

Investigating Predictors of Preferences for Deliberative Qualities of Political Conversations Using the Analytic Hierarchy Process

David L. Brinker
Marquette University

Recommended Citation

Brinker, David L., "Investigating Predictors of Preferences for Deliberative Qualities of Political Conversations Using the Analytic Hierarchy Process" (2012). *Master's Theses (2009 -)*. Paper 153.
http://epublications.marquette.edu/theses_open/153

INVESTIGATING PREDICTORS OF PREFERENCES FOR
DELIBERATIVE QUALITIES OF POLITICAL CONVERSATIONS USING THE
ANALYTIC HIERARCHY PROCESS

by

David L. Brinker, Jr.

A Thesis submitted to the Faculty of the Graduate School,
Marquette University,
in Partial Fulfillment of the Requirements for
the Degree of Master of Communication

Milwaukee, WI

August 2012

ABSTRACT
INVESTIGATING PREDICTORS OF PREFERENCES FOR
DELIBERATIVE QUALITIES OF POLITICAL CONVERSATIONS USING THE
ANALYTIC HIERARCHY PROCESS

David L. Brinker, Jr.

Marquette University, 2012

This thesis presents a conceptual and methodological approach to researching preferences for political conversation. The thesis contends that although real-world political discussion is not deliberative, insofar as it fails to satisfy the rigorous requirements deliberative theorists have laid out, the lack of empirical evidence is not cause to reject deliberation as a viable political theory.

To connect the theoretical and empirical, this thesis presents a “quasi-deliberation” framework. Quasi-deliberation, for the purpose of this thesis, is the state of political discourse shaped by the choices made when ideal deliberative qualities conflict in the real world. Quasi-deliberation suggests that the differences between the real world and the theoretical are described by preferences regarding different qualities of political conversation. These qualities, drawn from the deliberation literature (Moy & Gastil, 2006) are “dominance during political conversation,” “clarity” of opinion expression, use of “reason, logic, and evidence,” and “understanding of other conversants' views” (p. 448).

The thesis tests the exploratory supposition that these choices are predictable outcomes of antecedent political characteristics of respondents, using a nationwide online survey instrument distributed to the non-random membership of a website. The characteristics measured in this thesis are culturally-informed worldview (Kahan, Slovic, Braman, & Gastil, 2006), attributes of personal discursive networks (Moy & Gastil, 2006), and political information efficacy (Kaid, McKinney, & Tedesco, 2007).

These three sets of measures are used as independent variables to describe the unique, discursively relevant characteristics of the respondent. Each is then tested as a predictor of the relative priorities ascribed to each deliberative quality. Saaty’s (1980) Analytic Hierarchy Process is used to create the dependent priority ranking variables. Respondents provide a preference for each quality vis-à-vis each other, producing a preference matrix, from which a single priority vector is derived.

The analysis shows that cultural cognition (worldview) and political information efficacy have some explanatory power over the variance in the priority rankings for some of the characteristics.

ACKNOWLEDGMENTS

David L. Brinker, Jr.

I am grateful, in no particular order, to Sumana Chattopadhyay, Ph.D., who has gone above and beyond the call of duty as my thesis chair, Robert Griffin, Ph.D, who has patiently guided my methodological development, and Erik Ugland, J.D., Ph.D., whose support and encouragement has led me to, and through, a fulfilling graduate career.

TABLE OF CONTENTS

ACKNOWLEDGMENTS.....	iv
LIST OF TABLES.....	viii
CHAPTERS	
I. INTRODUCTION AND RATIONALE	1
II. LITERATURE REVIEW.....	5
Participatory Democracy.....	7
From Participation to Deliberation.....	13
Deliberation – Introductory Overview.....	15
Deliberation – Theoretical Contributions.....	17
Habermas, the Public Sphere, & Communicative Action.....	18
Cohen’s Deliberative Criteria.....	21
Instrumental vs Dialogic Deliberation.....	22
Dialogic Deliberation.....	24
Instrumental Deliberation.....	25
Deliberation – Empirical Studies.....	28
Measuring the Outcomes of Deliberation.....	28
Measuring the Features of Deliberation.....	31
Quasi-Deliberation – A Conceptual Bridge.....	32
Interpersonal Political Discourse from a Social Scientific Perspective....	35
Cultural Cognition.....	38
Political Information Efficacy.....	39

Research Questions.....	42
III. METHOD.....	45
Method.....	45
Sample.....	45
Instrument.....	46
Independent and Dependent Variables.....	47
Dependent Variable: Measuring Quality Priorities with the AHP.....	47
Independent Variable: Cultural Worldview	49
Independent Variable: Discursive Network Characteristics.....	50
Independent Variable: Political Information Efficacy.....	51
Independent Variable: Political Information Controls.....	51
Procedures.....	52
Coding & Analysis.....	52
Validity Check for Preference Rankings.....	54
IV. RESULTS.....	56
Validity Indicators.....	56
Preference Ranking Case-Dropping Procedure.....	56
Cultural Cognition.....	56
Political Information Efficacy.....	57
Preference Ranking Variables.....	57
Investigated Relationships.....	60
Research Question One.....	60
Research Question Two.....	61

Research Question Three.....	62
V. CONCLUSION.....	64
Discussion.....	64
Research Question One.....	64
Research Question Two.....	66
Research Question Three.....	67
Making Sense of RQ1 and RQ3: Two Sides of the Same Coin?...68	
Limitations.....	70
Future Directions.....	71
VI. BIBLIOGRAPHY.....	73
VII. APPENDICES	
APPENDIX 1: NON-PARAMETRIC CORRELATIONS.....	80
APPENDIX 2: SURVEY.....	81
APPENDIX 3: ANALYTIC HIERARCHY PROCESS.....	89
ILLUSTRATION	

LIST OF TABLES AND GRAPHS

I. Table 1: Respondents Ranking Each Quality Highest.....	58
II. Graph 1: Distribution of Rankings.....	59
III. Table 2: Correlations between Cultural Cognition..... and Conversation Quality Rankings	61
IV. Table 3: Correlations between Conversation Variables and Quality Rankings.....	62
V. Table 4: Correlations between Political Information Efficacy and Quality Rankings.	63
VI. Table 5: Regressions of Cultural Cognition and Political Information..... Efficacy (PIE) on the Four Conversation Quality Preference Rankings	68
VII. Table 6: Correlations between Cultural Cognition..... and Conversation Quality Rankings	80
VIII. Table 7: Correlations between Political..... Information Efficacy and Quality Rankings	80

CHAPTER ONE: INTRODUCTION AND RATIONALE

Deliberative democratic theory places discourse at the center of citizenship. This is an appealing approach to citizenship because a discursive framework emphasizes an active and regular participation in civic life. Yet, deliberative studies are criticized for apply a narrow standard for bona fide political discourse, allowing scholars to study it only in designed and controlled or institutional settings. This is not an issue for those studying how deliberation functions as a political process on a micro-scale (i.e., deliberation as a process for individual decisions), but it is problematic when advocating a macro-theory that describes day-to-day citizenship. This thesis proposes a method designed to address this issue by investigating how broader cultural values might drive an individual's attitude about conducting general and common political talk. Its goal is to advance deliberation as a theory of democracy that describes discursive citizenship as a form of political participation that is both interpersonal and cultural.

Theories of Democracy: Liberal and Participatory

Deliberation tends to be classified as a theory of participatory democracy, competing primarily with liberal theory. One of the more appealing aspects of liberal political theories, largely ingrained in the American political system, is how well they describe daily political life, where collective decision-making processes are generally adversarial (winner-take-all rather than consensus-based). The liberal expectation of government is that it will protect personal liberty and private property, and so voting for

elected officials is generally the core duty and act of citizenship. Deliberative theory must be able to offer a comparable norm for both group decision and individual political life if it is to be treated as a comprehensive political theory capable of standing with adversarial and liberal models.

Deliberative Preferences

This thesis attempts to offer a method for studying how individuals relate to general political talk, measured in terms of deliberative qualities, with a focus on how deliberative preferences vary among individuals. The four qualities selected for this study are drawn from an article by Moy & Gastil (2006), which identified four items used to measure the general deliberativeness of a respondent's political conversations. These four items conceptually represent theoretically-driven "aspects of deliberative conversation: dominance during political conversation," "clarity" of opinion expression, use of "reason, logic, and evidence," and "understanding of other conversants' views" (Moy & Gastil, 2006, p. 448). Moy & Gastil (2006) found the items used to measure these aspects of deliberation divide well into discrete factors, each measuring a different aspect of deliberative conversation.

This shows that respondents understand the distinct meaning of each of these aspects. Unlike the study by Moy & Gastil (2006), however, the use of the term "quality," meaning an "aspect of," is not used in this thesis to measure the overall "quality" of a deliberative conversation, in the sense of a ranking of goodness or badness, or an evaluation of "how deliberative."

Rather than investigating this question of *deliberativeness*, this thesis examines how these aspects of a deliberative political conversation might be preferred to one another, and how the differences in those preferences are predictable by three predictor measures: cultural cognition (Kahan, Slovic, Braman, & Gastil, 2006), attributes of personal discursive networks (Moy & Gastil, 2006), and political information efficacy (Kaid, McKinney, & Tedesco, 2007). These three measures indicate different aspects of an individual's cultural, social, and personal relationship to political life. Cultural cognition is operationalized as a measure consisting of scales measuring two sets of normative worldview propositions: the degree to which society should be structurally ordered (hierarchical versus egalitarian), and the influence that groups ought to have in social life (individualistic versus communitarian). Discursive network information includes a person's frequency of political discussion, the diversity of opinions and perspectives represented by the regular discussants within the personal conversation network, and the number of regular discussants. Finally, political information efficacy (PIE) refers to the degree to which an individual feels he or she can competently employ his or her political knowledge and information to successfully participate in citizenship tasks (e.g., confidently electing public officials, participating in political discussions).

Quasi-Deliberation: Rationale

Deliberative scholarship is largely defined by work developing the structural and functional aspects and the requisite qualities that would lead to discourse being considered deliberation. This thesis aims to instead contribute to an approach that allows

political deliberative theory to more relate to an interpersonal political communication context, rather than a structural communication context. These are sometimes treated as opposing camps; that is, deliberative theorists argue that most political communication fails to meet the rigorous requirements of true deliberation, while other scholars argue that casual discourse has value as political action even when it does not meet deliberative standards. This thesis attempts to satisfy both by retaining deliberative standards for measurement, but examines individuals' conversational priorities to explain the real form discourse takes when deliberation's strict constraints cannot be satisfied in practice.

This thesis does not argue against strict definitions of deliberation or rigorously structured approaches to studying deliberation, nor does it argue that structured conversation does not matter. It investigates conversational qualities of interest drawn from deliberative theory, in order to determine whether a culture-related explanation exists for individuals' preferences for these deliberative qualities. The overarching goal of this thesis, therefore, is to not to measure deliberativeness, but rather to gauge how participants differentially value deliberative conversation qualities.

The next chapter reviews literature related to democratic deliberation, including its background, definition, present sub-frameworks, and current research. Chapter 3 follows with the methods of data collection and analyses. Chapter 4 presents the study results, and Chapter 5 interprets these results, and offers limitations and future research directions.

CHAPTER TWO: LITERATURE REVIEW

Deliberation is a composite political theory, influenced by both democratic and political communication theories. The key purpose of the following literature review is to relate core concepts from both fields as an account of deliberative theory.

It should be noted that this thesis presents only a select account of deliberation's theoretical grounding, and is not inclusive of all claims that have been made about the appropriate framework for deliberation. The disparity of opinions and perspectives is one of deliberation's most interesting features. Despite the formulation of rigorous formal definitions and theoretical requirements for a discursive event to be called "deliberative," most scholars also acknowledge that deliberation is an imperfect process. James Fishkin (1995) argues that rather than describing an ideal state, deliberation "...is a matter of *improving* the completeness of the debate and the public's engagement in it, not a matter of perfecting it" (Fishkin, 1995, p. 41, emphasis original). Despite this sense of flexibility to make deliberation "work" in practice, there is substantial disagreement about what types of conversations qualify as deliberation, how deliberation ought to be institutionally implemented, and the actual outcomes of deliberation for participants and governance. The thesis touches on these debates, but is more oriented toward relating concepts that drive the research questions presented later in this chapter.

The literature review begins by examining the use of the term "participatory" in democratic theory because the concept offers a strong background for deliberation. This is an important first step, particularly in the United States, where the adversarial expectations of liberal democracy tend to dominate the public consciousness. The efforts to outline deliberation as a unique theory will then be addressed. In particular, it is

necessary to make clear what is required to call a political engagement “deliberative,” particularly with regards to formal aspects of public discourse.

The literature review also discusses two political science concepts examined in this thesis: cultural cognition (Kahan, Slovic, Braman, & Gastil, 2006) and political information efficacy (PIE) (Kaid, McKinney & Tedesco, 2007).

Cultural cognition describes normative perceptions about the ordering of society in terms of two dimensions: hierarchy/egalitarianism, which indicates the social “grid”, or degree of social stratification, and individualism/solidarism, which indicates the social “group” concept, or the degree to which groups are important to social organization (as opposed to an individualistic social organization). For ease of interpretation, cultural cognition studies have occasionally replaced ‘solidarism’ with the term ‘communitarianism’ (Kahan, 2012), the term used in this thesis. Originating from anthropology research, cultural cognition has been used to relate cultural contexts to political orientations. In particular, social appraisals and perceptions are influenced by their salience to the personal cultural context. This concept has been applied to differential perceptions of risks (e.g., HPV (Kahan et al., 2010) and gun control (Kahan et al., 2007)). It is applied here as a predictor of differential perceptions of the relative values of deliberative conversation qualities.

Political information efficacy (PIE) is a relatively new construct (Kaid, Tedesco & McKinney, 2004; Kaid & Postelnicu, 2005; Kaid, McKinney, and Tedesco, 2007). PIE is a useful measure in political science for understanding how capably citizens are able to engage with politics by using political information for evaluative and

argumentative tasks, and has informed observable outcomes of interpersonal political discourse.

Following the discussion of cultural cognition and PIE, the use of experiential discussion characteristics for political communication is reviewed. After addressing these background topics, the chapter transitions to a discussion of the concept of quasi-deliberation.

Participatory Democracy

Deliberative theory is fundamentally concerned with the importance of discussion and representation for a healthy democracy. Roelof (1998) classifies deliberative democracy generally as a participatory model, competing categorically with liberal democratic theory and social revolutionary theory. This chapter will address liberal democracy as a point of comparison because it is the theory containing the expectations of representative government with which many Western nations are most familiar. For this reason, participatory democracy is best distinguished from liberal democracy because the latter is the theory with which it competes most for attention among scholars. It should be clarified that this thesis is not presenting participatory and liberal democracy as mutually exclusive camps; rather, the distinction is a matter of understanding the emphasis that each places on the various expectations of government and of citizens.

As democratic theorist Robert Dahl (1979) observes, there is room for debate over whether all truly democratic theory is liberal, and over the flexibility (or specificity) of the term “liberal” itself. He says, “... although liberalism is not necessarily democratic,

democracy must be liberal, that is to say, if it does not guarantee certain fundamental political and civil rights, then it is simply not democracy” (p 59). This conception plays-up the etymological notion of liberal and liberty: the Latin *liber*, meaning “free” or “unimpeded,” and also “free-spoken” or “frank” (Morwood, 2005, p. 106). This freedom is either from restraint or, in an enlightenment sense, freedom from a government that explicitly adopts prejudicial preferences for certain groups of people. Dahl (1979) observes that the term has “acquired a variety of meanings around the world.” (p. 59). He offers two definitions of liberal democracy: the general and broadly democratic meaning “rule by the people” (p. 59), and a set of three specific “criteria... for determining how collective decisions ought to be made in any association of equal persons.” Those are, broadly, “political equality,” “effective participation,” and “adequate understanding” (p. 60). These categories offer a helpful framework for the study of democratic theories. The manifestations of these elements are not necessarily self-evident, and there is room for debate over how they ought to be best achieved.

Liberal democratic theory generally descends from the second of Locke’s (1956) *Two Treatises of Government* and has been developed by a number of famous scholars and works including Adam Smith’s (1776) *Inquiry into the Nature and Causes of the Wealth of Nations* and John Stuart Mill’s (1859) *On Liberty*. These theories argue, generally, that the purpose of a democratic government is to protect the ability of its citizens to pursue their private interests, particularly through the protection of private property.

Participatory models, including deliberation, compete with this self-interest version of the liberal perspective by emphasizing the role of the individual, not as one

who engages in self-interest for the betterment of society and whose interests must be protected by the state, but rather as a volunteer citizen. This participatory citizen understands governance as a conscious social endeavor and seeks to actively and publically shape political discourse and state decisions through his or her advocacy.

Roelof (1998) paints the distinction well:

But note that the liberal democratic tradition interpreted this idealism as a call to a life of personal self-aggrandizement, whether material, or spiritual, or both. The participatory democratic tradition, on the other hand, sees it as a call to the individual to come forth gladly and enter and maintain a life of subjectively self-conscious membership in and with community. (p. 23)

Participatory theories generally emphasize citizenship as an active and engaging endeavor, where the election of representatives is not an acceptable totality of citizen contribution to governance.

Pateman's (1970) *Participation and Democratic Theory* is a seminal text on participatory theory. Pateman (1970) identifies Jean-Jacques Rousseau as "the theorist *par excellence* of participation" (p. 22). Rousseau's (2002) reflections on citizenship in *The Social Contract* remain central to participatory approaches. His democratic philosophy addresses a wide variety of facets of modern democratic thought including political interest groups, the function of voting as a safeguard against control by a single individual's interests, and the importance of private property. The distinctly participatory element Pateman (1970) highlights is Rousseau's conception of active and public citizenship:

Rousseau's ideal system is designed to develop responsible, individual social and political action through the effect of the participatory process. ... *As a result of participating in decision making the individual is educated to distinguish between his own impulses and desires, he learns to be a public as well as a private citizen.* (pp. 24-25, emphasis added)

Compared to liberal theorists, this conception of individual citizenship demands that citizens actively learn how to be members of a public, and intentionally actively contribute to the political system. Conversely, the emphasis for liberal theory is not individual advocacy, per se, but rather a property-centric theory of government. The United States Declaration of Independence famously contains this view, paraphrasing Locke's (1956) position on the purpose and duty of government. According to Locke (1956), "The reason why men enter into society, is the preservation of their property" (p. 110). Therefore, citizens should abolish a government if it fails in this duty:

Whensoever therefore the legislative shall transgress this fundamental rule of society; and either by ambition, fear, folly or corruption, endeavour to grasp themselves, or put into the hands of any other, an absolute power over the *lives, liberties, and estates* of the people; *by this breach of trust they forfeit the power the people had put into their hands for quite contrary ends.* (p. 110, emphasis added)

Here, a government (not necessarily a democracy) is commissioned by its citizens for the protection of personal property interests. This concern over tyranny and liberty found a natural home in the document written to justify the American Revolution. Participatory theorists depart from this perspective; they are more focused on Rousseau's concern that citizens be able to operate efficaciously in public life than with Locke's concern for their vulnerability to the abuses of government. Allan Bloom's keen introduction to a translation of Rousseau's (1979) *Emile, or On Education* illustrates the departure point for participatory studies. While Rousseau accepts much of Locke's premise:

He (Rousseau) differs only (from Locke) in that he does not believe that the duty to obey the laws of civil society can be derived from self-interest. Hobbes and Locke burdened self-interest with more than it can bear.... Civil society becomes merely the combat zone for the pursuit of power. (p. 5)

Achieving “intellectual self sufficiency,” as Bloom puts it (Rousseau, 1979, p. 27), through education is Rousseau’s reply to Locke’s functional self-interest. He posits that one learns to live in a civil society, and this learning is the highest form (or stage) of education.

This more involved vision of citizen life raises practical questions about the mechanisms of participation. Morrell (1999) offers relevant research-driven insights into the problems posed by a study of citizen democratic participation. Morrell’s study is an inquiry into how different participation types and levels of involvement influence acceptance of collective decisions. Morrell’s experiments established three groups with three classes of undergraduate university students, tasked with reaching a collective decision about “legalizing marijuana for medical use” (p. 304). Each group participated in a collective decision-making procedure consistent with “liberal democratic procedures,” “strong democratic procedures,” and a control group with no procedure (p. 303). The liberal democratic group followed Robert’s Rules of Order, the standard procedural rules employed in most parliamentary settings. Morrell (1992) created the strong democratic procedures, based largely on Crittenden’s discussion of “generative procedures” (pp. 11-14). Morrell describes the generative procedure generally in four steps (p. 304). First, participants engaged in “pooling the perspectives on an issue of all who wish to speak” without debate (p. 304). Then, the floor was opened to a criticism phase, in which students could criticize a perspective, but only after they were “able to restate the perspective to the satisfaction of the one who offered it” (p. 304). This is a process generally known as position “mirroring.” Third, the class entered a small group phase, where groups discussed and created a policy question that the whole group agreed

upon. Finally, representatives of the small groups presented the group views and a vote was held, with the majority determining the outcome. This was repeated over three separate experiments, with some differences in class composition and topic. For the purpose at hand, those details are omitted, except for the relevant difference that the first two experiments were conducted over the course of a week, whereas the final experiment was conducted over a month and covered several policy decisions.

Morrell's dependent measures were "collective decision acceptance," "group satisfaction," and "assumption reevaluation" (i.e., the degree to which the respondents reported that the process brought new arguments to light and compelled them to re-evaluate their own positions). Interestingly, these scores did not vary significantly between the two decision structures in the first two experiments. However, in the long-term experiment, the differences were substantial and contradictory to the hypotheses. While there was no difference in decision acceptance, statistically significant mean differences did occur for group satisfaction and assumption reevaluation; each was substantially higher in the parliamentary (liberal) condition than the in the "generative" (participatory) condition. Morrell argues that this is because the generative condition was more personal than the parliamentary condition. In the parliamentary condition, individuals were not separated from their arguments by a procedural barrier, but the generative process demands more personal involvement. Morrell (1992) tentatively suggests that this result can be attributed to this personal quality of the decision-making design:

The unique aspects of the generative procedures ... tend to force participants to become more personally connected with the opinions they express. The conflict... takes on a more personal nature, which can cause

participants to become defensive, less open to the suggestions of others, and less satisfied with the decision-making process. (p. 315)

Although Morrell's project warrants more replication and examination, the vital take-away from the experiment is that participation is not a democratic panacea. To make democracy institutionally "more participatory" hardly guarantees the process will result in better citizenship or better political decisions. Deliberation can be conceptualized as an answer to the call for more precise investigations of the mechanisms by which citizenship might occur, but it does surely raise issues of its own. These criticisms are the topic of the following section.

From Participation to Deliberation

In a sense, deliberation is a participatory theory, because public discourse prior to public decisions plays a key role in all models of participatory democracy, even where policy-specific decision-making is conducted by those officials on behalf of the citizenry. Despite the overlap, deliberation is still a unique study within the participatory framework because it emphasizes a particular type of participation, insisting that democratic political decision-making ought to be an outcome of informed, rational, and un-coerced discourse among citizens.

This discourse-centered approach to civics has raised issues for deliberative scholars. Many deliberative studies offer specificity, addressing Morrell's (1999) criticism that "participation is not a monolithic construct that can be automatically assumed to take a certain shape. Theorists who advocate greater citizen participation must take seriously the question of how often and in what way participation by citizens

should occur” (p. 314). However, the operational considerations of these studies can be too specific to make sense in practice. Hilmer (2010) offers a discussion of this primary criticism of deliberation, based largely on the efforts of deliberative theorists to distinguish the theory from participatory theory generally. Hilmer’s account of the relationship between the theories argues that deliberative studies have “served to supplant *participatory democratic theory*” (p. 51, emphasis original), noting that, in some literature, the term deliberation is used to mean the operative action associated with participation. This operational specificity makes deliberation a useful theory, offering a face to the participatory name. Deliberation is uniquely interested in two theoretical lines: the conditions of public discourse, namely rationality and freedom from coercion, and the function of public discourse, namely to vet and validate public decisions. Hilmer (2010) notes that these aspects lead deliberative theory to be overwhelmingly concerned with the “*mode of participation*” to the exclusion of the “*sectors where deliberation occurs*” (p. 52). This distinction essentially points to the issue of the institutional nature of deliberation; indeed, deliberative theory is overwhelmingly concerned with formal institutions where deliberation can be observed and structured to conform to rigorous standards, for example in formal debates, jury deliberation, and deliberative polling. Hilmer (2010) poses a glaring criticism of deliberative theory that this thesis intends to address:

Why not explore how the introduction of democracy into the workplace enables citizens to practice daily, rather than limit the analysis to how social networks formed in the workplace are injurious to democracy because they undermine deliberation? (p. 53)

The workplace is only one example of a space where this criticism applies; yet, theorizing these spaces is difficult when maintaining consistency with restrictively

specific deliberative standards. The purpose of the present study is to address this question by offering a conceptual framework (quasi-deliberation, discussed infra) and a methodological approach for studying deliberative features outside a formalized setting for political conversation.

After a brief overview of the basic definition and the tenets of deliberative theory, this chapter will transition to a discussion of deliberation involving two facets: theoretical developments and the efforts to study deliberation empirically.

Deliberation – Introductory Overview

Deliberative studies are inquiries into expectations about the formal aspects of political discourse; that is to say, deliberation is concerned with procedural and social expectations that might define discursive political bodies. Deliberative scholars may ask, for example, how representativeness is determined, what is required for citizens to competently participate in political discourse (Griffin, 2011), and how deliberation can become institutionalized in actual representative democracies (Hartz-Karp & Briand, 2009). The degree to which consensus is a realistic, or even necessary, outcome of deliberation is debatable. In general, leading scholars (e.g., James Fishkin, 2009; Gastil, 2008; Jürgen Habermas, 1984) are primarily interested in the benefits of a conscientious communicative process. Yet, all perspectives claiming to be deliberative must adopt a process and outcome-oriented expectation. Rienstra & Hook (2006) offer a useful framing of deliberation in this sense: “Deliberative democracy is a procedural political view that seeks democratic legitimacy through the capacity of those affected by a

collective decision to deliberate in the production of that decision” (p. 315, emphasis added). This statement offers a useful synopsis of deliberative theory because it highlights its two key aspects: the theory of deliberative action demands a fairly high degree of procedural rigor, and it emphasizes the primacy of actors’ discursive efficacy. This efficacy is operative both individually, in the sense that individuals must possess the skills and knowledge to reason and communicate effectively, and collectively in the sense that groups must be sufficiently represented to have their voices heard.

While these qualities are understood as generally deliberative, deliberation itself is difficult to define. Gastil (2000) offers a widely recognized definition, focusing on the formal aspects of deliberation:

Full deliberation includes a careful examination of a problem or issue, the identification of possible solutions, the establishment or reaffirmation of evaluative criteria, and the use of these criteria in identifying an optimal solution. Within a specific policy debate or in the context of an election, deliberation sometimes starts with a given set of solutions, but it always involves problem analysis, criteria specification, and evaluation. (p. 22)

Gastil (2008) also formulates what he terms a “shorthand definition”:

When people deliberate, they carefully examine a problem and arrive at a well-reasoned solution after a period of inclusive, respectful consideration of diverse points of view. (p. 8, citing Burkhalter, Gastil, and Kelshaw, 2002)

Another useful and commonly-cited definition is offered by Chambers (2003):

Generally speaking, we can say that deliberation is debate and discussion aimed at producing reasonable, well-informed opinions in which participants are willing to revise preferences in light of discussion, new information, and claims made by fellow participants. Although consensus need not be the ultimate aim of deliberation, and participants are expected to pursue their interests, an overarching interest in the legitimacy of outcomes (understood as justification to all affected) ideally characterizes deliberation. (p. 309)

These tentative definitions essentially capture a description of an idealized conversation for collective decision-making. Often, when explaining deliberation, theorists find it useful to offer discourse qualities to illustrate what, at a minimum, ought to be present in order to call a conversation deliberative (these are discussed further in the section on empirical deliberative studies).

To provide an idea of what these qualities include, this section addresses deliberation by offering a brief narrative on the theory and developments that have led to modern deliberative theory. Consistent with most deliberative scholarship, the section begins with a discussion of the significant theoretical contributions of Habermas (1984, 1989) and Cohen (1989). Discussing these scholars is a particularly good starting point because both emphasize a fundamental deliberative problem: how, in the context of a modern democratic nation, do individuals actually relate to the larger political mechanism in ways beyond the voting act, and how can individual acts of citizenship be accounted for in the larger task of collective governance?

Deliberation – Theoretical Contributions

This section first briefly discusses Habermasian concepts, which are often invoked in deliberative studies. This discussion lays the groundwork for the concept of discursive citizenship, and so is central to the justification for a discourse-centered democratic theory. Cohen's (1989) contribution is then discussed to give operational form to the deliberative theory, in particular by offering a set of criteria to differentiate deliberation and general political discourse.

Habermas, the Public Sphere, & Communicative Action

Jürgen Habermas' conception of the public sphere (Habermas, 1989) and his theory of communicative action (Habermas, 1984) guide the principles of deliberative theory. He proposes the public sphere as a dedicated domain of rational-critical discourse within which citizens are divorced from their private-sphere attributes (and are thus equals as political speakers), and which produces un-coerced political consensus directing the implementation of public governance. The public sphere as a critical model of deliberative democracy is premised on the historical decline of individual political efficacy in capitalist states and a corresponding rise of institutional (primarily private business) agency in shaping the discourse that, under deliberative models, guides the development of a democratic nation. The democratic mechanism of the public sphere meets the social role of communication in the theory of communicative action, where identity and reason become public processes via communication. The achievement of public reason is the central purpose of deliberation, and thus tends to deal mostly with institutions and structures of public conversation.

Following the development of the public sphere, scholars working from the post-structural perspective critically re-envisioned Habermas's theory of the public sphere. Villa (1992) provides a useful summary of the particular concerns addressed in post-structural revision:

The first... I shall refer to as the power objection, which radically questions the idea(1) of a coercion-free space of deliberation.... The second objection, the epistemological, ... challenges the very possibility of a unified, consensus-based public realm in an age that has witnessed the death of legitimating metanarratives and the corresponding

fragmentation of the discursive realm into irreducibly heterogeneous language games. The third objection, the ontological, ... question[s] the peculiar reality attributed to the public realm as a "common space of appearances" (Arendt), a world without transcendental or metaphysical support yet available to all its citizens/inhabitants. (p. 712)

Villa's summary points to the general attempt of post-structural commentators to align public sphere theory with actually existing social communication structures. In this spirit of practicality, they aimed to envision how non-rational-critical elements of society might be understood as constituents of a deliberative public environment, rather than designating them as categorical obstructions to it; mass media is the center of much of this work.

In the Habermasian view, mass media competes and interferes with the deliberative activity of the public sphere. To Habermas and proponents of the strict rational-critical discursive ideal, the media is, as Habermas (2006) explicitly characterizes it, its own sort of extortive power, distinct from political, social, and economic power (p. 419). Post-structural re-envisioning, however, promotes a multidimensional notion of public spheres and accommodates mass media as a participant in them. The development of this literature is important to this project not because of the media-studies angle, but because the focus on the "public sphere" reflects an overwhelming interest in how, if at all, individuals can have political efficacy in modern political power structures. Deliberation is a response to this concern and calls for the engineering of political institutions that, by design, enable citizens to access and take an active role in public decision making.

Public sphere critics also claim that Habermas' conception requires people in a neutral space of public discourse to shed their unique perspective in order to reason

properly. Yet, the work done by Habermas' (1984) theory of communicative rationality advances the need for understanding context-based individual communicative actions. The two-volume discussion of the theory is extensive and, owing largely to the difficulties of translating German philosophy to English, a taxing read. However, there are a few enduring principles interwoven into the implicit logic of the deliberative ideas discussed through the remainder of this thesis.

Habermas (1984) discusses the prospect of communicative action as a perspective that places language and communicative acts as the focal point for investigations into the coordination of social action (p. 274). His analysis of language differentiates instances of actions following communicative acts. He says, "I shall speak of *communicative* action whenever the actions of the agents involved are coordinated not through egocentric calculations of success but through acts of reaching understanding" (pp.285-86). Unlike the public sphere, which is institutional, communicative action operates at the interpersonal level. Communicative understanding between people [*Verständigung*], as Habermas (1984) describes it, is contingent on both parties interpreting a speech act in the same way, both in terms of the manifest and action-related latent meaning (p. 307). He presents three ways a statement may be challenged. For simplicity, they can be described as the normative rightness (is it right that the claim or statement be made), truthfulness (is the full meaning of the statement really as it has been presented), and existential (are the presuppositions of the statement experientially valid) objections. This type of analysis is the precursor to deliberative efforts, which seek public discourse that allows participants to challenge a speaker in order to achieve understanding, as opposed

to adversarial challenges intended to win an argument, in terms of an audience's or judge's favor.

This thesis is concerned with better understanding the role of preferences in the deliberative process, a concept derived from Habermas' (1984) theory of communicative action. The theory accounts for individuals by claiming that the interpersonal negotiation of meaning is sensitive to personal experience; according to Habermas, "communicative action is dependent on situational contexts, which represent in turn segments of the life-world of the participants in interaction" (pp. 278-279).

Deliberation is not simply an operationalization of the public sphere, which has been depicted as a space for white-washed discourse by the critics summarized by Villa (1992, *supra*). Rather, deliberative scholars should contextualize the political economics of the public sphere by understanding communicative action as the central Habermasian text, because, as Kim & Kim (2008) observe, deliberation is fundamentally about using discourse structures to build understanding.

Cohen's Deliberative Criteria

Joshua Cohen (1989) is credited as the "first major theorist to specify criteria by which one might judge the democratic legitimacy of deliberation" (Mansbridge et al., 2006, p. 4). His list of criteria for deliberation are "freedom" of action and opinion, "reason" as the basic test of validity for contributions to discourse, "equality" of participants in terms of their ability to "contribute to the deliberation" (Cohen, 1989, p. 23), and "consensus" as the goal of deliberation. Subsequent criticism of the theory has

challenged most of these principles (see Mansbridge et al., 2006 for a good summary). In particular, challengers reject the “rationality” requirement because its application in deliberative study tends to preclude the role of personal experience and emotion, both of which have value in determining public decisions (Sanders, 1997, Nussbaum, 1995).

While Habermas (1989) and Cohen (1989) primarily contribute to the mechanisms and nature of public deliberation, the outcomes of deliberation have been elaborated considerably by literature addressing different approaches to conceptualizing the function of deliberation which are discussed in the next three sections of this chapter.

Instrumental vs Dialogic Deliberation

Gutmann (1987) argues that the skills to deliberate are critical to a “living up to the routine demands of democratic life” (p. 52). By this, she means that citizens in a democracy are in a more challenging position than is often recognized; they are expected to follow and respect laws they have not necessarily individually consented to, yet are also expected to actively oppose, and occasionally to intentionally “disobey them, if necessary, with the intent of changing them by appealing to the conscience of the majority” (p. 52). Consequently, Gutmann (1987) notes, the democratic responsibilities of citizens, and thus the ends of a primary education aimed at training deliberative citizens, are two-fold.

Deliberation, on the individual level, is defined as “careful consideration with a view to decision” and, on the institutional level, as “consideration and discussion for the reasons for and against a measure by a number of councilors (e.g., in a legislative assembly).” (p. 52)

These are two functions of deliberation that require individual focus, although they are not necessarily procedurally or empirically distinct. One suggests that, as individuals, people should engage in discourse and further a particular sort of discourse (rational-critical, free from coercion, etc) as part of their own efforts to engage in public reasoning. This function of deliberation is distinct from the more popular concept of an institutional decision-making procedure (e.g., jury deliberation), having more to do with the learning and communicative experiences of the participants. Kim & Kim (2008) characterize this distinction as “instrumental deliberation” vis-à-vis “dialogic deliberation,” where the instrumental concept is oriented toward procedural decision making, and the dialogic concept is oriented toward community building and public reasoning. Deliberation, for Kim & Kim (2008), is largely grounded in Habermas’ theory of communicative action:

The theory maintains that reason is not given from outside the society nor does it preexist in individuals’ subjective minds; rather, reason is to be produced by nonpurposive, nonstrategic, nonsuccess-oriented social interactions called communicative action. Habermas regards rationality not as a pregiven logical necessity but as a collective construction produced by social interaction. (p. 54)

Conceptually, from a Habermasian perspective, the notion of public rationality or public reasoning does not merely hinge on contributions of many individuals to a central discourse, but also exists in the sense that an individual’s reasoning can be public insofar as individuals can think about collective decisions beyond assessing their own self-interest.

The following sections will treat dialogic and instrumental approaches as discreet categories, based on the primary focus of the thesis. It should be clear from the overview

thus far, however, that the personal and social implications of deliberation are generally understood as related and mutually supportive. In practice, discourse is both a personal process for improving one's own opinions and a collective process for improving group decisions.

Dialogic Deliberation

This notion of “representative thinking,” as Arendt (1968) terms it, is perhaps the most difficult point of contention between deliberative democracy and liberal democracy. The concept illustrates how dialogue can facilitate the achievement of internal public thinking:

The more people's standpoints I have present in my mind while I am pondering a given issue, and the better I can imagine how I would feel and think if I were in their place, the stronger will be my capacity for representative thinking and the more valid my final conclusions, my opinion. (p. 241)

Yet, representative thinking is not necessarily preferable in a liberal adversarial model, compared to self-interested action. This point is also where deliberative theorists have the most persuasive difficulty; after all, conceiving of good citizenship as the ability to act (e.g., vote, argue) in one's own interest seems quite realistic, while the expectation that a citizen should forgo his or her interest in favor of the community seems fanciful.

Yet, the notion of self-interest and representative thinking are not mutually exclusive. Indeed, another term Arendt (1968) employs is “enlarged thought,” where considering the perspectives of others is both procedurally and morally desirable to the

individual democratic citizen. Benhabib (1988) argues that this dialogic approach to citizenship carries both moral and practical implications:

The moral principle of enlarged thought enjoins us to view each person as one to whom I owe the moral respect to consider their standpoint. This is the universalist-egalitarian kernel of Kantian morality. Yet "to think from the standpoint of everyone else" requires precisely the exercise of contextual moral judgment. (p. 43)

Arendt writes from the post-war German Jewish perspective, and so is concerned with morality in citizenship as a response to the totalitarian regimes of the war. Yet, the principle of her concept of representative thinking and procedural Kantian universalizability applies to all democratic theory. Individual ethics and collective ethics are both involved with acts of citizenship. The dialogic perspective on deliberation, then, is a form of political discourse that can improve citizenship. Kim and Kim (2008) offer thorough coverage of how political science has shown democratic talk improves citizenship, identifying a number of scholars who “believe that talk provides people with the opportunity to think through their “idea elements” and reduce cognitive inconsistency, thus enhancing the quality of an individual’s opinions and arguments” (p. 61).

Instrumental Deliberation

Bobbio (2010) presents typologies for how individual participants relate to a discursive event in terms of their opinion outlook at the outset of a deliberation. This is described in terms of a grid, where four positions are presented, representing two

dimensions: *definitiveness* (well-defined/ill-defined) and *reflectiveness* (reflective/unreflective) (p. 4). These two factors - how certain a person is about a position and how thoughtful he or she has been on the reasoning behind his or her position - are proposed as dimensions to account for differences in the participants engaging in dialogic decision-making. This is an important consideration for deliberative scholars. As Bobbio (2010) observes:

First and foremost, not all deliberative processes are equally capable of guiding participants toward a constructive and not manipulated dialogue, in view of achieving a common position. (p. 19)

Bobbio thus emphasizes the implications of group composition, in terms of certainty and reflectiveness, on how collective decision-making as a process ought to be approached. For example, Bobbio (2010) suggests, a strategy of discourse centered on the participation of informational but neutral expert parties may be useful to groups composed of low-certainty participants, but may do little to facilitate a discourse among “people with strong convictions” (p. 20).

While the present proposed research does not employ certainty or effectiveness measures, it does attempt to measure differences in the starting positions of participants using cultural cognition measures. Indeed, the idea that participants have varying preferences for deliberative features is an extension of research like Bobbio’s, which argues that researchers ought to address how individual features of participants might affect how deliberation serves as a decision-making instrument.

One helpful perspective on deliberation as an instrument of democracy is an exchange between political scientists Ian Shapiro (2006) and James Fishkin (2006).

Fishkin (2006) responds to a somewhat dismissive handling of deliberative theory in Shapiro's book *The State of Democratic Theory*. He claims to respond to three criticisms of democracy: that deliberative scholars have "a naïve faith that deliberation will lead to consensus," "ignore the social context of decisions," and "lack an empirical basis for their claims" (p. 73).

Shapiro (2006) advocates "competition over deliberation as a mechanism for keeping democracy honest. Its core ideal is argument not discussion" (p. 82). He argues that procedural deliberative approaches to democracy require substantial central coordination and orchestration. This adversarial system is not intended to exclude deliberation; indeed, the aim of much of Shapiro's work is how democracy can reduce domination of some groups over others, and he suggests deliberation can sometimes be helpful in this process. In Shapiro's view, indiscriminate institutional deliberation is more likely to produce corruption because designing agendas, assigning experts, and determining a neutral statement of facts and interests are all opportunities for institutionalized manipulation of opinion. Indeed, Shapiro's (2006) general argument is that the problem facing real-world democracy is not that argument is an ineffective form of political discourse for which an alternative is needed, but rather, that argument is not held openly and honestly because of issues like the two-party system and campaign financing (p.82).

The two central issues this thesis tracks from these arguments is whether consensus is necessarily the driving goal of deliberation, and the distinction between argument and discussion, particularly in terms of which is the more useful and productive form of public conversation. This chapter has made particular note of Morrell's (1999)

work on when democratic participation is constructive and when it discourages political participation and satisfaction, and Bobbio's (2010) work on how the effectiveness and reasonableness of a deliberative design is subject to the nature of the participants. The purpose of this thesis' preference-based approach is thus to begin a theoretical conception of deliberation that serves participants even when they are not concerned with producing consensus and which can accommodate groups that are adversarial (argumentative) or collaborative (consensus-building).

Deliberation – Empirical Studies

This section reviews efforts to empirically measure deliberation and its effects. For the purpose of expediency, only studies relating directly to the present thesis are reviewed. However, Delli Carpini, Cook, & Jacobs (2004) and Mendelberg (2002) both offer an excellent overview of the past literature focusing on empirical studies of deliberation.

Two types of empirical studies are discussed here: those that investigate the outcomes of deliberation, and those that investigate a deliberative event itself; both concepts are relevant to the focus of this thesis.

Measuring the Outcomes of Deliberation

Studies based on Fishkin's (1995) deliberative polling model have returned encouraging results for deliberation researchers. Of primary interest are gains in participants' factual political knowledge (Luskin et al., 2000), opinion generation and

change (Luskin et al., 2002), and political efficacy (which is related to political participation in general).

Karpowitz et al. (2009) find that designed issues forums, organized events for bringing citizens together to conduct structured and professionally moderated public discourse about salient political topics, can improve political knowledge and efficacy, can improve evaluations of decision legitimacy, and “can [allow participants to] consider a diversity of viewpoints rather than falling into groupthink and polarization” (p. 576). Cobb’s (2011) analysis of a national issues forum on technology also showed knowledge improvements and internal efficacy improve during deliberation, but notes that because deliberation is a time and resource intensive process, it may not be the most effective way of engaging citizens in political decision-making.

Nabatchi’s (2010) analysis of an organized deliberative event shows participants experienced a sustained increase in external political efficacy, which is a term for perceptions about the government’s responsiveness to the public’s opinion and the individual’s ability to influence public officials), but no significant change in internal political efficacy, which is a term for perceptions about the respondent’s own ability to engage with politics. This effect was again measured two years after participation and found to persist, although the author notes that the deliberative town hall session did demonstrably affect increases to school funding and citizen opportunity for oversight (Nabatchi, 2010, p. 34). Clearly, this outcome improved respondent efficacy, and, thus, it is not necessarily the case that the deliberative process itself was responsible for the long-term increase.

Stromer-Galley & Muhlberger (2009) find that participants in a deliberation who express more dissent or disagreement in the conversation are neither necessarily more inclined to avoid discussion, nor to give negative evaluations of the process. Instead, they find that, regardless of the respondent's position, when respondents report higher satisfaction with the deliberative process, they also report higher "intent to participate in future deliberations" and an increase in "perceived legitimacy of deliberators' policy choices" (p. 187). The authors also report that "perceived reevaluation of personal opinions also increased reported motivation to participate in the future" (p. 187). Stromer-Galley & Muhlberger (2009) conclude that a participant's evaluation of a deliberative process itself is important in their intent to engage in future deliberations, and their assessment of the ultimate decision's legitimacy.

While the present study is not empirically investigating a specific deliberative event, it does seek to assess the preferences of individuals when it comes to deliberative qualities. These preferences may well be related to how a participant might evaluate a particular deliberative event. Thus, Stromer-Galley & Muhlberger (2009) offer important support for the rationale behind this thesis because the questions they raise may help answer these evaluation questions in future applications. For the present thesis, evaluations of deliberative events are not employed. However, understanding the qualities that distinguish deliberation from general discourse is central to the proposed research questions because these are the quality categories between which respondents are expected to display differential preferences. Studies that measure those conversation-level qualities are reviewed in the next section.

Measuring the Features of Deliberation

Stromer-Galley (2007) undertakes the considerable task of creating a coding scheme for full deliberative conversations. Galley's key coding categories are Reasoned Opinion Expression (Disagreement and Elaboration), Sourcing, Equality, Engagement, and Topic. While the procedural work on the coding scheme is impressive, here the key is how Galley operationalizes deliberative engagement into these moments. Each aspect is very difficult to actually measure; for example, "equality" is measured by the time and words each participant contributes to the conversation, even though, theoretically, equality is more a matter of equitable presentation of perspectives and mutual respect for each position than a matter of the literal time spent discussing each perspective.

While Stromer-Galley (2007) uses content analysis, a survey-based study by Moy & Gastil (2006) employs similar measurement of deliberative features. Moy & Gastil (2006) examine requisite characteristics of deliberative, democratic discourse and correlate characteristics of interpersonal networks (or 'spheres') (e.g., network heterogeneity, media use) as antecedents to the occurrence of those qualities in everyday interpersonal conversations. Their self-reported measurement of deliberative characteristics – power, clarity/directness, and the use of logic/reason – are similar to those gathered by Stromer-Galley (2007), but are indicated in self-report form by respondents. These measures are useful for measuring deliberative attitudes. Moy & Gastil (2006) suggest that deliberative conversation outcomes are different from the outcomes of conversation in general:

Not all conversations contribute equally to sound political judgment... we distinguish problem-solving face-to-face conversation from that which is simply sociable. Whereas social conversation tends to occur between like-minded others and has no real goal, problem-solving conversation is essentially public and can take place among people of different values and backgrounds. In this latter model, speaking to others can generate sound judgment and ultimately lead to good government, which presumably focuses on the common good. (p. 444)

Discursive political engagement is thus not treated as a uniform behavior. Moy & Gastil (2006) use predictor variables: Conversation Networks, Media Use, Political Knowledge, and Efficacy, as independent variables expected to influence multi-item measures of deliberative “criterion variables” - Dominance During Political Conversation, Clarity, use of Reason, Logic, and Evidence, and Understanding of Other Conversants’ Views. The present thesis differs from their study because it does not attempt to predict likelihood to engage in deliberative conversations. Rather than using the deliberative criteria to indicate how deliberative those conversations are, this thesis is interested in which deliberative criteria are most important to respondents vis-à-vis each other.

Quasi-Deliberation – A Conceptual Bridge

Quasi-deliberation is a concept referring to acts of actual discursive citizenship, where deliberation is the gold-standard, but not necessarily expected. Citizenship is important to deliberation because these acts mobilize the political lives of citizens, whether they are framing political topics, forming or expression opinions, or making decisions. Ideally, deliberation is both an interpersonal process and a process of

collective governance. But ideal deliberation happens very rarely, if ever. Quasi-deliberation, therefore, allows the study of ideal deliberation as it is perceived by citizens.

Deliberative scholars tend to claim their work is focused on public discourse as a mode by which citizens might actively engage in their own democratic self-governance. The works of the most prominent deliberative scholars show a strong intention to focus on the citizen.

James Fishkin's (1991) book on deliberation introduces itself by centering on citizenship:

This book is about how to bring power to the people under conditions where the people can think about the power they exercise. (p. 1)

Likewise, Joshua Cohen's (1989) definition is participant-oriented:

By a deliberative democracy I shall mean, roughly, an association whose affairs are governed by the public deliberation of its members. (p. 17)

John Gastil (1994) also makes a point of highlighting the prime importance of citizens in any consideration of deliberative democracy:

No matter how it is defined, inclusive deliberation must involve the citizenry. Thus, the citizen becomes the centerpiece of the democratic ideal and efforts at democratic reform. (p. 3)

Surely, there is good reason for deliberative studies to treat the individual citizen as the ideal unit of analysis. Yet, most empirical studies focus on samples and groups from designated and designed deliberative events, rather than studying daily citizenship. This is not accidental, nor necessarily a shortcoming. By defining deliberation with a strict set of conditions, one must treat citizenship at-large as generally non-deliberative, with only intermittent instances of natural or designed deliberative citizenship. However, deliberative scholars should also consider the need to study how deliberative elements are experienced in everyday citizenship outside of the designed institutional political setting.

To do so, deliberation should be understood as an ideal concept that exists imperfectly in the world. Burkhalter, Gastil, & Kelshaw (2002) make reference to this concept: “The political theorist Robert Dahl and others have defined democracy as something that nations can reach only by degrees” (p. 400, citation omitted). Likewise, the suggestion that a real-world deliberative study ought to focus on the real-world preferences of individuals is not a radical call for revision of the core deliberative expectations, any more than a look at citizens in a real-world democracy rejects the expectations of democracy. Just as any real-world democracy is an approximation of an ideal state, informal political discussion also occurs daily in a quasi-deliberative form. To examine a quasi-deliberation, then, is to examine the deliberative-ness of a practice. Understanding a state’s political regime as quasi-democratic or a conversation as quasi-deliberative acknowledges the role of priorities in shaping actual, if imperfect, democratic and deliberative forms. Priorities and preferences are the pragmatic means through which people resolve conflicts when theoretical qualities manifest in actual practice.

To illustrate this preference perspective in the democratic context, one might consider an example of how selecting between democratic preferences can shape quasi-democratic states, using the example of compulsory voting. Some democracies, Australia for example, as well as several countries in South and Central America, maintain a policy of compulsory voting in federal elections (though one can vote “present,” or cast a blank ballot), while the United States and most European nations do not. The compelled voting policy satisfies the participation needs of a democracy, and so protects an important quality of a democracy – “representativeness.” Despite the importance of

representativeness, this policy is not universally adopted in democratic nations. In the United States, this practice is more likely to be viewed as compelled political action (or speech). Americans are apprehensive of compulsory political speech mandated by the government, treating it as the “the ‘flip side’ of ... prior restraint” (Teeter & Loving, 2011, p. 99). This strong opposition to compelled speech leads to a de-emphasis of “representativeness,” but in favor of a competing democratic quality – “individual freedom from coercion.” This need for freedom from coercion conflicts with the need for representativeness, thus presenting an instance where two qualities of a democracy are, for practical purposes, mutually exclusive. Ultimately, which one is selected over the other is a matter of preference. This comparison of voting policies generally presents an example of how preferences can explain a manifest difference between two quasi-democratic states. The need to choose between ideal qualities is the essence of quasi-democracy; in a theoretically ideal democracy, voting would be both ubiquitous and voluntary. Likewise, this thesis assumes that individuals harbor deliberative preferences that represent choices to be made in order to maintain acceptable levels of discursive rigor for a range of conflicting conversational factors.

Interpersonal Political Discourse from a Social Scientific Perspective

Informal political talk is used in social scientific effects research, and is generally found to correlate with political participation and knowledge variables. Interpersonal discussion has been found to be a predictor of political engagement (McLeod et al. 1999). Eveland & Hutchens-Hively (2009) investigate political discussion in terms of

“frequency,” “network size,” and network “heterogeneity.” They find that talk variables predict levels of political knowledge and participation, with the caveat that discussions with like-minded individuals (“safe discussions”) predict more political participation, while “discussion diversity is negatively related to participation” (Eveland & Hutchens-Hively, 2009, p. 219).

Pan, Shen, Paek & Sun (2006) also study talk by establishing the relationships between three civic engagement variables: media use, campaign involvement, and political talk. From The authors find support for a model that argues campaign engagement and civic engagement are related by political discussion as a mediator. However, the authors provide little detail about what sort of political talk they referring to. The talk variables employed are “whether they ‘discussed politics’ with their ‘family or friends,’ and if ‘yes,’ ‘how many days in the past week’ they ‘talk(ed).” The survey also collected the respondents’ specific relationships (spouse, relative, etc) with those conversation partners.

Pan et al (2006) acknowledge these measures are not the strongest, and it does seem that a fairly obvious critique here is the tautological nature of the variables. If one is active in a presidential campaign, it seems likely that one will talk about it. Indeed, the presidential campaign in general is a common topic of discussion. Is political talk merely any instance of talking about a politically-related topic? The authors’ operationalization of the “political talk” concept seems a little broad for their purpose. The authors contend:

The overall point is that election campaigns matter not only in their ability to influence individuals’ levels of information, attitudes, and vote choices, but more importantly in their capacity to activate and mobilize political talk among citizens. Seriously examining such talk among citizens during election campaigns does not need to impose an a priori model, using it to screen “nondeliberative” from “deliberative” political talks. It does require

us to see an election campaign as a collective deliberation and to evaluate it accordingly. (Pan et al., 2006, p. 340, citation omitted)

To work around their vague handling of “talk,” the authors claim to conceptualize a campaign as inherently a process of “collective deliberation.” They argue that a political campaign is itself a deliberative context, and therefore any engagement with it is an act of engaged deliberative citizenship. This is an arguable conception. Considering the showmanship and celebrity components of political races, it is important to distinguish the democratically relevant components of campaign talk from other talk about politics. In the news media, “politics-as-celebrity gossip” seems to displace useful analysis of candidates. Further, the sound-bite style of political conversation seems to serve only as a re-affirmation of existing ideas without the sort of subjection to competing ideas that the authors believe is endemic to campaign talk. For these reasons, it seems that a model like deliberation *must* be imposed in papers addressing political talk, rather than attempting to broaden the definition and scope of deliberation itself. The deliberative conversation qualities discussed above lend themselves to variables that represent a narrower conception of political talk. These conversation qualities, drawn in operational form from Moy & Gastil (2006), are specific elements that may be useful for examining the nuanced preferences for the nature of political talk, rather than its mere frequency.

Political discourse is influenced by a variety of considerations. Conover & Searing

(2005) write:

Most treatments of deliberation focus solely on its dialogic nature , and therefore assume that citizens are motivated to discuss by particular political desires and informational needs: to gain political information, to express their issue positions and candidate preferences, and to persuade others ... However, it is quite apparent... that other motives also seem to strongly stimulate everyday talk. ... Hence, social motives may be much more important than we have assumed. (p. 40)

From this starting point, Conover & Searing (2005) provide a comprehensive review of motivations to engage in political conversation, which generally fall under political expression (e.g., persuading others), social (e.g., learning about other people and identifying common ground), personal identity (e.g., politics as self-expression), and civic reasons (e.g., creating a healthier democracy and being a good citizen). This thesis does not incorporate these motivations explicitly. Yet, it is clear from Conover & Searings' (2005) research that to understand individual participation in discourse, one needs to consider how to contextualize individual "starting-points" for deliberation, and how these might be measured. Cultural cognition is the conceptual framework by which this thesis attempts to do so.

Douglas (1970) is the originator of the group-grid worldview concept, which captures sociological concepts originally intended to express dimensions of social structures. The group dimension indicates the degree of community influence and identification, while the grid dimension represents the element of centralized control, or primacy of rules. Douglas originally used these measures to describe a social situation, but not the reasons for it (political or social or otherwise).

The relevance of Douglas' cultural cognition measures became clear with her work with Aaron Wildavsky, on *Risk and Culture* (Douglas & Wildavsky, 1982). This work applied Douglas' cultural theory to policy analysis. The study found that people assess risks based on which ones are most likely to compromise their lifestyle, or more specifically, which are most detrimental to their position on the group-grid quadrant.

This work greatly expands the capacity for political researchers to understand culturally-driven political preferences. Gyawali (2002) credits the cultural theory of risk with allowing researchers "to move away from the dualistic straitjacket of either individualistic free market or bureaucratic socialism by accepting that two other solidarities – the egalitarianism of committed activism and the resigned fatalism of the masses – also play crucial roles in any socially dynamic process..." (p. 25). In other words, the grid-group construct allows a more rounded view of political life than typical political "left" vs "right" (or in the United States, Democrat vs. Republican) variables.

Political Information Efficacy

The notion of self-efficacy (Campbell et al., 1954, Bandura, 1982) has proven an integral concept for numerous studies and models of political engagement (e.g., Caprara, Vecchione, Capanna, & Mebane, 2009), and is one of the underpinning concepts in Bandura's social cognitive theory (1986), which has been employed in a myriad of studies and subsequent models (e.g., Ajzen's Theory of Planned Behavior, 1985). The concept has also been used in deliberative studies comparing self-efficacy and "group efficacy" (Gastil & Dillard, 1999, p. 186). However, as a research measure, it has also proven overly broad for many applications. As the concept's progenitor, Albert Bandura

(2006), has observed, “There is no all-purpose measure of perceived self-efficacy. . . . in an effort to serve all purposes, items in such a measure are usually cast in general terms divorced from the situational demands and circumstances” (p. 307). For the present investigation of political talk, “political information efficacy” (PIE) is a useful set of more specific questions to measure the specific contribution of an individual’s ability to use of information to engage with politics. Its early authors differentiate it from general internal efficacy “in that it focuses solely on the voter’s confidence in his or her own political knowledge and its sufficiency to engage the political process” (Kaid, McKinney & Tedesco, 2007, p. 1096).

The measure is fairly young, and has primarily found application as a media-information measure, particularly in the online space (Lariscy, Tinkham, & Sweetser, 2011, McKinney & Rill 2009, Sweetster & Kaid, 2008, Tedesco, 2007) and televised debates (McKinney & Chattopadhyay, 2007). PIE has been proposed as a predictor of voting likelihood, among other civic engagement variables. It has been investigated as a factor in explaining the age-gap in political efficacy, because it provides a conceptual bridge between changing media types and generational political differences in information seeking and political affect (e.g., cynicism, Lariscy, Tinkham, & Sweetser, 2011, Sweetster & Kaid, 2008).

Researchers have also used PIE to investigate differential effects on information processing resulting from the selection of sources of information (Lariscy, Tinkham & Sweetster, 2011, p. 753). While these information sources have often been studied in a media context, the present thesis is an opportunity to investigate PIE as a predictor of preferences. Conceptually, its inclusion helps answer what aspects of deliberative

conversation might be more or less preferable to a person with high confidence in, and availability of, personal political knowledge. In other terms, does an informed voter prefer different elements of a political conversation? The answer could position PIE as an informative mid-stream variable in a more complex political discourse model in a future study.

The prior discussion on deliberation's scholarly ancestry also contributes to an understanding of PIE as a vital component in understanding how individuals discuss politics. While *The Social Contract* is perhaps Rousseau's (2002) primary contribution to participation, his work *Émile, or On Education* (1979), addresses how education allows individuals to function in political society. For Rousseau (2002), functioning in a society is not an inherent competency – indeed, the demands of social life are at odds with the natural dispositions of people. Access to knowledge is therefore, at least in a deliberative framework, key to how citizens experience and participate in political life. This thesis examines one component of political life – discourse – and therefore has cause to subject it to the individual's knowledge state as an independent variable.

A Habermasian rationale also applies to the use of PIE. Habermas provides a rationale for deliberation as a study of how people relate to a system of political discourse. Knowledge is surely one key factor with influence over a citizen's ability to engage in political actions and engage with political discourses.

Need for Cognition

Need for cognition is also a key variable for some studies. Delli Carpini et al. (2004) notes that “individuals who score high on the “need for cognition” ... are more likely to participate in deliberative discussions and to generate valid arguments” (p. 326, citing Cacioppo & Petty, 1982, Cacioppo et al. 1996, Shestowsky et al. 1998). It is not included in this thesis, however, because the construct tends to function as a piece within well-established structures and models, backed by extensive research and hypothesis testing. The present research is not prepared to offer such a comprehensive model, but hopefully that is one future direction for this line of research.

Research Questions

This chapter has outlined the broader justification for the research questions advanced by the present thesis. The main points of the chapter support three research questions, which guide the original research component of this thesis. Habermas (1984, 1989) offers a rationale for discursive citizenship – that is, the reaching of understanding through rational-critical discourse. Cohen (1989) offers criteria by which this sort of discourse might be measured. The discussion of the distinction between instrumental and dialogic communication offers a framework for distinguishing the collective/functional and the interpersonal/cultural aspects of deliberation. Finally, empirical studies offer operationalizations of the qualities first presented by Cohen. With this background in mind, the notion of quasi-deliberation helps frame an empirical approach to studying actually existing deliberative elements of political discourse. Quasi-deliberation accomplishes this by focusing on how preferences for qualities of ideal forms may be related to other real-world political considerations.

This study is specifically interested in predicting the variance in individual preferences for conversational qualities. The predictors are cultural (cultural cognition), experiential (discursive network characteristics), and functional (political information efficacy) orientations that might affect citizens' approaches to political discourse. Three research questions are examined.

Assuming that differences in respondents' rankings of the qualities represents real preferences:

RQ1: What is the relationship between cultural worldview variables and deliberative quality rankings?

Assuming that respondents' interpersonal discourse experiences may influence their preferences for deliberative qualities:

RQ2: What is the relationship between discursive network characteristics and deliberative quality rankings?

Assuming that self-perceived availability of and ability to use political information may influence respondents' preferences for deliberative qualities:

RQ3: What is the relationship between political information efficacy and deliberative quality rankings?

These research questions serve to establish the usefulness of the suggested approach to studying how personal preferences for the formal aspects of deliberation influence other political preferences. Eventually, this may lead to a broader model surrounding deliberative preferences that describe individual expectations of governance or

government processes. The next chapter discusses the methodological component of the thesis research.

CHAPTER THREE: METHOD

Method

Sample

Three hundred questionnaires were collected from an online respondent pool. The online platform used for distributing the questionnaires, discussed below in further detail, is administered by Amazon.com and composed of registered users who accept a variety short tasks presented in .html format in exchange for small monetary compensations. The questionnaire and informed consent information were posted to the task marketplace and accepted by the website's membership, which remains anonymous by the use of unique user identification numbers. Users completing the survey received \$1.00 in compensation.

Of the collected responses, three cases were eliminated because they bore the redundant respondent identification numbers (i.e. three respondents completed the survey twice in different waves), and two cases were eliminated because of bad data, where the respondent marked the same reply for every question. Execution of the validity-check case-dropping procedure (discussed below) resulted in 48 dropped cases, leaving a final sample of N=247.

The collected sample somewhat over-represented non-Hispanic whites at 83.4%, compared to the national representation of 72.4% (U.S. Census Bureau, 2011). Those identifying as black and African American represent 6.5%, Asian or Pacific Islander 6.1%, Hispanic 2.4%, and American Indian 0.8%. Highest level of education was

distributed as 10.9% achieving a high school diploma (or equivalent), 25.1% completing “some college,” 46.6% holding a two-year or four-year college degree, and 16.6% holding a graduate degree. Most respondents were between 30 and 50 years old (53.6%), 32.6% were younger than 30, and 13.7% were older than 50. The distribution of sex was 50.6% male, 49.4% female.

Political philosophy was measured on a 1-5 scale from liberal to conservative; 49.8% of respondents identified as somewhat or very liberal, 29.1% as moderate, and 21.1% as somewhat or very conservative. The largest political group affiliation was the “other” or no affiliation group, with which 49.1% of respondents identified. Of those affiliating with one of the two major political parties, 39.3% identified as Democrat and 20.6% as Republican. The three groups were tested for variance in political philosophy, measured by a 5-point scale from liberal to conservative. All groups returned significant differences in means ($F_{2,244}=11.90, p>.001$). The Bonferonni post-hoc showed the “other” group is more conservative than Democrats, with a mean difference of .673, but compared to Republicans, the difference was a much larger -1.419. In other words, members of the “other” group were found to be closer to Democrats than Republicans on a liberal-conservative scale, with a mean of approximately 2.5, with Democrats averaging about 2 and Republicans averaging about 4.

Instrument

Data were gathered using a survey. The survey was executed online using the Amazon Mechanical Turk (AMT), a versatile web-based task platform that is becoming increasingly common for academic survey distribution because of its cost effectiveness

and demographic diversity (Mason & Suri, 2012; Bohannon, 2011). Marquette University's Institutional Review Board reviewed and granted exempt status for the proposed survey research (protocol number: HR-2313).

Independent and Dependent Variables

The following sections discuss the key measurements employed in this study.

Dependent Variable: Measuring Quality Priorities with the AHP

This thesis measures individual priorities when choosing between qualities of deliberation. To conduct the relative ranking of the decisions, it borrows a technique from Saaty's (1980) Analytic Hierarchy Process. The Analytic Hierarchy Process (AHP) is a method for assigning weights to decision factors in complex multi-criteria decisions. Preferences are assigned on a pairwise basis to each of the decision criteria, meaning every criterion is compared to each other. The resulting preference matrix is then consolidated with a weighting estimation method. An illustration of this procedure is included as Appendix 3. While using the right eigenvector as a priority vector is the most precise and mathematically preferable method of determining weights, other methods like least-squares and the arithmetic mean are used as well for expediency. This study employs geometric means as a weighting method, which has successfully been employed as an estimation method in AHP studies (Katsumura et al., 2008). Unlike the eigenvector method, the geometric mean method does not account mathematically for inconsistent responses (that is, a set of rankings where some seem to contradict others, i.e., when $a > b$,

b>c, but c>a). This issue has been addressed in this thesis by adding a question to the survey reversing one preference set; comparing this question to its opposite, the ranking should reverse. This method ensures a sufficiently consistent set of responses. The 48 inconsistent cases dropped by this procedure is a considerable number. The dropped cases were not predicted by any demographic or response variable, except for the time to complete the survey. The mean completion time for the inconsistent cases was two minutes shorter than the average completion time, which suggests that the inconsistency is a characteristic of rushed and inattentive responses.

The decision factors in this study are deliberative qualities borrowed from Moy & Gastil (2006). The survey includes pairwise comparison items to generate a single list of weighted preferences for four deliberative qualities (see the attached codebook and survey for these items). This treatment of factors is an important distinction from other studies, where normative “goodness” and “badness” are implied by the authors’ evaluation under the expectation that each quality is a test of the “deliberativeness” of an exchange. Rather than this directional approach, where conversations are “more” or “less” deliberative, this study uses weights of the factors to establish how respondents prioritize the deliberative components when compelled to prefer some over others. It is this relative prioritization, not the “amount” of a quality, which ultimately distinguishes respondents. Conceptually, the variance in political talk preferences acts as an expression of normative expectations from citizens, rather than an a-priori standard, which citizens either meet or fail to meet. The geometric mean ranking method results in four factor preference weights, which sum to 1, each decimal representing the degree to which that

item is preferred relative to the others. The “distance” between decimals is significant insofar as it increases to represent a stronger preference over the other factors.

Independent Variable: Cultural Worldview

The proposed research advocates treating deliberative qualities as preferences that vary by respondent. The key to this project is to establish variance in deliberative preferences, but arbitrary variance is not valuable. Therefore, the Douglas’ (1970) well-established group-grid worldview concept has been utilized as an independent variable, with the notion that variance in a respondent’s position on the cultural cognition quadrant will significantly explain the variance in the deliberative quality rankings. This study uses cultural cognition scales, as reported by Kahan (2012).

This widely-used cultural cognition measure is composed of a “group” scale measuring an “individualism-communitarianism” (or individualism-solidarism) dimension and a “grid” scale measuring a “hierarchy-egalitarianism” dimension. Cultural cognition is most commonly used as a predictor of risk perception (see Kahan et al., 2007, Kahan, 2012). Responses to these scales have performed successfully as indicators of risk perception, with high internal consistencies ($\alpha > .70$) (e.g., with Kahan et al., 2007, returning alphas greater than .80 on both dimensional scales). The scales are appropriate to the sort of analysis potential employed in this study. According to Kahan (2012):

Psychometrically speaking, the scales should be thought of as measures of latent or unobserved dispositions, for which the items that make up the scales are simply

observable indicators. Because the scales are continuous, they lend themselves readily to correlational analyses (including multivariate regression) in which their influence can be assessed without the loss of statistical power (and the potential bias) associated with splitting a sample into subgroups. (p. 10, citation omitted)

Thus, the cultural cognition scales are a useful variable for this study because they offer a somewhat more dynamic image of citizen's political outlook than measures such as party affiliation or dualistic conservative/liberal political ideology, though both will be included as controls.

Independent Variable: Discursive Network Characteristics

The three discursive network characteristics examined in this thesis were drawn from Moy & Gastil (2006) to measure the contribution of regular political discourse habits to the variance of the conversation quality preferences. These characteristics are frequency of political conversations, homogeneity of deliberative networks, and number of regular political discussion partners. Frequency is measured by the item: "On average, how often do you talk about political topics with your family, friends, neighbors, and coworkers?" Homogeneity is measured by a five-point agree/disagree Likert item: "I usually discuss politics with people of the same ethnic, social, and economic background as myself." Number of partners is measured by an open numeric entry question: "How many family members, friends, neighbors, and coworkers do you regularly discuss politics with?"

Independent Variable: Political Information Efficacy

Four political information efficacy items (Kaid et al., 2004, Kaid et al., 2007) have been used to measure the respondent's self-perceived ability to use his or her political knowledge to perform citizenship tasks. They are: "I consider myself well-qualified to participate in politics," "I think that I am better informed about politics and government than most people," "I feel that I have a pretty good understanding of the important political issues facing our country," and "If a friend asked me about the presidential election, I feel I would have enough information to help my friend figure out who to vote for."

Controls

Five-point Likert-type questions have been included to independently measure respondents' perceived importance of each conversation quality. Interest in politics in general is measured by an item from Sturgis & Smith, (2010): "How interested would you say you are in politics?" Finally, the survey also collected standard control variable data for political party affiliation, political philosophy (liberal-conservative), education, age, sex, race, and income.

Procedures

Coding & Analysis

Data gathered from the surveys are analyzed in light of the research questions. Internal consistency of the cultural cognition and political orientation variables was then assessed by Cronbach's alpha.

Respondents' pairwise comparisons of the four deliberative qualities (discussed supra) results in a priority ranking where the sum of the ranks equals one, and the distance between rankings reflects the magnitude of preference. Thus, they can be used on their own as continuous variables, or can be converted to two (high/low) or three-level ordinal variables (i.e., such that the two-level groups represent those above and below the sample mean).

The research questions are analyzed using Pearson product-moment correlation coefficient tests. The Pearson "r" correlation tests linear relationships between variables. Because the dependent variables in this thesis are rankings, the non-parametric Spearman's rank correlation coefficient (Spearman's "rho") may appear a better option. However, while the dependent variables are referred to as rankings, this is true only insofar as they reflect preferences over each other. They are, however, more akin to continuous variables in their distributions, and the research questions lend themselves to linear relationships. This is because the fundamental question for these questions might be phrased "does the variance in the independent variable(s) explain the variance in the

dependent variable(s)?" The linear Pearson "r" test is appropriate for this type of directional question, as opposed to the monotonic relationships that Spearman "rho" is designed to identify. However, the Spearman results are included in the appendix, although they are similar to the Pearson results (because a perfect linear relationship is also a perfect monotonic relationship, but not vice-versa).

While multiple regression techniques may be appropriate for future applications, this chapter is focused on the research questions, which seek to establish whether the AHP method can successfully establish deliberative preference rankings. The investigation of more complex models or applications of the preference rankings using multiple independent predictor variables is reserved for future studies. However, Chapter 5 does contextualize the results using regression techniques.

For RQ1, Pearson "r" correlation tests were performed between the cultural cognition variables and the deliberative quality rankings to test what association, if any, exists between cultural worldview and deliberative priorities.

For RQ2, Pearson "r" correlation tests were performed between the discursive network variables and the deliberative quality rankings and cultural cognition variables to test what association, if any, exists between network characteristics and deliberative priorities.

For RQ3, Pearson "r" correlation tests were performed between the summated political information efficacy measure and the deliberative quality rankings to test what association, if any, exists between respondents' self-perceived ability to use information for political engagement and their deliberative priorities.

Validity Check for Preference Rankings

Establishing the validity of the pair-wise deliberative quality ranking approach is the key outcome of this study. Its employment in more elaborate models is one potential application for future research. Validity is protected through a fairly rigorous case-dropping procedure. While only six pairwise comparisons were necessary to create the 4x4 preference matrix, a seventh item was included for validity purposes. With this extra variable, two pairwise weighting variables (values; .25, .5, 1, 2, 4) presented the same pair of statements for “use of reason” and “non-dominance,” in opposite orders. Thus, the extra item is the reverse of one of the observed comparisons. The case-dropping procedure was achieved through the creation of a new variable in SPSS, for which “0” means “do not drop” and “1” indicates a drop case. A valid case has values on opposite sides of the scale, or in the case of a neutral opinion (“1”), no value at either extreme, while a dropped case was one in which the response to both opposite variables was the same or adjacent. For example, if the response to the comparison of “use of reason” versus “non-dominance” is .25, indicating that reason is less important than non-dominance, but the response to “non-dominance” versus “use of reason” was also .25 or .5, then that case was dropped.

Instrument Validity Check

The survey was distributed in five waves, and two versions of the survey were distributed with the items re-ordered. The presentation of the pairwise comparisons was

also re-ordered to ensure the instrument is not predisposing the ranking results. ANOVA showed no significant differences between the waves and the preference rankings, and a t-test showed no significant difference between the two survey versions' mean preference rankings for any of the qualities.

The following chapter discusses the results of the study.

CHAPTER FOUR: RESULTS

The analysis shows some significant linear correlations between the dependent predictor variables and the quality rankings. Two of the qualities, clarity of opinion expression and comprehension of opposing views are significantly related to the cultural cognition variables (RQ1). The other two qualities, non-dominance and use of reason, are significantly related to political information efficacy (RQ3). The second research question returned little interesting information, at least for the present thesis.

Validity Indicators

Overall, the reliability and validity of the key items were found to be acceptable, as is discussed in the next few sections of this chapter.

Preference Ranking Case-Dropping Procedure

After a manual check for duplicates and bad data (e.g., cases in which the respondent marked the same response for every item), the dataset was subjected to the moderately strict drop protocol discussed in chapter three. The procedure resulted in a useful sample of N=247, or 82.3% of the collected responses.

Cultural Cognition

The cultural cognition scales showed excellent internal consistency. After reversing the appropriate items, the Hierarchy-Egalitarianism dimension returned a

Cronbach's alpha of .910, and the Individualism-Communitarianism dimension an alpha of .923. Consistent with theoretical expectations, the two dimensions are positively correlated ($r=.757$, $p<.001$), such that as respondents become more hierarchical, they become more individualistic.

A Bonferroni post-hoc from ANOVA showed that the mean scores on both cultural dimensions differ significantly by about 1 point (on a 1-5 scale) between those identifying as "Republican" and "Democrat." This suggests that Republicans are more likely than Democrats to be more individualistic and hierarchical. A significant difference also occurred between "Independent" and "Republican" and "No Affiliation" and "Republican" groups, presumably related to the finding that these "other" groups were more liberal-leaning.

Political Information Efficacy

The four political information efficacy (PIE) items returned an acceptable internal consistency ($r=.892$), and were summed into one PIE factor.

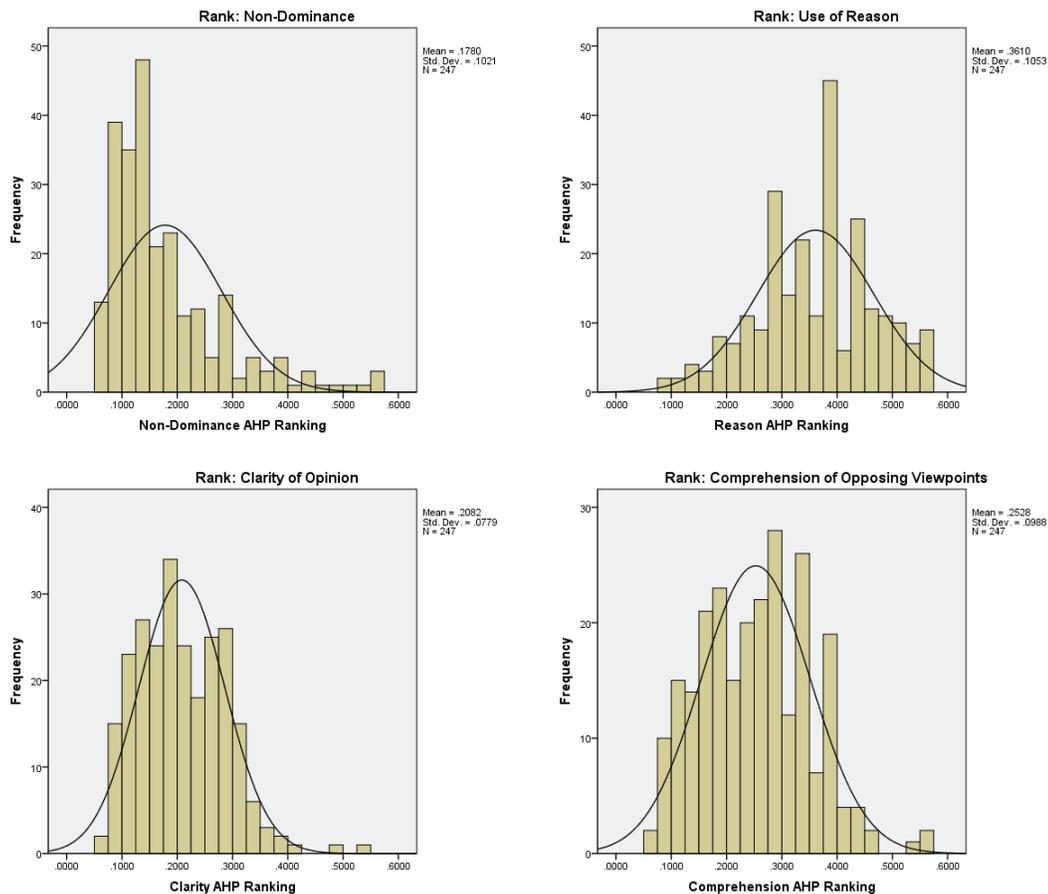
Preference Ranking Variables

The conversational quality priority vectors did not distribute the top rankings evenly. The number of respondents ranking each quality most important is summarized in Table 1.

	Frequency	Percent
<i>Use of Reason</i>	132	53.4
<i>Comprehension of Opposing Views</i>	42	17
<i>Non-Dominance</i>	21	8.5
<i>Clarity of Opinion</i>	9	3.6
<i>Tie</i>	43	17.4
Total	247	100

The distribution of the rankings is reasonably well distributed for all but the non-dominance quality rankings.

Graph 1: Distribution of Rankings



The mean non-dominance priority ranking is considerably lower than the other conversation qualities, and is skewed significantly to the right. Interested readers should note that the author did attempt to correct for that skewness. It was initially high at 1.655 (the others were .572, -.163, and .326). A base-10 logarithmic transformation of the variable reduced the ranking variance to .465. However, using the resulting variable in subsequent analysis yielded no substantially different result than the ones presented.

*Investigated Relationships**Research Question One*

The first research question asked, “What is the relationship between cultural worldview variables and deliberative quality rankings?” The results are summarized in Table 2.

A Pearson “r” test indicates that the priority ranking of clarity of opinion expression is significantly positively related to both the Hierarchical-Egalitarian and Individualist-Communitarian scales ($r=.156, p<.05$ & $r=.140, p<.05$), while comprehension of opposing viewpoints is negatively correlated to both dimensions ($r=-.278, p<.001$ & $r=-.273, p<.001$). This suggests that hierarchical individualists (both of which are correlated with conservatism and related to identification with the Republican political party) give higher preference to ‘clear expression of viewpoints’ than do egalitarian communitarians. The preference for ‘comprehension of opposing views’ correlates in the opposite direction, decreasing as respondents become more hierarchical and individualistic. The ranking for ‘use of reason’ and ‘non-dominance’ are not correlated with either cultural cognition scale variables.

Table 2: Correlations between Cultural Cognition and Conversation Quality Rankings			
Quality Rankings		Hierarchy-Egalitarianism	Individualism-Communitarianism
<i>Non-Dominance</i>	Pearson Coefficient	0.039	0.044
	Sig (2-tailed)	p = ns	p = ns
<i>Use of Reason</i>	Pearson Coefficient	0.107	0.110
	Sig (2-tailed)	p = ns	p = ns ¹
<i>Clarity of Opinion</i>	Pearson Coefficient	0.156	0.140
	Sig (2-tailed)	p < .05	p < .05
<i>Comprehension</i>	Pearson Coefficient	-0.278	-0.273
	Sig (2-tailed)	p < .001	p < .001

This pattern is supported by the correlations between the quality rankings and the “political philosophy” item as well, which asked respondents’ to identify on a 5-point scale from “liberal” to “conservative.” Neither non-dominance nor use of reason return significant linear relationships, while comprehension of opposing views is negatively correlated with the political philosophy scale ($r = -.266$, $p < .001$) and clarity of opinion expression approaches a significant positive correlation ($r = .121$, $p < .058$)².

Research Question Two

The second research question asked, “What is the relationship between discursive network characteristics and deliberative quality rankings?” Table 4 shows the Pearson “r” correlations between the quality rankings and three self-reported conversational

¹ Relationship is significant when tested with non-parametric Spearman “rho,” see Appendix 1

² Relationship with “clarity of opinion expression” is significant when tested with non-parametric Spearman ($\rho = .128$, $p = .044$)

network characteristics: frequency of political conversations, homogeneity of deliberative networks, and number of regular political discussion partners.

Table 3: Correlations between Conversation Variables and Quality Rankings				
Quality Rankings		Talk Frequency	Network Homogeneity	Number of Regular Discussion Partners
<i>Non-Dominance</i>	Pearson Coefficient	-0.005	-0.014	-0.049
	Sig (2-tailed)	p = ns	p = ns	p = ns
<i>Use of Reason</i>	Pearson Coefficient	-0.099	0.086	0.011
	Sig (2-tailed)	p = ns	p = ns	p = ns
<i>Clarity of Opinion</i>	Pearson Coefficient	-0.06	0.013	0.021
	Sig (2-tailed)	p = ns	p = ns	p = ns
<i>Comprehension</i>	Pearson Coefficient	0.157	-0.088	0.022
	Sig (2-tailed)	p < .05	p = ns	p = ns

The only significant correlation is between the rank of “comprehension of opposing viewpoints” and the frequency of political conversation. The correlation suggests higher political discussion frequency predicts to a higher value on comprehension.

Research Question Three

The third research question asked, “What is the relationship between political information efficacy and deliberative quality rankings?” Table 4 presents the result of this correlation test.

Table 4: Correlations between Political Information Efficacy and Quality Rankings		
Quality Rankings		Political Information Efficacy
<i>Non-Dominance</i>	Pearson Coefficient	-0.129
	Sig (2-tailed)	p < .05
<i>Use of Reason</i>	Pearson Coefficient	.127
	Sig (2-tailed)	p < .05
<i>Clarity of Opinion</i>	Pearson Coefficient	-0.046
	Sig (2-tailed)	p = ns
<i>Comprehension</i>	Pearson Coefficient	-0.034
	Sig (2-tailed)	p = ns

Information efficacy significantly predicts to two of the ranking distributions. The ranking of use of reason is positively related to political information efficacy ($p = .127$, $p < .05$), while non-dominance is negatively related to PIE ($r = -0.129$, $p < .05$).

The next and final chapter of the thesis will discuss an interpretation of the results, and will identify some of the limitations of the present study and directions for future research.

CHAPTER FIVE: CONCLUSION

Discussion

The measures employed in this thesis are somewhat experimental, and so the conclusions must be treated as tentative and in need of future exploration and explanation. However, the results presented in chapter 4 may indicate patterns of interest to deliberative researchers and for future models of political discourse.

Research Question One

The pairwise ranking system is designed to elicit preferences between alternatives when those decisions are unclear or difficult. This incremental comparison process yields a series of rank coefficients, which represent the degree to which each is preferred over the other. The ranking coefficients of ‘clarity’ and ‘comprehension of opposing viewpoints’ correlate with respondents’ positions on the cultural cognition scale. This suggests that normative political preferences do relate to preferences for some of the discursive elements.

Chapter 2 established an outline of the deliberative scholarship that has very strong theoretical roots, but that is empirically complex and sometimes inconsistent. This study is an attempt to provide an explanatory method for adding nuance to empirical studies, arguing that respondent’s discursive preferences are important for understanding how they will respond to political conversation.

The strongest correlation in the results is a negative relationship between cultural cognition and comprehension of opposing viewpoints, where more hierarchical and individualistic respondents are more likely to prioritize the other elements over comprehension. This may suggest that these individuals are more interested in the instrumental applications of political discourse, particularly in an adversarial sense, while the notion of using discourse for mutual understanding or consensus building is unappealing. This finding may be of great relevance to the designers of deliberative events, particularly if they wish to maximize the perceived value and legitimacy of a collective decision-making process.

The clarity ranking is positively correlated with the cultural cognition scale, suggesting that more hierarchical and individualistic respondents are interested in more explicit opinion expression, perhaps where arguments clearly comport to known perspectives and arguments. Following the assumption about the interpretations of the “comprehension” ranking, perhaps clear arguments lend themselves to competitive, rather than consensus-oriented, decision-making processes. Learning more about the expectations behind clarity, perhaps as opposed to ambiguity, would explain its relative importance. While clear positions are useful for adversarial argumentation, respondents seeking consensus may desire conversations that incorporate a fuller breadth of information, at the expense of simpler but clearer stances.

It should be clear that the results should not be used to make a generalized statement about the character of conservatives or liberals, Democrats or Republicans. They are not interpretable to mean that hierarchical individualists do not value reasoning and clarity in their arguments. Rather, they reflect the priorities that each group would

demand of a political conversation. In this sense, one might tentatively say that the strong negative “comprehension” correlation suggests that hierarchical conservatives believe that understanding in a conversation is less necessary than the other qualities, in order to have a successful political conversation. This may indicate different expectations about conversational outcomes; if the outcome of political conversation is conceptualized as more adversarial than consensus-driving, then mutual understanding is perhaps less important for a successful outcome. To verify these interpretations of the meanings of the rankings, future research will be required into the expectations about outcomes that correspond to the preference rankings; these future research suggestions will be discussed at greater length separately. For the time being, the primary conclusion of this study is that the relative-ranking method is a potentially useful one for determining respondent preferences.

Research Question Two

As predictors of discursive quality preferences, the conversation network variables do not appear predictive. The rank of “comprehension of opposing viewpoints” is predicted by the frequency of political conversation. A future inquiry might potentially inquire how increased talk frequency raises the perceived need for comprehension, but the present study does not offer a theoretical explanation, and therefore the relationship is not a central finding of this thesis.

Research Question Three

The ranking of use of reason is positively related to political information efficacy ($p = .127, p < .05$). Conceptually, information efficacy represents the degree to which a respondent feels comfortable and capable of employing his or her political knowledge in politically-salient behaviors (e.g., political discussions, voting). What distinguishes a higher information efficacy ranking from general efficacy is the respondent's specific confidence in his or her information itself. It makes sense, therefore, that this higher confidence in information results in an increased preference for conversations that are grounded in rational, reason-based arguments (as opposed to heuristics).

Non-dominance, however, is negatively related to PIE ($r = -0.129, p < .05$). This means lower political information efficacy responses predict to higher valuation of the non-dominance ranking. Interestingly, information efficacy is also strongly correlated with reported general interest in politics ($r = .714, p < .001$). Of the four quality rankings, non-dominance is also the only one to approach a significant correlation with general political interest ($r = -.177, p = .068$)³. This may suggest that those who value non-dominance the most are those who are least engaged with politics; this makes sense, as a competitive political conversation is more difficult to enter for those least familiar or interested in the topic.

³ Relationship between non-dominance and political interest is significant when tested with non-parametric Spearman ($\rho = .138, p = .031$)

Making Sense of RQ1 and RQ3: Two Sides of the Same Coin?

Taken together, RQ1 and RQ3 seem to provide predictors for the behavior of each of the four quality rankings. A regression technique is useful for examining the influence of the two independent variables – cultural cognition and PIE. The cultural cognition dimensions were analyzed together as predictors of each of the quality rankings, and, in separate analyses, PIE was also used as a predictor. Cultural cognition and PIE are not correlated. The results from the eight regression tests are summarized in Table 7. Statistically significant models are bolded in the table.

Table 5: Regressions of Cultural Cognition and Political Information Efficacy (PIE) on the Four Conversation Quality Preference Rankings			
Quality		<i>Cultural Cognition</i> (HE), (IC)*	<i>PIE</i>
<i>Non-Dominance</i>	Std. Coefficient (β)	.14, .34	-.129
	Coefficient Sig.	.890, .729	
	Model Sig.	0.780	0.043
	Effect Size (Adj. R^2)	0.002	0.013
<i>Use of Reason</i>	Std. Coefficient (β)	.056, .068	.127
	Coefficient Sig.	.569, .489	
	Model Sig.	0.195	0.047
	Effect Size (R^2)	0.005	0.012
<i>Clarity of Opinion</i>	Std. Coefficient (β)	.117, .052	-.046
	Coefficient Sig.	.229, .590	
	Model Sig.	0.043	0.470
	Effect Size (R^2)	0.018	-.002
<i>Comprehension</i>	Std. Coefficient (β)	-.165, -.148	.034
	Coefficient Sig.	.079, .115	
	Model Sig.	0.000	0.590
	Effect Size (R^2)	0.079	-0.003

* (HE) = Hierarchy-Egalitarianism dimension, (IC) = Individualism-Communitarianism dimension

The results from the regression analysis appear to confirm the correlation tests by illustrating the effects of cultural cognition (where both dimensions are considered together) and PIE seem to influence different dimensions of deliberative preferences. Whether the groupings of non-dominance and use of reason, and clarity of opinion expression and comprehension of opposing views, represent two dimensions is a topic for future research.

A possible approach to such a future study would be to incorporate outcome expectancies as variables. One political communication topic for scholars to explore is the difference between political discourses intended to drive consensus, and those intended to produce a competitive outcome. Depending on the perceived intent of the conversation, or (similarly) the likely outcome, different qualities are useful. For example, explicit and direct opinions are useful for adversarial arguments, where audience members can clearly align with one of two clear premises. Likewise, comprehension of an opponent's view is mostly unnecessary if the purpose of the conversation is to establish a winner, thus explaining the negative coefficients. However, if the purpose is consensus, it is important that neither side dominates the other because aggression is more of a rhetorical heuristic than useful logical device. Similarly, the use of supportable, empirical arguments (reason) is paramount for reaching an informed collective decision. Yet, for adversarial purposes, too much information tends to compete with the clarity of an argument. Reason and non-dominance remain somewhat important, but not relative to the other features.

Limitations

It is important to note at the outset that while several statistically significant relationships, meaning relationships whose patterns are unlikely due entirely to chance, are identified, they nearly all occur with low effect sizes. While null hypothesis testing is common in social science, rejection of a null hypothesis is not in and of itself a sufficient result. The reader should be cautioned that, as Levine et al. (2008) put it, “just because a statistical null can be rejected does not mean that the corresponding substantive conclusions are correct and substantive false positives are almost certainly more prevalent in communication research than statistical false positives” (p. 177). Standardized effect size is one way to improve upon the substantive meaning of a statistical relationship, but is highly susceptible to sample size and the nature of the variables itself. It is worth noting that the dependent quality ranking variables used in this thesis are numerically confined to a range between about .1 and .6, because the rankings always sum to 1. Consequently, the differences between ranks from case to case are, in absolute terms, quite small. Further, the small effects sizes could be a reflection of the presence of potential intervening variables and indirect effects. In the context of political communication research, Iyengar (2001) talks about the small effects sizes typically found in persuasion research, especially in the context of political messages, and their effects on political behaviors. In addition, this article makes a strong case for examining indirect effects to better explicate the reasons behind such small effects sizes. Thus, the results presented in this chapter will need to be validated by more robust methods of analysis in future studies.

Future Directions

This thesis is intended as a first step toward investigating deliberation as a social construct. By establishing a method for measuring the role of personal history in developing preferences for deliberation, it lends itself to future approaches to investigating civic engagement. For example, preferences for discourse may have applications for perceptions and attitudes about the credibility of public debates, candidate selection for public office, expectations about the likely success of political processes, willingness to engage in political conversations (or particular types of political conversations), and the selection of political news sources (perhaps intra-medium, for example, selection of particular television programs).

The use of the analytic hierarchy process to generate the ranking variables is a fairly unique application. In its entirety, the priority vector is intended to facilitate the selection of competing decisions. A broader framework employing the full AHP could be used to match the priority vectors to options (e.g., media types, or types of deliberation). This would be of interest to scholars seeking to show that people are rational in their political choices, perhaps including selection among multiple information sources, a field of candidates, or competing proposals for public decision-making processes.

Two further considerations are relevant to future applications of the AHP. First, integration of the use of mathematical techniques for comparing “fuzzy numbers” is becoming a popular approach to calculating more precise weighted preferences vectors given ambiguous stated preferences, and has been applied to multi-criteria choices as

diverse as selecting a manufacturing supplier (Kahraman, Cebeci & Ulukan, 2003), evaluating weapons systems (Dağdeviren, Yavuz & Kılınç, 2009), and determining customer service priorities (Chan, Kwong & Dillon, 2012). The technique would be an appropriate addition to the analysis presented in this thesis. Further, the AHP has a companion method, the Analytic Network Process (ANP), which is more procedurally complex but allows for the assumption that decision points (i.e., components of the hierarchy) are co-dependent on the others. The present analysis only employs one “level” of hierarchy (the conversation qualities), but in the event of future applications, the ANP rather than AHP would be the appropriate tool for a multiple hierarchies decision.

Finally, future studies should seek to create a more complex model, where both the independent variables from this thesis are given predictors, and the dependent quality rankings are used as predictors. Not only are cultural cognition and PIE predicted by other known variables, there may also be mediating variables between them and the deliberative quality rankings. These rankings need further investigation and specification. For example, perhaps a measure indicating ‘tolerance for ambiguity’ would explain the relative importance of clarity, if respondents perceive a very clear argument as a trade-off against more nuanced and ambiguous arguments.

One useful concept, common in behavioral research models, is the idea that expectations and attitudes are predictive of behavior. For example, Azjen’s (1985, 1988) theory of planned behavior holds that attitudes about a behavior, social norms, and perceived personal control (sometimes synonymous with efficacy) are predictive of intent to perform a behavior. In a similar sense, these expectation categories may apply as antecedents to preferences about deliberation, or behavior within a discursive event.

BIBLIOGRAPHY

- Arendt, H. (1968). *Between Past and Future* (Rev ed.). New York: Viking Press.
- Azjen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckman (Eds.), *Action control: From cognitions to behavior* (pp. 11-39). Heidelberg, Germany: Springer.
- Azjen, I. (1988). *Attitudes, personality and behavior*. Milton Keynes, UK: Open University Press.
- Bandura, A. (2006). Guide for constructing self-efficacy scales. In F. Pajares & T.C. Urdan (Eds.), *Self-Efficacy Beliefs of Adolescence*. (pp. 307-337). Greenwich, CT: Information Age Publishing, Inc.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1982) Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122-147.
- Benhabib, S. (1988). Judgment and the Moral Foundations of Politics in Arendt's Thought. *Political Theory*, 16(1), 29-51.
- Bobbio, L. (2010). Types of Deliberation. *Journal of Public Deliberation*, 6(2).
- Bohannon, J. (2011, October 21). Social Science for Pennies. *Science*, 334, 307. Retrieved from www.sciencemag.org.
- Burkhalter, S., Gastil, J., & Kelshaw, T. (2002). A Conceptual Definition and Theoretical Model of Public Deliberation in Small Face-to-Face Groups. *Communication Theory*, 12, 398-422.
- Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. *J. Pers. Soc. Psychol.*, 42, 116-131.
- Cacioppo, J. T., Petty, R. E., Feinstein, J., & W.B.G., J. (1996). Dispositional differences in cognitive motivation: the life and times of individuals varying in the need for cognition. *Psychol. Bull.*, 119, 197-253.
- Campbell, A., Gurin, G., & Miller, W., (1954). *The voter decides*. Row Peterson: Evanstone
- Caprara, G.V., Vecchione, M., Capanna, C., & Mebane, M. (2009). Percieved political self-efficacy: Theory, assessment, and applications. *European Journal of Social Psychology*, 39, 1002-1020.

- Carpini, M., Cook, F., & Jacobs, L. (2004). Public Deliberation, Discursive Participation, and Citizen Engagement: A Review of the Empirical Literature. *Annual Review of Political Science*, 7, 315-344.
- Chambers, S. (2003). Deliberative democratic theory. *Annual Review of Political Science*, 6(307-326).
- Chan, K. Y., Kwong, C. K., & Dillon, T. S. (2012). An Enhanced Fuzzy AHP Method with Extent Analysis for Determining Importance of Customer Requirements. *Computational Intelligence Techniques for New Product Design*, 403, 79-93.
- Cobb, M. D. (2011). Creating informed public opinion: Citizen deliberation about nanotechnologies for human enhancements. *Journal of Nanoparticle Research*, 13(4), 1533-1548.
- Cohen, J. (1989). Deliberation and Democratic Legitimacy. In A. Hamlin & P. Pettit (Eds.), *The Good Polity* (pp. 17-34). Oxford: Basil Blackwell.
- Conover, P., & Searing, D. (2005). Studying 'Everyday Political Talk' in the Deliberative System. *Acta Politica*, 40(3), 269-283.
- Crittenden, J. (1992). *Beyond Individualism*. New York: Oxford University Press.
- Dağdeviren, M., Yavuz, S., & Kılınc, N. (2009). Weapon selection using the AHP and TOPSIS methods under fuzzy environment. *Expert Systems with Applications*, 36(4), 8143-8151.
- Dahl, R. (1979). Liberal Democracy in the United States. In W.S. Livingston (Ed.), *A Prospect of Liberal Democracy*. Austin, TX: University of Texas Press.
- Douglas, M., & Wildavsky, A. (1982). *Risk and Culture: An Essay on the Selection of Technical and Environmental Dangers*. Berkeley, CA: University of California Press.
- Douglas, M. (1970). *Natural symbols: Explorations in cosmology*. New York: Pantheon Books.
- Eveland, W., & Hutchens Hively, M. (2009). Political Discussion Frequency, Network Size, and "Heterogeneity" of Discussion as Predictors of Political Knowledge and Participation. *Journal of Communication*, 59, 205-224.
- Fishkin, J. (1991). *Democracy and Deliberation: New Directions for Democratic Reform*. New York: Vail-Ballou Press.
- Fishkin, J. (1995). *The Voice of the People*. New Haven, CT: Yale University Press.

- Fishkin, J. (2006). Defending deliberation: a Comment on Ian Shapiro's The State of Democratic Theory. *Critical Review of International Social and Political Philosophy*, 8(1), 71-78.
- Gastil, J. (2008). *Political Communication and Deliberation*. Thousand Oaks, CA: Sage Publications Inc.
- Gastil, J. (2000). *By Popular Demand*. Berkeley, CA: University of California Press.
- Gastil, J., & Dillard, J.P. (1999). The aims, methods, and effects of deliberative civic education through the National Issues Forums. *Communication Education*, 48(3), 179-193.
- Gastil, J. (1994). *Democratic citizenship & the national issues forums*. (Ph.D.), University of Wisconsin-Madison, Madison, WI. ProQuest Dissertations & Theses Database database.
- Griffin, M. (2011). Developing Democratic Minds- Piaget, Vygotsky and the Deliberative Citizen. *Journal of Public Deliberation*. 7(1).
- Gutmann, A. (1987). *Democratic Education*. Princeton, N.J.: Princeton University Press.
- Gyawali, D. (2002). *Water in Nepal*. Katmandu: Himal Books.
- Habermas, J. (2006). Political communication in media society: Does democracy still enjoy an epistemic dimension? The impact of normative theory on empirical research. *Communication Theory*, 16, 411-426.
- Habermas, J. (1984). *The Theory of Communicative Action* (Vols. 1-2). (T. Thomas McCarthy, Trans.). Boston, MA: Beacon Press.
- Habermas, J. (1989). *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*. (T. Burger, Trans.). Cambridge MA: The MIT Press. (Original work published 1969)
- Hartz-Karp, J., & Briand, M. (2009). Institutionalizing Deliberative Democracy. *Journal of Public Affairs*. 9(2): 125-141.
- Hilmer, J. (2010). The State of Participatory Democratic Theory. *New Political Science*, 32(1), 43-63.
- Iyengar, S. (2001). Engineering consent: The renaissance of mass communication research in politics. Draft prepared for publication in J. T. Jost, M. R. Banaji, D. Prentice (Eds.) *The yin and yang of social cognition: Perspectives on the social psychology of thought systems*. Retrieved from <http://pcl.stanford.edu/common/docs/research/iyengar/2001/mcguire.pdf>.

- Kahan, D. (2012). Cultural Cognition as a Conception of the Cultural Theory of Risk. In S. Roeser, R. Hillerbrand, P. Sandin & M. Peterson (Eds.), *Handbook of Risk Theory: Epistemology, Decision Theory, Ethics, and Social Implications of Risk*: Springer.
- Kahan, D., Braman, D., Cohen, G., Slovic, P., & Gastil, J. (2010). Who fears the HPV vaccine, who doesn't, and why? An experimental study of the mechanisms of cultural cognition. *Law and Human Behavior*, 34, 501-516.
- Kahan, D., Braman, D., Gastil, J., Slovic, P., & Mertz, C. K. (2007). Culture and Identity-Protective Cognition: Explaining the White-Male Cognition: Explaining the White-Male Effect in Risk Perception. *Journal of Empirical Legal Studies.*, 4(3), 465-505.
- Kahan, D., Slovic, P., Braman, D., & Gastil, J. (2006). Fear of democracy: A cultural critique of Sunstein on risk. *Harvard Law Review*, 119, 1071-1109.
- Kahraman, C., Cebeci, U., & Ulukan, Z. (2003). Multi-criteria supplier selection using fuzzy AHP. *Logistics Information Management*, 16(6), 382-394.
- Kaid, L. L., McKinney, M., & Tedesco, J. C. (2007). Introduction: Political information efficacy and young voters. . *American Behavioral Scientist*, 50.
- Kaid, L. L. & Postelnicu, M. (2005). Political Advertising in the 2004 Election: Comparison of Traditional Television and Internet Messages. . *American Behavioral Scientist*, 49, 265-278.
- Kaid, L. L., Tedesco, J. C., & McKinney, M. S. (2004). *Political information efficacy and younger voters*. Paper presented at the Annual Meeting of the National Communication Association, Chicago, IL.
- Karpowitz, C. F., Raphael, C., & Hammond, A. S. (2009). Deliberative Democracy and Inequality: Two Cheers for Enclave Deliberation among the Disempowered. *Politics & Society*, 37.
- Katsumura, Y., Yasunaga, H., Imamura, T., Kazuhiko Ohe, K., & Oyama, H. (2008). Relationship between risk information on total colonoscopy and patient preferences for colorectal cancer screening options: Analysis using the Analytic Hierarchy Process. *BMC Health Services Research*, 8, 106.
- Kim, J., & Kim, E. J. (2008). Theorizing Dialogic Deliberation: Everyday Political Talk as Communicative Action and Dialogue. *Communication Theory*, 18, 51-70.
- Lariscy, R.W., Tinkham, S.F., & Sweetser, K.D. (2011). Kids these days: Examining differences in political uses and gratifications, internet political participation, political information efficacy, and cynicism on the basis of age. *American Behavioral Scientist*, 55, 749-764.

- Levine, T., Weber, R., Hullett, C., Park, H. S., & Massi Lindsey, L. (2008). A critical assessment of null hypothesis significance testing in quantitative communication research. *Human Communication Research*, 34, 171-187.
- Locke, J. (1956). In J.W. Gough (Ed) *The second treatise of government (An essay concerning the true original, extent, and end of civil government), and, A letter concerning toleration*. Oxford: Blackwell.
- Luskin, R., Fishkin, J., & Jowell, R. (2002). Considered opinions: deliberative polling in Britain. *British Journal of Political Science*, 32, 455-487.
- Luskin, R., Fishkin, J., McAllister, I., Higley, J., & Ryan, P. (2000). *Information effects in referendum voting: Evidence from the Australian deliberative poll*. Paper presented at the Annual Meeting of the American Political Science Association, Washington, D.C.
- Mansbridge, J., Hartz-Karp, J. F., Amengaul, M., & Gastil, J. (2006). Norms of Deliberation: An Inductive Study. *Journal of Public Deliberation*, 2(1).
- Mason, W. & Suri, S. (2012). Conducting behavioral research on Amazon's Mechanical Turk. *Behavior Research Methods*, 44(1), 1-23.
- McKinney, M.S. & Rill, L.A. (2009). Not your parents' presidential debates: Examining the effects of the CNN/YouTube Debates on Young Citizens' Civic Engagement. *Communication Studies*, 60(4), 392-406.
- McKinney, M.S. & Chattopadhyay, S. (2007). Political engagement through debates: Young citizens' reactions to the 2004 presidential debates. *American Behavioral Scientist*. 50, 1169-1182.
- McLeod, J. M., Scheufele, D. A., & Moy, P. (1999). Community, Communication, and Participation: The Role of Mass Media and Interpersonal Discussion in Local Political Participation. *Political Communication*, 16(3), 315-336.
- Mendelberg, T. (2002). The deliberative citizen: theory and evidence. In M. X. D. Carpini, L. Huddy & R. Shapiro (Eds.), *Research in Micropolitics: Political Decisionmaking, Deliberation, and Participation* (Vol. 6, pp. 151-193). Greenwich, CT: JAI Press.
- Mill, J.S. (1869). *On Liberty*. (4th ed) London: Longman, Roberts & Green. (Original work published 1859)
- Morrell, M. (1999). Citizens Evaluations of Participatory Democratic Procedures: Normative Theory Meets Empirical Science. *Political Research Quarterly*, 52, 293-322.
- Morwood, J. (2005). *Oxford Latin desk dictionary*. (2nd ed) Oxford: Oxford University Press.

- Moy, P., & Gastil, J. (2006). Predicting Deliberative Conversation: The Impact of Discussion Networks, Media Use, and Political Cognitions. *Political Communication*, 23, 443-460.
- Nabatchi, T. (2010). Deliberative Democracy and Citizenship: In Search of the Efficacy Effect. *Journal of Public Deliberation*, 6(2).
- Nussbaum, M. (1995). *Poetic justice: The literary imagination and public life*. Boston: Beacon Press.
- Sweetser & Kaid, L.L. (2008). Stealth soapboxes: political information efficacy, cynicism and uses of celebrity weblogs among readers. *New Media & Society*, 10, 67-91.
- Tedesco, J. (2007). Examining Internet Interactivity Effects on Young Adult Political Information Efficacy. *American Behavioral Scientist*, 50, 1183-1194.
- U.S. Census Bureau. *Overview of Race and Hispanic Origin: 2010 Census Briefs*. (2011). Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-02.pdf>.
- Pan, Z., Shen, L., Paek, H. J., & Sun, Y. (2006). Mobilizing Political Talk in a Presidential Campaign: An Examination of Campaign Effects in a Deliberative Framework. *Communication Research*, 33(5).
- Pateman, C. (1970). *Participation and Democratic Theory*. New York: Cambridge University Press.
- Rienstra, B. & Hook, D. (2006). Weakening Habermas : the undoing of communicative rationality. *Politikon: South African journal of political studies*. 33(3), 313-339.
- Roelofs, H. M. (1998). Democratic Dialectics. *The Review of Politics*, 60(1).
- Rousseau, J. (2002). *The Social Contract: The First and Second Discourses*. (S. Dunn, Ed.). New Haven, CT: Yale University Press. (Original work published 1762)
- Rousseau, J. (1979). *Emile or On Education*. (A. Bloom, Trans.). New York, NY: Basic Books, Inc. (Original work published 1762)
- Saaty, T.L. (1980). *The Analytic Hierarchy Process*. New York, NY: McGraw Hill International.
- Sanders, L.M. (1997). Against Deliberation. *Political Theory*. 25(3), 347-376.
- Shapiro, I. (2006). The State of Democratic Theory: a reply to James Fishkin. *Critical Review of International Social and Political Philosophy*, 8(1), 79-83.

- Shestowsky, D., Wegener, D. T., & Fabrigar, L. R. (1998). Need for cognition and interpersonal influence: Individual differences in impact on dyadic decisions. *J. Pers. Soc. Psychol.*, 74, 1317-1321.
- Smith, A. (1975). R. H. Campbell and A. S. Skinner (Eds). *An Enquiry into the Nature and Causes of the Wealth of Nations*. Oxford: Oxford University Press. (Original work published 1776)
- Stromer-Galley, J. (2007). Measuring Deliberation's Content: A Coding Scheme. *Journal of Public Deliberation*. 3(1).
- Stromer-Galley, J., & Muhlberger, P. (2009). Agreement and Disagreement in Group Deliberation: Effects on Deliberation Satisfaction, Future Engagement, and Decision Legitimacy. *Political Communication*, 26, 173–192.
- Sturgis, P., & Smith, P. (2010). Fictitious issues revisited: Political interest, knowledge and the generations of nonattitudes. *Political Studies*, 58, 66-84.
- Teeter, D.L., & Loving, B. (2011). *Law of Mass Communications: Freedom and Control of Print and Broadcast Media*. New York, NY: Thomson Reuters/Foundation Press.
- Villa, D. (1992). Postmodernism and the Public Sphere. *The American Political Science Review*, 86(3), 712-721.

APPENDIX 1: NON-PARAMETRIC CORRELATIONS
Spearman Correlations Corresponding to RQ 1 & 3 Results Presented in Chapter 4

*Note: A non-parametric table is not included corresponding to table 3, testing RQ2, because no differences in significances occur between Pierson “r” and Spearman “rho”

Non-Parametric Results
Corresponding to Table 2

Table 6: Correlations between Cultural Cognition and Conversation Quality Rankings			
Quality Rankings		Hierarchy-Egalitarianism	Individualism-Communitarianism
<i>Non-Dominance</i>	rho Coefficient	0.062	0.022
	Sig (2-tailed)	p = ns	p = ns
<i>Use of Reason</i>	rho Coefficient	0.091	0.112
	Sig (2-tailed)	p = ns	p < .05
<i>Clarity of Opinion</i>	rho Coefficient	0.145	0.140
	Sig (2-tailed)	p < .05	p < .05
<i>Comprehension</i>	rho Coefficient	-0.257	-0.250
	Sig (2-tailed)	p < .001	p < .001

Corresponding to Table 4

Table 7: Correlations between Political Information Efficacy and Quality Rankings		
Quality Rankings		Political Information Efficacy
<i>Non-Dominance</i>	rho Coefficient	-0.176
	Sig (2-tailed)	p < .01
<i>Use of Reason</i>	rho Coefficient	0.134
	Sig (2-tailed)	p < .05
<i>Clarity of Opinion</i>	rho Coefficient	-0.046
	Sig (2-tailed)	p = ns
<i>Comprehension</i>	rho Coefficient	0.037
	Sig (2-tailed)	p = ns

APPENDIX 2: SURVEY

*Notes: Survey has been re-formatted for economy in the printed appendix
Two surveys with different question orders were employed – only Version 1 is appended

MARQUETTE UNIVERSITY INFORMATION FOR PARTICIPANTS Political Conversation Preferences

David Brinker, Jr.
College of Communication

You have been asked to complete the following research survey. It should take no more than 30 minutes for you to complete the survey. The purpose of this study is to learn how people prioritize the qualities of their everyday political conversations. Your responses are strictly anonymous and your participation is completely voluntary. By completing the survey, you are giving your permission to the researcher to use your anonymous responses at professional meetings and in research publications.

Thank you for your participation.

David Brinker
Graduate Student
Marquette University, College of Communication

Political Conversations

This study asks for your opinion about political discussions and politics in general. All identifying information will be disassociated from the data prior to analysis. Thank you for participating.

Skipping questions that you do not wish to answer will not necessarily result in a rejection of the work, but surveys with more than three skipped answers will not receive approval. Marking "I do not wish to answer" is not considered a skipped question.

Questions 1-7 ask you to compare two statements about everyday political conversations. The two statements describe qualities of a political conversation. Please indicate which quality you think is more important when having political conversations with other people. The same wording appears more than once - this is part of the method used in the survey. Please compare each pair, even if the questions seem redundant.

1. To you, is "Statement A" more important or less important than "Statement B"

Statement A: Participants do not dominate the conversation, and are not overbearing.

Statement B: Participants express their positions clearly and directly and are very explicit about their opinions.

Much More Important	Slightly More Important
Equal/No Opinion	
Slightly Less Important	Much Less Important

2. To you, is "Statement A" more important or less important than "Statement B"

Statement A: Participants back up their arguments with evidence, and present sensible arguments in support of their views.

Statement B: Participants do not dominate the conversation, and are not overbearing.

Much More Important	Slightly More Important
Equal/No Opinion	
Slightly Less Important	Much Less Important

3. To you, is "Statement A" more important or less important than "Statement B"

Statement A: Participants express their positions clearly and directly and are very explicit about their opinions.

Statement B: Participants back up their arguments with evidence, and present sensible arguments in support of their views.

Much More Important	Slightly More Important
Equal/No Opinion	
Slightly Less Important	Much Less Important

4. To you, is "Statement A" more important or less important than "Statement B"

Statement A: Participants do not dominate the conversation, and are not overbearing.

Statement B: Participants understand the reasons behind each other's views, and recognize the values underlying the other person's point of view.

Much More Important	Slightly More Important
Equal/No Opinion	
Slightly Less Important	Much Less Important

5. To you, is "Statement A" more important or less important than "Statement B"

Statement A: Participants understand the reasons behind each other's views, and recognize the values underlying the other person's point of view.

Statement B: Participants express their positions clearly and directly and are very explicit about their opinions.

Much More Important	Slightly More Important
Equal/No Opinion	
Slightly Less Important	Much Less Important

6. To you, is "Statement A" more important or less important than "Statement B"

Statement A: Participants back up their arguments with evidence, and present sensible arguments in support of their views.

Statement B: Participants understand the reasons behind each other's views, and recognize the values underlying the other person's point of view.

Much More Important	Slightly More Important
Equal/No Opinion	
Slightly Less Important	Much Less Important

7. To you, is "Statement A" more important or less important than "Statement B"

Statement A: Participants do not dominate the conversation, and are not overbearing.

Statement B: Participants back up their arguments with evidence, and present sensible arguments in support of their views.

Much More Important	Slightly More Important
Equal/No Opinion	
Slightly Less Important	Much Less Important

Questions 8 - 37 ask your opinion about political issues. There is no right or wrong answer to any of these questions.

8. It seems like the criminals and welfare cheats get all the breaks, while the average citizen picks up the tab.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
----------------	-------	---------	----------	-------------------

9. We have gone too far in pushing equal rights in this country.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
----------------	-------	---------	----------	-------------------

10. Society as a whole has become too soft and feminine.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
----------------	-------	---------	----------	-------------------

11. Nowadays it seems like there is just as much discrimination against whites as there is against blacks.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
----------------	-------	---------	----------	-------------------

12. It seems like blacks, women, homosexuals and other groups don't want equal rights, they want special rights just for them.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
----------------	-------	---------	----------	-------------------

13. A lot of problems in our society today come from the decline in the traditional family, where the man works and the woman stays home.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
----------------	-------	---------	----------	-------------------

14. The women's rights movement has gone too far.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
----------------	-------	---------	----------	-------------------

15. Discrimination against minorities is still a very serious problem in our society.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
----------------	-------	---------	----------	-------------------

16. It's old-fashioned and wrong to think that one culture's set of values is better than any other culture's way of seeing the world.

Strongly Agree Agree Neutral Disagree Strongly Disagree

17. We need to dramatically reduce inequalities between the rich and the poor, whites and people of color, and men and women.

Strongly Agree Agree Neutral Disagree Strongly Disagree

18. Parents should encourage young boys to be more sensitive and less "rough and tough."

Strongly Agree Agree Neutral Disagree Strongly Disagree

19. Our society would be better off if the distribution of wealth was more equal.

Strongly Agree Agree Neutral Disagree Strongly Disagree

20. We live in a sexist society that is fundamentally set up to discriminate against women.

Strongly Agree Agree Neutral Disagree Strongly Disagree

21. People who are successful in business have a right to enjoy their wealth as they see fit.

Strongly Agree Agree Neutral Disagree Strongly Disagree

22. If the government spent less time trying to fix everyone's problems, we'd all be a lot better off.

Strongly Agree Agree Neutral Disagree Strongly Disagree

23. Government regulations are almost always a waste of everyone's time and money.

Strongly Agree Agree Neutral Disagree Strongly Disagree

24. The government interferes far too much in our every day lives.

Strongly Agree Agree Neutral Disagree Strongly Disagree

25. Free markets--not government programs--are the best way to supply people with the things they need.

Strongly Agree Agree Neutral Disagree Strongly Disagree

26. Too many people today expect society to do things for them that they should be doing for themselves.

Strongly Agree Agree Neutral Disagree Strongly Disagree

27. It's a mistake to ask society to help every person in need.

Strongly Agree Agree Neutral Disagree Strongly Disagree

28. The government should stop telling people how to live their lives.

Strongly Agree Agree Neutral Disagree Strongly Disagree

29. Private profit is the main motive for hard work.

Strongly Agree Agree Neutral Disagree Strongly Disagree

30. It's not the government's business to try to protect people from themselves.

Strongly Agree Agree Neutral Disagree Strongly Disagree

31. Society works best when it lets individuals take responsibility for their own lives without telling them what to do.

Strongly Agree Agree Neutral Disagree Strongly Disagree

32. Our government tries to do too many things for too many people. We should just let people take care of themselves.

Strongly Agree Agree Neutral Disagree Strongly Disagree

33. Sometimes government needs to make laws that keep people from hurting themselves.

Strongly Agree Agree Neutral Disagree Strongly Disagree

34. Government should put limits on the choices individuals can make so they don't get in the way of what's good for society.

Strongly Agree Agree Neutral Disagree Strongly Disagree

35. It's society's responsibility to make sure everyone's basic needs are met.

Strongly Agree Agree Neutral Disagree Strongly Disagree

36. The government should do more to advance society's goals, even if that means limiting the freedom and choices of individuals.

Strongly Agree Agree Neutral Disagree Strongly Disagree

37. People should be able to rely on the government for help when they need it.

Strongly Agree Agree Neutral Disagree Strongly Disagree

Questions 38-41 ask for information about your political involvement.

38. I consider myself well-qualified to participate in politics.

Strongly Agree Agree Neutral Disagree Strongly Disagree

39. I think that I am better informed about politics and government than most people.

Strongly Agree Agree Neutral Disagree Strongly Disagree

40. I feel that I have a pretty good understanding of the important political issues facing our country.

Strongly Agree Agree Neutral Disagree Strongly Disagree

41. If a friend asked me about the presidential election, I feel I would have enough information to help my friend figure out who to vote for.

Strongly Agree Agree Neutral Disagree Strongly Disagree

In a political conversation with another person, it is important that:

42. Participants do not dominate the conversation, and are not overbearing.

Strongly Agree Agree Neutral Disagree Strongly Disagree

43. Participants express their positions clearly and directly and are very explicit about their opinions.

Strongly Agree Agree Neutral Disagree Strongly Disagree

44. Participants back up their arguments with evidence, and present sensible arguments in support of their views.

Strongly Agree Agree Neutral Disagree Strongly Disagree

45. Participants understand the reasons behind each other's views, and recognize the values underlying the other person's point of view.

Strongly Agree Agree Neutral Disagree Strongly Disagree

Questions 46-50 are agree/disagree:

46. Political discussions alienate friends and disrupts social relations.

Strongly Agree Agree Neutral Disagree Strongly Disagree

47. Political discussion is inappropriate when people have little in common.

Strongly Agree Agree Neutral Disagree Strongly Disagree

48. Political discussion is inappropriate when the discussion will not be civil.

Strongly Agree Agree Neutral Disagree Strongly Disagree

49. Political discussion is not a normal part of my regular interaction with my friends and social groups.

Strongly Agree Agree Neutral Disagree Strongly Disagree

50. I usually discuss politics with people of the same ethnic, social, and economic background as myself.

Strongly Agree Agree Neutral Disagree Strongly Disagree

The remaining questions ask for information about you:

51. On average, how often do you talk about political topics with your family, friends, neighbors, and co-workers?

More than once a day
Once a day
Once a week
Once a month
Once every 2 months
Once every 4 months
Less than once every 4 months
Don't know

52. How many family members, friends, neighbors, and co-workers do you regularly discuss politics with?

Enter number _____

53. How interested would you say you are in politics?

Very interested Fairly interested Not very interested Not at all interested
Don't know

54. Which comes closest to representing your political philosophy?

Very Liberal
Somewhat Liberal
Moderate
Somewhat Conservative
Very Conservative

55. With which political party do you identify?

[Select one]
Democratic
Republican
Tea Party
Independent Party*
No Affiliation
Other – If Other, please indicate here: _____

*Combined with "No Affiliation," because respondents did not seem to distinguish between state Independent parties and non-affiliation

56. What is the highest level of education you have completed?

[Select one]

- No High School
- Some High School
- High School Graduate
- Some college, no degree
- Associates Degree
- Graduate Degree (Masters, Doctorate, etc)

57. In what year were you born?

Enter year: _____

58. What is your sex?

[Select one]

- Male
- Female
- I do not wish to share this information

59. What is your ethnic origin or race?

[Select one]

- Black/African American
- Hispanic
- Asian or Pacific Islander
- American Indian
- White
- Other
- I do not wish to share this information

60. What is the total income of your household?

[Select one]

- Less than \$12,500
- 12,500-24,999
- 25,000-37,499
- 37,500-49,999
- 50,000-62,499
- 62,500-74,999
- 75,000-87,499
- 87,500-99,999
- \$100,000 or More

61. Please provide any comments you may have below - we appreciate your input!

[Free-response comment box provided]

APPENDIX 3: ANALYTIC HIERARCHY PROCESS ILLUSTRATION

<p>Step 1 - Data Collection</p> <p>Pairwise weights are collected for six comparisons. Each variable indicates the comparison qualities. For example, the variable "DomClar" is a comparison of non-dominance and clarity of opinion expression. The ".25" can be generally read to mean that non-dominance is one-quarter as important clarity.</p>	<p>Data Illustration (Single Case)</p> <table border="1" data-bbox="724 373 1414 443"> <tr> <td>DomClar</td> <td>ReasDom</td> <td>ClarReas</td> <td>DomComp</td> <td>CompClar</td> <td>ReasComp</td> </tr> <tr> <td>0.25</td> <td>4</td> <td>0.25</td> <td>4</td> <td>0.25</td> <td>4</td> </tr> </table> <p><i>Note: In this example case, the respondent clearly prefers "reason," but does not strongly prefer the others. This rarely occurred in the actual data, but is useful for example. Note also that clarity is preferred one of three times, non-dominance once, and comprehension never.</i></p>	DomClar	ReasDom	ClarReas	DomComp	CompClar	ReasComp	0.25	4	0.25	4	0.25	4													
DomClar	ReasDom	ClarReas	DomComp	CompClar	ReasComp																					
0.25	4	0.25	4	0.25	4																					
<p>Step 2 - Data Completion</p> <p>The data for a full matrix is created by direct entry or by finding the inverse. For example, CompReas is the inverse of ReasComp, which was collected.</p>	<p>Data Illustration (Single Case)</p> <table border="1" data-bbox="724 709 1414 852"> <tr> <td>DomDom</td> <td>ClarClar</td> <td>ReasReas</td> <td>CompComp</td> <td>ClarDom</td> <td>DomReas</td> </tr> <tr> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>4</td> <td>0.25</td> </tr> <tr> <td></td> <td>ReasClar</td> <td>CompDom</td> <td>ClarComp</td> <td>CompReas</td> <td></td> </tr> <tr> <td></td> <td>4</td> <td>0.25</td> <td>4</td> <td>0.25</td> <td></td> </tr> </table>	DomDom	ClarClar	ReasReas	CompComp	ClarDom	DomReas	1	1	1	1	4	0.25		ReasClar	CompDom	ClarComp	CompReas			4	0.25	4	0.25		
DomDom	ClarClar	ReasReas	CompComp	ClarDom	DomReas																					
1	1	1	1	4	0.25																					
	ReasClar	CompDom	ClarComp	CompReas																						
	4	0.25	4	0.25																						
<p>Step 3 - Matrix Formulation</p> <p>The complete data is entered into a matrix.</p>	<p>Data Illustration (Single Case)</p> <table border="1" data-bbox="724 978 1308 1167"> <tr> <td></td> <td>Dom</td> <td>Clar</td> <td>Reas</td> <td>Comp</td> </tr> <tr> <td>Dom</td> <td>1</td> <td>0.25</td> <td>0.25</td> <td>4</td> </tr> <tr> <td>Clar</td> <td>4</td> <td>1</td> <td>0.25</td> <td>4</td> </tr> <tr> <td>Reas</td> <td>4</td> <td>4</td> <td>1</td> <td>4</td> </tr> <tr> <td>Comp</td> <td>0.25</td> <td>0.25</td> <td>0.25</td> <td>1</td> </tr> </table>		Dom	Clar	Reas	Comp	Dom	1	0.25	0.25	4	Clar	4	1	0.25	4	Reas	4	4	1	4	Comp	0.25	0.25	0.25	1
	Dom	Clar	Reas	Comp																						
Dom	1	0.25	0.25	4																						
Clar	4	1	0.25	4																						
Reas	4	4	1	4																						
Comp	0.25	0.25	0.25	1																						
<p>Step 4 - Weighting Estimation</p> <p>A single vector is estimated from the matrix. First, the columns are normalized by dividing each cell in the column by the sum of that column. Second, the geometric mean is taken. The geometric mean is the nth root of product of the row, where "n" is the number of columns. Finally, this single column of geometric means is normalized. The result is an estimation of the weights of each factor relative to each other.</p>	<p>Data Illustration (Single Case)</p> <table border="1" data-bbox="724 1283 967 1472"> <tr> <td></td> <td>Priority Vector</td> </tr> <tr> <td>Dom</td> <td>0.1333</td> </tr> <tr> <td>Clar</td> <td>0.2666</td> </tr> <tr> <td>Reas</td> <td>0.5333</td> </tr> <tr> <td>Comp</td> <td>0.0666</td> </tr> </table>		Priority Vector	Dom	0.1333	Clar	0.2666	Reas	0.5333	Comp	0.0666															
	Priority Vector																									
Dom	0.1333																									
Clar	0.2666																									
Reas	0.5333																									
Comp	0.0666																									