increased cognitive effort.

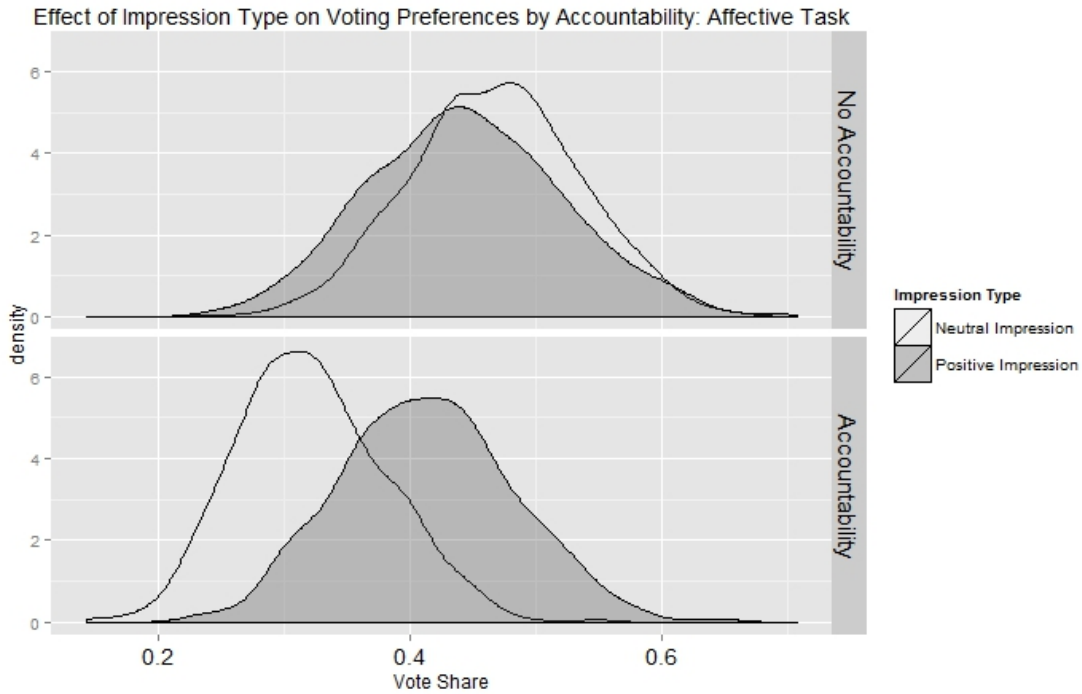


Figure C.3: Effect of Accountability on Voting Preferences, Affective Group. Although non-accountable subjects exhibited the same candidate preferences regardless of impression type, accountable participants showed more support for the candidate in the positive cue condition. This suggests that accountability increased the degree of bias in preferences

C.1.2 The Effect of Accountability on Epistemic Freezing

The next question to address concerns the degree to which subjects are responsive to new information. After all, even if the impression manipulation had an effect on the participants' initial preferences, such influence may be inconsequential if the voters' judgments change as they become more informed. To adduce the extent to which initial evaluations and preferences freeze, we now turn to an analysis of the poll time manipulation. The second poll appeared after four minutes of information search, at which time the subjects had viewed 22.1 (SD: 10.6) unique items in total and 7.8 (SD: 4.6) items about the partisan candidate. In essence, subjects had nearly tripled

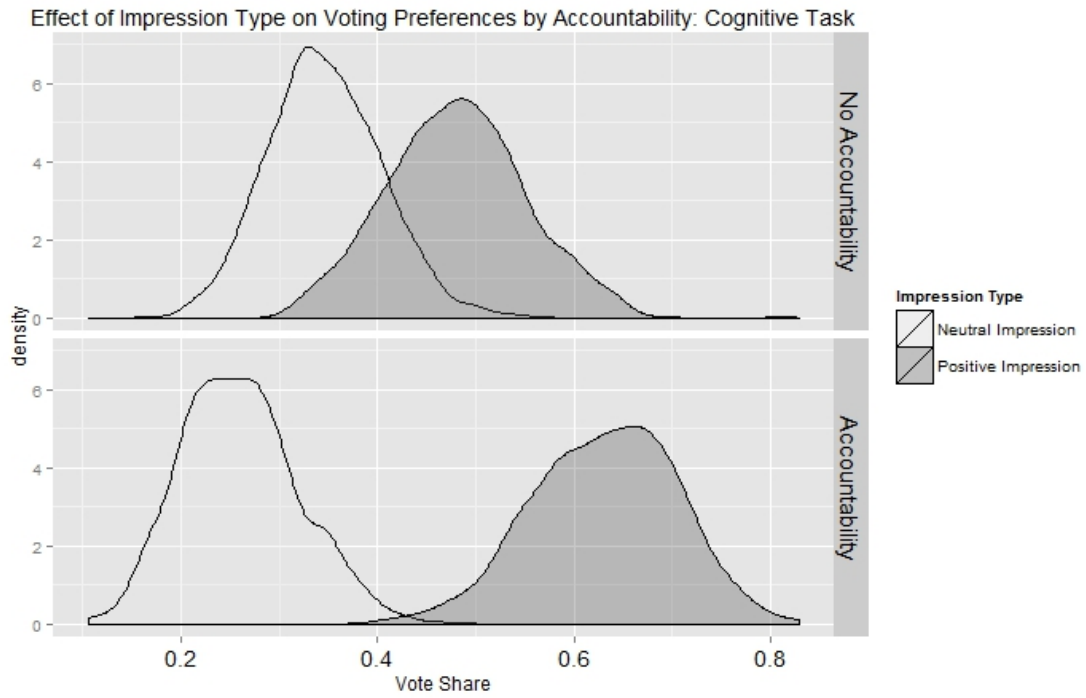


Figure C.4: Effect of Accountability on Voting Preferences, Cognitive Group. Among cognitive decision-makers, the impression cue influenced vote choices among both accountable and non-accountable subjects.

Table C.3: Summary of First Impression Effects

		Feeling Thermometer Ratings	Vote Shares
<i>Group</i>		<i>Impression Effect?</i>	
Moderate Candidate	Affective		
	x Non-Accountable	Yes	Yes
	Affective x Accountable	No	Yes
	Cognitive		
Partisan Candidate	x Non-Accountable	Yes	Yes
	Cognitive x Accountable	No	Yes
	Affective		
	x Non-Accountable	Yes	No
	Affective x Accountable	No	Yes
	Cognitive		
	x Non-Accountable	No	Yes
	Cognitive x Accountable	Yes	Yes

the amount of information considered at this point in the study.⁴

First, we look at the change in feeling thermometer ratings from the early poll to the late poll in the affective group. Among non-accountable subjects, feeling thermometer ratings were unchanged in the neutral impression group. While early pollsters gave the partisan candidate a rating of 63.0 (SD: 3.97), late pollsters rated him at 63.9 (SD: 3.92; $p < .878$). In terms of vote share, support for the partisan increased to 52.2% (SD: 7.4) from 47.3% (SD: 6.7), although not significantly so ($p < .437$).

In the positive cue condition, however, new information did significantly change the preferences of non-accountable affective subjects. Feeling thermometer ratings increased to 66.1 (SD: 4.1) in the late poll group from 55.0 (SD: 4.1) in the early ($p < .051$). Vote shares increased as well, from 44.4% (SD: 7.8) in the early poll group to 76.3% (SD: 5.8) in the late ($p < .000$). Among the affective and non-accountable subjects, then, we see that new information had little effect on the preferences of the neutral cue group. However, the positive cue group did update their beliefs as a function of the new data they acquired, suggesting that it resisted epistemic freezing even without the need for accountability.

Turning to the non-accountable subjects in the cognitive group, feeling thermometer ratings in the neutral impression group changed to 56.5 (SD: 4.0) in the late poll group from 53.5 (SD: 3.5), although the change was not statistically significant ($p < .570$). Nor was there a significant difference in the vote preferences between the early and late poll groups; the partisan candidate received 34.6% (SD: 6.0) of the vote in the early poll condition and a statistically similar 36.8% (SD: 6.9) share in the late ($p < .739$). We may thus conclude that increasing information did little to affect the

⁴There were no significant differences in information acquisition about the partisan candidate by experimental group.

judgments of non-accountable cognitive subjects in the neutral condition.

Similar results obtained in the positive cue group. Late poll feeling thermometer scores were statistically identical to those in the early poll condition: 62.0 (SD: 4.2) in the late group versus 54.9 (SD: 4.1) in the early ($p < .218$). As one might expect based on these values, the vote preferences of non-accountable subjects in the positive cue condition were unchanged as well. The partisan candidate received 36.0% (SD: 5.6) of the vote in the early poll condition and 44.5% (SD: 6.5) in the late ($p < .190$). Regardless of impression cue, it would appear that non-accountable subjects in the cognitive condition did not shift their preferences as a result of the new information they acquired.

To summarize the results thus far, it appears that the value of new information was limited for a majority of the subjects, much as it was with evaluations of the moderate candidate. Only one group—the affective subjects in the positive cue condition—demonstrated a clearly significant change in preferences from the early poll to the late. These results are squarely in line with the notion of belief persistence put forth by many psychologists; once an impression is formed, even on the basis of scant information, it becomes difficult to change. Of course, it remains to be seen whether introducing accountability to the decision tasks studied here can alter the incidence of epistemic freezing observed in the non-accountable groups.

Hypothesis 2a predicts that the introduction of accountability will reduce epistemic freezing in the cognitive condition while increasing it in the affective group. It therefore should be the case that accountable cognitive subjects become more responsive to new information while accountable affective ones become less. Looking first at the accountable affective group, feeling thermometer ratings in the neutral impression group were unchanged from the early poll to the late. The early poll subjects gave the partisan candidate a 58.3 (SD: 3.6) score, comparable to the 62.1 (SD: 3.9) rating received in the late poll group ($p < .482$). Despite the lack of movement in

feeling thermometer ratings, the model does predict a marginally significant change in voter preferences among accountable subjects. While the partisan candidate garnered 32.4% (SD: 6.0) support in the early poll group, his vote share rose to 42.3% (SD: 6.9) in the late poll group ($p < .098$).

In the positive impression condition, feeling thermometer scores for the partisan candidate did change from the early to the late condition; 56.5 (SD: 4.4) to 69.4 (SD: 3.9; $p < .034$). The proportion of subjects voting for the partisan candidate shifted as well, with 41.2% (SD: 7.0) of early responders supporting the politician and 81.4% (SD: 5.4) doing so in the late ($p < .000$). The accountable subjects in the positive impression updated their preferences from the early poll to the late, failing to support the predicted freezing effect of Hypothesis 2a.

Focusing now on the accountable cognitive subjects, we find a significant change in feeling thermometer ratings in the neutral impression group. While the early poll group gave the partisan candidate a rating of 51.5 (SD: 3.7), this score increased to 71.1 (SD: 4.1) in the late poll group ($p < .000$). Vote shares moved in a similar fashion: 25.8% (SD: 6.0) in the early poll condition and 55.5% (SD: 7.3) in the late ($p < .000$). New information had no effect in the positive cue condition, on either feeling thermometer ratings—66.6 (SD: 5.4) in the early group compared to 62.4 (SD: 4.9) in the late ($p < .581$)—or on vote proportions, which registered 64.2% (SD: 7.3) and 58.0% (SD: 7.7) in the early and late groups respectively ($p < .355$).

C.1.2.1 Summary of Results on Epistemic Freezing

The clearest narrative from the data on epistemic freezing is that more often than not, information had little influence on preferences (Figures C.5 through C.8). Significant information effects appeared in 10 of the 32 instances examined here—certainly more than we would expect by chance alone, but at the same time infrequently enough to question whether additional information influences preferences (Table C.4). In

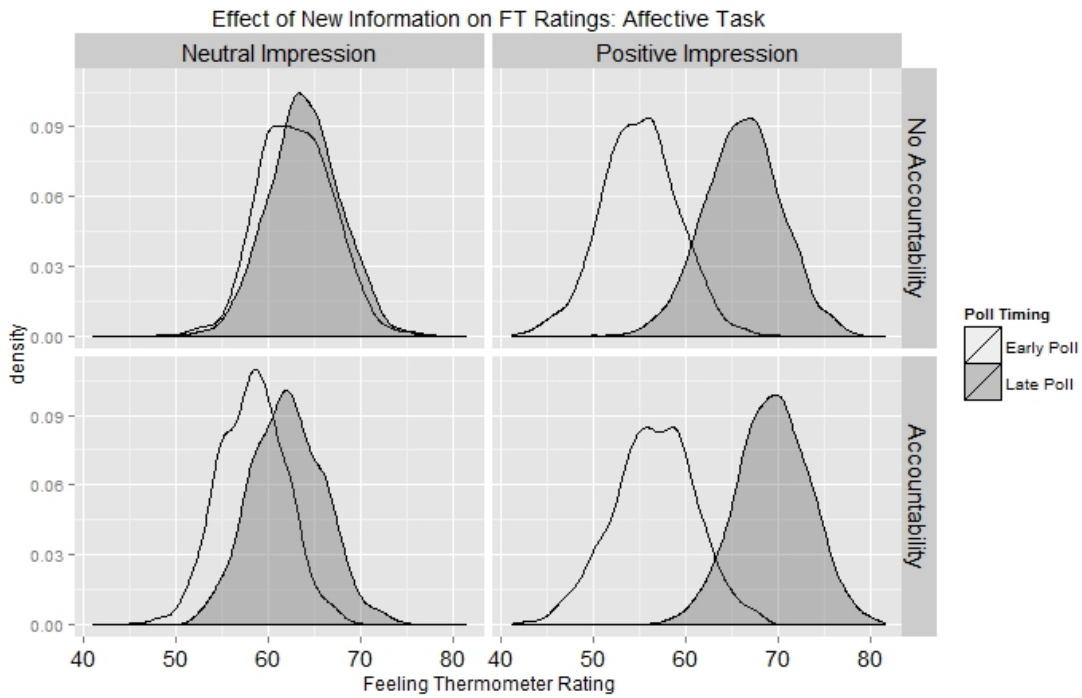


Figure C.5: Effect of New Information on Feeling Thermometer Ratings, Affective Group. Among subjects in the neutral cue condition, new information had no effect on feeling thermometer ratings, regardless of accountability. However, both accountable and non-accountable subjects updated their evaluations as a result of new information

terms of evaluating Hypothesis 2a, the results are largely a wash; in five cases, the pattern of data is consistent with my predictions, but in three cases the findings contradict my expectations. One interesting trend in the data that may bear further investigation is the way that information effects appear to be dependent on impression type. When the candidates were presented with a neutral initial cue, additional information changed opinions in only 2 out of 8 cases; however, when candidates received a positive initial cue, we find that preferences were updated in 6 of the 8 instances. It may very well be the case that an early impression conditions how subjects react to new information.

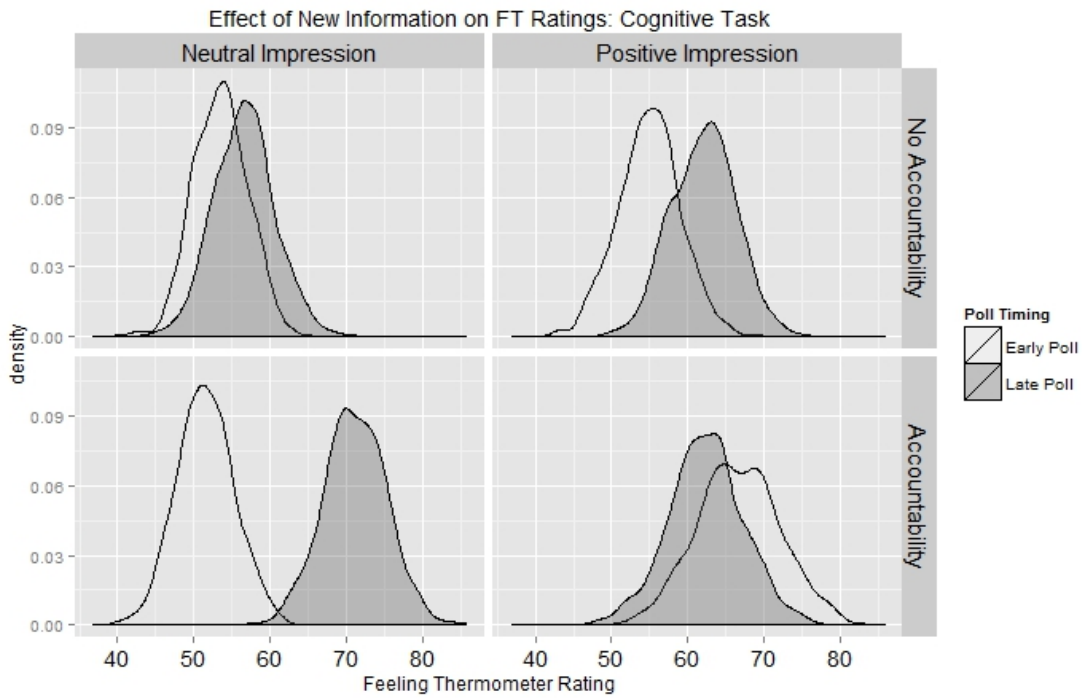


Figure C.6: Effect of New Information on Feeling Thermometer Ratings, Cognitive Group. Feeling thermometer ratings were generally unchanged except among the accountable subjects in the neutral impression group

C.2 Logistic Regression: Opinion Change

Presented in Table C.5 are the logistic regression results on final preference change. The dependent variable was coded zero if subjects voted for the same candidate at the end of the study as they did at the first poll and coded 1 if they voted for a different candidate. Only subjects who voted for one of the manipulated candidates (i.e., the moderate or partisan option) are included.

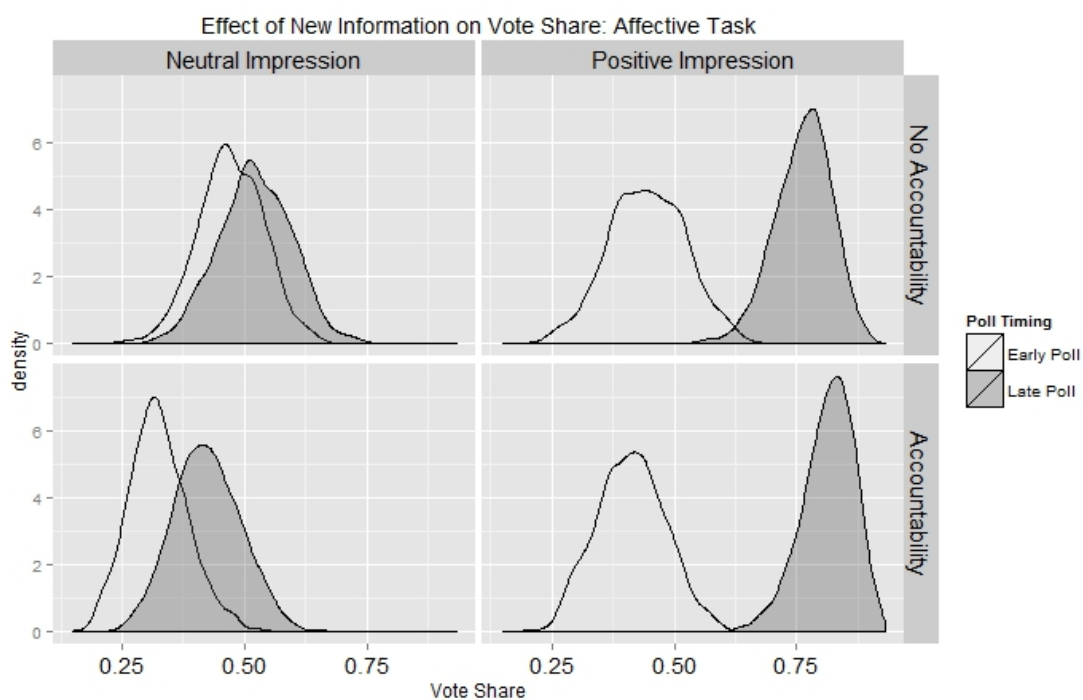


Figure C.7: Effect of New Information on Voter Preferences, Affective Group. In the neutral impression condition, voter preferences were unchanged by new information regardless of accountability. In the positive impression group, both accountable and non-accountable subjects updated their preferences as a function of new information

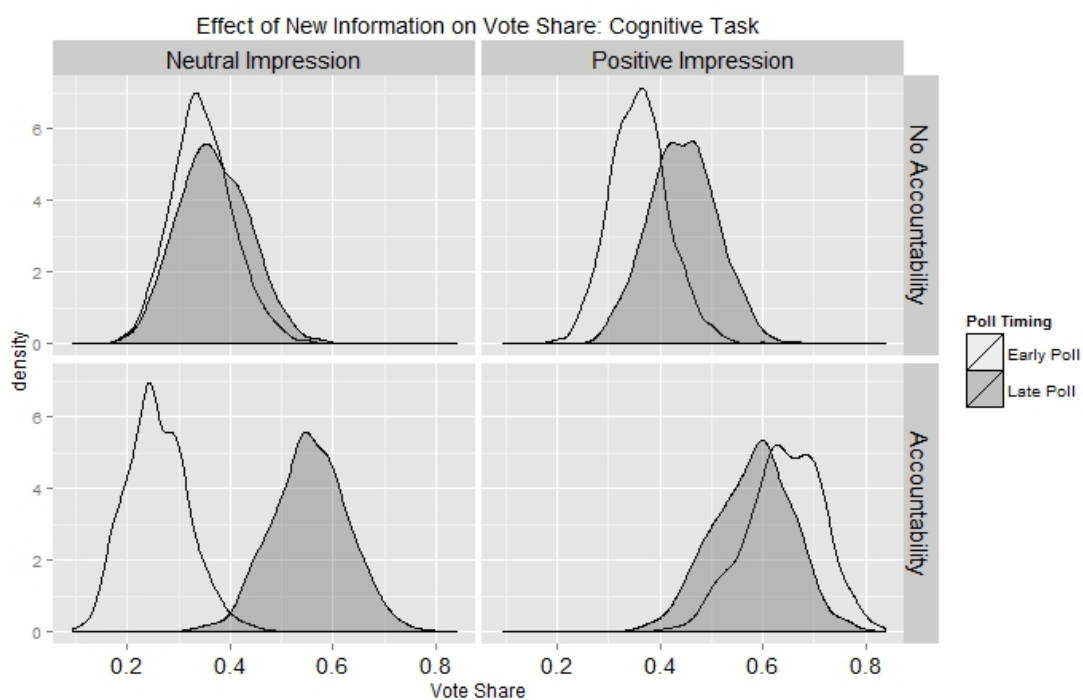


Figure C.8: Effect of New Information on Voter Preferences, Cognitive Group. For the most part, new information had a negligible effect on preferences in the cognitive group. Only the accountable subjects in the neutral impression condition updated their preferences as a result of the new information they acquired

Table C.4: Effect of New Information on Preferences, Both Candidates

<i>Change in Feeling Thermometer Ratings?</i>					
		Moderate Candidate		Partisan Candidate	
Accountability?		No	Yes	No	Yes
Group	Affective x	No	No	No	No
	Neutral Impression				
	Affective x	<i>Yes</i>	<i>No</i>	Yes	Yes
	Positive Impression				
	Cognitive x	<i>No</i>	<i>Yes</i>	<i>No</i>	<i>Yes</i>
	Neutral Impression				
	Cognitive x	No	No	No	No
<i>Change in Vote Proportion?</i>					
Group	Affective x	No	Yes	<i>No</i>	<i>Yes</i>
	Neutral Impression				
	Affective x	<i>Yes</i>	<i>No</i>	Yes	Yes
	Positive Impression				
	Cognitive x	No	No	No	No
	Neutral Impression				
	Cognitive x	No	No	No	No
Results consistent with Hypothesis 2a in <i>italics</i>					
Results inconsistent with Hypothesis 2a in bold					

Table C.5: Logistic Regression Results: Preference Change

Cognitive Group	0.239 (0.694)
Accountable Group	0.282 (0.672)
Late Poll	0.239 (0.694)
Positive Impression	-0.511 (0.803)
Cognitive x Accountable	1.127 (0.930)
Cognitive x Late Poll	-1.095 (1.044)
Cognitive x Positive Impression	0.300 (1.091)
Accountable x Late Poll	-2.237* (1.314)
Accountable x Positive Impression	1.039 (1.079)
Late Poll x Positive Impression	-0.006 (1.083)
Cognitive x Accountable x Late Poll	1.444 (1.667)
Cognitive x Accountable x Positive Impression	-3.835** (1.724)
Cognitive x Late Poll x Positive Impression	0.168 (1.576)
Accountable x Late Poll x Positive Impression	0.075 (1.813)
Cognitive x Accountable x Late Poll x Positive Impression	3.262 (2.531)
Constant	-1.281** (0.506)
N	338
Log Likelihood	-160.415
AIC	352.831

*p < .1; **p < .05; ***p < .01

Bibliography

- Achen, C. H. (1975). Mass political attitudes and the survey response. *The American Political Science Review*, pages 1218–1231. 12
- Achen, C. H. (2002). Toward a new political methodology: Microfoundations and art. *Annual Review of Political Science*, 5(1):423–450. 97
- Ackerman, J. M., Nocera, C. C., and Bargh, J. A. (2010). Incidental haptic sensations influence social judgments and decisions. *Science (New York, N.Y.)*, 328(5986):1712–1715. 57
- Ahn, T., Huckfeldt, R., and Ryan, J. B. (2010). Communication, influence, and informational asymmetries among voters. *Political Psychology*, 31(5):763–787. 85
- Alford, J. R., Funk, C. L., and Hibbing, J. R. (2005). Are political orientations genetically transmitted? *American Political Science Review*, 99(02):153–167. 18, 63
- Alford, J. R., Hatemi, P. K., Hibbing, J. R., Martin, N. G., and Eaves, L. J. (2011). The politics of mate choice. *The Journal of Politics*, 73(02):362–379. 95
- Allport, F. H. (1937). Toward a science of public opinion. *Public opinion quarterly*, 1(1):7–23. 7
- Allport, F. H. (1940). Polls and the science of public opinion. *Public opinion quarterly*, 4(2):249–257. 7
- Althaus, S. L. (1998). Information effects in collective preferences. *American Political Science Review*, 92(3):545–558. 11, 14, 27, 84, 86, 88, 92, 97, 98
- Althaus, S. L. (2003). *Collective preferences in democratic politics: Opinion surveys and the will of the people*. Cambridge Univ Pr. 15, 16, 31, 35, 43, 56, 84, 86, 91, 102
- Angrist, J. D. and Pischke, J.-S. (2008). *Mostly harmless econometrics: An empiricist's companion*. Princeton University Press. 90, 91
- Ansolabehere, S., Rodden, J., and Snyder, J. M. (2008). The strength of issues: Using multiple measures to gauge preference stability, ideological constraint, and issue voting. *American Political Science Review*, 102(02):215–232. 33

- Aristotle, Saunders, T. J., and Sinclair, T. A. (1982). *Aristotle: The Politics*. Penguin. 2
- Atkeson, L. R., Bryant, L. A., Hall, T. E., Saunders, K., and Alvarez, M. (2010). A new barrier to participation: Heterogeneous application of voter identification policies. *Electoral Studies*, 29(1):66–73. 36
- Bachrach, P. and Baratz, M. S. (1962). Two faces of power. *American political science review*, 56(04):947–952. 35
- Bacon, F. (2000). *Francis Bacon: the new organon*. Cambridge University Press. 6
- Balbus, I. D. (1971). The concept of interest in pluralist and marxian analysis. *Politics & Society*, 1(2):151. 4, 10
- Barber, B. (1962). Resistance by scientists to scientific discovery. *The sociology of science*, pages 539–556. 42, 71
- Bargh, J. A. and Chartrand, T. L. (1999). The unbearable automaticity of being. *American psychologist*, 54(7):462. 18, 56, 71
- Bargh, J. A. and Williams, E. L. (2006). The automaticity of social life. *Current directions in psychological science*, 15(1):1–4. 56
- Barker, D. C. and Hansen, S. B. (2005). All things considered: Systematic cognitive processing and electoral decisionmaking. *Journal of Politics*, 67(2):319–344. 85, 122
- Bartels, L. M. (1996). Uninformed votes: Information effects in presidential elections. *American Journal of Political Science*, 40(1):194–230. 14, 15, 16, 20, 27, 37, 47, 55, 84, 86, 88, 91, 95, 96, 98, 99, 101, 102, 104, 125
- Bartels, L. M. (2002). Beyond the running tally: Partisan bias in political perceptions. *Political Behavior*, 24(2):117–150. 29
- Bartels, L. M. (2008). *Unequal democracy*. New York: Russell Sage Foundation. 35
- Baumeister, R. F. and Leary, M. R. (1995). The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychological bulletin*, 117(3):497. 73
- Bennett, S. E., Flickinger, R. S., and Rhine, S. L. (2000). Political talk over here, over there, over time. *British Journal of Political Science*, 30(1):99–119. 73
- Bennett, W. L. (1992). *The governing crisis: Media, money, and marketing in American elections*. St. Martin's Press New York. 34
- Berelson, B. R., Lazarsfeld, P. F., and McPhee, W. N. (1954). *Voting: A study of opinion formation in a presidential election*. University of Chicago Press, Chicago. 8, 16, 125

- Berinsky, A. J., Huber, G. A., and Lenz, G. S. (2012). Evaluating online labor markets for experimental research: Amazon. com’s mechanical turk. *Political Analysis*, 20(3):351–368. 128
- Binkley, R. C. (1928). The concept of public opinion in the social sciences. *Social Forces*, 6(3):389–396. 7
- Bishop, G. F., Tuchfarber, A. J., and Oldendick, R. W. (1978). Change in the structure of american political attitudes: The nagging question of question wording. *American Journal of Political Science*, pages 250–269. 12
- Bloom, A. D. (1991). *The republic of Plato*. Basic Books. 1
- Boudreau, C. (2009a). Closing the gap: When do cues eliminate differences between sophisticated and unsophisticated citizens? *Journal of Politics*, 71(3):964–976. 19, 53
- Boudreau, C. (2009b). Making citizens smart: when do institutions improve unsophisticated citizens decisions? *Political Behavior*, 31(2):287–306. 13, 53
- Bourdieu, P. (1990). *In other words: Essays towards a reflexive sociology*. Stanford University Press. 35
- Brennan, J. (2012). *The ethics of voting*. Princeton University Press. 16
- Brown, S. R. (1970). Consistency and the persistence of ideology: Some experimental results. *Public opinion quarterly*, 34(1):60–68. 11, 12, 92
- Buhrmester, M., Kwang, T., and Gosling, S. D. (2011). Amazon’s mechanical turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, 6(1):3–5. 128
- Burdein, I., Lodge, M., and Taber, C. (2006). Experiments on the automaticity of political beliefs and attitudes. *Political Psychology*, 27(3):359–371. 57
- Burke, A. S. (2005). Improving prosecutorial decision making: Some lessons of cognitive science. *Wm. & Mary L.Rev.*, 47:1587. 41
- Campbell, A., Converse, P. E., Miller, W. E., and Stokes, D. E. (1960). *The American voter*. University of Chicago Press, Chicago. 8, 72, 74
- Caprara, G. V., Vecchione, M., Barbaranelli, C., and Fraley, R. C. (2007). When likeness goes with liking: The case of political preference. *Political Psychology*, 28(5):609–632. 40
- Carmines, E. G. and Stimson, J. A. (1980). The two faces of issue voting. *The American Political Science Review*, pages 78–91. 27, 33, 48, 55, 63
- Carney, D. R. and Banaji, M. R. (2012). First is best. *PloS one*, 7(6):e35088. 41, 158

- Carney, D. R., Jost, J. T., Gosling, S. D., and Potter, J. (2008). The secret lives of liberals and conservatives: Personality profiles, interaction styles, and the things they leave behind. *Political Psychology*, 29(6):807–840. 58
- Chaiken, S. and Trope, Y. (1999). *Dual-process theories in social psychology*. The Guilford Press. 18, 57
- Chong, D., Citrin, J., and Conley, P. (2001). When self-interest matters. *Political Psychology*, 22(3):541–570. 11
- Cohen, G. L. (2003). Party over policy: The dominating impact of group influence on political beliefs. *Journal of personality and social psychology*, 85(5):808. 40, 64, 86
- Cohen, J. (1994). The earth is round ($p < .05$). *American psychologist*, 49(12):997. 92
- Connolly, W. E. (1972). On 'interests' in politics. *Politics and Society*, 2(4):459–477. 4, 10
- Connolly, W. E. (1983). *The terms of political discourse*. Princeton University Press, Princeton, NJ. 11
- Conover, P. J., Searing, D. D., and Crewe, I. M. (2002). The deliberative potential of political discussion. *British Journal of Political Science*, 32(01):21–62. 75
- Converse, P. E. (1964). *The nature of belief systems in mass politics*, volume 5 of *Ideology and Discontent*, pages 206–261. New York: Free Press. 9, 12, 15, 34, 72, 102, 159
- Converse, P. E. (1974). Nonattitudes and american public opinion: comment: the status of nonattitudes. *The American Political Science Review*, pages 650–660. 12
- Converse, P. E. (1990). Popular representation and the distribution of information. *Information and democratic processes*, pages 369–388. 15
- Converse, P. E. (2000). Assessing the capacity of mass electorates. *Annual Review of Political Science*, 3(1):331–353. 16, 29, 87
- Costa Jr., P. T. and McCrae, R. R. (1994). Set like plaster? evidence for the stability of adult personality. 58
- Croskerry, P. (2003). The importance of cognitive errors in diagnosis and strategies to minimize them. *Academic Medicine*, 78(8):775–780. 41
- Cutler, F. (2002). The simplest shortcut of all: Sociodemographic characteristics and electoral choice. *Journal of Politics*, 64(2):466–490. 13
- Dahl, R. A. (1989). *Democracy and its Critics*. Yale University Press, New Haven, CT. 4, 10, 47

- Dancey, L. and Sheagley, G. (2013). Heuristics behaving badly: party cues and voter knowledge. *American Journal of Political Science*, 57(2):312–325. 14, 38
- Delli Carpini, M. X. and Keeter, S. (1992). An analysis of information items on the 1990 and 1991 anes surveys: A report to the board of overseers for the national election studies. Technical Report No. nes002290, ANES Pilot Study Report. 100
- Delli Carpini, M. X. and Keeter, S. (1993). Measuring political knowledge: Putting first things first. *American Journal of Political Science*, pages 1179–1206. 129
- Delli Carpini, M. X. and Keeter, S. (1996). *What Americans know about politics and why it matters*. Yale University Press, New Haven. 14, 15, 16, 27, 31, 33, 35, 43, 45, 55, 65, 84, 85, 86, 88, 94, 95, 97, 102, 159
- Diener, E. and Seligman, M. E. (2004). Beyond money toward an economy of well-being. *Psychological science in the public interest*, 5(1):1–31. 73
- Downs, A. (1957). *An economic theory of democracy*. New York: Harper and Row. 34, 35, 68
- Druckman, J. N. (2001a). The implications of framing effects for citizen competence. *Political Behavior*, 23(3):225–256. 19, 159
- Druckman, J. N. (2001b). On the limits of framing effects: who can frame? *Journal of Politics*, 63(4):1041–1066. 34
- Ellemers, N., Spears, R., and Doosje, B. (2002). Self and social identity. *Annual Review of Psychology*, 53(1):161–186. 72
- Elliot, A. J., McGregor, H. A., and Thrash, T. M. (2002). *The need for competence.*, pages 361–387. Handbook of Self-Determination Research. University of Rochester Press. 67
- Elster, J. (2007). *Explaining social behavior: More nuts and bolts for the social sciences*. Cambridge University Press. 31
- Enns, P. K. and Kellstedt, P. M. (2008). Policy mood and political sophistication: Why everybody moves mood. *British Journal of Political Science*, 38(3):433. 33
- Eveland, W. P. (2004). The effect of political discussion in producing informed citizens: The roles of information, motivation, and elaboration. *Political Communication*, 21(2):177–193. 74
- Eveland, W. P. and Hively, M. H. (2009). Political discussion frequency, network size, and “heterogeneity” of discussion as predictors of political knowledge and participation. *Journal of Communication*, 59(2):205–224. 74
- Feldman, S. (1988). Structure and consistency in public opinion: The role of core beliefs and values. *American Journal of Political Science*, pages 416–440. 44, 60

- Feldman, S. (2003). *Values, ideology, and the structure of political attitudes*. Oxford Handbook of Political Psychology. Oxford University Press. 44, 60
- Festinger, L. (1950). Informal social communication. *Psychological review*, 57(5):271. 75, 76
- Fischhoff, B. (1975). Hindsight is not equal to foresight: The effect of outcome knowledge on judgment under uncertainty. *Journal of Experimental Psychology: Human perception and performance*, 1(3):288. 51
- Fishkin, J. S. (1991). *Democracy and deliberation: New directions for democratic reform*, volume 217. Cambridge Univ Press. 86
- Fournier, P., Blais, A., Nadeau, R., Gidengil, E., and Nevitte, N. (2003). Issue importance and performance voting. *Political Behavior*, 25(1):51–67. 32
- Frank, T. (2004). *What's the matter with Kansas?: how conservatives won the heart of America*. Macmillan. 5
- Funk, C. L. (1997). Implications of political expertise in candidate trait evaluations. *Political Research Quarterly*, 50(3):675–697. 16, 56
- Gaines, B. J., Kuklinski, J. H., Quirk, P. J., Peyton, B., and Verkuilen, J. (2007). Same facts, different interpretations: Partisan motivation and opinion on iraq. *Journal of Politics*, 69(4):957–974. 27, 29, 69, 86
- Galston, W. A. (2001). Political knowledge, political engagement, and civic education. *Annual review of political science*, 4(1):217–234. 87
- Gangestad, S. W. and Snyder, M. (2000). Self-monitoring: appraisal and reappraisal. *Psychological bulletin*, 126(4):530. 73
- Gawronski, B. and Strack, F. (2004). On the propositional nature of cognitive consistency: Dissonance changes explicit, but not implicit attitudes. *Journal of experimental social psychology*, 40(4):535–542. 46
- Gerber, A. S., Huber, G. A., Doherty, D., and Dowling, C. M. (2011). The big five personality traits in the political arena. *Annual Review of Political Science*, 14:265–287. 58, 90
- Gerber, A. S., Huber, G. A., Doherty, D., Dowling, C. M., and Ha, S. E. (2010). Personality and political attitudes: Relationships across issue domains and political contexts. *American Political Science Review*, 104(1):111–133. 58, 59
- Gibson, J. L. (1992). Alternative measures of political tolerance: Must tolerance be “least-liked”? *American Journal of Political Science*, pages 560–577. 60
- Gigerenzer, G. (1991). How to make cognitive illusions disappear: Beyond “heuristics and biases”. *European review of social psychology*, 2(1):83–115. 38, 39, 40

- Gigerenzer, G. (1996). On narrow norms and vague heuristics: A reply to Kahneman and Tversky (1996). *Psychological review*, 103(3):592–596. 39
- Gigerenzer, G. and Todd, P. M. (1999). *Simple heuristics that make us smart*. Oxford University Press. 38
- Gilens, M. (1996). “race coding” and white opposition to welfare. *American Political Science Review*, pages 593–604. 46
- Gilens, M. (2001). Political ignorance and collective policy preferences. *American Political Science Review*, 95(02):379–396. 14, 27, 37, 84, 85, 86, 87, 92, 97, 102
- Gilens, M. (2012). *Affluence and influence: Economic inequality and political power in America*. Princeton University Press. 35
- Goren, P. (2004). Political sophistication and policy reasoning: A reconsideration. *American Journal of Political Science*, 48(3):462–478. 46
- Green, D. P., Palmquist, B., and Schickler, E. (2004). *Partisan hearts and minds: Political parties and the social identities of voters*. Yale University Press. 72
- Greenberg, J., Pyszczynski, T., Solomon, S., Rosenblatt, A., Veeder, M., Kirkland, S., and Lyon, D. (1990). Evidence for terror management theory ii: The effects of mortality salience on reactions to those who threaten or bolster the cultural worldview. *Journal of personality and social psychology*, 58(2):308. 59
- Greene, S. (1999). Understanding party identification: A social identity approach. *Political Psychology*, 20(2):393–403. 72
- Greene, S. (2004). Social identity theory and party identification. *Social Science Quarterly*, 85(1):136–153. 72
- Greenwald, A. G. (1980). The totalitarian ego: Fabrication and revision of personal history. *American Psychologist*, 35(7):603. 66, 67, 181
- Greenwald, A. G. and Banaji, M. R. (1995). Implicit social cognition: attitudes, self-esteem, and stereotypes. *Psychological review*, 102(1):4. 18
- Greenwald, A. G. and Pratkanis, A. R. (1984). *The self*, volume 1 of *Handbook of social cognition*, pages 129–178. Erlbaum, Hillsdale, NJ. 66
- Greenwald, A. G., Pratkanis, A. R., Leippe, M. R., and Baumgardner, M. H. (1986). Under what conditions does theory obstruct research progress? *Psychological review*, 93(2):216. 198
- Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological review*, 108(4):814. 45
- Hamill, R., Lodge, M., and Blake, F. (1985). The breadth, depth, and utility of class, partisan, and ideological schemata. *American Journal of Political Science*, pages 850–870. 34

- Hansen, B. B. and Bowers, J. (2008). Covariate balance in simple, stratified and clustered comparative studies. *Statistical Science*, 23(2):219–236. 129
- Hassin, R. R., Ferguson, M. J., Shidlovski, D., and Gross, T. (2007). Subliminal exposure to national flags affects political thought and behavior. *Proceedings of the National Academy of Sciences of the United States of America*, 104(50):19757–19761. 57
- Hatemi, P. K., Funk, C. L., Medland, S. E., Maes, H. M., Silberg, J. L., Martin, N. G., and Eaves, L. J. (2009). Genetic and environmental transmission of political attitudes over a life time. *The Journal of Politics*, 71(03):1141–1156. 63
- Hatemi, P. K., Hibbing, J. R., Medland, S. E., Keller, M. C., Alford, J. R., Smith, K. B., Martin, N. G., and Eaves, L. J. (2010). Not by twins alone: Using the extended family design to investigate genetic influence on political beliefs. *American Journal of Political Science*, 54(3):798–814. 63
- Hawkins, S. A. and Hastie, R. (1990). Hindsight: Biased judgments of past events after the outcomes are known. *Psychological bulletin*, 107(3):311. 51
- Henry, P., Reyna, C., and Weiner, B. (2004). Hate welfare but help the poor: How the attributional content of stereotypes explains the paradox of reactions to the destitute in america. *Journal of Applied Social Psychology*, 34(1):34–58. 46
- Hetey, R. C. and Eberhardt, J. L. (2014). Racial disparities in incarceration increase acceptance of punitive policies. *Psychological Science*. 93
- Hibbing, J. R., Smith, K. B., and Alford, J. R. (2013). *Predisposed: Liberals, Conservatives, and the Biology of Political Differences*. Routledge. 62
- Hirschman, A. O. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states*, volume 25. Harvard university press. 50
- Holland, P. W. (1986). Statistics and causal inference. *Journal of the American statistical Association*, 81(396):945–960. 90
- Hollander, B. A. (2010). Persistence in the perception of barack obama as a muslim in the 2008 presidential campaign. *Journal of Media and Religion*, 9(2):55–66. 76
- Huckfeldt, R., Beck, P. A., Dalton, R. J., and Levine, J. (1995). Political environments, cohesive social groups, and the communication of public opinion. *American Journal of Political Science*, pages 1025–1054. 75
- Huckfeldt, R. and Sprague, J. (1995). *Citizens, politics and social communication: Information and influence in an election campaign*. Cambridge University Press. 75
- Huckfeldt, R., Sprague, J., and Levine, J. (2000). The dynamics of collective deliberation in the 1996 election: Campaign effects on accessibility, certainty, and accuracy. *American Political Science Review*, pages 641–651. 75

- Hume, D. (2012). *A treatise of human nature*. Courier Dover Publications. 6
- Imai, K., King, G., and Lau, O. (2008). Toward a common framework for statistical analysis and development. *Journal of Computational and Graphical Statistics*, 17(4):892–913. 170
- Imai, K., King, G., and Lau, O. (2012). Zelig: Everyone’s statistical software. 170
- Inbar, Y., Pizarro, D. A., and Bloom, P. (2009). Conservatives are more easily disgusted than liberals. *Cognition and Emotion*, 23(4):714–725. 61
- Iyengar, S. (1987). Television news and citizens’ explanations of national affairs. *The American Political Science Review*, pages 815–831. 34
- Iyengar, S., Sood, G., and Lelkes, Y. (2012). Affect, not ideology: a social identity perspective on polarization. *Public opinion quarterly*, 76(3):405–431. 72
- Jarvis, W. B. G. and Petty, R. E. (1996). The need to evaluate. *Journal of personality and social psychology*, 70(1):172. 59
- Jennings, M. K., Stoker, L., and Bowers, J. (2009). Politics across generations: Family transmission reexamined. *The Journal of Politics*, 71(03):782–799. 62
- Jerit, J. and Barabas, J. (2012). Partisan perceptual bias and the information environment. *The Journal of Politics*, 74(03):672–684. 34, 68
- Jost, J. T. (2006). The end of the end of ideology. *American Psychologist*, 61(7):651. 108
- Jost, J. T., Glaser, J., Kruglanski, A. W., and Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological bulletin*, 129(3):339. 60, 110
- Kahan, D. M. (2014). Climate science communication and the measurement problem. *Advances Pol. Psych.*,. 93
- Kahan, D. M., Jenkins-Smith, H., and Braman, D. (2011). Cultural cognition of scientific consensus. *Journal of Risk Research*, 14(2):147–174. 93
- Kahan, D. M., Peters, E., Wittlin, M., Slovic, P., Ouellette, L. L., Braman, D., and Mandel, G. (2012). The polarizing impact of science literacy and numeracy on perceived climate change risks. *Nature Climate Change*, 2(10):732–735. 93
- Kahneman, D. (2011). *Thinking, fast and slow*. Farrar, Straus and Giroux. 65, 71
- Kahneman, D. and Tversky, A. (1972). Subjective probability: A judgment of representativeness. *Cognitive psychology*, 3(3):430–454. 37
- Kahneman, D. and Tversky, A. (1996). On the reality of cognitive illusions. 39

- Katz, G., Alvarez, R. M., Calvo, E., Escobar, M., and Pomares, J. (2011). Assessing the impact of alternative voting technologies on multi-party elections: Design features, heuristic processing and voter choice. *Political Behavior*, 33(2):247–270. 14
- Kennedy, J. (1993). Debiasing audit judgment with accountability: A framework and experimental results. *Journal of Accounting Research*, pages 231–245. 164
- Kinder, D. R. (1983). Diversity and complexity in american public opinion. *Political science: The state of the discipline*, pages 389–425. 13
- Kinder, D. R. and Sears, D. O. (1981). Prejudice and politics: Symbolic racism versus racial threats to the good life. *Journal of personality and social psychology*, 40(3):414. 62
- Knight, K. (1985). Ideology in the 1980 election: Ideological sophistication does matter. *The Journal of Politics*, 47(03):828–853. 16
- Krosnick, J. A. (1990). Government policy and citizen passion: A study of issue publics in contemporary america. *Political Behavior*, 12(1):59–92. 32
- Krosnick, J. A. (1999). Survey research. *Annual Review of Psychology*, 50(1):537–567. 80
- Kruglanski, A. W. (1990). Lay epistemic theory in social-cognitive psychology. *Psychological Inquiry*, 1(3):181–197. 59
- Kruglanski, A. W. and Ajzen, I. (1983). Bias and error in human judgment. *European Journal of Social Psychology*, 13(1):1–44. 40, 42
- Kruglanski, A. W. and Freund, T. (1983). The freezing and unfreezing of lay-inferences: Effects on impressional primacy, ethnic stereotyping, and numerical anchoring. *Journal of experimental social psychology*, 19(5):448–468. 158, 164
- Kuhn, T. S. (2012). *The structure of scientific revolutions*. University of Chicago press. 42, 53, 198
- Kuklinski, J. H., Metlay, D. S., and Kay, W. (1982). Citizen knowledge and choices on the complex issue of nuclear energy. *American Journal of Political Science*, pages 615–642. 63
- Kuklinski, J. H. and Quirk, P. J. (2000). Reconsidering the rational public: Cognition, heuristics, and mass opinion. *Elements of reason: Cognition, choice, and the bounds of rationality*, pages 153–182. 14, 15, 16, 37, 38, 40, 55
- Kuklinski, J. H. and Quirk, P. J. (2001). Conceptual foundations of citizen competence. *Political Behavior*, 23(3):285–311. 63, 95

- Kuklinski, J. H., Quirk, P. J., Jerit, J., and Rich, R. F. (2001). The political environment and citizen competence. *American Journal of Political Science*, pages 410–424. 19, 68
- Kuklinski, J. H., Quirk, P. J., Jerit, J., Schwieder, D., and Rich, R. F. (2000). Misinformation and the currency of democratic citizenship. *Journal of Politics*, 62(3):790–816. 15, 27, 46, 76, 86
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological bulletin*, 108(3):480. 18, 65, 66, 67, 72
- Lane, R. E. (1962). Political ideology: why the american common man believes what he does. 11
- Lau, R. R., Andersen, D. J., and Redlawsk, D. P. (2008). An exploration of correct voting in recent us presidential elections. *American Journal of Political Science*, 52(2):395–411. 47, 48
- Lau, R. R. and Redlawsk, D. P. (1997). Voting correctly. *American Political Science Review*, pages 585–598. 16, 46, 68, 122, 155
- Lau, R. R. and Redlawsk, D. P. (2001). Advantages and disadvantages of cognitive heuristics in political decision making. *American Journal of Political Science*, pages 951–971. 13, 14, 38, 41, 125
- Lau, R. R. and Redlawsk, D. P. (2006). *How voters decide: Information processing during election campaigns*. Cambridge Univ Pr. 11, 16, 32, 47, 48, 85, 121, 122, 130, 155
- Lazarus, R. S. (1982). Thoughts on the relations between emotion and cognition. *American psychologist*, 37(9):1019. 57
- Leary, M. R. and Kowalski, R. M. (1990). Impression management: A literature review and two-component model. *Psychological bulletin*, 107(1):34. 73
- Lepper, M. R., Ross, L., and Lau, R. R. (1986). Persistence of inaccurate beliefs about the self: Perseverance effects in the classroom. *Journal of personality and social psychology*, 50(3):482. 66
- Lerner, J. S. and Tetlock, P. E. (1999). Accounting for the effects of accountability. *Psychological bulletin*, 125(2):255. 124, 131
- Levendusky, M. S. (2011). Rethinking the role of political information. *Public opinion quarterly*, 75(1):42–64. 89, 91
- Lewis-Beck, M. S., Jacoby, W. G., Norpoth, H., and Weisberg, H. F. (2008). The american voter revisited. 12, 13, 74

- Lewis-Beck, M. S. and Squire, P. (1995). The politics of institutional choice: Presidential ballot access for third parties in the united states. *British Journal of Political Science*, 25(03):419–427. 36
- Lippmann, W. (1922). *Public Opinion*. Harcourt, Brace. 3
- Lodge, M. and Taber, C. S. (2000). *Three steps toward a theory of motivated political reasoning*. Elements of Reason: Cognition, Choice, and the Bounds of Rationality. Cambridge University Press. 68
- Lodge, M. and Taber, C. S. (2005). The automaticity of affect for political leaders, groups, and issues: An experimental test of the hot cognition hypothesis. *Political Psychology*, 26(3):455–482. 57, 155
- Lodge, M. and Taber, C. S. (2013). *The rationalizing voter*. Cambridge University Press. 19, 57, 62, 64, 82, 151
- Lupia, A. (1994). Shortcuts versus encyclopedias: Information and voting behavior in california insurance reform elections. *American Political Science Review*, pages 63–76. 11, 27
- Lupia, A. and McCubbins, M. D. (1998). *The democratic dilemma: Can citizens learn what they need to know?* Cambridge Univ Pr. 13, 67
- Luskin, R. C. (1987). Measuring political sophistication. *American Journal of Political Science*, pages 856–899. 13, 22, 43
- Luskin, R. C. (1990). Explaining political sophistication. *Political Behavior*, 12(4):331–361. 15
- Lynch, J. W., Kaplan, G. A., and Salonen, J. T. (1997). Why do poor people behave poorly? variation in adult health behaviours and psychosocial characteristics by stages of the socioeconomic lifecourse. *Social science & medicine*, 44(6):809–819. 202
- Machiavelli, N. (1979). *The Portable Machiavelli*. Penguin. 2
- Mansbridge, J. J. (1983). *Beyond adversary democracy*. University of Chicago Press. 4, 10, 16, 31, 75
- McCrae, R. R. and Costa Jr., P. T. (1997). Personality trait structure as a human universal. *American psychologist*, 52(5):509. 58
- McCrae, R. R. and John, O. P. (1992). An introduction to the five-factor model and its applications. *Journal of personality*, 60(2):175–215. 58
- McDermott, M. L. (2005). Candidate occupations and voter information shortcuts. *Journal of Politics*, 67(1):201–219. 13

- McGraw, K. M., Lodge, M., and Stroh, P. (1990). On-line processing in candidate evaluation: The effects of issue order, issue importance, and sophistication. *Political Behavior*, 12(1):41–58. 81
- McPherson, M., Smith-Lovin, L., and Cook, J. M. (2001). Birds of a feather: Homophily in social networks. *Annual review of sociology*, pages 415–444. 74
- Mill, J. S. (1989). On liberty with the subjection of women and chapters on socialism. ed. stefan collini. 6, 7
- Miller, D. T. and Ratner, R. K. (1998). The disparity between the actual and assumed power of self-interest. *Journal of personality and social psychology*, 74(1):53. 31
- Mondak, J. J. and Halperin, K. D. (2008). A framework for the study of personality and political behaviour. *British Journal of Political Science*, 38(2):335. 18, 58
- Montesquieu, C. (1989). The spirit of the laws, ed. anne cohler, basia miller, and harold stone. 2
- Motyl, M., Iyer, R., Oishi, S., Trawalter, S., and Nosek, B. A. (2014). How ideological migration geographically segregates groups. *Journal of experimental social psychology*, 51:1–14. 74
- Murphy, S. T. and Zajonc, R. B. (1993). Affect, cognition, and awareness: affective priming with optimal and suboptimal stimulus exposures. *Journal of personality and social psychology*, 64(5):723. 56
- Mutz, D. C. (2002). Cross-cutting social networks: Testing democratic theory in practice. *American Political Science Review*, 96(1):111–126. 75
- Mutz, D. C. (2006). *Hearing the other side: Deliberative versus participatory democracy*. Cambridge University Press. 75
- Neuman, W. R. (1986). *The paradox of mass politics: Knowledge and opinion in the American electorate*. Cambridge, Mass.: Harvard University Press. 15
- Neuman, W. R., Marcus, G. E., MacKuen, M., and Crigler, A. N. (2007). *The affect effect: Dynamics of emotion in political thinking and behavior*. University of Chicago Press. 57
- Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology; Review of General Psychology*, 2(2):175. 6, 41, 66, 155
- Nie, N. H., Verba, S., and Petrocik, J. R. (1976). *The changing American voter*, volume 116. Harvard University Press Cambridge. 12
- Niemi, R. G. and Junn, J. (2005). *Civic education: What makes students learn*. Yale University Press. 15

- Nisbett, R. E. and Ross, L. (1980). *Human inference: Strategies and shortcomings of social judgment*. Prentice-Hall, Englewood Cliffs, NJ. 25, 51, 66
- Nyhan, B. (2010). Why the” death panel” myth wouldn’t die: Misinformation in the health care reform debate. In *The Forum*, volume 8. 76
- Nyhan, B. and Reifler, J. (2010). When corrections fail: The persistence of political misperceptions. *Political Behavior*, 32(2):303–330. 68, 86
- Pierce, J. C. and Rose, D. D. (1974). Nonattitudes and american public opinion: The examination of a thesis. *The American Political Science Review*, pages 626–649. 12
- Pollock, P. H., Lilie, S. A., and Vittes, M. E. (1993). Hard issues, core values and vertical constraint: The case of nuclear power. *British Journal of Political Science*, 23(01):29–50. 33, 46, 63
- Poole, K. T. and Rosenthal, H. (2001). D-nominate after 10 years: A comparative update to congress: A political-economic history of roll-call voting. *Legislative Studies Quarterly*, 26(1):5–29. 104
- Popkin, S. L. (1991). *The reasoning voter: Communication and persuasion in presidential campaigns*. University of Chicago Press. 13, 27
- Price, V. and Zaller, J. (1993). Who gets the news? alternative measures of news reception and their implications for research. *Public opinion quarterly*, 57(2):133–164. 15
- Prior, M. (2007). *Post-broadcast democracy: How media choice increases inequality in political involvement and polarizes elections*. Cambridge University Press. 15
- Pyszczynski, T., Greenberg, J., and LaPrelle, J. (1985). Social comparison after success and failure: Biased search for information consistent with a self-serving conclusion. *Journal of experimental social psychology*, 21(2):195–211. 66
- R Core Team (2013). *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing, Vienna, Austria. iv
- Redlawsk, D. P., Civettini, A. J. W., and Emmerson, K. M. (2010). The affective tipping point: Do motivated reasoners ever “get it”? *Political Psychology*, 31(4):563–593. 69, 70, 122
- Roberts, B. W., Kuncel, N. R., Shiner, R., Caspi, A., and Goldberg, L. R. (2007). The power of personality: The comparative validity of personality traits, socioeconomic status, and cognitive ability for predicting important life outcomes. *Perspectives on Psychological Science*, 2(4):313–345. 58
- Rokeach, M. (1973). *The nature of human values*. Free press. 44, 45

- Rozin, P., Lowery, L., Imada, S., and Haidt, J. (1999). The cad triad hypothesis: a mapping between three moral emotions (contempt, anger, disgust) and three moral codes (community, autonomy, divinity). *Journal of personality and social psychology*, 76(4):574. 60
- Samuelson, W. and Zeckhauser, R. (1988). Status quo bias in decision making. *Journal of Risk and Uncertainty*, 1(1):7–59. 198
- Schadewald, M. S. and Limberg, S. T. (1992). Effect of information order and accountability on causal judgments in a legal context. *Psychological reports*. 164
- Schrodt, P. A. (2014). Seven deadly sins of contemporary quantitative political analysis. *Journal of Peace Research*, 51(2):287–300. 97
- Schumpeter, J. A. (1942). *Capitalism, Socialism and Democracy*, volume 11. Harper. 2
- Schwartz, S. H. (1994). Are there universal aspects in the structure and contents of human values? *Journal of Social Issues*, 50(4):19–45. 44, 60
- Schwartz, S. H. and Bilsky, W. (1990). Toward a theory of the universal content and structure of values: Extensions and cross-cultural replications. *Journal of personality and social psychology*, 58(5):878. 60
- Schwarz, N. and Clore, G. L. (1983). Mood, misattribution, and judgments of well-being: Informative and directive functions of affective states. *Journal of personality and social psychology*, 45(3):513. 57
- Sears, D. O. (1993). *Symbolic politics: a socio-psychological theory.*, pages 113–149. Explorations in Political Psychology. Duke University Press. 33, 62
- Sears, D. O. and Funk, C. L. (1991). The role of self-interest in social and political attitudes. *Advances in experimental social psychology*, 24:1–91. 62
- Sears, D. O., Hensler, C. P., and Speer, L. K. (1979). Whites’ opposition to “busing”: Self-interest or symbolic politics? *The American Political Science Review*, pages 369–384. 32, 62
- Sears, D. O., Lau, R. R., Tyler, T. R., and Jr, H. M. A. (1980). Self-interest vs. symbolic politics in policy attitudes and presidential voting. *American Political Science Review*, 74(3):670–684. 62
- Sears, D. O. and Valentino, N. A. (1997). Politics matters: Political events as catalysts for preadult socialization. *American Political Science Review*, pages 45–65. 62
- Sherman, D. K. and Kim, H. S. (2002). Affective perseverance: The resistance of affect to cognitive invalidation. *Personality and Social Psychology Bulletin*, 28(2):224–237. 66

- Sidanius, J. and Pratto, F. (2001). *Social dominance: An intergroup theory of social hierarchy and oppression*. Cambridge Univ Pr. 198, 199, 200
- Sides, J. and Karch, A. (2008). Messages that mobilize? issue publics and the content of campaign advertising. *The Journal of Politics*, 70(02):466–476. 32
- Snibbe, A. C. and Markus, H. R. (2005). You can't always get what you want: educational attainment, agency, and choice. *Journal of personality and social psychology*, 88(4):703. 61
- Sniderman, P. M., Brody, R. A., and Tetlock, P. E. (1991). *Reasoning and choice*. Cambridge University Press. 13, 16, 19, 27, 55, 63, 125
- Sniderman, P. M., Glaser, J. M., and Griffin, R. (1990). Information and electoral choice. *Information and democratic processes*, 117. 16, 55
- Soldz, S. and Vaillant, G. E. (1999). The big five personality traits and the life course: A 45-year longitudinal study. *Journal of Research in Personality*, 33(2):208–232. 58
- Solomon, S., Greenberg, J., and Pyszczynski, T. (1991). A terror management theory of social behavior: The psychological functions of self-esteem and cultural world-views. *Advances in experimental social psychology*, 24:93–159. 59
- Spezio, M. L., Loesch, L., Gosselin, F., Mattes, K., and Alvarez, R. M. (2012). Thin-slice decisions do not need faces to be predictive of election outcomes. *Political Psychology*, 33(3):331–341. 14
- Sullivan, J. L., Marcus, G. E., Feldman, S., and Piereson, J. E. (1981). The sources of political tolerance: A multivariate analysis. *The American Political Science Review*, pages 92–106. 60
- Sullivan, J. L., Piereson, J., and Marcus, G. E. (1993). *Political tolerance and American democracy*. University of Chicago Press. 60
- Taber, C. S. and Lodge, M. (2006). Motivated skepticism in the evaluation of political beliefs. *American Journal of Political Science*, 50(3):755–769. 42, 70
- Tetlock, P. (2005). *Expert political judgment: How good is it? How can we know?* Princeton University Press. 22, 24, 25, 26, 51
- Tetlock, P. E. (1983a). Accountability and complexity of thought. *Journal of personality and social psychology*, 45(1):74. 124
- Tetlock, P. E. (1983b). Accountability and the perseverance of first impressions. *Social psychology quarterly*, pages 285–292. 72, 124, 158, 164, 177
- Tetlock, P. E. (1985). Accountability: A social check on the fundamental attribution error. *Social psychology quarterly*, pages 227–236. 72, 124

- Tetlock, P. E. (2002). Social functionalist frameworks for judgment and choice: intuitive politicians, theologians, and prosecutors. *Psychological review*, 109(3):451. 72, 75, 124, 125, 131, 164
- Tetlock, P. E. and Boettger, R. (1989). Accountability: a social magnifier of the dilution effect. *Journal of personality and social psychology*, 57(3):388. 72, 124
- Tetlock, P. E., Skitka, L., and Boettger, R. (1989). Social and cognitive strategies for coping with accountability: conformity, complexity, and bolstering. *Journal of personality and social psychology*, 57(4):632. 72, 124, 164
- Todorov, A., Mandisodza, A. N., Goren, A., and Hall, C. C. (2005). Inferences of competence from faces predict election outcomes. *Science*, 308(5728):1623–1626. 13, 57, 155
- Triandis, H. C. (2001). Individualism-collectivism and personality. *Journal of personality*, 69(6):907–924. 61
- Truman, D. B. (1951). The governmental process: Public interests and public opinion. *Alfred A. Knopf, New York, NY*. 35
- Tversky, A. and Kahneman, D. (1971). Belief in the law of small numbers. *Psychological bulletin*, 76(2):105. 37
- Tversky, A. and Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive psychology*, 5(2):207–232. 37
- Tversky, A. and Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science (New York, N.Y.)*, 185(4157):1124–1131. JID: 0404511; ppublish. 37
- Tversky, A. and Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science (New York, N.Y.)*, 211(4481):453–458. 37
- Tversky, A. and Kahneman, D. (1983). Extensional versus intuitive reasoning: The conjunction fallacy in probability judgment. *Psychological review*, 90(4):293. 37
- Verhulst, B., Eaves, L. J., and Hatemi, P. K. (2012). Correlation not causation: The relationship between personality traits and political ideologies. *American Journal of Political Science*, 56(1):34–51. 63
- Watson, D., Clark, L. A., and Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the panas scales. *Journal of personality and social psychology*, 54(6):1063. 56
- Webster, D. M. and Kruglanski, A. W. (1994). Individual differences in need for cognitive closure. *Journal of personality and social psychology*, 67(6):1049. 59

- Webster, D. M., Richter, L., and Kruglanski, A. W. (1996). On leaping to conclusions when feeling tired: Mental fatigue effects on impressional primacy. *Journal of experimental social psychology*, 32(2):181–195. 164
- White, R. W. (1959). Motivation reconsidered: the concept of competence. *Psychological review*, 66(5):297. 67
- Wildavsky, A. (1987). Choosing preferences by constructing institutions: A cultural theory of preference formation. *The American political science review*, 81(1):4–21. 18, 37
- Wilson, T. D. and Gilbert, D. T. (2005). Affective forecasting knowing what to want. *Current Directions in Psychological Science*, 14(3):131–134. 51
- Zajonc, R. B. (1980). Feeling and thinking: preferences need no inferences. *American psychologist*, 35(2):151. 24, 27, 55, 56, 58, 155
- Zaller, J. and Feldman, S. (1992). A simple theory of the survey response: Answering questions versus revealing preferences. *American Journal of Political Science*, pages 579–616. 80
- Zaller, J. R. (1986). Analysis of information items in the 1985 anes pilot study. Technical Report No. nes002261, ANES Pilot Study Report. 100
- Zaller, J. R. (1992). *The nature and origins of mass opinion*. Cambridge Univ Pr. 16, 34, 35, 43, 68, 72, 80, 82, 102, 159