

EXAMINING DIMENSIONS OF POLITICAL DISCUSSION AND POLITICAL  
KNOWLEDGE

DISSERTATION

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By

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## ABSTRACT

Although some reports are rather dim regarding citizens' levels of political knowledge, research has shown that certain things can cause this level to rise, at least at the individual level. For example, as found by a number of scholars, media use is associated with higher levels of political knowledge. Similarly, above and beyond media use, political discussion has been found to increase political knowledge. It seems, then, that while citizens might have an overall low level of political knowledge, scholars can focus on and further investigate the processes that are known to positively impact this outcome.

With this focus in mind, the goal of this study is to further examine the impact of political discussion on political knowledge. First, political knowledge is explicated as an overarching concept with two dimensions. These two dimensions are factual and structural knowledge. The concept of political discussion is also explicated as an overarching concept but with three dimensions, including discussion frequency, discussion content (measured as the dissimilarity of political views in discussion), and discussion cognition (using a discussion elaboration as well as a perspective taking measure). Finally, hypotheses including several mediating relationships are set forth bridging the various dimensions of political discussion and political knowledge together.

In order to examine the relationships between the various dimensions of these two concepts, three studies were completed. Study 1 utilized data from the 2000 ANES, examining the impact of discussion frequency and dissimilarity on factual knowledge, as well as the impact of discussion dissimilarity on structural knowledge. Study 2 examined relationships between discussion dissimilarity, perspective taking, and structural knowledge. Data for this study was derived from The Ohio Political Survey (TOPS) conducted in the fall of 2006 and early winter 2007. Data for study 3 was collected in the fall of 2005 from 18 public high schools in an urban Midwestern school district. Although data are available from teachers, parents, and students, only student data were used for this study, where the full model including relationships between all dimensions of political discussion and knowledge were examined.

Results indicate that factual knowledge is predicted by both discussion frequency and dissimilarity. Moreover, the relationship between discussion frequency and factual knowledge was found to be mediated through discussion elaboration. On the other hand, contrary to hypotheses, discussion dissimilarity did not predict structural knowledge, nor was this relationship mediated by either perspective taking or discussion elaboration. Conclusions and considerations for future research are discussed.

Dedicated to my Heavenly Father

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## FIELDS OF STUDY

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## CHAPTER 1

### INTRODUCTION

#### Overview

It would be safe to say that most individuals living in the United States know who the current President is. Perhaps they even know the name of the Vice President. But do they know the issue positions held by the President's administration? Furthermore, do they know which parties are in control of the House and the Senate? Moreover, how do individuals go about acquiring such knowledge?

Ideally, at least according to some scholars, citizens should have a wealth of political information. Delli Carpini and Keeter (1996), for example, indicate that individuals who have such information allow our society to be comprised of informed citizens who make decisions on political issues based on what they know. This ideal, the need for individuals to hold a wealth of political information for democracy to function, seems to be believed by others as well. For example, those examining civic journalism (e.g., Denton & Thorson, 1998; Dzur, 2002) feel the public is not informed on political issues as it should be and look for ways, specifically, a new kind of journalism, to increase such knowledge. Some who examine gaps or inequities in knowledge (e.g., Gaziano, 1997; Holbrook, 2002) indicate, at least empirically, that individuals should be equally informed across a variety of political issues. But not all scholars take this same

view. Some, for example, see individuals divided into issue publics, informed on some issues of interest or importance to them, but not informed on issues that perhaps lack these qualities (McGraw & Pinney, 1990; Price, David, Goldthorpe, Roth, & Capella, 2006). Still others claim that knowing political information is not and will never be important to most citizens. Rather, they contend that citizens are doing just fine; they know enough to get by (Graber, 1988), or, they might only take in facts they deem relevant to a situation (Kuklinski, Quirk, Schwieder, & Rich, 1998), causing them to seem ill-informed in the eyes of political scholars.

The debate among scholars regarding what citizens should know adds to the difficulty in determining what indicates that an individual is politically knowledgeable. Should individuals be able to list information about all or at least some of the major political actors and issues? Should they have basic information about how our government is run? Or is there something else that determines whether someone is politically knowledgeable?

Unfortunately, reports are rather dim regarding citizens' political knowledge (e.g., Delli Carpini & Keeter, 1996). However, research has shown that certain things can cause an increase in knowledge, at least at the individual level. A host of scholars, for example, have found that media use is positively associated with political knowledge, especially when taking into consideration individuals' attention to the media (Drew & Weaver, 1990; McLeod & McDonald, 1985; Bennett, Rhine, & Flickinger, 2004). Additionally, other forms of cognitive processing such as active processing and reflective integration



(Kosicki & McLeod, 1990), as well as elaboration of news content (Eveland, 2001; Eveland, Shah, & Kwak, 2003; Perse, 1990) have been found to be positively associated with political knowledge.

More recently, scholars have found that discussing politics with others also increases one's political knowledge (Bennett, Flickinger, & Rhine, 2000; Kennamer, 1990; Robinson & Levy, 1986). And, similar to literature on media use and knowledge, studies have shown that in addition to the amount individuals talk to others, certain things such as cognitive processing before, during, and after discussion (Eveland, 2004; Eveland & Thomson, 2006; Kwak, Williams, Wang, & Lee, 2005) and the kind of people with which one talks about politics (Barabas, 2004; Kwak et al., 2005; Scheufele, Nisbet, Brossard, & Nisbet, 2004; Scheufele, Hardy, Brossard, Waismel-Manor, & Nisbet, 2006) are also important when thinking of political discussion and its relationship to political knowledge. It seems, then, that while citizens appear to have an overall low level of political knowledge, scholars can focus on and further investigate the processes that are known to positively impact this knowledge.

### *Goal of Study*

With this focus in mind, the goal of this study is to further examine the impact of political discussion on political knowledge. In order to do so, I will first conceptualize political knowledge as an overarching concept with two dimensions. Additionally, the term political discussion will be explicated. Finally, using several data sets, this study will examine a model of several dimensions of political discussion (e.g., discussion frequency, content, and cognition) and their impact on two dimensions of political knowledge (factual and structural). See Appendix A, Figure 1.

### *Rationale*

There are several reasons set forth for this study and the examination of the proposed model in particular. First, literature on political discussion, regardless of the outcome variable, suffers from a lack of conceptual clarity. Research is replete with various terms describing ‘talking about politics,’ such as political discussion, political conversation, political talk, social network discussion and deliberation, as well as various cognitive terms relating to discussion. There is a need, then, to review the research in this area to conceptualize this term and any underlying dimensions it may include.

Second is the need to explicate the term political knowledge, as scholars define knowledge in various ways. A review of literature will parse out these differences and similarities. Setting forth a clear conceptual understanding of political knowledge is important in order to examine its relationship with political discussion.

Finally, a model is needed linking these explicated concepts and their dimensions together. Several scholars have looked at various aspects of political discussion, examining such things as the relationship between frequency of discussion and political knowledge (e.g., Bennett et al., 2000), discussion heterogeneity and political knowledge (Kwak et al., 2005), and the cognitive processing that is necessary in order for individuals to gain information (Eveland & Thomson, 2006). Yet, while Eveland’s (2004) study showed that news elaboration mediated the relationship between discussion frequency and knowledge, no studies to date have examined potential mediating processes that connect each of the various dimensions of discussion to different forms of political knowledge. This study will explore what aspects or dimensions of discussion impact dimensions of political knowledge via mediating processes.

First, then, a detailed review of the concept political discussion will be provided. Thus, chapter two will be broken into a review of literature on this concept, followed by an explication of the term and its dimensions as they will be used in this study. Chapter three will be a very similar review and explication of political knowledge. Chapter four sets forth hypotheses that bridge these two concepts and their dimensions together while chapter five describes the method by which these hypotheses will be tested. Results of the hypotheses set forth in chapter four can be found in chapter six, followed by general discussion of the study as well as directions for future research in chapter seven.

## CHAPTER 2

### POLITICAL DISCUSSION

#### Literature Review

The concept of discussion as related to politics is found in the literature to be labeled a variety of things: political discussion, political talk, political conversation, deliberative discussion and social network discussion, as well as various cognitive terms of discussion. (See Appendix B, Table 1). In this section I will review the literature on these terms, examining how scholars have defined and measured them and discussing their similarities and differences. Based on this review, I will conceptualize political discussion and some of its underlying dimensions as they will be used in this study.

#### *Political Discussion*

Political discussion has been defined as citizens having conversations that are spontaneous, unstructured, and without a clear goal (Conover, Searing, & Crewe, 2002), or, friends, family, and coworkers talking about politics informally (Barabas, 2004). Interestingly, aside from the definitions set forth by these scholars, it is rare to see others define this term when used. Most often, readers are left to determine its meaning based on measurement. The following in this particular section, then, is an examination of how political discussion has been measured in the literature and how these measurements match to Conover et al.'s (2002) and Barabas' (2004) definition.

One of the most common ways to see political discussion measured is the frequency with which one talks, be it the number of days in the past week one discussed politics with family and friends (Eveland, 2004), or how often one discussed local and national politics with others (Scheufele, 2002). Although these scholars are conceptually unclear in their definition of political discussion, they seem in agreement that how often one engages in such an act is important.

Importantly as well, the operationalizations above suggest that political discussion can occur on a wide range of political issues. This may be why Holbert, Benoit, Hansen, & Wen (2003), although using an operationalization similar to Eveland's (2004) 'number of days in the past week one discussed politics with family or friends', label it 'general' political discussion. At certain times more than others, differentiating between 'general' political discussion and more specific forms of political discussion may be useful. For example, in their study, Holbert et al. measure one's viewing of political debates. Thus, 'general' political discussion might suggest, to the reader at least, that such discussion is not simply about information contained in the debates, but rather about any or all political information. Interestingly, Kenamer (1990) specifically differentiated this general form of political discussion (i.e., frequency of discussion about politics or public issues) from debate discussion (i.e., frequency of discussion about the Presidential debates).

It seems, then, that political discussion, whether labeled 'general' or not, can be seen as discussion on a wide range of political issues. Specific forms of political discussion, such as debate discussion, are differentiated from measuring discussion about a variety of political topics.

Aside from ‘political’ or ‘general political’ discussion, some scholars use the label ‘interpersonal’ discussions (McLeod, Scheufele, & Moy, 1999; Robinson & Levy, 1986). Although these scholars use the label ‘interpersonal discussions’ rather than political discussion, it is clear looking at their measures that they are interested specifically in discussions of political or public affairs issues. For example, McLeod et al. measured interpersonal discussion by asking respondents their frequency of discussion about issues happening in their neighborhoods and in the city at large (i.e., the Madison area). Given that their outcome of interest is political knowledge, it is likely that ‘interpersonal discussion’ is a measure of talking about political issues. Similarly political in nature, Robinson and Levy asked respondents how many conversations they had about the news in the previous week, with interest in national and international topics.

To summarize what is gleaned from the term interpersonal discussion, then, one can once again see that how often the discussions take place is important. Furthermore, it appears that even if the term politics is not used in the measure, these scholars see such discussions as political in nature.

In all, then, political discussion appears to be informal discussions occurring on a wide range of political issues. And, whether the term is called political discussion, general discussion, or interpersonal discussion, the most common way to see it measured is the frequency with which one talks about politics.

### *Political Talk*

In addition to the term political discussion and its various forms, another term used in the discussion literature is political talk. As defined by Scheufele (2000), political talk is goal oriented talk with the purpose of exchanging information, voicing one’s own

viewpoints, and assessing what other people think about an issue. This is similar to Schudson's (1997) term democratic talk, which was defined as being rule-governed, civil, oriented toward problem solving, and containing people with different values and backgrounds. Furthermore, Scheufele contends that political talk has specific dimensions: the exchange of information, the representation of certain viewpoints, the assessment of what other people think about an issue, and an end goal.

Conceptually, political talk and democratic talk are different from how Barabas (2004) and Conover et al. (2002) define political discussion, (i.e., informal, unstructured, on a wide range of political issues). Yet, at least for Scheufele (2000), they are operationally no different as he measures political talk as one's frequency of discussion about national politics, local politics, and neighborhood issues. Therefore, while he contends that political talk has specific dimensions, such as whether or not information is exchanged, the representation of different viewpoints, the assessment of what other people think about an issue, and an end goal, none of these things can be derived from simply asking the frequency with which respondents discuss particular topics. His conception of this term, in fact, would be better measured by Conover et al.'s measurement. Empirically, then, it seems that Scheufele's political talk and Barabas' political discussion are one in the same, although conceptually distinct.

In contrast to Scheufele's (2000) political talk, Walsh's (2004) 'casual' political talk is conceptually *similar*, not distinct, from the definitions of political 'discussion' set forth by Barabas (2004) and Conover et al. (2002). For Walsh, casual political talk is political talk that is derived from informal interactions and is not organized for the sake of decision making. To measure this casual political talk, Walsh observed, recorded and

analyzed conversations of a group of people who met regularly to “hang out and occasionally talk about politics” (p.4). This measurement seems to appropriately match her definition of casual political talk, and also matches in conceptual terms what Barabas (2004) and Conover et al. (2002) define as political, rather than deliberative discussion.

While conceptually Scheufele (2000) tries to separate political talk as a special kind of talk, his measurement does not capture the unique elements he claims are happening in such talk. Especially at the operational level, then, political talk seems to be informal, unstructured and about various political issues.

### *Political Conversation*

To further complicate matters, some scholars use the term political conversation instead of political discussion or political talk. Kim, Wyatt, & Katz (1999) define political conversations as “all kinds of political talk, discussion, or argument as long as they are voluntarily carried out by free citizens without any specific purpose or predetermined agenda” (p. 362). Wyatt, Kim, & Katz (2000) conceptualize ‘ordinary’ political conversation in much the same way. For Scheufele (2000), the term political conversation is set apart from his more formalized view of political talk discussed in the previous section, defining conversation as talk that is not goal oriented and not serving an informational function. Conceptually, then, political conversations appear to be similar to Barabas’ (2004) and Conover et al.’s (2002) definition of political discussion and Walsh’s (2004) conception of political talk as that which occurs informally and is unstructured.

While these definitions of conversation have in common that political conversation is not goal oriented toward a vote or consensus, their operationalizations



show that they are thought of in similar but slightly different manners. Both the Kim et al. (1999) and Wyatt et al. (2000) studies operationalize political conversation by asking respondents their frequency of discussion on nine different issues, factoring into political talk (e.g., national and local government, the economy, foreign affairs) and personal talk (e.g., personal and family matters, crime, education, entertainment). This operationalization suggests political conversation is an overarching variable with two dimensions: political and personal talk. Scheufele (2000), on the other hand, measures political conversation as one's frequency of discussion about personal, work related, and leisure related issues. As discussed previously, Scheufele reserved the term political talk, not political conversation, for discussion of national and local politics. It seems, then, that Scheufele sees political conversation and political talk as separate and unique from each other.

In all, then, political conversation is most similarly conceived as a casual, unstructured format of discussing political issues, with operationalizations varying from national to personal issues.

#### *Deliberation and Deliberative Discussion*

So far, the literature on political discussion, political talk and political conversation has been reviewed. While some differences occur in definition on these terms, a closer examination shows a similarly informal, unstructured conceptualization of talking to others about politics.

However, scholars writing about deliberation or deliberative discussion tend to make a conceptual distinction from other forms of discussion such as political discussion, political talk, and political conversation. Those such as Barabas (2004), Conover et al.

(2002) and Walsh (2004) make note of this distinction, as they separate discussion (informal, unstructured) from deliberation (formal, structured). Some of the main characteristics of deliberative discussion are publicness, non-tyranny, and equality as individuals come together to discuss an issue leading to some type of conclusion or consensus (Bonham, 1996; Conover et al., 2002). Others describe it as the careful examination of a problem or issue (Delli Carpini, Cook, & Jacobs, 2004; Gastil, 2000), and as a more formalized discussion than others where political decisions are weighed and debated (Dutwin, 2003). The methods used to study deliberation are typically examining participants taking part in national public forums (Luskin, Fishkin, & Jowell, 2002) or local/community forums (Gastil & Dillard, 1999) where individuals gather together formally to discuss one or more issues.

Although deliberation, by those who define it, is distinct in format from informal, unstructured discussions, it is also important to note that certain aspects or dimensions of discussion that occur within each format may be similar. Conover et al. (2002), for example, examined the degree to which unstructured conversations are public (e.g., address public issues and take place in public arenas), involve contested discussion (e.g., involving people with different views on political issues as well as different life perspectives), and involve equality (e.g., providing equal access and opportunity to speak). While Conover et al. found these deliberative qualities to be lacking for conversations taking place in more public settings (e.g., work, church, public meetings), such qualities evidenced themselves to a greater degree in private conversational settings (e.g., home, large family gatherings, social occasions).

Interestingly, the conceptual definition of Scheufele's (2000) political talk is very similar to the qualities said to be part of deliberative discussion, and measured by Conover et al. (2002) within informal/unstructured conversations. Perhaps, then, both Scheufele and Conover et al. saw certain kinds of everyday, informal talk having deliberative qualities. The difference between Scheufele and Conover et al. is that the latter group of scholars actually measured these unique elements, while Scheufele only measured frequency of discussion on political issues.

Other scholars, in addition to Conover et al. (2002) have focused on one specific element said to characterize deliberative discussion. This aspect is the presence of dissimilar views (i.e., Conover et al.'s contested discussion) when discussing politics or political issues. As can be seen below, social network scholars, although not measuring deliberative discussion, get at this important aspect of discussion.

If, then, some of the main characteristics said to define deliberative discussion can be found in everyday political conversations, the main difference separating these types of discussion appears to lie in their structure. Again, everyday conversation is informal, unstructured and about a wide variety of political topics while deliberative discussion is formal, structured, and typically about one or a small subset of topics with a particular goal in mind such as a vote or consensus.

#### *Social Network Discussion and Discussion Heterogeneity*

Scholars writing about social networks have defined them as filters or bridges to larger environments of information (Huckfeldt, Beck, Dalton, & Levine, 1995; Straits, 1990), social ties ranging from intimates, to casual acquaintances, to other members of society (Weatherford, 1982), and simply as networks of social relations (La Due Lake &

Huckfeldt, 1998). Those studying social networks examine a variety of factors, including how many people are in one's network (e.g., size of network) and the kind of people that make up one's network (e.g., friends, acquaintances, coworkers, others) (Huckfeldt et al., 1995; Huckfeldt, Mendez, & Osborn, 2004; Mutz, 2002b; Straits, 1991).

However, one of the most important aspects of these networks to be examined is the discussion that happens within them. In particular, scholars are interested in both the frequency with which respondents talk to others in their network (Mutz, 2000b, 2006; Mutz & Martin, 2001) as well as the degree to which disagreement, dissimilar, or cross-cutting viewpoints are represented in these discussions (Huckfeldt et al., 1995; Huckfeldt, Johnson, & Sprague, 2002; Huckfeldt et al., 2004; Mutz, 2002b; Mutz, 2006; Mutz & Martin, 2001). The communication that takes place within such networks, then, is not considered to be formal in nature, or set forth to reach a consensus or decision on one or a few issues (e.g., La Due Lake & Huckfeldt, 1998; McLurg, 2003). In this sense, social network communication is different from deliberative discussion and matches the informal form or nature of talk described by Barabas (2004), Conover et al. (2002), and Walsh (2004). What separates these scholars from those previously mentioned, then, is that they operationalize discussion by asking respondents to first name a set number of individuals with whom they discuss politics (or, important matters), followed by a small number of questions about this network of discussion partners. Social networks themselves are not necessarily dimensions of discussion; however, they provide the structure within which discussion occurs.

As seen from previously reviewed literature, discussion frequency is not isolated to measurement within a social network. Similarly, the content of one's discussion can be measured in or outside of a network.

Although one way to measure the content of discussion might be to examine the diversity of topics during a group discussion, or the number and nature (e.g., accurate or inaccurate) of utterances made by each individual in such a discussion (see Eveland, Seo, et al., 2004), a number of scholars measure content of discussion in such a way as to illuminate the differences of opinion to which individuals are exposed when they discuss politics (e.g., Kwak et al., 2005; Scheufele et al., 2004, 2006).

Assessing content as the differences of opinion to which individuals are exposed during discussion is similar to what Eveland and Hively (2006) call dangerous discussion, distinguishing this type of discussion from diverse discussion (see also Eveland & Shah, 2003). In their study, dangerous discussion is defined as "discussions that conflict with the views or characteristics of the ego" (Eveland & Hively, 2006, p.7) and is similar to Mutz's (2002b; 2006) cross-cutting exposure, or, dissimilar discussion. Operationally, dangerous discussion and cross-cutting exposure measure differences in political viewpoints between a respondent and his or her discussion partners. This also seems to be similar to Huckfeldt and colleagues (1995, 2002, 2004) use of the term 'disagreement,' where citizens are said to be exposed to disagreement when they talk to those holding divergent political viewpoints from themselves.

Eveland and Hively (2006) consider discussion to be *diverse* when there are equal partners similar to and different from oneself in discussion (e.g., equal number of Republicans and Democrats in conversations). Their diverse discussion bears

resemblance to Nir's (2005) term 'social network ambivalence,' defined as "the balance of competing considerations perceived by the individual within his or her social network" (p.425) as well as Huckfeldt et al.'s (2004) 'disagreement among discussants.' Nir states the difference between social network ambivalence and disagreement is that disagreement counts the total amount of disagreeable information in one's discussion network, while social network ambivalence counts the mix of similar and disagreeable information, with a greater mix equating to greater ambivalence. This distinction, then, is similar to the difference noted by Eveland and Hively in their dangerous and diverse discussion. For Eveland and Hively, discussion is "dangerous," to the degree that self is politically different from discussion partners, and diverse to the degree that the conversation carries an equal number of people who agree and disagree on political views. This is an interesting and important distinction, as they found dangerous and diverse discussion to impact knowledge and participation differently.

Still others tap non-liked minded discussion by examining differences among discussion partners in sex, race, and extreme political views (Scheufele et al., 2004, 2006), utilizing the term discussion heterogeneity. These items were standardized and combined so that, similar to Mutz (2002b), higher numbers indicate greater heterogeneity of discussion. It is unique to the other measures of difference in discussion in that it takes into consideration factors such as sex and race, which are not explicitly political factors.

#### *Cognitive Aspects of Discussion*

Importantly, a number of scholars examining political discussion have moved beyond the examination of the frequency with which politics are discussed and the dissimilar or cross-cutting nature of discussion to examine cognitive aspects of

discussion. Examining deliberation within (i.e., a cognitive reflection of ideas) and deliberation with others, Goodwin and Niemeyer (2003) found evidence that the cognitive element of discussion played a larger role in decision making than did formal deliberation with others. Recently, a number of scholars have examined cognitive components of political discussion, often finding them more important predictors of outcomes such as political knowledge than mere frequency of discussion (Eveland, 2004; Eveland & Thomson, 2006; Kwak et al., 2005).

Several specific cognitive variables have been examined by discussion scholars. Eveland, Seo, et al. (2004), for example, measured one's engagement during a group conversation utilizing the attentiveness subscale of the Interaction Involvement Scale (see Cegala, 1981). An example of this measurement is asking respondents their level of agreement with the statement, "I paid careful attention to others during the conversation." Kwak, et al. (2005) also measured an individual's general level of attention during political discussion by asking the extent to which they "paid attention to their conversations on local politics or community issues" (p.95). According to Kwak et al., it seems that attention during discussion is the degree to which one is cognitively "tuned in" to others in a discussion.

As an additional cognitive variable of political discussion, Kwak et al. (2005) measure what is called integrative discussion -- an examination of the degree to which individuals incorporate news they have gleaned from the media into discussion. This is measured by asking respondents whether they talked to someone about an issue they had learned about in the news, if they tried to recall something they had seen in the news when discussing politics with others, and if they often used stories they learned from the

news as examples in the discussion. The idea of integrative discussion is similar to another cognitive discussion variable, discussion elaboration, which measures whether a respondent thought of things to say in advance of a discussion, thought about a topic of discussion after it was over, and/or thought about one's own opinion more during or after the discussion (Eveland & Thomson, 2006). The major difference between discussion integration and discussion elaboration is that discussion integration focuses mainly on information one has gleaned from the news, and how it is incorporated into or thought of due to discussion. Instead, discussion elaboration accounts for any thoughts relevant to the discussion, news or otherwise.

Finally, Eveland and Thomson (2006) examine the cognitive aspect of perspective taking in discussion. According to Hoffman (2000), perspective taking is a cognitively demanding form of empathy. Hoffman's view is shared by several different scholars. Falk and Johnson (1977), for example, define perspective taking as "the cognitive process of putting oneself in the place of another and understanding how the other thinks about a problem" (p.64), with Sessa (1996) defining it as "the cognitive process of understanding how another person thinks and feels about the situation and why they are behaving as they are" (p.105). Gibbs (2003) adds that perspective taking involves taking into account another's beliefs, attitudes, and other opinions along with his or her life condition, signifying a cognitive rather than merely emotional process.

Researchers claim that perspective taking, or, accounting for another's beliefs and opinions is developed as individuals interact in diverse social situations (Flavell, 1975; Hale & Delia, 1976; Sherrod, Flanagan, & Youniss, 2002). The process appears to work something like this: diverse interactions allow individuals the opportunity to take into



account others' points of view, helping to develop cognitive constructs which ultimately impacts one's ability to think abstractly. As these constructs are developed, individuals are able to move from making cognitively simple trait attributions of others (where individuals are viewed according to a particular stereotype) to making more complex situational attributions (where individuals are seen in relation to various aspects of a situation) (Hale & Delia, 1976). In other words, as individuals take into account another's beliefs, attitudes and opinions they are able to think in a situational, or, in a more complex manner.

Interestingly, a study by Sessa (1996), examining the impact of perspective taking on perceived group conflict, found that work teams with higher average perspective taking scores (e.g., "I try to look at everybody's side of a disagreement before I make a decision") perceived conflicts within the group as less about the people in the group and more about the task at hand than did teams with lower average perspective taking. In this sense, the cognitive aspect of perspective taking played an integral part in the conversations taking place among the members of these work teams.

### *Conclusion of Review*

As can be seen, scholars use various terms for talking about politics, whether it be political discussion, talk, or conversations, whether they be deliberative or taking place in a social network, or whether the terms are cognitive in nature. Based on the review above, among these various terms one can identify a conceptualization for political discussion, as well as some underlying dimensions. Next, then, political discussion will be explicated, both conceptually and operationally.

## Explication of Discussion

For the purposes of this study, political discussion is defined as informal, unstructured interactions on a wide range of political or public affairs issues with no formalized goal to come to a consensus or reach a decision in mind. Examples of this concept might be discussions about political issues that occur over coffee with friends, on the bus with a stranger, on the phone with a parent, or at social gatherings. While one or more partners in such interaction might have the intent of persuasion, gaining information, etc., they are not formally set forth discussions to reach a particular decision.

Excluded from this definition of political discussion is deliberation. In a more abstract sense, informal interactions on a wide range of political or public affairs issues are differentiated from formal, structured interactions taking place over one or a few set of such issues in order to reach a vote or consensus. Examples of deliberation are participation in a public meeting about an issue in one's community in order to pursue the next best course of action, or participation on a jury, where jurors discuss the trial at hand in order to come to a decision of guilty or not guilty.

Further, while at the most abstract level political discussion is informal and unstructured in nature, there are also important underlying dimensions of this concept that can be parsed out from the literature previously reviewed. These are: frequency of discussion, the content of discussion, and cognition that occurs during discussion. The reason for parsing out these three dimensions in particular is that they are all communicative in nature. Network size, for example, utilized in various discussion studies (e.g., Kwak et al., 2005; Mutz, 2002b), relates more to the structure within which communication takes place rather than being an aspect of communication itself, even

though some have found it to be related to the amount of dissimilarity of political viewpoints represented in discussion (Huckfeldt et al., 2004). For purposes here, network size is not included as a dimension of discussion.

#### *Discussion Frequency*

The dimension of discussion frequency is defined as how often individuals engage in political discussions. As discussed previously, this is a common dimension of discussion tapped by scholars examining informal and unstructured political discussions. Similar to media use scholars tapping level of exposure to a particular medium, frequency of discussion allows a researcher to instead tap exposure to information coming from interpersonal sources. An indicator of discussion frequency is how often in the previous week the respondent discussed politics or public affairs with others.

#### *Discussion Content*

Another important dimension of political discussions is their content, defined here as the nature of the political information present within them. While some researchers might be interested in specific types of content such as whether information requests were made during an interaction (see Eveland, Cortese, & Seo, 2004), content for the purposes here will be measured as the dissimilarity of political views present in political discussions (see Mutz, 2006). Similar to Huckfeldt and Sprague (1987), here, dissimilar political views produce the content of political discussions.

In addition, dissimilarity of discussion is distinguished from diverse discussion in the same way that Eveland and Hively (2006) distinguish dangerous from diverse discussion. Dissimilarity of discussion, then, is conceptually similar to their dangerous discussion, as the interest here is whether or not there is disagreement or dissimilarity in

political views between a respondent and his or her discussants rather than among one's discussants. Additionally, similar to Mutz (2006), dissimilarity of discussion excludes factors such as race and sex included in Scheufele et al.'s (2004, 2006) measure of discussion heterogeneity, looking rather at dissimilarity of *political* views present in discussions.

One might argue that content of discussion as measured here does not truly measure content, but rather only taps the nature of the people within the network. This argument would seem especially likely if the content of discussion was measured along the same lines as Scheufele et al.'s (2004, 2006) measure of discussion heterogeneity. Although items in the discussion heterogeneity measure include the extremity of a discussant's political views, it also includes items regarding a discussant's race and sex. Given the definition of discussion content as the nature of *political* information present in discussions, including race and sex items in such measure seems to obscure its specifically political nature. The inclusion of these additional items makes it difficult to understand what is being measured (see also Nir, 2005), and may in fact say more about aspects of one's network than discussion content.

A number of other scholars (e.g., Huckfeldt et al., 1995, 2002, 2004; Mutz, 2002b, 2006), use specific items similar to what is used in this study (e.g., discussant candidate vote preference or party identification) to tap political content of discussion. Using an explicitly political measure, Conover et al. (2002) found through supplementary focus group data that citizens were indeed admitting alternative viewpoints in their political discussions. Therefore, dissimilarity of political views present in discussions will be used to measure discussion content.

### *Discussion Cognition*

The final dimension of political conversation is cognition during discussion, defined as one's mental engagement in political conversations. The reason for including a cognitive dimension to discussion is that a measure of cognition shows how individuals are processing information in conversations. Here, two measures of discussion cognition, discussion elaboration and perspective taking, are used (see Eveland & Thomson, 2006). While discussion elaboration gets at the depth of processing one uses before, during or after discussion, perspective taking measures the processing of others' points of view represented in such discussion.

As previously discussed, researchers have examined several discussion cognition variables other than discussion elaboration and perspective taking, such as discussion attention and integrative discussion. Given research providing evidence for differences between media exposure and attention (Chaffee & Schleuder, 1986; McLeod & McDonald, 1985), it may be important to consider discussion attention along with frequency of discussion. However, more recently scholars have contended that either exposure or attention, or a combined scale, should be used in analysis (e.g., Eveland, Hayes, Shah, & Kwak, 2005). Conceptually, the frequency with which a person discusses politics might automatically measure their level of attention paid to the discussion as well, as attention is needed in order to complete the task. There is a risk, then, for multicollinearity to occur if both measures are utilized in analysis. However, if asking how much attention was paid to a particular aspect of the discussion, or when situating someone into a discussion setting and/or observing a political conversation, attention paid to the conversation may be important to assess and may be conceptually distinct enough

in that situation for multicollinearity to be less of an issue empirically. For the purpose of this paper, discussion attention will not be measured as a cognitive aspect of discussion.

Furthermore, discussion elaboration will be used in this study in place of integrative discussion. This is due to the fact that elaboration assesses more directly the processing that takes place prior to, during, and after discussion. While discussion elaboration and integrative discussion have some overlap conceptually, elaboration takes into account more than processing specific to something one has seen in the news. It seems, then, that discussion elaboration is a more inclusive way to assess cognition during discussion compared to integrative discussion.

Perspective taking is conceptually and empirically different from integrative discussion and elaboration, and is an important cognitive aspect of political discussions. Rather than measuring the connections one makes from previous information and background experience to political discussions, perspective taking takes into account the processing of viewpoints in a discussion that are different from one's own. This cognitive variable seems especially important to measure in conjunction with dissimilarity of discussion since perspective taking is said to be developed as individuals interact in diverse social situations (Flavell, 1975; Hale & Delia, 1976; Sherrod et al., 2002). As indicated by Conover et al. (2002), it is important to assess whether the multiple views present in discussion are taken into consideration. In other words, while dissimilar discussion has been measured in prior research on political discussion, perspective taking is rarely empirically examined in this literature. Therefore, perspective taking, in addition to discussion elaboration, is an important cognitive aspect of discussion to consider.

To summarize, I define political conversation as informal talk on a wide range of issues with no specific end goal in mind (e.g., a vote or consensus). This informal conversation has three dimensions: discussion frequency, which can be indicated by how often one discusses politics or public affairs issues with others, discussion content, which can be indicated by dissimilarity of discussion, and discussion cognition, indicated by discussion elaboration and perspective taking.

CHAPTER 3  
POLITICAL KNOWLEDGE

Literature Review

Not only is political discussion a concept with overlapping terms and conceptualizations, but so also is the concept of political knowledge. Below, I examine these various terms and how they have been used in the literature.

*Political Sophistication*

One commonly used term in the political knowledge literature is political sophistication. Scholars writing about political sophistication have defined the term in various ways. While it may be thought of (conceptually) as an ideological way of organizing knowledge (e.g., Rhee & Capella, 1997), other scholars contend that political sophistication is a bit more complicated than that.

With the sole purpose of explicating political sophistication, Luskin (1987) conceptualized the term as a belief system that is large, wide ranging, and constrained. For Luskin, then, an individual is politically sophisticated to the degree to which he holds a large amount of diverse elements (e.g., cognitions) about a domain and is able to make connections between these elements (e.g., constraint). Thinking of politics as the domain of interest, an individual would be more or less politically sophisticated depending on the number of facts known about politics, the diversity of such facts (i.e., across political



topics), and the number of connections made among the facts contained in the domain. In a similar manner, McGraw, Lodge and Stroh (1990) state that political sophistication is a measure of the number of elements one contains in his or her store of knowledge, as well as the links between them.

This conceptualization of political sophistication has its roots in Converse's (1964) discussion of the nature of belief systems. For Converse, a belief system contains elements and constraint, or, elements and their interdependence with each other. He describes ideology as one's abstract representation of ideas, which is similar to Rhee and Capella's (1997) conceptualization of political sophistication as an ideological way of organizing knowledge. However, Converse explicitly states that he rejects the term ideology in place of the more descriptive term belief system, which makes sense in the fact that, while ideology represents only the abstract organization of knowledge, a belief system contains both the organization of knowledge and the elements of which it is composed. Furthermore, he contends that thinking along liberal and conservative lines are only one type of ideology that individuals might employ to organize their knowledge.

Operationally, scholars have used a number of techniques to measure political sophistication. Rhee and Capella (1997), for example, had respondents place Clinton, most conservatives, and most liberals on a continuum anchored with issue stances and compared how they placed one group's stance on the issue relative to another. This can be seen as a form of using a liberal-conservative constraint to organize idea elements, in this case issues.

Luskin (1987) discusses several ways to operationalize political sophistication, two which involve the integration dimension of sophistication and one which taps the

differentiation dimension. While the differentiation dimension is considered by the number of idea elements in one's thought structure, the integration dimension gets at the connections or structure put upon these various ideas. One of the integration measures, called recognition and understanding, replicates part of the Converse (1964) measure as it assesses the meaning respondents are able to provide for ideological terms. This open ended measure is used in order to see how respondents are organizing their knowledge of such abstract terms. Another measure, called active use, codes for levels of abstraction used by respondents in answering their likes and dislikes about parties and candidates. Here, Luskin looks for the use of abstract terms used when people discuss politics.

Interestingly, a study by Smith (1980) examining respondents answers for liking or disliking candidates found it to be an invalid way to measure sophistication, measuring instead some short-term environmental phenomena rather than a stable, cognitive trait which sophistication is contended to be.

The final measure Luskin (1987) uses for sophistication is called information holding. Considered to assess differentiation rather than integration, the measure of information holding is created by respondents putting themselves, each political party, and the correct placement of each party relative to the other on a continuum for eleven different issues.

Although Luskin (1987) advocates combining these measures to tap political sophistication, he contends that if only one measure can be used, the last measure (tapping differentiation) is most reliable. McGraw et al. (1990) have taken him up on this suggestion, measuring sophistication as an additive index of correct identification of the party affiliation of various political parties and social groups. Yet Guo and Moy (1998)

chose to assess political sophistication in four ways: political interest, political knowledge, cognitive ability, and active processing. While Guo and Moy do not provide a definition for political sophistication, their goal seems to be to assess the complexity involved in political thinking. Their political knowledge measure taps knowledge of local political figures' names while their cognitive ability measure measures the degree of logical links between points, ability to think in abstract terms, the provision of background information and the provision of multiple sides of an argument. Combined, their political knowledge and cognitive ability seems to match Luskin's (1987) ideas of differentiation and integration. Interest, on the other hand, seems to be something that might precede or result from sophistication.

### *Political Expertise*

Political expertise is a term that is sometimes found to be synonymous with the conceptual definition others have set forth for political sophistication. Luskin (1987), for example calls expertise organized knowledge, with *political* expertise (i.e., political organized knowledge) the same as political sophistication. McGraw and Pinney (1990), similar to Luskin (1987), define general political expertise as political sophistication. And, Fiske, Lau, and Smith (1990) contend that expertise is one's organized knowledge, containing both facts about a particular domain and their organization.

The operationalizations used for political expertise, however, do not always match the stated conceptual definition. For example, McGraw and Pinney (1990) measure this general political expertise/political sophistication with a number of measures: knowledge,

behavior, interest, and media exposure. This operationalization suggests that, although claiming that general expertise is sophistication, McGraw and Pinney do not truly have the same conceptualization of political sophistication as Luskin (1987).

Fiske et al. (1990), on the other hand, although naming various aspects of expertise, indicate knowledge as the most important aspect of expertise in that it was the best predictor of information processing. Their knowledge component was composed of respondents' placing themselves, other political actors, and ideological terms on an issue scale marked with opposing views as well as the completion of a quiz on government and current affairs, and was their best predictor of information processing. This measure of expertise, then, is somewhat similar to the sophistication of Rhee and Capella (1997), although adding a factual knowledge quiz.

In all, then, expertise seems, at least conceptually, to be the same as political sophistication. And, when separating out several different expertise indicators, the knowledge indicator is claimed to be the best predictor.

### *Political Schema*

Schema theorists have conceptualized schemas as organized knowledge in a particular domain containing various elements and interconnections between them (Lau & Sears, 1986; Lodge & Hamill, 1986; Lodge, McGraw, Conover, Feldman, & Miller, 1991). While some (e.g., Lau & Sears, 1986; Graber, 2001) contend that a schema is the hierarchical organization of knowledge, others (Rhee & Capella, 1997) claim that the organization may be hierarchical, associational, or the combination of both.

Rhee and Capella (1997) operationalize schematic knowledge in three ways. The first is argumentative depth, where participants are given a statement and asked a series

of open ended questions which are, in turn, coded for level of reasoning. A summary of the following components measured argumentative depth: whether or not relevant reasons were provided, the number of relevant reasons, the number of claims with coherent reasoning, whether a relevant counter was provided, and whether a relevant rebuttal to the counter was provided. This measure has similarities to Guo and Moy's (1998) cognitive ability aspect of political sophistication. A second schematic measure, construct differentiation, was assessed by respondents writing a letter to a friend about a particular issue. These letters were initially coded for the number of constructs used related to the issue. This process was then abandoned for simple word counts, as there was found to be high correlation between number of constructs and word counts. Finally, issue elaboration was tapped by asking respondents to write the most important things gleaned from the news material read. These statements were coded to see the extent to which associations were made between people or claims with issues.

If combined, these measures may well capture the conceptualization of schema, as the first and third measure associations made and the second measures total number of idea elements. However, a closer look at their coding schemes creates some problems with these being valid measures of schema. The measurement of argumentative depth is intriguing in that it appears to capture one's ability to reason through an issue. But, a summary measure of its components does not seem to tap the idea elements about the issue nor the connections between them. For their measure of construct differentiation, the authors resorted to mere word counts. What seems most unclear here is what is considered and counted as a construct related to the issue. In order to see this as a measure of one's schema, some clarification of coding procedure is needed. Finally, issue

elaboration is also an intriguing measure, seeming to be a specific way of looking for the information individuals are connecting together. However, it seems that the coders are forced to decide whether or not a connection is being made. More impressive would be a measure where the participants themselves marked if and when they saw connections between various pieces of information.

Quite different from Rhee and Capella (1997), Lodge and Hamill (1986) measure schema by asking respondents to classify political leaders as republican or democrat, creating an additive knowledge score. Combining the knowledge scale with an additive scale of questions tapping interest in parties and elections, the authors divide their sample into three groups, with the bottom group labeled aschematics and the top group labeled schematics. While the political knowledge measure used may be able to capture part of their schema definition, the scale as a whole does not match the definition, as it includes interest along with knowledge. Furthermore, this measure does not necessarily measure the organization of one's political knowledge.

Using a Q-sort method, Conover and Feldman (1984) capture two things together: the various schemas one may use when thinking about politics, as well as the schema's level of abstraction. In Conover and Feldman's study, participants were presented with a number of statements in several different domains (e.g., economic beliefs, racial beliefs) and were asked to put each statement into a category from strongly disagree to strongly agree. These Q-sorts were then put into a correlation matrix to find both the individuals and the statements most representative of the factors. This method showed that individuals use a number of distinct schemas to represent political information, or, their political world. In other words, this method showed that average people used complex

organization patterns to organize their political worlds. This method captures both specific ideas about a category and connections among schemas. However, it doesn't allow participants to produce the ideas they personally have about a topic (instead they are provided by the researcher). Additionally, this measure seems to capture the way one schema is related to another, rather than connections among ideas within one particular schema.

It seems that, as with political expertise, schemas are conceptually similar to political sophistication. However, the operationalizations used above lack some validity in their measurement of the stated concept.

### *Integrative Complexity*

Integrative complexity is yet another way to examine political knowledge, albeit far from as common as some of the other terms discussed thus far. According to Tetlock (1993), integrative complexity helps explain how individuals analyze and use incoming information to help them make decisions. Breaking this into dimensions, Tetlock calls the first dimension differentiation, defined as the number of distinct dimensions of a problem. A second dimension of integrative complexity is labeled integration, defined as the connections made among the distinct dimensions. Tetlock indicates that connections can be noticed when individuals discuss issues in terms of trade-offs, when they recognize the need to take several things into account in order to explain something, or when they attempt to explain why people view the same problem in different ways.

Integrative complexity is measured as a combination of differentiation and integration. In one example, Tetlock (1983) asked subjects to report their thoughts and feelings on three issues. These responses were then coded as one for low differentiation

and low integration, three for moderate or high differentiation and low integration, five for moderate or high differentiation and moderate integration, seven for high differentiation and high integration, and two, four, and six for transition points.

The strength of this scale is that it shows the specific dimension(s) of differentiation and integration. However, it seems that integrative complexity is better suited for coding integration, as there is more clarity as to what constitutes this dimension (e.g., use of trade-offs). It seems, then, that measuring integration might be fairly reliable, while measuring differentiation might be more difficult.

### *Political Thinking*

Another less often used term among those who examine knowledge is political thinking (Neuman, 1981; Rosenberg, 1988). Rosenberg's claim is interesting, in that he sees political thinking as an outcome of one's general cognitive thought structure. These types of thinking are labeled sequential, linear, and systematic. As a result of an overarching thinking pattern, Rosenberg claims that an individual's political thinking will follow suit, so that political thinking is sequential, linear, or systematic.

After conducting in-depth interviews on both a domestic policy and international issue, Rosenberg (1988) found that the political world of sequential thinkers was rather concrete. For example, political events were not connected to any other events, and things were understood in fragmentary and partial ways. For linear thinkers, some causal connections were made, but linkages were made primarily based on direct experience or on social norms. Their political world, then, was still fragmented, with only some pieces put together. Finally, systematic thinkers were able to see one relationship within a



system of other relationships; in other words, these individuals were able to make connections and interconnections between many parts of the political system at once.

Rosenberg (1988) specifically separates his concept from schemas, contending that he is interested in structure, not content. Operationally, this is true. Coders were not using a count procedure for specific idea elements or number of abstract terms used. Rather, the overall thought pattern was examined, allowing respondents to fall into one of the three thinking categories.

Different from Rosenberg (1988), but similar to Luskin's (1987) sophistication and Tetlock's (1993) integrative complexity, Neuman (1981) breaks down the concept of political thinking into two dimensions: differentiation and integration. Similar to others, Neuman (1981) contends that differentiation is the number of elements used to evaluate political issues, and he measures it as the number of discrete elements of political information one used in an in-depth interview discussing political issues. His second dimension of sophistication, integration, is defined as the organization of ideas in abstract terms. He measures integration as the use of abstract terms used in the interview about political issues. While this method is an interesting measure of sophistication in that it uniquely operationalizes both idea elements and constraint, a closer look at his coding scheme, based on the examples provided, brings into question what he is really assessing. It seems that, at times, he counts certain things as idea elements and not others, and he is unclear in his explanation of what counts as an 'abstraction.'

Political thinking, then, may be thought of as either an overarching term, similar to sophistication, which accounts for the differentiation and integration of ideas, or a particular thought structure applied to politics.

### *Structural Knowledge*

A measure more recently used in the political learning literature is called structural knowledge (Eveland, Cortese, Park, & Dunwoody, 2004; Eveland, Marton, & Seo, 2004). This idea is based on previously discussed ideas of political knowledge, such as political sophistication and expertise, where knowledge according to these scholars appears to have two dimensions: a number of distinct idea elements, as well as structure applied to the elements to bridge them together into a meaningful whole. Given that, Eveland, Marton, et al. (2004) contend that a distinction must be made between factual (e.g., distinct idea elements) and structural knowledge. Specifically, they define structural knowledge as “the knowledge of how concepts within a domain are interrelated” (p.87).

Based on the work of educational psychologists, Eveland and colleagues (e.g., Eveland, Cortese, Park, et al., 2004; Eveland, Marton, et. el, 2004) utilize a measure called knowledge structure density to measure this structural knowledge. This measure utilizes a matrix with a series of concepts running along the top and side. Respondents are asked to indicate whether or not they see a connection between the concepts and, if so, the strength of the connection. In both of these studies, Eveland and colleagues found differences between this structural knowledge and a more factual form of knowledge. The strength of this measure is that, unlike other measures used to tap the integration of knowledge it allows the participants to indicate in their own terms if they see a connection between ideas and concepts and, additionally, how strong the connection is between them.

### *Political Awareness*

Still another term used by scholars examining knowledge is political awareness. Although not made explicit, Zaller (1990, 1992) appears to conceptualize political awareness as reception and availability, or reception and comprehension of political information. Others (e.g., Bartle, 2000) claim that it is both intellectual and affective engagement with politics.

Although stating that things such as interest and exposure are involved in awareness, Zaller (1992) contends that the best measure of political awareness is what he calls neutral factual information, distinguishing this from facts gained from the media. Examples of neutral information, according to Zaller, are identifying the party in control of Congress or naming countries that are a part of the United Nations. Other operationalizations of awareness are ability to recall names of Congressional candidates and ability to accurately locate individuals and groups on policy positions (Zaller, 1990). Bartle (2000), as well, uses basic facts about the British political system and government to tap awareness.

Mondak (1995), however, uses what Zaller (1992) would consider to be non neutral information to measure awareness. Providing no conceptualization of the term, Mondak operationalizes awareness as answers to current events questions about an election campaign. Mondak distinctly remarks, however, that his awareness measure does not capture one's "deep understanding" of politics, a comment that suggests that there is more to knowledge than correct answers about current events.

### *Factual Political Knowledge*

Finally, knowledge has also been called factual political knowledge, conceptualized as various bits of information about politics that citizens hold (Delli Carpini & Keeter, 1993; Eveland, Marton, et al., 2004), or, the range of factual information stored in long term memory (Delli Carpini & Keeter, 1996). Delli Carpini and Keeter (1993) further define it as the size dimension of political belief systems, contending that scholars often measure the organizational aspect of knowledge without taking into account the basic idea elements. Therefore, these scholars do not examine if and how facts are connected, but rather measure the facts themselves.

Setting out to determine if political knowledge was a multidimensional or unidimensional concept, Delli Carpini and Keeter (1993) found that, while the best fitting measure of knowledge loaded onto five factors (labeled substantive issues, institutions and processes, gender-specific issues, public figures, and political parties), the improvements over a one factor model were marginal. Given this finding, Delli Carpini and Keeter (1993, 1996) recommend a unidimensional model of knowledge, contending that those who are knowledgeable about one domain or aspect of politics are likely to be knowledgeable in other domains. To further explain, Delli Carpini and Keeter (1996) state that tapping knowledge of one aspect of international affairs is not only a good predictor of one's knowledge about international affairs in general, but is almost as good a predictor of economic and racial issue knowledge. They found marginal improvement, then, by separating out issue domains, such as race, gender, and economic interests. However, they did find evidence for dimensionality across levels of government, where

knowledge items assessing national knowledge should be distinguished from those tapping state and local knowledge, as well as between national knowledge and partisan knowledge.

Given the discovery of a unidimensional knowledge scale at the national level, Delli Carpini and Keeter (1993) also proposed a short knowledge scale that could be universally used across studies to tap knowledge. Items on this scale include party control of the House, veto override percent, party ideological location, branch of government responsible for judicial review, and identification of the vice president.

Overall, just as with research on discussion, one can see that there is much overlap and a few differences in conceptualizations of knowledge, as well as much variation in measurement. Based on this research, I will next explicate knowledge for my own research purposes.

#### Explication of Political Knowledge

Based on all of the literature reviewed on various knowledge terms and concepts, I will define political knowledge as an individual's store of bits of information in memory as well as the structure brought to them. Furthermore, similar to Eveland and colleagues (Eveland, Cortese, Park, et al., 2004; Eveland, Marton, et al., 2004), I see political knowledge as broken into two dimensions: factual knowledge and structural knowledge.

The first dimension of political knowledge, factual knowledge, is defined here along the lines of Delli Carpini and Keeter (1992, 1993, 1996), being various bits of information about politics that citizens hold. The notion that individuals hold these bits of information runs through the knowledge literature as previously reviewed, regardless of which term/label is chosen (with the exception being Rosenberg, 1988). Luskin (1987),

for example, utilizes a factual knowledge measure in addition to measuring the connections one is making when measuring political sophistication. In fact, when only one measure can be used, he suggests the factual measure. Others such as Neuman (1981) and Tetlock (1983, 1993) code for the specific pieces of information in a domain that individuals use during interviews or open-ended questions in addition to connections they see individuals making among these bits of information. Others, especially Zaller (1990; 1992) and Delli Carpini and Keeter (1992, 1993, 1996) are interested specifically in measuring this factual knowledge. Delli Carpini and Keeter, especially, argue for measures that tap these more concrete “facts” about politics. It is clear to see, then, that these fact or bits of information are important to consider when measuring political knowledge.

The second dimension of political knowledge used here is labeled structural knowledge (Eveland, Cortese, Park, et al., 2004; Eveland, Marton, et al., 2004). A review of the literature shows that an integral part of getting at one’s deeper understanding of politics is by being able to tap the connections one makes between the factual bits of information. Therefore, I define structural knowledge as the organization of various bits of information about politics that citizens hold.

In all, then, political knowledge is considered to be both the various bits of information about politics an individual holds along with the organization of these pieces of information, labeled factual knowledge and structural knowledge, respectively. Factual knowledge can be indicated by knowledge items asking about political issues, political parties, and political actors, while structural knowledge can be indicated by ideological understanding of political candidates and parties as well as a matrix measuring

knowledge structure density. A number of scholars (e.g., Converse, 1964; Luskin, 1987; Rhee & Capella, 1997) have noted ideological representations of ideas as an indicator of the way an individual is organizing or connecting ideas together; important along with discrete pieces of information in determining one's sophistication. The matrix measure used for knowledge structure density allows a researcher to explicitly see connections among ideas being made.

## CHAPTER 4

### POLITICAL DISCUSSION AND POLITICAL KNOWLEDGE

#### Literature Review and Hypotheses

In the previous chapters, political discussion has been defined as informal talk on a wide range of issues with no specific goal in mind such as a vote or arriving at a consensus. Discussion is further defined along three dimensions: frequency of discussion, the content of discussion (here, dissimilarity of discussion) and discussion cognition (here, discussion elaboration and perspective taking). Political knowledge is defined along two dimensions: various bits of information about politics an individual holds (factual knowledge) and the organization of them (structural knowledge). This chapter posits a model of how these concepts and their various dimensions are related.

While work on social influence, especially in terms of knowledge and information gain, is often traced back to the work of Katz and Lazarsfeld (1955) and their model of the two-step flow, evidence of the influence of conversation can date back to such works as Tarde (1898) and Tonnies (2000). In these now historical writings, it is evident that conversation has long been viewed with utmost importance in shaping information distribution and opinions. Tonnies, for example, claimed that discussion of news influenced or converted individuals, and certainly fed opinions. Tarde, while also highlighting the impact of discussion on opinion, suggested that this opinion influence



could in turn be used for such things as limiting the power of government as well as helping people move past individualistic tendencies by learning others' opinions. While these scholars posit a more direct impact of conversation on opinions rather than political knowledge, per say, they certainly allude to the importance of conversation in spreading information. This is evidenced by the fact that both Tarde and Tonnies discuss the role of newspapers in history as providing information for conversations being held among individuals in society. Thinking, then, about knowledge or information, a model utilizing the ideas of Tarde and Tonnies might suggest that media information leads to information being spread within conversations with the outcome of individuals having more and/or different information than prior to having such conversations.

It is this flow of information and opinions suggested by scholars such as Tarde and Tonnies that can be seen in the model of the two-step flow set forth by Katz and Lazarsfeld (1955). This two-step flow model suggests that influentials or opinion leaders gain information from the media to distribute to others, such that as individuals discuss information with opinion leaders, they are able to glean new information. In this sense, the greater frequency with which individuals discuss issues, the more pieces of information they are able to obtain. Recently, Eveland (2004) tested this model by looking at the interaction of the frequency with which individuals discussed politics with a person as well as the perceived expertise of the discussion partner (e.g., greater information level = opinion leader) and found that, while frequency of discussion did predict knowledge, the interaction between frequency and level of expertise was not significant. As a result, Eveland claimed that the two-step flow was not a good theoretical explanation or model for the relationship between discussion and knowledge. Instead, a

better theoretical rationale was that the relationship between discussion and knowledge was due to greater depth of information processing, specifically, elaboration, rather than simply being exposed to information.

Eveland's (2004) finding that greater depth of information processing served as a better model to explain the relationship between discussion and knowledge than a two-step flow model bears resemblance to two rationales or models set forth by Scheufele (2002) to explain this process. First, Scheufele posits that discussion creates a cognitive tuning effect, where those who frequently talk about politics with each other will, in anticipation of future discussions, tune in with greater attention to the news media. This particular idea is certainly not new, as Blumer (1933) found evidence of an association between discussions and attention to media content related to those discussions.

Scheufele furthers this particular hypothesis, however, by claiming that this greater attention to news will enhance one's knowledge. Theoretically, Scheufele's first model suggests that frequency of political discussion impacts knowledge via increased news attention. In other words, rather than influence moving from media to discussion to knowledge, as posited by Tarde (1898), Tonnies (2000), and Katz and Lazarsfeld (1955), Scheufele's first rationale posits influence moving from discussion to news attention to knowledge. Scheufele's second theoretical justification of why discussion might impact knowledge is that talking about these issues with others helps one to better comprehend information gathered in the news by integrating it with what they already know; a suggestion similar to what was found by Eveland (2004) showing that discussion led to knowledge via greater depth of information processing. Scheufele is not alone in either

model that he posited; Kenamer (1990), although not going into as much detail as Scheufele, appears to argue similar rationales for predicting knowledge from discussion.

In each model, then, it appears that some form of information processing or cognition bridges the gap between discussion and knowledge. For Scheufele (2002) and Kenamer (1990), information processing is suggested to take place either through attention to news or elaboration from discussion, leading to knowledge. And Eveland (2004) found empirical support for the elaboration explanation rather than the two-step flow hypothesis.

Indeed, information processing theorists suggest that individuals learn information not merely from being exposed to, but also through the process of organizing the information for understanding (Findahl & Hoijer, 1981; Graber, 1988; Van Dijk, 1988). Exposure, however, is a necessary first step. In the context of interpersonal discussion, exposure to political information is likely with increased frequency of political discussion. According to Graber (2001), sheer increase in frequency of discussion should be related to factual political knowledge due to the fact that, with greater frequency of discussion, a greater number of facts can be incorporated into one's current understanding of a topic of information. Although not every political discussion may result in new information, greater frequency of discussion increases the probability that this occurs.

The most common finding across studies examining frequency of discussion is that, above and beyond demographic characteristics and media use, the frequency with which one discusses politics is a significant predictor of factual political knowledge (e.g., Bennett et al., 2000; Kenamer, 1990; Robinson & Levy, 1986). In other words, the

amount of conversations about political issues is reflected in the amount of political information one holds. Although some have found that talking to others about politics may decrease political knowledge (Lenart, 1994), the majority of the research supports a positive relationship between discussing politics and knowledge.

Yet, as information processing theorists suggest, without the help of contextual information to relate new to prior information, it is difficult to remember these facts (Findahl & Hoijer, 1981; Graber, 1988; Van Dijk, 1988). According to this view, it is important for information, after exposure, to be interpreted or connected into information already existing in one's memory. The word given to this act of making connections is elaboration (e.g., Sadowski & Gulgoz, 1996; Woloshyn, Willoughby, Wood, & Pressley, 1990) -- a cognitive act causing cognitive networks of information to be activated. As stated previously, processing theorists claim that in order to better remember facts it is important that connections occur after exposure; a claim indicating that exposure to political information is an antecedent to cognitive elaborations taking place. This makes sense, as individuals must encounter information in order for it to be elaborated upon. Although exposure to information may occur through a variety of sources, interpersonal discussion is one such source. As contended by Scheufele's (2002), frequently talking about politics provides an increased opportunity for new information to be understood in relationship to prior information. Elaboration should result, then, from increased frequency of discussion.

Not only should discussion frequency predict discussion elaboration, but so also should this elaboration predict factual knowledge. The claim made from information theorists (e.g., Findahl & Hoijer, 1981; Graber, 1988; Van Dijk, 1988) is that relating

new to prior information is important in order for individuals to remember facts. Indeed, Sadowski & Gulgoz (1996) and Woloshyn et al. (1990) found that individuals who elaborated on information responded best in factual recognition of information. And, Eveland (2001; Eveland et al., 2003) found news elaboration a positive and significant predictor of factual political knowledge. Elaboration, then, helps explain the process through which exposure to information predicts factual knowledge of information. Indeed, not only did Sadowski & Gulgoz and Woloshyn et al. find that elaboration predicted factual recall, it did so better than simple exposure to information without being asked to engage in the process of elaboration. While scholars have found both frequency and elaboration to individually predict factual knowledge (e.g., Eveland & Thomson, 2006), it seems that a partial mediation process may also be in place, where factual knowledge can be predicted from frequency of discussion, but is more fully explained through the process of mediation. Therefore, in addition to frequency of discussion predicting factual knowledge and discussion elaboration, and elaboration predicting factual knowledge, one should also expect elaboration to partially mediate the relationship between frequency of discussion and factual knowledge.

Moreover, given the fact that elaboration is a cognitive act where cognitive networks of information are activated, it should also have a positive impact on one's structural, not merely factual knowledge. Perse (1990) states, "elaboration relates the incoming information to existing knowledge and images and attaches connotative and associative meanings. During elaboration the information is linked mnemonically to similar information, placed in an organizational structure, and responses are rehearsed" (p. 19). It is no surprise, then, that Perse found elaboration to positively and significantly

relate to information holding, a knowledge variable measured in such a way so that respondents had to list problems in the area the local government should work to help solve, as well as any solutions to the problem they knew had been proposed. This measure is said to indicate that individuals have an established framework for receiving and processing information. Perse's measure somewhat resembles Tetlock's (1993) measure of integrative complexity, as well as Rhee and Capella's (1997) argumentative depth.

Additionally, Eveland and colleagues have examined news elaboration as it relates to knowledge structure density. While Eveland, Marton, et al. (2004) found elaboration to significantly predict knowledge structure density, a study by Eveland, Cortese, Park, et al. (2004) found a non-significant relationship. However, when interacting news elaboration with one's learning motivation, there was a positive and significant relationship with knowledge structure density.

As contended by Perse (1990), elaboration attaches connotative and associative meaning to information. It is the process of elaboration, then, that explains how the frequency with which one discusses politics predicts structural knowledge. Given the above, both theory and research suggest that elaboration should fully mediate the relationship between discussion frequency and structural knowledge.

To summarize formally, given both theory and previous research, it is predicted that:

H1: Discussion frequency will positively predict factual political knowledge.

H2: Discussion frequency will positively predict discussion elaboration.

H3: Discussion elaboration will partially mediate the relationship between discussion frequency and factual political knowledge.

H4: Discussion elaboration will fully mediate the relationship between discussion frequency and structural political knowledge.

In addition to discussion frequency, one can also examine the relationship between dissimilarity of discussion and knowledge through cognitive processing. Hale and Delia (1976) argue that diverse interactions allow individuals to take in views that are different from one's own; a process said to require abstract thinking, facilitating the integration of information (see also O'Keefe & Delia, 1982). This suggests that increased dissimilarity of discussion facilitates knowledge that has structure or organization rather than simply a collection of random pieces of information. Indeed, Gibbs, Potter, Barriga, and Liao (1996) argue that heterogeneous discussion impacts cognitive complexity. Additionally, Gastil and Dillard (1999) found that being exposed to diverse political perspectives positively and significantly impacted the structuring of knowledge. And recently, Eveland and Hively (2006) tested and found support for the influence of both dangerous and diverse discussion on structural knowledge.

It is likely, however, that the relationship between discussion dissimilarity and structural knowledge is at least partially mediated through the cognitive process of perspective taking. According to Gibbs et al. (1996), heterogeneous discussion influences not only cognition, but also perspective taking, a statement reflecting what scholars such as Flavell (1975), Hale and Delia (1976) and Sherrod et al. (2002) claim about perspective taking being developed as individuals interact in diverse social situations. This conclusion is not altogether surprising, as Tonnies (2000) suggested that

newspapers, exposing individuals to viewpoints potentially different from one's own, helped individuals to move beyond individualistic tendencies. Boland and Tenkasi (1995) claim that perspective taking "can be encouraged by communication systems that include an emphasis on supporting the distinctive needs of separate communities of knowing" (p.358), or in other words, by the representation of different views. Indeed, while not often tested explicitly by scholars, Mutz (2002a) found cross cutting exposure (i.e., dissimilar discussion) predictive of perspective taking.

Furthermore, there seems to be a positive link between perspective taking and structural knowledge. While Davis (1983) found perspective taking to be negatively related to intelligence as measured by SAT scores and the WAIS (vocabulary) intelligence test, Davis, Conklin, Smith & Luce (1996) found after several experiments that perspective taking caused individuals to understand others in a more complex, rather than simple way. In other words, as a result of perspective taking, individuals were able to think of others using situational rather than trait attributions, which is exactly the process that Hale and Delia (1976) suggested would result from perspective taking. This was considered by Davis et al. to be the first empirical evidence that perspective taking impacts cognitive structures. Such evidence might suggest that perspective taking, while impacting cognition does so through structuring of knowledge rather than impacting discreet pieces of information, or factual knowledge. Empirically, an experiment by Falk and Johnson (1977) showed that subjects who were told to attempt to understand the viewpoints of the other members and incorporate the information of other members into one's thinking produced greater comprehension and understanding of other members' information. While it is unclear in the study how "comprehension and understanding of



other members' information" was measured, the case can be made that this type of information resembles structural more than factual knowledge. For example, Luskin (1987) uses the term "understanding" to label one of his measures of sophistication; a more structural measure of sophistication.

Furthermore, Mason and Gibbs (1993) found that individuals with greater post-childhood perspective taking opportunities were more cognitively complex. Here, cognitive complexity was measured by the authors asking respondents to justify their responses to various questions, a measure similar to that used by scholars examining integration or sophistication (e.g., Converse, 1964; Luskin, 1987). Interestingly, though, these greater post-childhood perspective taking opportunities took place in cross-cutting environments. This further supports the link between dissimilar discussions, perspective taking, and structural knowledge.

The work of Boland and Tenkasi (1995) seems to be helpful in explaining the mediating relationship of perspective taking between dissimilarity of discussion and structural knowledge. They state, "in order to *integrate knowledge* [italics added] *through perspective taking* [italics added], communication systems must *first support diversity of knowledge through the differentiation provided by perspective making within communities of knowing* [italics added]" (p. 359). These scholars suggest that perspective taking mediates the relationship between heterogeneous ideas and integrated knowledge. Although dissimilar discussion should predict structural knowledge, it appears that this process is at least partially mediated through perspective taking.

Research examining the role of perspective taking on political knowledge specifically is very limited. One study (Eveland & Thomson, 2006), predicting factual

knowledge from perspective taking, found the relationship to be non significant. These scholars posited, however, that perspective taking likely predicts structural, rather than factual knowledge. For instance, as other research and theory suggests, while examining things from others' perspectives might not help an individual to remember specific facts, it may provide them the ability to see information in a conceptual sense and provide some structure to their understanding of politics.

In light of the above, there are several important links between dissimilarity of discussion, perspective taking, and political knowledge. These include dissimilarity of discussion to structural knowledge, dissimilarity of discussion to perspective taking, and perspective taking to structural knowledge. Formal hypotheses are laid out below:

H5: Discussion dissimilarity will positively predict structural political knowledge.

H6: Discussion dissimilarity will positively predict perspective taking.

H7: Perspective taking will partially mediate the relationship between discussion dissimilarity and structural political knowledge.

A final group of relationships in this model should be considered. Not only should dissimilarity of discussion predict structural, but also factual political knowledge. For example, Eveland, Seo, et al. (2004) found that discussing a variety of news topics in a focus group discussion predicted factual knowledge. Kwak et al. (2005) found that discussing politics with others different from oneself with respect to age, gender, education, ethnicity, and political views predicted factual knowledge. Moreover, Scheufele et al. (2004) found that discussing politics with others different from oneself with respect to sex, race, and extreme political views predicted factual knowledge

indirectly via news use. Having political discussions with dissimilar others is an act of being exposed to political information; one that should result in individuals gaining political facts.

Furthermore, with the presence of diverse views in discussion, discussion elaboration should be facilitated. Here, elaboration might occur prior to these discussions to prepare arguments for one's own point of view, or might facilitate greater thinking on a particular topic after discussion. Similar to the way in which frequency of discussion impacts elaboration, dissimilarity of views provides increased opportunity for individuals to see and make connections among pieces of information. Therefore, discussion elaboration should also partially mediate the relationship between discussion dissimilarity and factual knowledge, as well as between discussion dissimilarity and structural knowledge.

The links between these variables, then, are from dissimilarity of discussion to factual knowledge, dissimilarity of discussion to discussion elaboration, and (as stated earlier), discussion elaboration to factual knowledge, and discussion elaboration to structural knowledge. Therefore, the final set of hypotheses suggests:

H8: Discussion dissimilarity will positively predict factual political knowledge.

H9: Discussion dissimilarity will positively predict discussion elaboration.

H10: Discussion elaboration will partially mediate the relationship between discussion dissimilarity and factual political knowledge.

H11: Discussion elaboration will partially mediate the relationship between discussion dissimilarity and structural political knowledge.

The full model including all of these relationships can be broken down into several smaller models. One model, for example, might examine relationships between discussion frequency, discussion dissimilarity, and each form of political knowledge. This model, which will be used in study 1 described in chapter five, examines discussion and knowledge without any mediating discussion cognition variables as visualized in Figure 2 of Appendix A.

Another part of the full model shows relationships between perspective taking, discussion dissimilarity and structural knowledge with perspective taking as a mediating variable (see Appendix A, Figure 3). This model will be examined in study 2, described in chapter five.

Third is a closer look at the relationship of the role of discussion elaboration as a mediator between discussion frequency, discussion dissimilarity, factual and structural knowledge (see Appendix A, Figure 4), and Figure 5 of Appendix A represents the full model with all hypotheses suggested in this chapter and will be utilized for study 3.

#### Expanding Hypotheses to Youth Samples

One question that may be asked is whether this model applies to adults only, or can be applied to children and adolescents as well. Do cognitive differences, for example, between adults, children and adolescents imply a different set of relationships than previously posited? While this is a potential concern with younger children, scholars have suggested that by the age of twelve, children are cognitively capable of understanding complex and abstract issues just as adults (e.g., Brainerd, 1978). It would seem, then, that neither the relationships previously posited nor the direction of the relationships should differ between youth and adults.

Luckily, several of the links between concepts set forth in this chapter have been examined in political socialization literature with youth samples, providing insight into similarities and differences between youth and adults. Political socialization has been defined as the development of citizenship in young people (McLeod, 2000) as well as the learning and internalizing of a society's political norms (Patrick, 1977). Scholars in this field have found that not only does media use have a positive impact on the political knowledge of youth (e.g., Chaffee, Jackson-Beeck, Durall, & Wilson, 1977; Conway, Ahern, & Wyckoff, 1987), but so also does interpersonal discussion. Studies of family communication patterns, for example, show that within families where opinions and open discussion are encouraged, children have higher levels of political knowledge (Chaffee et. al, 1977; Chaffee, McLeod, & Wackman, 1973). Moreover, certain kinds of discussion that occurs within schools, specifically, classrooms that nurture open discussion, have also been found to positively impact political knowledge (Finkel & Ernst, 2005). This kind of discussion -- open and where opinions are encouraged to be discussed -- bears resemblance to dissimilarity of discussion, as this kind of classroom setting at least provides the potential for exposure to others' opinions that may be different from one's own. Furthermore, research with youth samples has shown that civic programs within schools have proven to increase interpersonal discussion of politics, in turn positively impacting knowledge (e.g., Meirick & Wackman, 2004). This latter finding relates to the impact of frequency of discussion on knowledge. It appears, then, that among youth as well as adults, both dissimilarity and frequency of political discussion have a positive impact on political knowledge.

Other variables in the models posited above have also been touted as important among youth. Several have argued that knowledge of civics facts are not the only kind of knowledge that is important for youth to have (McLeod, 2000; Patrick, 1977). An example discussed by Patrick of moving beyond knowledge as that of civic facts is helping young people to understand how the political system works as a whole or, as discussed by McLeod, looking at outcomes such as cognitive complexity and reasoning skills. Similar, then, to structural knowledge, understanding how the system works as a whole helps provide context for integrating the basic civic facts these students learn from their textbooks. And, cognitive complexity and reasoning have been used by scholars to discuss this more structural form of knowledge, as discussed previously. This ‘new’ kind of civic education knowledge is argued to occur in part as students partake in open and diverse discussion, whether with peers or within the classroom. Dissimilarity of discussion among youth, then, can be posited to lead to structural knowledge.

In addition, scholars studying the development of citizenship in young people have stated the importance of perspective taking developing as a result of exposure to diverse points of view, and resulting in a more complex way of thinking (Mason & Gibbs, 1993; Sherrod et al., 2002). This allows for a hypothesis suggesting a mediating relationship of perspective taking between dissimilarity of discussion and structural knowledge in youth just as with adults. Finally, scholars in the field of educational psychology (e.g., Sadowski & Gulgoz, 1996; Woloshyn et al., 1990) have confirmed that elaboration is important to the learning process of young people. Theoretically, then, even among youth, elaboration is important to factual and structural knowledge.

Given that the cognitive ability of children over twelve years of age is similar to that of adults, the theoretical rationales provided previously linking each of the variables in the model together can be said to be the same whether thinking about youth or adults. Unfortunately, just as with adults, relationships to knowledge from variables such as dissimilarity of discussion, structural knowledge, perspective taking, and discussion elaboration in youth samples are rarely examined empirically, especially as the each relate to each other.

To review, then, cognitive processing appears to be important in learning whether in adults or in youth. This, in turn, provides the basic rationale for the relationships among dimensions of political discussion and political knowledge. It is hypothesized that discussion frequency promotes increased exposure to facts which, when elaborated upon, lead to increased factual knowledge. Furthermore, theorists such as Hale and Delia (1976) suggest that exposure to different views enhances the integration of knowledge and also help individuals take another person's viewpoint. It is hypothesized that discussion among others with dissimilar viewpoints facilitates structural knowledge mediated through the path of perspective taking, as well as through the path of discussion elaboration. Finally, it is hypothesized that dissimilarity of discussion also promotes factual knowledge, which, similar to frequency of discussion, should be mediated through the process of discussion elaboration.

## CHAPTER 5

### METHOD

#### STUDY 1

The purpose of the first study is to examine the different roles of discussion frequency and discussion dissimilarity on both factual and structural political knowledge. Much of the political communication research has tended to examine political knowledge as that of basic political facts without also measuring the connections one is making among these facts. Furthermore, while many studies have examined the frequency with which individuals discuss politics, discussion dissimilarity has only recently begun to receive attention. This first study, then, seeks to extend political communication research to include structural as well as factual political knowledge, and to examine the impact of both the frequency of discussion as well as discussion dissimilarity on each form of knowledge.

#### Sample

Data for this study comes from the 2000 American National Election Study (ANES) preelection and post-election surveys due to the battery of social network discussion items providing useful information about both discussion frequency and dissimilarity. This particular ANES panel study is unique in that there was a split mode and sampling procedure. In the preelection wave, 801 respondents were selected via



random digit dialing and interviewed by telephone while the remaining 1006 respondents were selected by area probability sampling and interviewed in person. This represents a response rate of 57.2% (computed by dividing the number of completed interviews by the number of potential respondents) for telephone respondents and 64.8% response rate for face to face respondents (see Burns, Kinder, Rosenstone, Sapiro, and the National Election studies, 2002). In the post election wave, 694 respondents were interviewed by phone and 862 respondents were interviewed in person. This represents a response rate of 85.8% for telephone respondents and a 57.2% response rate for face to face respondents. Total pre-election response rate was 61.2%. Total post-election response rate was 86%. Preelection interviews were conducted between September 5 and November 6, while post election interviews were conducted between November 8 and December 18.

It is important to note that this data set has been previously used by several different scholars to examine discussion related variables. Nir (2005), for example, used the 2000 ANES to examine the impact of individual ambivalence and network ambivalence (similar to diverse discussion) on political participation. Huckfeldt et al. (2004) examine network heterogeneity on several different outcomes, including number of likes and dislikes mentioned for each candidate, ambivalence, polarization and participation. And, Eveland (2004) used this data set to examine the impact of discussion frequency as well as the interaction of discussion partner knowledge and discussion frequency on factual knowledge.

The use of the 2000 ANES data set in this particular study, however, is different from those who have used it in the past. For example, none of the scholars above look at both discussion frequency and dissimilarity together, nor do any examine both factual

and structural knowledge. Given that this is a national data set, and provides the opportunity to examine various aspects of political discussion, it is an excellent source to use for the purposes here.

### Measurement

Table 2, Appendix B shows the item wording, response options and recoding for the variables used this study, and Table 3 provides an overview of basic descriptive information for each of the study's variables.

#### *Control Variables*

A number of control variables were used in this study. First, primary demographic variables, gender, age, income, and education were controlled. Gender was measured with females as the high value (56.3%). Respondents were also asked to provide their age ( $M=47.21$ ,  $SD=16.96$ ). Income was measured as an ordinal variable and divided into 22 categories ranging from none or less than 4, 999 to 200, 000 and over (median = 6, or \$35,000-\$49,999). Respondents' level of education was measured as an ordinal variable as well, with 7 categories ranging from 8 grades or less and no diploma, to advanced degree (median = 4, or, more than 12 years or schooling, no higher degree).

In addition to these demographic variables, several media variables also served as control variables. National television news exposure was measured as the number of days in the past week (0-7) respondents watched national television news ( $M=3.29$ ,  $SD=2.80$ ). Local television news exposure was measured as the number of days in the past week (0-7) respondents watched early local news ( $M=3.28$ ,  $SD=2.86$ ) and the number of days in the past week (0-7) they watched late local news ( $M=2.56$ ,  $SD=2.71$ ). These variables

were combined into a local television news exposure scale ( $\alpha = .56$ ,  $X=2.92$ ,  $SD=2.33$ ). Newspaper exposure was tapped by the number of days in the past week (0-7) respondents read a daily newspaper ( $M=3.45$ ,  $SD=2.92$ ).

Finally, both survey mode and network size served as control variables. For survey mode, 55.7% of the respondents were personally interviewed, while 44.3% of respondents were given the survey via telephone. Network size was computed by counting the number of discussion partners a respondent mentioned out of a possibility of four ( $M=1.86$ ,  $SD= 1.48$ ).

### *Independent Variables*

*Discussion Frequency:* In order to tap frequency of political discussion, respondents were asked how many days during the past week they talked about politics with family or friends ( $M=4.18$ ,  $SD=2.80$ ). This can be found in the post-election wave.

*Discussion Dissimilarity:* To measure respondents' dissimilarity of discussion, in the post-election wave they were asked first to name up to four people with whom they discuss government, elections, and politics. The respondents were then asked to indicate for whom they thought their discussion partner voted in the previous election [Bush, Gore, or Some Other]. If the discussion partner and the respondent were similar in vote choice as perceived by the respondent, they were coded as 0. If either in the pair voted for "Some Other" candidate, meaning neither Gore nor Bush, the pair was coded as 1. And, if the pair voted opposite from each other (e.g., one voted for Gore and one for Bush), they were coded as 2. This was completed for each discussion pair. A count procedure was then used to decipher whether or not dissimilarity was present or not in one's discussion network. If any of the discussion partners evidenced dissimilarity with a

respondent (e.g., the pair was scored with either a 1 or a 2), dissimilarity was counted in the network. It was found that 21.8% of the respondents experience dissimilar discussion ( $M=.25$ ,  $SD=.44$ ).

### *Dependent Variables*

*Factual Knowledge:* To measure factual knowledge, or, the bits of political information individuals have gleaned, respondents were asked to correctly identify certain political figures, such as Lott, Renquist, Blair, and Reno, as well as to correctly identify which state Bush and Gore came from and which party currently controls the House and Senate. These items, all asked in the post-election wave, were averaged together to form a factual knowledge scale ( $\alpha=.85$ ,  $M=.36$ ,  $SD=.28$ ).

*Structural Knowledge:* In order to tap structural knowledge, or the organization of various bits of political information, a measure was created by averaging the responses of the respondents' correct placement of each of the major candidates in the 2000 Presidential election (Gore, Bush, and Buchanan), as well as the correct placement of the current President (Clinton) and political parties (Democrat and Republican) on an ideological scale. Correct scores were coded 1 while incorrect scores were coded 0. These items, like those tapping discussion frequency, discussion dissimilarity, and factual knowledge, are also found in the post-election wave ( $\alpha=.79$ ,  $M=.77$ ,  $SD=.29$ ).

Certainly, the use of the liberal-conservative continuum is not the only way individuals might organize their structural knowledge. However, utilizing such terms is indicative of one's use of some underlying dimension, suggesting some organization or structuring of information (see Luskin, 1987; Rhee & Capella, 1997). For example, while

this measure does not allow participants to explicitly show the connections they are making between pieces of information, ideological understanding assumes a complex underlying schema of connections and organization of pieces of information.

#### Plan for Analysis

In order to examine the impact of discussion frequency and dissimilarity on factual and structural knowledge, each form of knowledge will act as a separate dependent variable using hierarchical regression. First, factual knowledge will be regressed on discussion frequency and dissimilarity. Next, structural knowledge will be regressed on discussion dissimilarity. Controls in each regression will consist of survey mode (phone vs. face to face), demographic variables, and news media use. Frequency of discussion and network size will also be used as control variables when discussion dissimilarity is the main independent predictor.

It is important here to address the use of network size as a control for discussion dissimilarity, but not for discussion frequency. Network size is interesting in that some scholars seem to consider it an aspect of political discussion (e.g., Mutz, 2002b) or, as put by Kwak et al. (2005), a structural characteristic of one's network along with discussion frequency and network heterogeneity. Network size, then, when entered into a model with the other characteristics considered to be a part of one's social network necessarily acts as a control the other characteristics (see Kwak et al., 2005).

For purposes of this study, as discussed in chapter 2, network size is not considered a dimension of political discussion. Yet, scholars (e.g., Huckfeldt et al., 2004; Mutz, 2006) have found the size of one's network to be associated with discussion dissimilarity in that the larger one's network, the greater the possibility for dissimilarity.

In order to make sure the impact of dissimilarity is not confounded with network size, it, along with discussion frequency, is used as a control when dissimilarity is added to the model (see Mutz, 2006). The same argument cannot necessarily be made for discussion frequency, as the probability of frequency of political discussion does not necessarily increase with a larger network. Network size, then, will be used as a control when discussion dissimilarity but not discussion frequency is the main independent predictor.

## STUDY 2

While the above study is able to examine the relationships between discussion frequency and content (i.e., dissimilarity) on both factual and structural knowledge, it does not test the mediating role of discussion cognition. This study examines one form of discussion cognition in particular: perspective taking. It is rare for perspective taking to be examined in the context of the political knowledge literature. However, one study using perspective taking to predict factual political knowledge found that not only did it not predict factual political knowledge, but that it was a marginally significant negative predictor (Eveland & Thomson, 2006). Theoretically, perspective taking should be important in learning, but may be more suggestive of structural knowledge than factual knowledge. The purpose here is to look specifically at the impact of perspective taking on structural political knowledge as well as its mediating role between discussion dissimilarity and this outcome.

### Sample

Data for study 2 derives from The Ohio Political Survey (TOPS) conducted in fall 2006 and early winter 2007. This survey consisted of a three wave panel. The first wave of the study utilized a random telephone sample of residents in Ohio. This sample was

derived from Survey Sampling, Inc. Completed and a few partially completed interviews were utilized for the final waves of the survey. For the first wave, participants were contacted between September 6 and October 10, 2006. There were 603 complete and 9 partially complete interviews obtained for Wave I, resulting in a 20.7% response rate according to 2004 AAPOR standards (response rate 4). Wave 2 was conducted from October 11 through November 7, 2006. Of the interviews obtained from the first wave, 387 complete and 2 partially complete interviews were obtained in the second wave resulting in a 63.5% response rate (2004 AAPOR standards, response rate 4). The final wave began November 9, 2006 and ended on February 4, 2007, with 270 complete and 3 partially completed interviews obtained. This was a 70.2% response rate, according to the 2004 AAPOR standards, response rate 4. For the purpose of this study, data from Wave I and Wave II will be utilized. Demographically, Wave I respondents were 84.7% White and 7% Black while Wave II respondents were 86% White and 7.3% Black. The percent of Whites in Waves I and II, then, is demographically similar to 2005 Ohio demographics, with census data showing a population of 85% White. The percent of Blacks in Waves I and II is slightly lower than 2005 Ohio demographics, as 2005 census data shows a 12% Black population in Ohio.

#### Measurement

Table 4, Appendix B shows the item wording, response options and recoding for the variables used this study, and Table 5 provides an overview of basic descriptive information for each of the study's variables.

### *Control Variables*

As in study 1, several control variables were used in study 2 all found in the first wave of the survey. First, primary demographic variables, gender, age, and education were used as control variables. Gender was measured with females as the high value (58.4%). To measure age, respondents were asked to provide the year of their birth, which was subtracted from the year in which they took the survey to derive their age at the time it was taken ( $M=51.22$ ,  $SD=15.77$ ). Respondents' level of education was measured as ordinal variable with 9 categories ranging from 8 grades or less, to technical/trade school (median = 4, or, some college).

In addition to these demographic variables, several media variables also served as control variables. National television news exposure was measured as the number of days (0-7) in the past week respondents watched national television news ( $M=3.35$ ,  $SD=2.78$ ). Respondents were also asked the number of days in the last week (0-7) they watched local news on television ( $M=4.61$ ,  $SD=2.65$ ). Newspaper exposure was tapped by the number of days in the past week (0-7) respondents read a print newspaper ( $M=3.69$ ,  $SD=2.95$ ).

Finally, network size served as a control variable with dissimilarity of discussion added as the main independent predictor to the regression. Network size was measured with an open ended measure asking respondents how many different people they talked to in the past week about Ohio politics ( $M=4.71$ ,  $SD= 7.02$ ).

### *Independent Variables*

*Discussion Frequency:* In order to assess the frequency with which individuals discussed politics respondents were asked how many days last week they talked to



someone – including friends, family, neighbors, and co-workers – about Ohio politics (M=2.28, SD=2.14). This item can be found in the first wave of the study.

*Discussion Dissimilarity:* In order to tap discussion dissimilarity, respondents were asked, “How many days last week did you talk to one or more Republicans about Ohio politics?” All participants were originally set to “0” on dissimilarity. If respondents talked to one or more Republicans at least one day a week and they were either a Democrat, considered themselves closer to the Democratic party, or considered themselves an Independent not leaning closer to either party, their dissimilarity score was changed from 0 to 1 indicating the presence of dissimilarity. Respondents were also asked “How many days last week did you talk to one or more Democrats about Ohio politics?” If respondents talked to one or more Democrats at least one day a week and they were either a Republican, considered themselves closer to the Republican party, or considered themselves an Independent not leaning closer to either party, their dissimilarity score was changed from 0 to 1, indicating dissimilarity. Higher numbers indicate greater dissimilarity (M=.49, SD=.50). Here, 49.7% of the sample experienced some dissimilar talk.

The reason for the dichotomous coding is that the interest here is in whether respondents are talking at all to those unlike themselves, regardless of how many days that is in particular. Therefore, unless they had not talked at all to someone politically different from themselves, they are coded as high (i.e., 1) for dissimilar discussion.

#### *Mediating Variable*

*Perspective Taking:* Perspective taking was derived from Davis’ (1980) perspective taking scale. Four Likert items [1= strongly disagree and 5= strongly agree]

were combined into an additive index ( $\alpha = .63$ ,  $X=3.83$ ,  $SD=.58$ ). These items include, “I try to look at everybody’s side of a disagreement before I make a decision” ( $M=3.98$ ,  $SD=.80$ ), “I sometimes try to understand others better by imagining how things look from their perspective” ( $M=3.94$ ,  $SD=.76$ ), “When I’m upset at someone, I usually try to “put myself in his or her shoes for a while” ( $M=3.58$ ,  $SD=.94$ ), “Before criticizing somebody, I try to imagine how I would feel if I were in their place” ( $M=3.84$ ,  $SD=.84$ ). These items can be found in the first wave of the survey.

### *Dependent Variable*

*Structural Knowledge:* Structural knowledge was the mean of answers to questions regarding the ideological stances of the two candidates running for U.S. Senator from Ohio (i.e., Mike DeWine and Sherrod Brown) and the ideological stances “on most political issues” of the two candidates for Governor of Ohio (i.e., Ken Blackwell and Ted Strickland). Incorrect answers were coded as 0 while correct answers were coded as 1. The rationale for using this particular measurement for structural knowledge is similar to that provided for the measurement of structural knowledge in study 1. Again, although ideological placement is not the only measurement that can be used to assess the way an individual is organizing his or her knowledge, it is certainly considered an important component (or indicator), in addition to knowing bits of information, to one’s overall political sophistication (Rhee & Capella, 1997). Such items were measured in both the first and second wave of the survey (Wave I,  $\alpha=.82$ ,  $M=.52$ ,  $SD=.40$ ; Wave II,  $\alpha=.81$ ,  $M=.64$ ,  $SD=.38$ ).

## Plan for Analysis

In order to determine the impact of discussion dissimilarity on structural knowledge mediated at least partially through the path of perspective taking, three regressions must be run. First, as suggested by Baron and Kenny (1986), discussion dissimilarity, the independent variable, must significantly predict the mediating variable of perspective taking in the expected direction. Second, discussion dissimilarity must significantly predict structural knowledge, the dependent variable. Finally, structural knowledge must be regressed on both discussion dissimilarity and perspective taking. Perspective taking must reduce or eliminate the predictive ability of discussion dissimilarity when both are in a model predicting structural knowledge. In the first equation, dissimilarity must affect perspective taking. In the second equation, dissimilarity must affect structural knowledge. In the third equation, the mediator must affect structural knowledge. For mediation to be present, the effect of dissimilarity must be less in the third equation than in the second. This will be done examining knowledge at Time II, as well as examining knowledge at Time II while controlling for knowledge at Time I.

In addition to the Baron and Kenny (1986) causal steps method, a bootstrapping method will be utilized, as suggested by Preacher and Hayes (2004). This method more directly assesses the indirect effect of X on Y and makes no assumptions about a normal sampling distribution. Using a bootstrapping macro, a number of iterations will be run on these variables. If the zero is not included in the 95% confidence interval, M (here, perspective taking) will be said to be a mediating variable between X (discussion dissimilarity) and Y (structural knowledge).

### STUDY 3

While the first study examines relationships between discussion frequency and dissimilarity on both factual and structural knowledge, and the second study looks at the perspective taking and its mediating role between discussion dissimilarity and structural knowledge, the final study is utilized to look at a model incorporating discussion frequency, discussion content (i.e., dissimilarity), discussion cognition (e.g., perspective taking and discussion elaboration) and each form of political knowledge. This study is meant not only to replicate the findings of the national sample examining differences between factual and structural knowledge, and to replicate a statewide sample examining the mediating role of perspective taking, but to examine, within a sample of adolescents, each of the variables in relation to one another including the final discussion cognition component of discussion elaboration. This will provide a more comprehensive view of the relationships between political discussion and political knowledge as suggested here.

#### Procedure

Data for study 3 come from a larger study examining Kids Voting of Central Ohio; a school civics program implemented in the Columbus, Ohio school system. In order to obtain the data, a series of paper and pencil surveys were used. First, surveys were given to the heads of social studies departments in each of 18 public high schools in the Columbus Public School district. The department heads were asked to distribute the surveys to the social studies teachers in their respective buildings. Teachers were asked to return the surveys to the department heads by the given deadline, which were then gathered by the researchers. Once surveys were received from the teachers (N=67),

parents of the students in each of their courses were mailed surveys to complete, as well as consent forms for their child. This was done through addresses provided by the school district.

The number of mailed parent surveys was 6,238. Parents were asked to return the survey and consent form in the stamped envelope provided by the researchers. If a parent signed and returned the consent form (n = 517), their child was eligible to participate in the study. Student data collection took place in two waves, first with a survey distributed to them in their social studies class and a drop box provided for return of survey, and second, with a follow up survey mailed to their homes for those who did not respond to the first request. Although data are available from teachers, parents, and students, for the purposes of this study the focus is on the student data.

### Sample

The request to teachers in the 18 public high schools resulted in a total sample of 67 teachers and 201 students. There was at least one teacher represented from all 18 high schools. Of the 201 students in the study, there was at least one student represented from all but 2 of the schools. Nearly 50 % of the total student sample was female, with an average age of 16 years. Of all students responding, 56.3% reported being Caucasian, 36.3 % African American, 5.8 % Native American, .5 % Asian American, and 1.1 % Hispanic. The sample contained a total of 36.9 % freshman, 30 % sophomores, 9.7 % juniors, and 15.2 % seniors.<sup>1</sup> Students reported a B average in their grades.

There is widespread recognition across the literature of the problem of low response rates specifically related to school-based research and the requirement of

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<sup>1</sup> This breakdown of percentages is in part influenced by the grades in which social studies courses were required.

researchers to obtain active parental consent from parents of students (Esbensen, Miller, Taylor, Hi, & Freng, 1999; Kearney, Hopkins, Mauss, & Weisheit, 1983; Thompson, 1984; Unger, Gallaher, Palmer et al., 2004). In each of these studies, low response rates were also found to be associated with race and school achievement, attributed specifically to African American students and those with low grade averages. Not only, then, do studies requiring active parental consent suffer from extremely low response rates, but also typically result in a biased sample. The data utilized in study 3 falls in line with these results. Not only is the response rate extremely low, but the demographics of the school system show that 61% of the students are Black and 28% White. These numbers are almost exactly opposite from the number of Whites (56%) and Blacks (36%) represented in the study's sample. Table 6 in Appendix B shows racial demographic information of both the sample as well as each of the high schools from which the students came. It can be seen here that, for 10 of the 16 schools providing students for the sample, the percent Black and White responding to the survey correspond to the percent Black and White within that particular school. The six schools contributing students to the Kids Voting sample that do not correspond to their own demographics are Fort Hayes, Mifflin, Centennial, Columbus Alternative, Northland, and Marion-Franklin High Schools. These all seem to have more Whites represented within the Kids Voting sample than what might be expected, given the school's demographic breakdown. With three of these schools (i.e., Centennial, Northland, and Marion-Franklin) providing a larger number of students to the sample than other schools, it is not surprising that the Kids Voting sample is biased toward Whites.

Overall, though, this sample is relatively representative of the individual high schools from which the students come. It is also more representative of the city of Columbus demographics than is the Columbus Public School district, with 2005 census data showing the city having a population composed of 75.5% White and 17.6% Black. It is also more representative of the state of Ohio and U.S. demographics than is the Columbus Public School district with 2005 census data showing a population of 85.1% White and 11.9% Black and the U.S. showing a population composed of 80.2% White and 12.8% Black. While the Kids Voting sample, then, is not representative of the Columbus Public Schools population overall, there is fairly good demographic representation from most of the high schools, and the sample is more demographically representative of the city of Columbus, the state of Ohio, and the U.S. at large than if the sample had matched the demographics of Columbus Public Schools.

However, it must be noted that the purpose of study 3 is to examine cognitive processes that lead from political discussion to political knowledge. According to Hayes (2005), when the primary goal of a study is to make a process inference, the most important consideration is whether the theoretical process to be tested is at work in the researcher's given sample rather than if the results can be generalized to "people in general" or another particular population (e.g., a population inference). Study 3 is important, then, for theoretical rather than generalizability purposes.

#### Measurement

Table 7, Appendix B shows the item wording, response options and recoding for the variables used this study, and Table 8 provides an overview of basic descriptive information for each of the study's variables.

### *Control Variables*

Demographic variables gender, age, and year in school were used as control variables in this study. Gender was measured with females as the high value (53.7%). For age, respondents were asked to provide the year of their birth, which was subtracted from the year in which they took the survey to derive their age at the time it was taken (M=15.44, SD=1.19). To account for year in school, respondents were asked to indicate whether they were a freshman, sophomore, junior, or senior (median=2, or, sophomore).

In addition to demographic variables, exposure to various news media also served as control variables. A series of questions were asked of each respondent regarding their exposure, by number of days in the past week (0-7), to various types of media. These included national television news exposure (M = 2.68, SD=2.26), local television news exposure (M=4.42, SD=2.03), and exposure to print newspaper (M=2.64, SD=2.24).

Finally, network size served as a control variable when discussion dissimilarity was the main independent predictor in the regression. Network size was computed by counting the number of discussion partners mentioned when asked to name up to two people with whom they discussed important matters (M=1.95, SD= .30).

### *Independent Variables*

*Discussion Frequency:* In order to tap one's frequency of political discussion, respondents were asked to circle the number of days in the past week, from 0 to 7, which they had talked to someone about the news (M=3.45, SD=2.16).

*Discussion Dissimilarity:* Students were asked to provide the names of two individuals with whom they discussed important matters. A series of questions followed including the respondent's perceived party identification for each discussion partner. If



the respondent and a discussion partner were similar in party identification, they were coded 0. If the discussion partner was perceived to identify with ‘some other’ party other than the Republican or Democratic Party, the pair was coded as 1. And, if one partner aligned with the Republican Party and the other with the Democratic Party the pair was coded 2. A count procedure was then used to decipher whether or not dissimilarity was present in one’s discussion network. If there was any difference within the discussion pair (e.g., the pair were scored with either a 1 or a 2), dissimilarity was counted in the network, coded as 1. Otherwise the pair was coded with 0 for absence of dissimilarity within one’s network ( $M=.19$ ,  $SD=.40$ ). The survey indicated that 19.4% of the respondents experienced dissimilarity of discussion.

#### *Mediating Variables*

*Perspective Taking:* Three items were utilized to create a scale of perspective taking ( $\alpha=.60$ ,  $M = 3.90$ ,  $SD = .65$ ). On a scale of 1 to 5, (1= strongly disagree and 5= strongly agree), respondents were asked to indicate their level of agreement with the following items: “I try to look at everyone’s side of an issue before I make a decision,” ( $M=4.03$ ,  $SD=.74$ ), “I sometimes try to understand my friends better by imagining how things look from their perspective,” ( $M=3.94$ ,  $SD= .79$ ), and “I am able to set my opinion aside to hear what others have to say about an issue” ( $M=3.80$ ,  $SD=.91$ ).

*Discussion Elaboration:* This variable represents the ability to make connections between various bits of information encountered in conversations about the news as well as between information encountered in conversations about the news and one’s personal experience and background knowledge. On a scale of 1 (not at all) to 10 (very much), respondents were asked to indicate their response to three items which were then

averaged to create a measure of discussion elaboration ( $\alpha = .76$ ,  $M = 5.70$ ,  $SD = 2.08$ ). These items included, “When I talk to someone about the news, I often relate what they say to my own experiences” ( $M=5.20$ ,  $SD=2.44$ ), “When I talk with others about something in the news, I usually think about that topic after the conversation is over” ( $M= 5.61$ ,  $SD=2.59$ ), and “When I talk with others about something in the news, it often makes me think more about my own opinions and beliefs” ( $M=6.30$ ,  $SD=2.54$ ).

### *Dependent Variables*

*Factual Political Knowledge:* In order to assess the specific bits of information known about politics, respondents were given a list names and were asked to match them to their respective roles. Roles included Chief Justice of the U.S. Supreme Court, U.S. Secretary of Defense, Vice President of the U.S., CIA agent at the center of a recent scandal, Governor of Florida, U.S. Secretary of State, person indicted for violation of campaign finance laws, Speaker of the U.S. House of Representatives, nominee for seat on U.S. Supreme Court, U.S. House Minority Leader, U.S. Senator and former Presidential candidate, Governor of California, and U.S. Representative who called for pullout of troops from Iraq. Factual knowledge was calculated as a percentage score (0-100) of correctly matched names and roles ( $\alpha=.93$ ,  $M=.49$ ;  $SD=.33$ ).

*Structural Political Knowledge:* Recently, Eveland and colleagues (e.g., Eveland, Cortese, Park, et al., 2004; Eveland, Marton, et al., 2004) have employed a measure of structural knowledge called knowledge structure density, or, KSD, where topics of information are listed in matrix form, allowing respondents to indicate the links they see between them. This measure not only allows the subjects to indicate the connections they

see between pieces of information, but also moves beyond use of the traditional political ideological scale to assess the way individuals are organizing their knowledge of politics.

In this study, subjects were asked to indicate the extent to which they thought a number of issues were related, with “1” meaning “not at all related” and “5” meaning “very closely related.” These issues included terrorism, fuel prices, the economy, natural disasters, unemployment, the environment, and national debt. If a connection was seen between the issues, regardless of strength, the item was coded as 1. Otherwise, if no connection is seen between the issues, it was coded as 0. The purpose of coding in this manner is to see, at the most basic level, whether or not individuals indicate that they are able to make connections. Theoretically, structural knowledge is about the connections an individual makes between pieces of information. For the purpose of this paper, the interest is in one’s ability to make connections, and not necessarily the strength to which they see connections. Items were averaged together to form a scale of structural knowledge ( $\alpha=.86$ ,  $M = .82$ ,  $SD= .19$ ).

Each of the variables used in this study can be seen in Table 9, Appendix B, broken down by school. Additionally, Figures 6 and 7, Appendix A, show the means and standard deviations of the dependent variables used in the study by the amount of students contributed to the Kids Voting sample from each school. Some schools, for example, only contributed between one and five students to the overall Kids Voting sample, while others contributed up to 33. These figures show that, regardless of number of students contributed to the Kids Voting sample, the means and standard deviations of the dependent variables in the study are fairly similar. Although not shown, this is true for the independent and mediating variables as well. Additionally, hierarchical linear

modeling was used to determine if schools were accounting for any of the variance in the study's main dependent variables. Schools did not account for a significant amount of variance in either the factual or structural political knowledge of students in the sample, ( $\tau_{00}=.004$ ,  $p = .49$ ,  $\tau_{00}=.006$ ,  $p = .69$ , respectively). The intraclass correlate on coefficient shows that only 3.2% of total factual knowledge variability occurred between schools, and only 1.2% of total structural knowledge variability occurred between schools.

### *Analysis Plan*

Given the lack of significant variance found at the school level, OLS hierarchical regression will be used in this analysis. Both factual and structural political knowledge will be regressed (separately) on demographic variables, media variables, discussion frequency, and discussion dissimilarity. Similar to study 2, the Baron and Kenny (1986) method will be used to examine the mediating relationships of perspective taking between discussion dissimilarity and structural knowledge. This method will be also used to examine the mediating relationship of discussion elaboration between discussion frequency and factual knowledge, as well as its mediating relationship between discussion dissimilarity and both factual and structural knowledge. Additionally, similar to study 2, the bootstrapping method suggested by Preacher and Hayes (2004) will be used to further examine each of these mediating relationships.

## CHAPTER 6

### RESULTS

#### Study 1

##### *Bivariate Results*

Appendix B, Table 10, presents the bivariate correlations of all variables used in the analysis for study 1. Here it can be seen that, although factual and structural knowledge are positively and significantly correlated with each other ( $r = .40$ ), they are not necessarily correlated with the same control and demographic variables. Looking at correlations between demographic variables and factual knowledge, it can be seen that gender (being male), education, income and age all positively and significantly correlate with factual knowledge. All media variables (national television news exposure, local television news exposure, and newspaper exposure) also positively and significantly correlate with factual knowledge as do discussion variables discussion frequency and dissimilarity, and the control variable of network size. In fact, the only variable in the table not correlated with factual knowledge is the control for survey mode (face to face versus telephone).

Interestingly, survey mode (telephone) does positively correlate with structural knowledge. Gender (being male), education and income also positively correlate with structural knowledge. Age, however, unlike its relationship to factual knowledge, is not related to this outcome. Looking at media variables, the table shows that national

television news exposure and newspaper exposure positively and significantly correlate with structural knowledge. Local television news exposure correlates significantly with structural knowledge as well, but negatively so. Finally, just as with factual knowledge, both discussion frequency and dissimilarity positively and significantly relate to structural knowledge as does the control variable network size. One can see, then, that the differences between control and independent variable relationships to dependent variables in this study are survey mode, relating to structural but not factual knowledge, age, relating to factual but not structural knowledge, and local television exposure, relating positively to factual but negatively to structural knowledge.

While correlational data at the zero-order level provide interesting starting observations and suggest initial support for hypotheses, they cannot provide a definite test. This is because such correlations do not take into account relationships among the variables after controlling for one another. In order account for this, the following section will present multivariate results.

### *Multivariate Results*

In this section, results for hypotheses 1 and 8 regarding factual knowledge will be presented, as will results for hypothesis 5 regarding structural knowledge. These results can be found in Appendix B, Tables 11 (regarding factual knowledge) and 12 (regarding structural knowledge). Figure 2 of Appendix A is a visual presentation of the study's main hypotheses.

*Factual knowledge.* First, one can see by looking at Table 11, model 1, that survey mode makes no difference in factual knowledge. Looking, then, at demographic variables as predictors of factual knowledge, it can be seen in model 2 that gender (male),

education, income, and age predict factual knowledge. As a block, demographics contribute significantly to the model, adjusted  $R^2 = .345$ ,  $\Delta R^2 = .347$ ,  $p < .01$ . Media variables as a whole also contribute significantly to predicting factual knowledge,  $\Delta R^2 = .038$ ,  $p < .001$  (see model 3). A closer look shows that, specifically, national television news exposure and newspaper exposure are the media variables related to factual knowledge above and beyond survey mode and demographic variables while local television news exposure is not a significant predictor of this outcome. This is likely due to the fact that national rather than local political items are used to measure factual knowledge. At the same time, the beta in for local television news exposure before entry of other media variables (not shown in the table) evidences a positive and significant relationship with factual knowledge ( $\beta = .087$ ,  $p < .001$ ). In other words, it appears that national news exposure and newspaper exposure reduce the predictive power of local television news exposure on factual knowledge when all three media variables are entered together. With this in mind, local news may predict national political knowledge facts, but is overshadowed in its predictive ability by venues that perhaps focus more on national news, such as the newspaper and exposure to national television news.

Regarding the specific hypotheses to be tested here, hypothesis 1 claimed that discussion frequency would positively and significantly predict factual knowledge, above and beyond all other control variables in the model. We can see from Table 11 model 4, that, indeed, factual knowledge is predicted by discussion frequency ( $\beta = .176$ ,  $p < .01$ ) above and beyond all other variables in the model (adjusted  $R^2 = .407$ ,  $\Delta R^2 = .026$ ,  $p < .01$ ).

This confirms previous research regarding political discussion and knowledge (e.g., Eveland, 2004; Eveland & Thomson, 2006; Robinson & Levy, 1986). Thus, hypothesis 1 is supported.

Hypothesis 8 suggested that factual knowledge would not only be predicted by discussion frequency, but also by discussion dissimilarity. The final model in Table 5 adds discussion dissimilarity as well as network size as a control. Indeed, controlling for all other variables in the model including the size of one's network, discussion dissimilarity positively and significantly predicts factual knowledge at  $\beta=.048$ ,  $p<.05$ . Hypothesis 8 is supported.

*Structural knowledge:* Table 12 shows relationships between control variables, independent variables, and structural knowledge. As with factual knowledge, the relationship between demographic and media variables to structural knowledge will be discussed, as will its relationship with discussion frequency. First, however, it is interesting to note that, with structural knowledge, mode of survey does make a difference. It appears that being interviewed over the phone significantly predicts structural knowledge. This confirms the bivariate results. Regarding demographic variables, unlike factual knowledge where all demographic variables were significant predictors, it can be seen here that only education and income are significantly related to structural knowledge (see model 2). Therefore, although demographics as a block prove to significantly contribute to the outcome (adjusted  $R^2=.105$ ,  $\Delta R^2=.102$ ,  $p<.01$ ), it appears that this contribution is a result of two variables in particular. As can be seen in model 3 of the table, media variables also contribute to predicting structural knowledge above and beyond demographic variables and survey mode (adjusted  $R^2=.121$ ,  $\Delta R^2=.018$ ,  $p<.001$ ).



However, coefficients reveal that national television news exposure positively predicts structural knowledge ( $\beta=.100$ ,  $p<.01$ ) while local television news exposure is a negative and significant predictor ( $\beta= -.131$ ,  $p<.01$ ) suggesting a decrease in structural knowledge with increased local television news use. Newspaper exposure is not related to structural knowledge. Discussion frequency (model 4) also predicts structural knowledge, above and beyond all other variables in the model ( $\beta= .092$ ,  $p<.01$ ).

Hypothesis 5 predicted that, above and beyond all additional variables in the model, discussion dissimilarity would positively predict structural knowledge. Model 5 in Table 12 shows that this hypothesis is not supported. While network size (added as a control for dissimilarity) significantly predicts this outcome ( $\beta=.070$ ,  $p<.05$ ), discussion dissimilarity is not a significant predictor ( $\beta=.037$ ,  $p>.05$ ). In fact, the addition of this block reduces the predictive power of discussion frequency on structural knowledge to that of marginal significance. However, examining betas before entry, frequency ( $\beta=.092$ ), dissimilarity ( $\beta=.071$ ), and network size ( $\beta=.107$ ) all appear to predict structural knowledge. Alone, then, each variable predicts structural knowledge. Yet when all are entered in the model only network size remains significant.

In all then, study 1 shows strong support for hypotheses 1 and 8, claiming that discussion frequency, as well as discussion dissimilarity, would positively and significantly predict factual knowledge. However, there is no support for hypothesis 5, stating that discussion dissimilarity, when controlling for network size, frequency of discussion, media and demographic variables, would predict structural knowledge.

## Study 2

### *Bivariate Results*

As with study 1, the bivariate correlations of all variables used in study 2 will first be discussed. These can be seen in Appendix B, Table 13. As expected, structural knowledge at Time I and Time II are significantly correlated ( $r = .74, p < .01$ ). Looking first at the relationship between demographic variables and structural knowledge at Time I, it can be seen that higher levels of education as well as being male are significantly associated with structural knowledge, although age is not related. Regarding media variables, it appears that national television news and newspaper exposure significantly relate to one's structural knowledge. Local television news exposure is not related to this outcome. Although discussion dissimilarity is the independent variable of interest in study 2, both network size and discussion frequency are used as control variables. It appears that all three of these variables: network size, discussion frequency, and discussion dissimilarity are positively and significantly associated with structural knowledge Time I. Interestingly, the bivariate relationship between perspective taking and structural knowledge at Time I shows that there is no association between these two variables. If the relationship was indeed significant, the negative sign of the coefficient suggests that it would be in the opposite direction than expected, meaning less perspective taking would be associated with greater structural knowledge. In fact, perspective taking is only significantly associated with one other variable used in this study: gender. As found in previous research (see Eveland & Thomson, 2006), females are associated with greater perspective taking.

Regarding structural knowledge at Time II, one can see that education is significantly associated with this outcome while gender is not. As for media variables, national television news exposure and newspaper exposure are significantly related to Time II structural knowledge. And, similar to structural knowledge at Time I, both discussion variables-frequency and dissimilarity, are significantly associated with structural knowledge at Time II although network size is not.

In addition to its relationship with structural knowledge at both Times I and II, discussion dissimilarity, although not associated with either age or education, is associated with gender. Males are also associated with greater discussion dissimilarity. Furthermore, of all three media variables – national television news exposure, local television news exposure, and newspaper exposure- only national television news exposure is positively and significantly associated with discussion dissimilarity. Finally, discussion dissimilarity is significantly related to both discussion frequency and network size.

As stated in study 1, while correlational data at the zero-order level provide interesting starting observations, they cannot provide a definite test without controlling for other possible predictors that may account for some of the variance between two variables. In order account for this, the following section will present multivariate results.

### *Multivariate Results*

Figure 3, Appendix A shows a visual presentation of the study's main hypotheses. The overall aim of study 2 is to examine relationships between discussion dissimilarity, perspective taking and structural knowledge. Structural knowledge at Time II is the main

dependent variable, with separate analysis completed examining structural knowledge at Time II controlling for structural knowledge at Time I. Examining Time II knowledge controlling for knowledge at Time I is known as a lagged dependent variable regression model (see Eveland & Thomson, 2006 for a similar analysis). This allows one to see the relative change in knowledge from Time I to Time II. When structural knowledge is referred to in this section, it represents Time II knowledge. Time I knowledge is specified as such or otherwise referred to as prior knowledge.

First, results of hypothesis 5, predicting structural knowledge from discussion dissimilarity, will be discussed. These results are shown in Table 14, Appendix B. Looking at model 1 composed of demographic variables, it can be seen that education (positively) and gender (being male) are both significantly associated with structural knowledge. Controlling for these demographic variables, model 2 shows that media variables significantly contribute to structural knowledge (adjusted  $R^2=.078$ ,  $\Delta R^2=.016$ ,  $p<.05$ ). Specifically, it appears that national television exposure ( $\beta=.116$ ) is a significant and positive predictor, while local television news and newspaper exposure are not significantly associated with this outcome. Discussion frequency, above and beyond all demographic and media variables (shown in model 3), significantly predicts structural knowledge ( $\beta=.177$ , adjusted  $R^2=.105$ ,  $\Delta R^2=.029$ ,  $p<.01$ ). Model 4, with discussion dissimilarity and the control of network size added to the model, shows results of hypothesis 5. As in study 1, discussion dissimilarity is not significantly associated with structural knowledge ( $\beta= -.012$ ). Thus, hypothesis 5 is not supported.

Results for structural knowledge controlling for Time I knowledge can be found in Appendix B, Table 15. This model shows a change in structural knowledge relative to

structural knowledge at Time I. Model 1, the baseline model, shows only the control of structural knowledge at Time I, which is a significant predictor of structural knowledge at Time II ( $\beta=.747$ ,  $p<.01$ ). Model 2 shows demographic variables predicting this outcome, of which none contribute to structural knowledge at Time II after controlling for Time I knowledge. Media variables are entered in model 3. Similar to model 2, media variables do not contribute to structural knowledge after controlling for prior knowledge. Moreover, model 4 shows that discussion frequency also does not significantly predict structural knowledge once controlling for Time I structural knowledge. And, discussion dissimilarity does not predict this outcome (see model 5) ( $\beta= .028$ ,  $p>.05$ ). Thus, hypothesis 5 is not supported for structural knowledge, with or without controlling for Time I knowledge.

Table 16 in Appendix B shows the test of hypothesis 6 which states that discussion dissimilarity will positively predict perspective taking. Looking first at the impact of demographic variables on perspective taking, it appears that both age and gender are significant predictors of this outcome when no other variables are yet entered in the model. Specifically, younger individuals and females are associated with greater perspective taking. As a block, demographics contribute significantly in predicting perspective taking (adjusted  $R^2=.011$ ,  $p<.05$ ). However, as one can see in model 2, media variables do not significantly contribute to predicting this outcome (adjusted  $R^2=.010$ ,  $\Delta R^2=.004$ ,  $p>.05$ ). The addition of discussion frequency in model 3 of Table 16 shows it to be a marginally significant predictor of perspective taking ( $\beta=.073$ , adjusted  $R^2=.013$ ,  $\Delta R^2=.005$ ,  $p<.10$ ). Finally, results for hypothesis 6 can be found in model 4 of this table. This model adds a fourth block to the regression including the main independent variable

discussion dissimilarity as well as network size as a control. It can be seen that hypothesis 6 is not supported. Dissimilar discussion does not predict perspective taking ( $\beta=.023$ ,  $p>.05$ ). The beta of dissimilarity without the inclusion of network size suggests that, even then, dissimilarity does not positively predict perspective taking.

Finally, Hypothesis 7 predicts that perspective taking will partially mediate the relationship between discussion dissimilarity and structural knowledge. According to Baron and Kenny (1986), mediation requires several things: the independent variable must significantly predict the proposed outcome variable (tested in hypothesis 5 but not supported), the independent variable must significantly predict the proposed mediator in the expected direction (tested in hypothesis 6 but not supported), and the mediator must significantly predict the outcome with the independent variable also in the model. In addition, the mediator must reduce or eliminate the predictive ability of the independent variable on the outcome when both are in a model together. According to Baron and Kenny, all relationships must be significant in order for a mediating effect to be present. Since the first two tests of this process are not supported (as seen in hypotheses 5 and 6), it can be said that hypothesis 7 is also not supported in this study. As can be seen in Table 14, model 5 and Table 15, model 6, perspective taking does not predict structural knowledge, with or without controlling for prior knowledge I ( $\beta= .047$ ,  $p>.05$ ;  $\beta= .001$ ,  $p>.05$ , respectively).

### *Bootstrapping*

The test for mediation outlined by Baron and Kenny (1986) uses a causal steps approach of testing for mediation. This approach has been criticized for lower than expected Type I error rates as well as increased Type II error rates, low power due to

significance requirements on several regression coefficients, and inference rather than a direct test of the indirect effect of X on Y (Preacher & Hayes, 2004). Preacher and Hayes instead argue for a more formal test of the indirect relationship posited in mediation. The Sobel test is a more direct test of mediation, where path *a* (the relationship between X and M) is multiplied by path *b* (the relationship between M and Y), and divided by the standard error of *ab* to obtain a critical ratio. The value of the critical ratio is then compared to the critical value at a given alpha level. Although the Sobel test is arguably a better test of mediation in that it is a more direct approach to testing this kind of hypothesis, one stated drawback to this approach is that it relies on a normal sampling distribution, which Preacher and Hayes argue is unlikely in many scenarios. Another drawback is that the Sobel test is said to be better used with large samples. Instead of the Sobel test or causal steps approach, then, Preacher and Hayes argue for a bootstrapping approach; a more powerful test of the hypothesis in that it is both a direct test of the indirect relationship (like the Sobel test) but does not rely on a normal distribution.

Therefore, while a test of the causal steps approach outlined by Baron and Kenny (1986) showed that perspective taking does not mediate the relationship between discussion dissimilarity and structural knowledge, a macro was run utilizing the bootstrapping technique to confirm the causal steps results of the mediation hypothesis. Using 10,000 bootstrap resamples, results show that the 95% confidence interval for the indirect effect of discussion dissimilarity on structural knowledge with perspective taking as a mediator, and controlling for age, education, gender, national and local television news exposure, newspaper exposure, discussion frequency and network size is (-.0075, .0020). Since 0 is found in the confidence interval, the bootstrapping macro confirms the

results of the causal steps approach that perspective taking is not a mediator between discussion dissimilarity and structural knowledge. Similarly, the 95% confidence interval for the indirect effect of discussion dissimilarity on structural knowledge with perspective taking as a mediator, and controlling for Time I knowledge, age, education, gender, national and local television news exposure, newspaper exposure, discussion frequency and network size is (-.0055, .0022). Again, since 0 was found in the confidence interval, the bootstrapping macro confirms that perspective taking is not a mediator between discussion dissimilarity and structural knowledge at Time II, with or without controlling for prior structural knowledge.

### Study 3

#### *Bivariate Results*

Once again, bivariate results will be discussed prior to multivariate results as a starting point to observations of relationships between all variables used in study 3. These relationships can be found in Appendix B, Table 17. First, it is interesting to note that, unlike the positive and significant correlation found between factual and structural knowledge in study 1, this same relationship does not hold here. Instead, there appears to be no relationship between factual and structural knowledge in these data. Looking first, then, at factual knowledge and its relationship to other variables in study 3, it can be seen that none of the demographic variables – age, year in school, and gender – are associated with this type of knowledge. This is quite different from study 1, where all demographic variables were positively and significantly related to factual knowledge. It also appears that newspaper exposure, but not national or local television news exposure, is positively and significantly related to factual knowledge. However, the control variable of network



size, as well as discussion frequency, discussion dissimilarity, and discussion elaboration are all positively and significantly related to factual knowledge. Perspective taking is not associated with factual knowledge.

Looking next at structural knowledge, it appears that no variables used in study 3 are related to this outcome. This is a different result from variable relationships to structural knowledge in both studies 1 and 2.

Discussion frequency, in addition to its significant relationship with factual knowledge, is positively related to perspective taking, discussion elaboration and all three forms of media exposure used in this study. It shows no relationship to either network size or dissimilarity of discussion.

Discussion dissimilarity, in addition to its significant relationship with factual knowledge, is related to gender (being male). It is also positively and significantly related to newspaper exposure, but negatively associated with local television news exposure suggesting that greater exposure to local television news exposure is associated with less dissimilarity of discussion. There are no other significant associations between dissimilarity and the other variables used in this study.

Discussion elaboration is not only related to factual knowledge, but is also positively and significantly related to discussion frequency, perspective taking, all three forms of media exposure, and one's year in school, but not with dissimilarity or network size. Perspective taking, on the other hand is only related to discussion frequency and discussion elaboration.

In order to account for other possible predictors that may account for some of the variance between two variables, which correlational data at the zero-order level does not capture, the following section will present multivariate results.

### *Multivariate Results*

Figure 5 of Appendix A is a visual presentation of the study's main hypotheses. Results regarding factual knowledge will be followed by those of structural knowledge.

*Factual knowledge.* There are several hypotheses examined in study 3 that have the outcome of factual knowledge and the independent variable discussion frequency. Table 18, in Appendix B, shows the results of hypothesis 1 which claims that discussion frequency will positively predict factual knowledge above and beyond all other variables in the model. Looking first at demographic variables, added in model 1, it can be seen that both gender (being male) and being younger in age have a marginal impact on factual political knowledge. Model two in this table shows that media exposure, above and beyond demographic variables, does not significantly contribute to predicting factual knowledge ( $\Delta R^2=.027, p>.05$ ). However, looking at the coefficients of each media variable, it appears that exposure to newspapers does play a role in factual knowledge, at least marginally ( $\beta=.123, p<.10$ ). Model 3 shows the test of hypothesis 1, with discussion frequency added above and beyond all variables in the model. Indeed, frequency does predict factual knowledge ( $\beta=.189, p<.05$ ). Thus, hypothesis 1 is supported.

Table 19, in Appendix B, shows the results of hypothesis 2 which states that discussion frequency will positively predict discussion elaboration. Examining the impact of age, year in school, and gender on discussion elaboration (model 1), it appears that year in school is a marginally significant predictor of this outcome ( $\beta=.296, p<.10$ ).

Furthermore, model 2 shows the results of media variables added. It appears that only newspaper exposure is related to elaboration above and beyond demographic variables, and marginally at that ( $\beta=.133$ ,  $p<.10$ ). Betas before entry, however, show all media variables related to discussion elaboration when not controlling for each other. Indeed, the results of adding the block of media variables show that this group of variables significantly contributes to discussion elaboration (adjusted  $R^2=.070$ ,  $\Delta R^2=.064$ ,  $p<.01$ ). Yet when entered together, only newspaper exposure (marginally) predicts the outcome. Looking at the test of hypothesis 2 specifically, one can see from model 3 that discussion frequency does positively predict discussion elaboration above and beyond all other predictors in the model ( $\beta=.414$ ,  $p<.01$ ). Thus, there is strong support here for hypothesis 2.

Hypothesis 3 suggests a partial mediating relationship of discussion elaboration between discussion frequency and factual knowledge. Again, with hypothesis 1 and 2 both finding support, one must see whether the coefficient for frequency is reduced when discussion elaboration is entered in the model. Model 4 in Table 18 shows factual knowledge regressed on discussion elaboration and discussion frequency. Indeed, above and beyond all variables in the model including frequency of discussion, discussion elaboration strongly predicts factual political knowledge ( $\beta=.255$ ,  $p<.01$ ), while at the same time reducing the impact of discussion frequency on this outcome to nonsignificance ( $\beta=.083$ ,  $p>.05$ ). Thus, results here show that the relationship between discussion frequency and factual political knowledge is fully, rather than partially mediated through discussion elaboration. Hypothesis 3 is supported in the sense that there is a mediating relationship present, but the mediation is full rather than partial.

For a more direct and formal test of this mediating relationship, a bootstrapping macro was utilized. Bootstrapping results, using 10,000 bootstrap resamples, show that the 95% confidence interval for the indirect effect of discussion frequency on factual knowledge with discussion elaboration as a mediator, and controlling for age, year in school, gender, national and local television news exposure, and newspaper exposure is (.0058, .0296). Since 0 was not found in the confidence interval, the bootstrapping macro confirms the results of the causal steps approach that discussion elaboration does in fact mediate the relationship between discussion frequency and factual knowledge.

Hypotheses 8, 9 and 10 examine relationships between discussion dissimilarity (rather than frequency), discussion elaboration, and factual knowledge. Hypothesis 8 suggests that dissimilarity of discussion will positively impact factual knowledge. Results of this hypothesis can be found in Table 20, Appendix B. Replicating models 1, 2, and 3 in Table 18, the first three models in Table 20 shows the results of demographics, media and discussion frequency predicting factual knowledge. Model 4 of Table 20 is the test of hypothesis 8, adding discussion dissimilarity (along with network size as a control) to the regression in order to examine the relationship between dissimilarity of discussion and factual knowledge. Above and beyond each of these predictors, discussion dissimilarity positively predicts one's factual knowledge ( $\beta=.196$ ,  $p<.01$ ). Thus, hypothesis 8 is supported.

The results of hypothesis 9, stating that discussion dissimilarity will positively predict discussion elaboration, can be found in Table 21, Appendix B. Models 1, 2, and 3 in this table replicate the models found in Table 19, showing discussion elaboration predicted from demographics, media use, and discussion frequency. However, Table 21

includes a fourth model adding discussion dissimilarity, as well as network size as a control variable in predicting elaboration. This model, testing hypothesis 9, shows that discussion dissimilarity is not a significant predictor of discussion elaboration. Hypothesis 9 is not supported. However, looking at betas before entry of other variables, dissimilarity does marginally predict elaboration without controlling for network size and frequency.

Hypothesis 10 claims that discussion elaboration will partially mediate the relationship between discussion dissimilarity and factual knowledge. Although hypothesis 8 is supported, there was no support found for hypothesis 9. According to the causal steps approach to mediation (Baron & Kenny, 1986), this would suggest that mediation is not present. Model 5 in Table 20 shows factual knowledge regressed on both discussion dissimilarity and elaboration, controlling for demographic variables, media variables, discussion frequency, and network size. Although dissimilarity and elaboration, when both entered into a model predicting factual knowledge, are significant predictors of this outcome ( $\beta=.183$ ,  $p<.05$  and  $\beta=.233$ ,  $p<.01$ , respectively), this does not suggest mediation according to Baron and Kenny. Rather, one can only conclude that discussion dissimilarity and discussion elaboration are both predictors of factual political knowledge.

As a more direct test, bootstrapping results, using 10,000 bootstrap resamples, show that the 95% confidence interval for the indirect effect of discussion dissimilarity on factual knowledge with discussion elaboration as a mediator, and controlling for age, year in school, gender, national and local television news exposure, newspaper exposure, network size and discussion frequency is (-.0142, .0452). Since 0 is found in the

confidence interval, the bootstrapping macro confirms the results of the causal steps approach that discussion elaboration does not mediate the relationship between discussion dissimilarity and factual knowledge.

*Structural knowledge.* The next set of hypotheses explores relationships among discussion dissimilarity, discussion elaboration, and structural rather than factual knowledge. Table 22, Appendix B, shows the result of hypothesis 5, claiming a positive relationship between discussion dissimilarity and structural knowledge. Model one shows that no demographic variables are predictive of structural knowledge, and model two shows the same result for media use above and beyond demographic variables. Additionally, discussion frequency (added in model 3) does not predict structural knowledge. Finally, the test of hypothesis 5 can be found in model four. In this model, discussion dissimilarity along with network size was added as a control. Model four shows no evidence of a significant relationship between discussion dissimilarity and structural knowledge ( $\beta=.055$ ,  $p>.05$ ) suggesting that hypothesis 5 is not supported. Similar to results of studies 1 and 2, there is no relationship found between discussion dissimilarity and structural knowledge.

Hypothesis 9 suggests that discussion dissimilarity will positively predict discussion elaboration. This hypothesis was already tested (see Table 21) when examining relationships between dissimilarity, elaboration, and factual knowledge. No support was found for hypothesis 9. Without the support of these two hypotheses, it is not possible, according to Baron and Kenny (1986) for hypothesis 11, which claims that discussion elaboration will partially mediate the relationship between discussion dissimilarity and structural knowledge, to be supported. Model 5 in Table 22 shows

discussion elaboration added to a model predicting structural knowledge with discussion dissimilarity also in the model. It can be seen here that elaboration does not predict structural knowledge ( $\beta = -.120, p > .05$ ). None of the hypotheses, then, examining relationships between dissimilarity, elaboration, and structural knowledge are supported.

A second set of relationships explored for structural political knowledge is with discussion dissimilarity and perspective taking. The relationship between dissimilarity of discussion and structural knowledge (hypothesis 5), again found in model 4 of Table 22, shows no evidence that dissimilarity has a direct and positive relationship on structural knowledge.

According to hypothesis 6, discussion dissimilarity will positively predict perspective taking. The test of this hypothesis can be found in Table 23 (Appendix B). Model 1 shows that, with demographics only in the model, being female is a significant and positive predictor of perspective taking. This confirms what was found in the bivariate results. Media variables are added in model 2. As a block, it can be seen that they do not significantly contribute to predicting perspective taking (adjusted  $R^2 = .003, \Delta R^2 = .010, p > .05$ ); neither do any one of the variables individually. In model 3, we can see that discussion frequency, above and beyond demographic and media variables, positively and significantly relates to this outcome ( $\beta = .175, p < .05$ ). However, discussion dissimilarity, added in model 4, does not predict perspective taking ( $\beta = -.108, p > .05$ ). Thus, hypothesis 6 is not supported.

Similar to the ability of discussion elaboration to mediate between dissimilar discussion and structural knowledge, it is also true here that without the support of hypotheses 5 and 6, it is not possible according to Baron and Kenny (1986) for

hypothesis 7, stating that perspective taking will partially mediate the relationship between discussion dissimilarity and structural knowledge, to be supported. Model 5 in Table 24 shows perspective taking added to a model predicting structural knowledge with discussion dissimilarity also in the model. One can see that there is no relationship between perspective taking and structural knowledge ( $\beta=.078$ ,  $p>.05$ ). Hypothesis 7 is not supported.

Again, for a more formal test of indirect effects, bootstrapping results, using 10,000 bootstrap resamples, were used to examine the 95% confidence interval for the indirect effect of discussion dissimilarity on structural knowledge with both discussion elaboration and perspective taking entered as mediators, and controlling for age, year in school, gender, national and local television news exposure, newspaper exposure, network size and discussion dissimilarity. Results show that 0 was found in the confidence interval when examining both the mediating effect of discussion elaboration (-.0206, .0042) and when examining the mediating effect of perspective taking (-.0256, .0016). Since 0 was found in the confidence intervals, the bootstrapping macro confirms the results of the causal steps approach that neither discussion elaboration nor perspective taking are mediators between discussion dissimilarity and structural knowledge.

Finally, while the previous sets of hypotheses predict structural knowledge from discussion dissimilarity, hypothesis 4 predicts that discussion elaboration will fully mediate the relationship between discussion frequency and structural knowledge. As can be seen in Table 25, model 3, discussion frequency has no direct impact on structural knowledge ( $\beta= -.024$ ,  $p>.05$ ). Adding discussion elaboration in model 4 shows no evidence that elaboration mediates the relationship between frequency and structural



knowledge as discussion elaboration does not significantly predict structural knowledge. Therefore, although discussion frequency significantly predicts discussion elaboration, (see Table 19), elaboration does not mediate between discussion frequency and structural knowledge. Hypothesis 4 is not supported.

Bootstrapping results, using 10,000 bootstrap resamples, were used to examine the 95% confidence interval for the indirect effect of discussion frequency on structural knowledge with discussion elaboration entered as a mediator, controlling for age, year in school, gender, national and local television news exposure, and newspaper exposure. Results show that 0 was found in the confidence interval when examining the mediating effect of discussion elaboration (-.0104, .0022). Since 0 was found in the confidence interval, the bootstrapping macro confirms the results of the causal steps approach that discussion elaboration is not a mediator between discussion frequency and structural knowledge.

## CHAPTER 7

### DISCUSSION

The purpose of this study was to examine the process leading from political discussion to political knowledge. In order to do this, it was important first to conceptualize what was meant by each of the terms ‘political discussion’ and ‘political knowledge,’ as one must first have a clear idea of how each term and its dimensions should be defined and measured. Here, political discussion was defined as informal, unstructured interactions on a wide range of political or public affairs issues with no formalized goal in mind to come to a consensus or reach a decision. Important underlying dimensions of political discussion, which were necessary for understanding the process leading from political discussion to political knowledge, were labeled discussion frequency (i.e., how often individuals engage in political discussions), discussion content (i.e., the nature of the information present within discussions), and discussion cognition (i.e., one’s mental engagement in political discussions). Political knowledge was defined as an individual’s store of bits of information in memory as well as the structure brought to that information. The first part of the definition, regarding the store of bits of information in memory, was conceptualized as the factual knowledge dimension of this larger concept. The second part of the definition, regarding the structure or organization brought to these bits of information, was considered the structural knowledge dimension.

By conceptualizing political discussion and political knowledge in this manner, the main purpose of the study (e.g., examining the process leading from political discussion to political knowledge) can be more clearly examined. Prior research has shown political discussion to positively predict political knowledge, but it is hard to understand the underlying process by which this occurs with varying terms and definitions used across the literature. This study not only clarifies each term, but also sets forth a model, theorizing why and how dimensions of political knowledge should positively impact political knowledge.

Theoretically, this study addresses two issues of importance. First is the notion of political knowledge. As discussed in the introduction, scholars (e.g., Delli Carpini & Keeter, 1996) have found average levels of citizen political information to be relatively low. Yet this stated 'low' level of political knowledge seems, at least for Delli Carpini and Keeter, to relate to a factual form of knowledge. Some may argue that the discovery of such low levels of political knowledge is not necessarily a problem. Perhaps, for example, individuals do not need to know all of the facts about politics. Lupia (1994) found that individuals who might be considered poorly informed on an issue make decisions based on cues from 'elite' (e.g., interest group) endorsements when voting. Graber (1988) argues that measures of political knowledge do not capture what individuals know about politics but rather what they don't know, causing them to seem less politically informed than they truly are. And, Kuklinski et al. (1998) contend that individuals will take note of only the facts they deem relevant to a situation. If this contention is true, then, as asked by Druckman (2005), does political information matter? Moreover, what kind of political information matters?

Argued here is that, working together to create political knowledge is both a factual and structural dimension, and that each dimension of knowledge is important from a normative viewpoint. This importance is due to the fact that knowing political facts about issues and candidates, and having the ability to organize or structure them in some cohesive manner allows one to make quality political decisions. Quality here is defined as citizens making decisions based on what they know and how it fits into their larger scheme of politics; they are able to accept responsibility for the consequences of their views and policy choices (see Yankelovich, 1991). Quality opinion, then, arguably requires both factual and structural political knowledge.

From the normative viewpoint that both facts and the structure individuals give to those facts are important to making quality decisions, it is also important to consider what facilitates political knowledge. Here, specifically, the question is how the communicative behavior of interpersonal political discussions facilitates political knowledge. While research has shown such discussions to be positively associated with political knowledge (Bennett et al., 2000; Kenamer, 1990; Robinson & Levy, 1986), it is often examined in relation to political facts only, not structure. It is important, then, to examine how communication in the form of interpersonal discussions about politics, and the various dimensions of these discussions, can positively impact both structural and factual knowledge.

In a very practical sense, understanding the process of how individuals come to have political information should be seen of utmost importance to those involved in political campaigns. Indeed, as discovered by Walsh (2004), information exchange and casual discussions about politics do occur on an everyday basis. How often these

discussions occur, the various or lack of various views present in such conversations, and what one is cognitively doing in such conversations all have the potential to influence the political information gained as a result of the conversations. Given the importance and the everyday, casual occurrence of such interactions, political campaign strategists should understand and take advantage of the process by which individuals come to gain political information through them and would benefit by taking time to understand the process through which knowledge is gained from discussion. A theoretical understanding of this process will enable more effective and strategic campaigning for one's particular candidate.

In addition, teachers should take note of the process through which political discussions impact knowledge, both factual and structural. Researchers examining civic competence (e.g., Sherrod et al., 2002) are especially interested in processes impacting youth citizenship, which includes how they come to acquire (i.e., the processes that impact) political knowledge. Perhaps stimulating political discussions within the classroom will lead to a continuation of such communicative behaviors once the students are adults. Moreover, as found by McDevitt (2006), conversations begun with students in the classroom have the ability to 'trickle up' into the family, potentially impacting the political knowledge of adults who have the ability to participate fully in the political system.

Following, the results of the three studies used to examine the process leading from political discussion to political knowledge will be reviewed. After this, a number of

considerations for future research will be provided, along with study limitations and, finally, general overall conclusions about how the findings here relate to the overall understanding of political discussion and political knowledge.

### Overview of Results

Table 26, Appendix B shows results of hypotheses across all three studies. The first study of the three studies examining dimensions of political discussion and knowledge looked at the impact of the frequency of one's political discussions on his or her factual and structural knowledge, as well as the impact of dissimilar political discussions on structural knowledge. Results showed that factual knowledge was, indeed, predicted by one's discussion frequency as well as one's dissimilarity of discussions. A higher frequency of talking politics, as well as talking to those whose views were (politically) different from one's own was associated with higher levels of factual political knowledge. However, dissimilarity of discussion, or engaging in discussions with those whose political viewpoints were different from one's own did not play a role in the way one structured or organized his or her bits of political information.

Replicating part of study 1, study 2 examined the relationship between discussion dissimilarity and structural knowledge. In addition, the purpose of the second study was to examine the process through which talking to those whose political views are dissimilar to one's own might impact the structuring of political knowledge. Here, the mediator examined was the cognitive process of perspective taking. Unfortunately, the relationships examined in this study did not turn out as hypothesized. Dissimilar discussion showed no relationship to either structural knowledge or to the cognitive process of perspective taking. Furthermore, perspective taking was not associated with

structural knowledge. As in the first study, then, dissimilarity of discussion played no role in one's structural knowledge, nor did it work in an indirect manner on structural knowledge through perspective taking.

The final study examined all relationships posited between dimensions of political discussion and political knowledge (see Appendix A, Figure 5). Regarding factual knowledge, results showed that both discussion frequency and dissimilarity predicted this outcome. This result replicates the results found in the first study. However, results of study 3 also examined discussion elaboration as a mediating process through which discussion frequency and dissimilarity predicted factual knowledge. Indeed, discussion elaboration fully mediated the relationship between frequency and factual knowledge. However, it did not mediate the relationship between discussion dissimilarity and factual knowledge, as dissimilarity was not associated with discussion elaboration. As for structural knowledge, neither the frequency of one's political discussions nor the presence of dissimilarity predicted this outcome. Moreover, neither perspective taking nor elaboration mediated this process.

Across all three studies, then, both the frequency and dissimilarity of one's discussion predicted factual political knowledge. Moreover, study three found the relationship between frequency and factual knowledge to be mediated through discussion elaboration. For structural knowledge, results across all three studies show no relationship between dissimilarity and this outcome. When perspective taking was examined as a mediator between discussion dissimilarity and structural knowledge, as in studies 2 and 3, no support for this hypothesis was found. Finally, study 3 showed no

evidence that discussion elaboration played a mediating role between either discussion frequency or dissimilarity of discussion and structural knowledge. Given these results, a number of considerations for future research can be made.

### Considerations for Future Research

#### *Discussion frequency*

In studies 1 and 3, where discussion frequency was used as a predictor variable, results were significant in the hypothesized direction. However, one thing to consider is the wording of the frequency item in study 3. Here, respondents were asked to circle the number of days in the past week in which they had talked to someone about the news. One might contend that this measure of political discussion frequency is not actually political in nature, and is instead capturing topics that might be outside of the political realm. In other words, one might question whether or not, phrased in this manner, it is actually capturing ‘political’ discussion frequency or whether it is capturing the frequency of some other kind of discussions. Although political discussions in this study have been defined as informal interactions on a wide range of political or public affairs issues, and discussions about the news (which incorporates a wide range of political issues) inherently fit this definition, it is possible that someone responding to this question might have talked to others about the weather or celebrity gossip found on the news, which many might argue is not political in nature.

Looking at previous research measuring discussion frequency, a similar ‘news’ measure was used by Robinson and Levy (1986) as they asked respondents how many conversations they had about the news in the previous week. Indeed, Robinson and Levy found that number of conversations about the news predicted political knowledge. This



result suggests, on the surface at least, that asking respondents about their news discussions is, indeed, capturing political information. Similarly, in study 3 a positive and significant relationship was found between discussion frequency and political knowledge when measured in this manner. It seems, then, that those responding to this item were in fact discussing political information in the news rather than topics such as celebrity gossip or the weather. Perhaps when individuals are asked to report talking about ‘the news,’ they dismiss such topics as gossip and weather from this category.

A ripe area, then, for future research would be to experimentally manipulate different ways of asking about discussion frequency, to see if wording an item one way or another makes a difference in predicting outcome variables such as political knowledge. Here, whether asked about ‘political’ discussions (study 1) or discussion about the news (study 3), each showed a positive and significant relationship with factual knowledge. Until evidence shows that wording makes no difference, it may be most useful for scholars to clarify their discussion frequency items by specifying ‘political’ or ‘public affairs’ as the nature of the discussions they are interested in. Or, as did Robinson and Levy (1986), if using an item asking about ‘news’ rather than political or public affairs discussions specifically, it would be helpful to code for the types of things a respondent mentions discussing. This way, scholars could account for what, specifically, people intend when saying they talk about ‘the news.’

#### *Discussion dissimilarity*

There are several issues at hand with the measurement of discussion dissimilarity that are important to consider for future research. First are variations in the approach or

technique used to tap dissimilarity of discussion across the three studies. Second are potential variations in the creation of dissimilarity measures within each study. Third are additional items that may be used to tap discussion dissimilarity.

First, regarding differences across studies in approaches used to gather dissimilarity information, studies 1 and 3 are similar to each other in terms of measuring dissimilarity in the sense that both use a name generator approach. With a name generator approach, individuals are asked to name up to a certain number of individuals with whom they discuss politics. Typically, a series of questions about each mentioned discussant follows, including questions regarding the political views they perceive each discussant to have. With a name generator approach, individuals are limited to thinking about a few individuals that may come to mind when discussing politics. Utilizing this technique, 21.8% of respondents in study 1 were found to experience dissimilar discussion. Similarly, 19.4% of individuals in study 3 were found to have dissimilar discussion.

In study 2, a name generator approach was not used. Instead, respondents were asked to report how many days in the last week they talked to one or more Republicans about politics as well as how many days in the last week they talked to one or more Democrats about politics. This approach is different from a name generator approach in that it allows respondents to consider a wider range of individuals with whom they may discuss politics, as they are not forced to mention just a few. Interestingly, when measured this way, a much higher percentage of individuals (e.g., 49.7%) appear to experience dissimilar discussion.

Utilizing the name generator approach, Huckfeldt et al. (2004) concluded that roughly one-third of respondents take part in dissimilar discussions with at least one

individual, which is slightly more dissimilarity than was found here in studies 1 and 3. In fact, Huckfeldt and colleagues (Huckfeldt et al., 2002, 2004) have concluded that the probability of agreement among discussion dyads is .7, with the probability of agreement exponentially decreasing depending on the number of people in one's network, such that a three person network would have a .34 probability of disagreement. Mutz (2006), however, detailing some problems with Huckfeldt et al.'s assumptions regarding the actual practice of discussion and disagreement, claims that the actual number of U.S. population exposed to at least one person who has political views in opposition to their own is under one-fourth.

Although the percentages of individuals exposed to at least one person who has political views in opposition to their own in studies 1 and 3 here are closer to Mutz' (2006) rather than Huckfeldt et al.'s (2004) conclusion, it is still quite different from the 49.7% of respondents in study 2 found to experience dissimilar discussion. Again, the main difference here is that the name generator approach forces individuals to think about the political discussions they have with a small set of individuals, while the approach utilized in study 2 allows individuals to think more broadly in terms of their everyday interactions. Future research should consider the approach that may be most beneficial to answer the particular research question at hand. A name generator approach, for example, will possibly bring to mind the few political discussants with which a respondent has the most frequent political interactions. In other words, the frequency of political discussions occurring between a respondent and discussants listed with the name generator approach is possibly greater than the frequency of discussion occurring between a respondent and those listed with the approach used in study 2. At the same time, the dissimilarity

measure used in study 2 potentially captures a truer measure of the overall level of dissimilar discussion to which one is typically exposed. One might not talk as frequently to these individuals, but exposure to disagreement nonetheless occurs. It would be interesting in the future to measure dissimilarity both ways utilizing the same data. This way, a comparison could be made to determine whether frequency discussions with a few individuals whose political views are different from self act differently from a broader measure of dissimilarity. Theoretically, these measures should act in a similar manner. However, it would be useful to test this comparison empirically.

In addition to the particular technique utilized to measure dissimilarity of discussion, one must also consider variations in measuring this variable once the technique has been decided. In study 1, for example, respondents were asked whether they thought each mentioned discussion partner voted for Bush, Gore, or Some Other candidate. If the discussion partner was perceived by the respondent to have voted for the same candidate, they were coded 0. If either voted for 'some other,' they were coded with 1, and if one voted for Gore and one for Bush the pair was coded as 2. For purposes of the study, if the pair was coded either a 1 or a 2, they were then recoded to a 1 to represent dissimilarity. A count procedure was then completed to see if any dissimilarity was present in one's network. If at least one discussant was dissimilar from self, one was said to have experienced dissimilar discussion.

It may be, however, that dissimilarity should not be coded dichotomously, accounting merely for presence or absence of disagreement. Perhaps what should be accounted for is the total number of dissimilar others with whom one talks. Considering this as a potential, further analysis was done accounting for the number of others in one's

network dissimilar to self. It was found that, out of four named discussants in study 1, 14.3% of respondents were dissimilar to one discussant, 5.5% were dissimilar to two discussants, 1.8% of respondents were dissimilar to three discussants, and .2% of respondents were dissimilar to all four of their discussants. Running regressions similar to those done in study 1, but substituting this new measure of dissimilarity for the original, it was found that dissimilarity measured as the total number of dissimilar others with which one talks predicted neither form of knowledge whereas the original measure in study 1 positively predicted factual knowledge. Accounting for total number of dissimilar others in one's network in study 3, rather than presence or absence of dissimilarity, supplementary analysis shows that 15.4% of the respondents have at least one respondent politically different from self and 4% with all discussants politically different from self. While dissimilarity measured in this fashion positively and significantly predicts factual knowledge it does not predict structural knowledge.

In study 2, respondents were asked how many days in the last week they talked to Republicans about Ohio politics and, similarly, how many days in the last week they talked to Democrats about Ohio politics. As with studies 1 and 3, the presence of any dissimilar discussion was coded as 1, indicating the presence of dissimilarity. Otherwise, respondents were coded '0' representing similar discussion. Along the same logic as above, some may argue that it is better to measure dissimilarity according to the number of days individuals had such discussions, rather than simply if they did or did not. To test this option, dissimilarity was computed along these lines. It was found that 76.3% of respondents discussed politics with those of dissimilar political beliefs at least one day a

week. Additionally, 10.1% discussed with dissimilar others at least two days a week, 4.7% discussed three days a week, 3.1 discussed four days a week, 2% discussed five days a week, .5 discussed six days a week, and 3.3% discussed with dissimilar others seven days a week. However, measuring dissimilarity of discussion in this manner predicts neither structural knowledge nor perspective taking.

Theoretically, it is the presence of disagreement that should make a positive impact on knowledge. As seen above, there are no significant differences in predicting these outcomes when accounting for the total number of dissimilar discussion partners or total number of days having dissimilar discussion. At best, it appears that dissimilarity measured as such produces similar results to the way dissimilarity was measured in studies 1, 2, and 3; at worst, it predicts less than the original measurement of dissimilarity.

Others might argue that talking to someone who voted for “some other” candidate is not the same as talking to someone who is dissimilar from self in political views. Mutz (2006), in fact, argues that dissimilar discussion must occur between those with ‘oppositional’ viewpoints, where a respondent and discussant vote for members of the opposite major Political Party (i.e., Democratic vs. Republican candidate). The case made here, however, is that if, in fact, a respondent and a discussant are not voting for the same candidate (whether ‘some other’ candidate or the ‘oppositional’ candidate), there is political disagreement or opposition on some level. It may be, for example, that disagreement is occurring about a candidate’s issue stance, about a candidate’s values, etc. In other words, something is causing the two individuals to vote for different

candidates. Theoretically, then, the same impact on knowledge should result from discussions occurring with someone voting for ‘some other’ candidate or with one who is voting for the opposite party’s candidate from self.

Finally, as noted in chapter 2, Eveland and Hively (2006) distinguish between dangerous discussion (similar to how discussion dissimilarity is conceptualized in this study) and diverse discussion, where diverse discussion is considered to be the ratio of agreement to disagreement among one’s political discussion partners rather than differences between self and one’s political discussants. Eveland and Hively use a measure called Simpson’s D to measure diverse discussion, and do so with similar political discussion items as those used in study 2. In order to see if, in fact, differences are found when one has diverse rather than dissimilar discussion on political knowledge, supplementary analysis was employed for study 2. It was found that diverse discussion did not predict structural knowledge. This result is similar to what was found in study 2 when using dissimilar discussion, but different than Eveland and Hively’s results as they found that diverse discussion did, in fact, predict structural knowledge (marginally, at least). Yet it is important to keep in mind that the measure of structural knowledge used in study 2 was different from that used by Eveland and Hively. Exact replication between the studies is not possible, as study 2 does not contain the matrix measure of structural knowledge (i.e., knowledge structure density). Future research should continue to seek to replicate whether dissimilar as well as diverse discussion predict structural knowledge, using a measure of knowledge structure density.

Interestingly, although diverse discussion made no unique impact on structural knowledge in study 2, it appears that diverse, unlike dissimilar discussion, does predict perspective taking. Perhaps, then, it is not encountering views dissimilar to self that facilitates the structuring of one's knowledge, but rather the amount of equal considerations one comes across and must take into consideration during one's political discussions.

Eveland and Hively (2006) are not the first to utilize the idea of diverse discussion when examining political discussion. As discussed in chapter 2, others have measured diversity using name generator data. Nir (2005) called diversity as defined by Eveland and Hively 'network ambivalence,' measuring the balance of different viewpoints within one's discussion network. Huckfeldt et al. (2004) computed diversity (i.e., disagreement among discussants) by measuring the number of Gore discussants in one's network by the number of Bush discussants in one's network. Utilizing Huckfeldt et al.'s measure of diversity for supplementary analysis purposes in study 1, diverse discussion, as dissimilarity, did not predict structural knowledge. Again, structural knowledge in study 1 was similar to the measure used in study 2, showing that, as with dissimilar discussion, diverse discussion did not predict structural knowledge. Similar to the supplementary analysis results from study 2, this finding was different from what was found by Eveland and Hively when regressing structural knowledge on diverse discussion. However, in study 3, diversity does appear to be a marginally significant predictor of structural knowledge ( $\beta=.093$ ,  $p<.10$ ). The measure of structural knowledge used in study 3 was closer to the one used by Eveland and Hively, and here, similar results were found when examining these two variables.



Interestingly, contrary to the significant relationship found between dissimilar discussion and factual knowledge found in study 3, no relationship was found when analyzing diverse discussion and factual knowledge. Furthermore, unlike the relationship found in supplementary analysis of study 2 between diverse discussion and perspective taking, no relationship was found in study 3 between these two variables.

Due to the fact that varying measures of structural knowledge are used across the three studies, as well as differences in measuring dissimilar discussion (i.e., name generator approach or otherwise), it is hard to get a clear understanding of differences between diverse and dissimilar discussion on political knowledge or the mediators proposed here. However, future research should examine the impact of both diverse and dissimilar discussion as they are conceptually distinct from each other. It seems important, for example, to see what kind of impact is had when measuring difference in political views between self and others, as well as that had when taking into account the mix of disagreement occurring among those with which one discusses politics.

Finally, one must consider additional items besides political party preference or candidate vote choice that may be useful, empirically or theoretically, in determining dissimilarity of discussion. Two additional items in study 2 could have been used to determine a respondent's dissimilarity of discussion. These items are similar to two used by Mutz (2002a, 2002b) within a five item scale used to measure dissimilarity. The first of these two items asks respondents if, overall, they feel those with whom they discuss Ohio politics share most of their views on political issues or oppose them. The second item asked respondents if they disagreed often, sometimes, rarely, or never when discussing Ohio politics with others. Unfortunately, neither predicted structural

knowledge, with or without controlling for prior structural knowledge. Moreover, these items did not form into a reliable scale with the dissimilarity measure utilized in study 2.

In study 3, one additional item could have been used to measure dissimilarity. This item asked respondents their perception of whether or not their own and each discussant's general views were much the same or different. Additional analysis shows that 64.2% of respondents felt their discussants' general views were at least somewhat different from their own. Multivariate analysis shows that this measure predicts neither factual knowledge nor discussion elaboration, but is marginally predictive of perspective taking. As in study 2, this item along with the dissimilarity measure utilized in study 3 did not form a reliable scale. In addition, this item asks about 'general views,' which is not specific to political views. Since dissimilarity of discussion was specified here as that related to political views, this item was not deemed appropriate to use as a measure of dissimilarity.

Given the lack of reliability of scaling items together in studies 2 and 3, the decision was made to utilize a measure of dissimilarity based on party identification or candidate vote choice. This is closer to the dissimilarity measure used by Huckfeldt and colleagues (Huckfeldt et al., 1995, 2002, 2004) and used by Mutz (2002b) when not using her scaled measure of dissimilarity. However, although not significant in study 2, perhaps asking respondents whether or not political discussants share most of their views on political issues or oppose them as well as how often they disagree about politics with their discussants taps more directly into the communicative disagreement that occurs in

discussions and is a more theoretically sound measure of discussion dissimilarity as thought of in relation to knowledge. Future research may want consider these as potential indicators of disagreement.

Moreover, it can be argued that when using items such as discussant candidate vote preference or party identification one cannot assume anything in particular about actual content of a discussion. Interestingly, little is said about making this assumption, that differences in vote preference captures actual disagreement, among those measuring dissimilarity of discussion in this way (e.g., Huckfeldt et al., 1995, 2002, 2004; Mutz, 2002b, 2006). While, as stated in chapter 2, Conover et al.'s (2002) focus group data confirmed that actual alternative viewpoints were being exchanged in political discussions, they also discuss motivations citizens had for avoiding political discussion. Some, for example, did not mind listening to others views but did not want the pressure of providing justification for their own opinions or disliked feeling forced to defend their opinions. Others feared emotional arguments that were a potential result of political discussions or avoided discussion to prevent negative judgments of self. Furthermore, some members of the focus group claimed that if there was no common ground on an issue, mutual respect shows there is little reason to discuss.

Interestingly, scholars examining topic avoidance discuss similar motivations individuals have for doing so as those found by Conover et al. (2002). Indeed, avoidance is one method of dealing with conflict (Baxter & Montgomery, 1996). Afifi and Guerrero (2000), for example, mention relationship protection and identity protection and management as motivations for topic avoidance. Moreover, they argue that if a discussant is perceived to be either unhelpful or more than likely unresponsive about a topic, it will

be avoided. Examining families, Vangelisti (1994) found that some topics were considered taboo in order to avoid negative evaluations and to maintain a positive environment. It appears, then, that disagreeable political issues may be avoided rather than discussed. An individual may talk to someone about politics that is of a different party identification from him or herself, but the two discussants may try to find issues on which they agree rather than disagree. Roloff and Ifert (2000) make the point that avoidance is not always something negative and may, in fact, help individuals to be successful in particular relational goals.

It is important, then, for future research to examine what, if any, topics are avoided, even when individuals of differing political viewpoints or with different candidate preferences interact. It may be, for example, that individuals with different political views look for common ground when discussing politics rather than engage in topics that are conflict oriented for them. Understanding what actually occurs in discussion among those of different political views will help in understanding the theoretical relationship between discussion dissimilarity, cognitive aspects of discussion, and political knowledge.

#### *Discussion elaboration*

In study 3, discussion elaboration was included in the examination of dimensions of political discussion and political knowledge. Both discussion frequency and dissimilarity were hypothesized to predict elaboration. The relationship between frequency of discussion and discussion elaboration, with frequency predicting elaboration, has not been previously examined in the literature. Discussion elaboration or similar concepts such as integrative discussion (Kwak et al., 2005) are typically used as

predictor rather than outcome variables. Here, however, frequency was posited to predict elaboration due to the fact that, theoretically, the more one discusses political information, the more opportunity there is available to make connections to prior knowledge or background experiences. Moreover, it is likely that individuals discussing politics more frequently will anticipate such conversations, elaborating in anticipation of such discussions (see Eveland, 2004). Indeed, as expected, results showed discussion frequency as a positive and significant predictor of discussion elaboration.

Similar to the way in which frequency of discussion impacts elaboration, discussing politics with those of dissimilar political views from self theoretically provides increased opportunity for individuals to see and make connections among pieces of information. Elaboration may be especially likely prior to discussions with dissimilar others as individuals prepare to get across their own point of view. Unfortunately, results of study 3 do not substantiate this claim. Although items to measure discussion elaboration were not available in studies 1 and 2, future research should replicate the testing of this hypothesis, using both the dissimilarity measure utilized here as well as some of the other ways to measure dissimilarity discussed in the previous section.

Regarding its relationship with dependent variables, it was not surprising that discussion elaboration predicted factual knowledge. This outcome replicates the finding of Eveland and Thomson (2006) as well as Kwak et al. (2005) who used a similar measure, integrative discussion, to predict factual knowledge. It was surprising, however, to find that discussion elaboration did not predict structural knowledge. Theoretically, elaboration is the process of attaching connotative and associative meaning to information (see Perse, 1990) and should, therefore, predict structural knowledge. Indeed,

Eveland, Marton, et al. (2004) found news elaboration to predict structural knowledge when utilizing a knowledge structure density measure of structural knowledge similar to the measure used in study 3. Their knowledge structure density was measured both as a dichotomous and a valued measure. The dichotomous measure only accounted for whether or not connections between concepts were being made (i.e., 1= connection, 0=no connection). The valued density measure accounted for the degree or strength of such connections, as respondents had the opportunity to rate, on a scale, how strong of a connection they saw between two concepts. The relationship between elaboration and structural knowledge in their study was found when using both the dichotomous and valued measure. Here, in study 3, only the dichotomous measure of knowledge structure density was used. Yet supplementary analysis shows that even when the valued density measure is used, discussion elaboration does not predict structural knowledge. These results should not only be replicated in other samples, but also using different structural knowledge measures as well.

A final thought or consideration regarding discussion elaboration is that media exposure was found to significantly predict this outcome. This result seems to indicate the integral connection between mass and interpersonal communication, as increased media exposure predicts the degree to which individuals make connections with prior knowledge and background experiences before, during and after political discussions.

#### *Perspective taking*

Perspective taking, a theoretically intriguing concept and one important to consider when examining political discussions, ultimately did not work as expected in either study 2 or 3. In neither study does discussion dissimilarity predict perspective

taking, nor does perspective taking predict structural knowledge. It is possible that these relationships were not supported due to the measurement of perspective taking. The items used to measure perspective taking in each study were taken from Davis' (1980) interpersonal reactivity scale and modified slightly. Although six of these items were available for use in study 2, only four of them formed a reliable scale. Even at this, reliability was a bit low, with  $\alpha=.63$ . In study 3, three of four items formed into a reliable scale; again, even at that, reliability was a bit low ( $\alpha=.60$ ). Future research should include all of Davis' original perspective taking items when trying to tap this construct. Perhaps reliability will be increased when doing so.

In addition to the problem of slightly low reliability, several additional things must be considered when thinking about perspective taking and the outcomes found in studies 2 and 3. First, it is possible to call into question the validity of the perspective taking scale utilized in these studies. Perspective taking was hypothesized to predict structural knowledge on the basis that perspective taking is considered to be a cognitive process where individuals take into account others beliefs and opinions when interacting interpersonally with them. This process requires synthesizing these views together and, theoretically, creating a more cohesive view of a particular person, situation, or issue. It may be that Davis' (1980) scale does not capture perspective taking as the cognitive function that it is proposed to be. Items in Davis' scale such as "when I'm upset at someone, I usually try to put myself in his or her shoes for a while" and "before criticizing somebody, I try to imagine how I would feel if I were in their place" may be more affective than cognitive in nature. A number of scholars (e.g., Davis et al., 1996; Frantz & Janoff-Bulman, 2000) try to capture perspective taking in other, non self-report

ways. It could be that self-report is not appropriate for assessing perspective taking. On the other hand, self-report items are useful for survey research. Future research should seek to use non self-report measures of perspective taking when examining political discussion and political knowledge, as well as a valid and reliable closed-ended cognitive perspective taking scale.

Second, although validity is a possible concern, and future research should indeed seek to use other measures of perspective taking, supplementary analysis shows that perspective taking does, in fact, predict structural knowledge if a valued rather than dichotomous density measure of knowledge structure density is utilized. When using this measure, perspective taking positively and significantly predicts structural knowledge ( $\beta=.155, p<.05$ ) above and beyond discussion frequency, dissimilarity, and network size. It seems, then, that although perspective taking does not positively predict whether or not associations between issues are made, it does predict the strength of these associations. Perhaps, then, the issue is not one of the validity of the perspective taking scale (although this should be examined in future research), but rather is a matter of using a theoretically appropriate measure of structural knowledge when hypothesizing it as an outcome of perspective taking. It appears that the valued density measure of structural knowledge is best associated with perspective taking.

Furthermore, while perspective taking did not act as a mediator between discussion dissimilarity and structural knowledge, it may be instead that perspective taking acts as a moderator. This type of relationship suggests that the impact of dissimilar discussion on structural knowledge depends on one's level of perspective taking. Indeed, supplementary analysis using data from study 3 shows the interaction of perspective



taking and discussion dissimilarity to be a marginally significant predictor of valued (rather than dichotomous) structural knowledge ( $\beta=.742$ ,  $p<.10$ ). For those with higher levels of perspective taking ability, engaging in conversations with dissimilar others positively impacts structural knowledge.

Two other interesting considerations regarding perspective taking are that, first, in each study examining this outcome (2 and 3), discussion frequency is a significant predictor (albeit marginally so in study 2). Second, supplementary analysis using study 3 data shows that discussion elaboration is a strong and significant predictor of perspective taking, removing the influence of discussion frequency as a predictor of this outcome. This result replicates what was found by Eveland and Thomson (2006). Because of these two findings, further analysis was done to see if discussion elaboration mediated the relationship between discussion frequency and perspective taking. Using 1000 bootstrap resamples, results show that the 95% confidence interval for the indirect effect of discussion frequency on perspective taking with discussion elaboration as a mediator, and controlling for age, education, gender, national and local television news exposure, and newspaper exposure is (.0109, .0647). Since 0 is not found in the confidence interval, the bootstrapping macro confirms that discussion elaboration is a mediator between discussion frequency and perspective taking. Those who discuss politics frequently, and elaborate on this information, gain in perspective taking ability. This finding suggests that perspective taking is, indeed, both cognitive in nature and developed through communication.

In general, the relationships posited between dissimilarity of discussion, cognitive perspective taking, and structural knowledge are theoretically sound and should be continued to be explored in future research, refining a measure of perspective taking and perhaps utilizing different measures of structural knowledge.

#### *Factual and structural knowledge*

As discussed in chapter 3, structural knowledge is defined as the structure or organization one gives to bits of political information. Furthermore, it was noted that this kind of knowledge has been measured in a variety of different ways. A number of scholars, for example, utilize open-ended measures which are then coded for how many connections individuals are making between concepts (Neuman, 1981), how abstract is their thinking, and how complete is their understanding of ideological concepts such as conservatism and liberalism (Converse, 1964; Luskin, 1987). Others (see Rhee & Capella, 1997) use a closed-ended measure including ideological terms as well as political people and issues to measure both sophistication and factual knowledge. More recently, Eveland and colleagues (e.g., Eveland, Marton, et al., 2004; Eveland, Cortese, Park et al., 2004) have used a measure derived from educational psychologists where respondents are asked to note if and the degree to which connections are made between concepts.

Here, in studies 1 and 2, a closed-ended ideological measure of structural knowledge was utilized. Subjects were asked to place political candidates and parties on a scale of liberalism to conservatism to gain an understanding of how they were structuring political ideas. And, as discussed previously, study 3 used a matrix measure of structural knowledge (i.e., knowledge structure density) similar to Eveland, Marton, et al., 2004,

but utilizing only a dichotomous measure of knowledge structure density rather than both a dichotomous and valued measure. In other words, accounted for in study 3 was whether or not respondents indicated seeing a connection between the given issues in the matrix rather than the strength or value assigned to each connection.

Regardless of which structural knowledge measure was used (i.e., the ideological placement or matrix measure), it was expected that dissimilarity of discussion would predict this outcome. This relationship has not only been theoretically posited (e.g., Hale & Delia, 1976; Gibbs et al., 1996), but has also been found when tested empirically (Eveland & Hively, 2006; Gastil & Dillard, 1999). Because individuals encounter views different from their own in dissimilar discussion, a more complex level of thinking is involved which in turn aids the structuring of knowledge. Moreover, this relationship was posited to be mediated by the cognitive processes of discussion elaboration and perspective taking. Each of these processes is cognitively complex in nature: one (elaboration) involves connecting one's own prior knowledge and background experience to new information from discussions while the other (perspective taking) involves taking into account the views of others provided in discussion in conjunction with one's own views. This cognitive activity, in turn, should facilitate the structuring of knowledge.

Unfortunately, regardless of whether structural knowledge was measured as ideological placement or using a matrix measure (e.g., knowledge structure density), dissimilarity of discussion did not predict this outcome. Although this hypothesis was not supported in any of the three studies, a few items can be noted as a result. First, some may argue that measuring structural knowledge as ideological placement of parties and candidates is more a measure of factual than structural knowledge. Eveland and

Scheufele (2000), for example, combine ideological measures with other measures to create a factual knowledge scale. However, they also separate out ideology from other factual measures into its own scale. Differences were found across knowledge scales indicating that there may be something unique about ideological measures. Delli Carpini and Keeter (1996), as well, seem to indicate that ideological measures are factual in nature although these measures were consistently more difficult for individuals to answer. While item difficulty does not necessarily mean that ideological measures are a different knowledge dimension, it is certainly the possibility that this is the case. Moreover, supplementary analysis showed that there was discriminant validity between these two scales. In other words, scale items for factual knowledge correlated with each other better than they did with any of the structural knowledge scale items, and vice versa, providing a strong case that they were different knowledge dimensions. Moreover, in study 1, dissimilarity of discussion predicted factual, but not structural knowledge bolstering the evidence that there is, in fact some difference between an ideological measure of knowledge and the factual knowledge measurement used in that study.

Second, as previously stated, the matrix measure used in study 3 does not take into account the strength with which individuals see the connections they are making. The theoretical interest here was whether respondents were making any connection whatsoever between various political issues. This concept is the underlying premise of structural knowledge, and the theoretical premise should hold that dissimilarity of discussion will predict structural knowledge as measured in study 3. However, the case can be made that the structure of one's knowledge is best accounted for once the degree to which connections are made are taken into account. The overall structure of one's

knowledge might be best represented with stronger connections seen between some issues and less strong connections seen between others. Indeed, it was the valued measure of knowledge structure density that was used when Eveland and Hively (2006) found dissimilar discussion to predict structural knowledge. However, supplementary analysis in study 3 using valued rather than dichotomous density did not replicate this finding.

Consideration for future research should also be given to the fact that, in study 1, as well as in supplementary analysis of study 2, a significant correlation was found between factual and structural knowledge whereas in study 3, no correlation was found between these variables (even, as found in supplementary analysis, when valued rather than dichotomous density was used). The absence of correlation between factual and structural knowledge calls into question what is being tapped by the knowledge structure density measure. It would seem, for instance, that dimensions of the same overall concept should, in fact, be related to one another. Only one of the three studies examined here utilized the matrix measure of structural knowledge. Replication across studies is needed to find if there is always absence of relationship between the matrix measure of structural knowledge and factual knowledge. If so, consideration should be given to why that might be so. It is possible, for example that the matrix measure needs to be designed so that it closely resembles the types of questions being asked on the factual knowledge measure.

On a different note, in study 2, it should be noted that structural knowledge dealt with political candidates at the local and state level. According to Delli Carpini and Keeter (1996), political knowledge is basically unidimensional. However, they contend that if there is any dimensionality at all, it seems to be between national political knowledge and that of the local and state level. One might wonder, then, whether or not this

dimensionality plays a role in the knowledge measure of study 2, as the items deal with political knowledge at the local and state level. Two things can be noted in response to this question. First, Delli Carpini and Keeter's only warning regarding dimensionality between local/state and national knowledge is that they not be utilized in the same scale. Since all knowledge items were at the local/state level in this study, this is not an issue. Second, the local/state items used here are ideological in nature. Since the structural knowledge scale is composed of ideological items at the state/local level only, there should be no implications of dimensionality.

Finally for knowledge, a word must be said about study 2. It should be noted that one of the main purposes for study 2 was to examine perspective taking. There is limited data available containing perspective taking measures. The dimensions of political discussion and political knowledge hypothesized to be either predictive of or predicted by perspective taking were discussion dissimilarity and structural knowledge. Due to this fact, although factual knowledge and discussion frequency measures were available in the data, they were not utilized in study 2 (except, in the case of discussion frequency, as a control variable). However, examining whether or not frequency and dissimilarity of discussion positively predicts factual knowledge (hypotheses 1 and 8, respectively) would have been useful for comparison with studies 1 and 3. Therefore, a factual knowledge measure was created of correct issue position placement of abortion, gay rights, minimum wage, and the war in Iraq for the two candidates running for U.S. Senator of Ohio as well as the two running for Governor of Ohio. Further analysis shows

that, as in studies 1 and 3, discussion frequency in study 2 also positively and significantly predicts factual knowledge ( $\beta=.186$ ,  $p<.01$ ). However, unlike the results of studies 1 and 3, discussion dissimilarity in study 2 does not predict this outcome.

### Study Limitations

#### *Sample size*

Across the three studies there are some considerable differences in sample size. Study 1 has a sample size of over 1000, study 2 just over 600 for wave I and close to 400 for wave II, and study 3 has roughly 200 participants. It is possible, with a smaller sample size, for relationships not significant in study 3 to be similar in size and strength to significant relationships found in studies 1 and 2. However, there are no non-significant results found in study 3 that are indeed significant in studies 1 and 2. This is the first suggestion that sample size is not acting to disguise any relationships that may have been significant in the third study given a larger sample, although neither perspective taking nor discussion elaboration were available in study 1 for comparison. Perspective taking was examined in study 2 and, like study 3, was found to be associated with few of the other variables. Second, when examining the zero-order correlations across the three studies, it does not appear that the size and strength of coefficients between variables not associated with each other in study 3, but associated with each other elsewhere, are similar.

#### *Generalizability*

In chapter 5, the case was made that the purpose of this study was to examine a theoretical process rather than seeking to make a population inference. However, one limitation necessary to mention is that all data are derived from samples within the

United States. It is argued here that, due to the cognitive nature of the process, the proposed process between political discussion and knowledge is the same internationally as it is in the U.S. However, it seems especially important to examine political discussion as it occurs in different nations having similar or different political systems as the United States. This is especially true for a frequency and dissimilarity measure of discussion. Does political discussion, for example, occur with similar frequency across nations? If not, what variables impact this difference? Additionally, how does dissimilar discussion differ cross-nationally? How do differences in the way political discussion occurs impact the theoretically proposed process? How does it impact structural, as well as factual knowledge? Some scholars have begun to examine these processes in other nations (e.g., Bennett et al., 2000; Conover et al., 2002). Indeed, as found by Conover et al., both culture and political institutions play a role in discussion. Therefore, although the process can be generalized, it is a limitation to have samples only from the United States. Using cross-national samples opens exciting doors of opportunity for understanding this process at work.

#### *Cognition verses affect*

In addition to sample size and limitations of only having national samples, some might consider it to be a limitation that this study included no affective processes in the proposed model. Indeed, one might argue that is important to consider emotions being processed during political discussions, or what role emotions such as anger and sympathy might play leading from discussion to knowledge. One theory that may be considered in conjunction with the process proposed here is attribution theory (Graham, 1997; Weiner, 1993). This model explains how beliefs about whether a person or society at large is



responsible for a situation leads to certain emotions which then determine one's response to the event. Perhaps the attribution processes that occur during or as a result of political discussions impact one's affective response to a situation and have an impact on the way individuals process information, thus impacting both factual and structural knowledge.

While affect seems an important component to bring into the model, the proposed process was a good first look at merely the cognitive components involved leading from discussion to knowledge. Future research should both seek to refine the cognitive components and, perhaps, examine the role of affect in this process as well.

### *Projection*

It is possible to call into question the validity of the dissimilarity measures of name generator data given that respondents are asked their *perception* of each discussant's candidate preference (study 1) or party identification (study 3). Previous research has shown that people are fairly accurate in their perception of those with whom they talk (Huckfeldt et al., 1995; Huckfeldt et al., 2004; Mutz, 2002b). The report of respondent accuracy reduces the concern of projection bias by the respondent, at least in studies 1 and 3 where the name generator approach is used. It is possible that projection might be more of an issue in the dissimilarity measure used in study 2. As stated before, this approach allows an individual to think of a broader range of discussants than allowed for with the name generator approach. According to Orive (1988), projection is likely to occur when no explicit information is known about another individual. Perhaps individuals reporting discussants in study 2 knew less about them than the few reported by those in name generator data. If so, it is possible that one must guess a discussant's party identification, projecting his or her political viewpoint onto the person due to lack

of explicit information. However, this would seem to bias discussions reported in study 2 toward increasing similarity rather than disagreement. Yet, as reported in chapter 5, dissimilarity was actually higher among discussants in study 2 than in studies 1 and 3. It seems, then, that projection is not occurring in study 2.

### *Causal order*

Due to the cross-sectional nature of the data in study 3, no causal conclusions can be made about the relationships in Appendix A, Figure 5. Rather, one can only conclude that certain discussion variables do or do not positively relate to factual or structural knowledge. Therefore, while study 3 met the criteria of correlation needed to assess causality, it lacked the absence of spuriousness, as only experiments can provide such high control, and was also not a repeated panel measure design.

Although the ANES data used in study 1 has both a pre- and post-election wave, the measures used here were not repeated in each wave. This is similar to study 2 where, like the first study, not all variables were found in both waves I and II. Because of this, reciprocal or reverse causality was not able to be tested. However, in study 2, structural knowledge was measured at both time points. This allowed for relative change in knowledge from Time I to Time II to be tested. Change here is used in the sense of examining the amount of variance accounted for by discussion dissimilarity in structural knowledge (Time II) above and beyond, or, accounting for one's prior knowledge (Time I). This comes somewhat closer to testing causality than pure cross-sectional data. Future research examining discussion and knowledge should think about the use of both over time data (assessing time-order) and experimental data (assessing spuriousness) to help establish causality.

### *Self reports*

Finally, each the studies here utilized survey data, consisting of individual's self reports, to test the relationships posited in Appendix A, Figure 1. Other methods, however, such as observational data, focus group data, and experimental data would have been useful to more fully capture the process of political discussion leading to political knowledge. Future research would also benefit by examining media content occurring at the time discussion and knowledge are measured to more fully understand how these processes are at work in relation to the larger communication environment. Therefore, while the use of survey data only is a great step to uncovering and understanding the relationships set forth in this study, additional methods will help to clarify the process.

### General Conclusions

This study examined relationships between dimensions of political discussion and political knowledge across three different sets of data. In doing so, several different measurements of two variables in particular were used, those being discussion dissimilarity and structural knowledge. Yet, interestingly, similar results were found across the studies.

Although several of the hypotheses proposed were not found to be significant, a number of considerations have been given and supplementary analyses provided to these same relationships when different measures are utilized. It is especially important for future researchers to take into consideration the theoretical rationale for the particular measurement decided upon for use within a particular study, thinking about the various ways to measure variables discussed here. It also seems especially important for future research to examine several different measures of both political discussion and political

knowledge dimensions within the same data in order to make specific comparisons of how these relationships differ depending on the measurement used. Experimental research may be useful in accomplishing this goal.

Although a host of considerations have been made for future research, one potential next step is considered here taking together theory, this study's results, and the results of supplementary analyses. Both the measurement of political discussion and knowledge in this next step as well as a new model linking the dimensions together are discussed below.

Regarding a potential next step for discussion and knowledge measurement, discussion frequency would be measured as it is in studies 1 and 2, asking respondents how many days in the past week they discussed politics or public affairs. This is due to the specific political nature of the item, whereas asking how often one talked about 'the news' leaves the political nature of the item somewhat in question. Discussion elaboration would be measured the same as it was in study 3. Davis' (1980) perspective taking scale would once again be utilized, but incorporating all rather than only some of his perspective taking items to see if reliability is increased. Factual knowledge would continue to be measured with knowledge of political candidates, issues, or events.

For structural knowledge, the valued density measure of Eveland, Marton et al.'s (2004) knowledge structure density would be utilized. The knowledge structure density matrix is a valuable way to capture the connections individuals are making between bits of political facts in that it allows the respondents themselves to note whether or not they see a connection between two concepts. It seems, then, a more explicit way to capture structural knowledge than either the ideological measure or other measures of knowledge

integration that have been used in the past. Valued rather than dichotomous density would be used to see if the strength of these connections makes a difference when assessing relationships between discussion and structural knowledge. The dichotomous density measure used in study 3 was highly negatively skewed, suggesting little variance in the measure. However, the distribution of the valued measure was closer to normal. It is empirically more useful, then, with its greater variance, to use the valued measure of knowledge structure density rather than the dichotomous measure. Perhaps most respondents are able to see at least a slight connection between all concepts in a knowledge structure density matrix, whereas assessing the strength of the connections produces greater variance. Therefore, while, theoretically, making connections generally is the essence of structural knowledge, the valued knowledge structure density rather than the dichotomous measure would be used in future analysis. Additionally, the knowledge structure density measure would be designed to closely match those items questioned in the factual knowledge measure.

For dissimilar discussion, the broader approach taken in study 2 would be utilized rather than the name generator approach used in studies 1 and 3. This approach seems less common than the name generator approach, but is interesting in that it allows individuals to consider a wide range of others with whom they might discuss politics on an informal basis. Using this method, dissimilarity would be tapped by combining responses to items assessing one's discussions with others whose party identification is different from one's own as well as how often one disagreed when discussing politics with others. If, as in study 2, a reliable scale could not be formed with these two items, the latter item would be used instead of the former as it seems to more directly assess

whether or not disagreement is truly communicated in such discussions. In addition to dissimilar discussion, diverse discussion would also be measured as it is important to account for the impact of both how a respondent differs (politically) from other discussants as well as the impact of political disagreement among one's discussants. The Simpson's D measure of diversity would be used to capture diverse discussion (see Eveland & Hively, 2006).

Utilizing the measures suggested above, a new model is proposed for examining the dimensions of political discussion and political knowledge. Again, this is simply one extension for future research. For visual clarity, discussion dimensions predicting factual knowledge in the new model can be found in Appendix A, Figure 8, and discussion dimensions predicting structural knowledge in the new model can be found in Appendix A, Figure 9. Comparing these figures to Figure 5, or, the model created for the current study, several additions and deletions can be noted while other relationships are proposed to remain in tact. For both the factual and structural knowledge models, the main addition is a measure of diverse discussion. As previously noted, it seems important to assess disagreement occurring among one's discussants along with disagreement occurring between a respondent and his or her discussants. Both Huckfeldt et al. (2004) and Eveland and Hively (2006) found these two measures to act differently when predicting various outcomes. And, supplementary analysis in this study showed these two types of discussion acting differently on perspective taking.

Aside from the addition of diverse discussion, relationships among discussion and knowledge in Figure 8 are similar to what is found in Figure 5. Discussion frequency, diverse discussion, and dissimilar discussion are all proposed to have a direct, positive

relationship with factual knowledge. Talking, or, being exposed to political information should positively impact factual political knowledge. However, each of these relationships is also proposed to be mediated through discussion elaboration. The results of study 3 show that discussion elaboration did, indeed, mediate the relationship between frequency and factual knowledge. Although this relationship did not hold true for dissimilarity and factual knowledge, it makes theoretical sense to propose elaboration as a mediator of these variables. Individuals participating in diverse or dissimilar discussions might elaborate in anticipation of the discussions, during the discussions as they are thinking more about their own opinions and experiences, as well as after discussions, aiding in factual recall of information. Until further replication proves that this relationship does not exist, elaboration is proposed to mediate dissimilarity and factual knowledge, as well as diverse discussion and factual knowledge.

Regarding structural knowledge, Figure 9 differs from Figure 5 in that, in Figure 9 the dimensions of discussion frequency and elaboration are no longer present. Although discussion frequency was not originally proposed to have a direct impact on structural knowledge, it was predicted to have an indirect relationship on this outcome through discussion elaboration (see hypothesis 4). However, revisiting the theoretical relationship between elaboration and structural knowledge it may be that elaboration helps individuals to remember facts but does not necessarily help them to connect these facts together in a meaningful way. Elaboration assesses the degree to which individuals connect information being discussed to personal things such as background experiences and one's own opinions. It may be that linking discussed information to personal experiences and opinions, while aiding factual recall, does not necessarily allow one to make broader

connections across concepts. By eliminating elaboration as a predictor of structural knowledge, frequency is necessarily eliminated from the model as well as it was not proposed as a direct predictor of this outcome.

Aside from these deletions, several relationships are suggested in Figure 9 different from Figure 5. Supplementary analysis showed that diverse discussion had a positive impact on the valued knowledge structure density measure of structural knowledge as well as a positive impact on perspective taking. Additionally, perspective taking was found to predict structural knowledge, again when using the valued knowledge structure density measure of structural knowledge. Therefore, the new model shown in Figure 9 proposes that diverse discussion and perspective taking will predict structural knowledge (using the valued KSD measure, as suggested above when discussing measurement), but also that perspective taking will serve to partially mediate this relationship as it is proposed to be predicted from diverse discussion as well as a predictor of structural knowledge. Regarding discussion dissimilarity, across all three studies dissimilar discussion was not found to predict structural knowledge. However, supplementary analysis showed that it was, in fact, a significant predictor of structural knowledge when moderated by one's level of perspective taking. Therefore, the new model proposes a positive and significant relationship of dissimilar discussion on structural knowledge when moderated by perspective taking.

While the model and measurements suggested above is just one possible next step examining political discussion and knowledge, research in this area continues to have exciting and fruitful opportunities. For example, absent any constraints of time or money, an interesting study would combine several methods together to further examine



discussion and knowledge. Such study would utilize two particular groups on a college campus that likely have different (i.e., opposite) political points of view, for example, college Republicans and Democrats. The first method utilized would be an over time experimental panel study, where students of these two groups would be assigned to a smaller group of either similar college Republicans or Democrats, or to a group mixed of college Republicans and Democrats. At the beginning of the academic year, these groups would first be pretested to gather baseline data. Pretest measures would include basic demographic information, political issue stances, political knowledge (factual and structural), perspective taking, and discussion elaboration. Several weeks after this pretest, experimental groups would gather together to hold an open discussion on various political issues. This would be an informal occasion rather than one with an end purpose of an outcome or vote. Each session would be videotaped for later observation and coding. Participants would then be given a posttest measuring the same information as on the pretest minus demographic information. This same process would be repeated in the winter and spring of the academic year.

Moreover, at the end of each experimental small group discussion session, participants would be given diaries. These individuals would be asked to record, over the period of a month, each time they had a political discussion, where and with whom the discussions took place, what things were discussed, their view on what was discussed, what they thought the other person(s) view was of what they discussed, their reaction to the other person's view, their thoughts about the conversation in general, and how it was

connected to other things they knew or had experience with. At the end of the month, the diaries would be returned to the researcher. This process would be repeated for the month after the winter and spring experimental sessions as well.

Finally, a random sample of experimental respondents would be observed at social outings, in their workplace, while hanging out with friends, and in their place of worship. Observers would not only note the place in which political discussions were taking place, but also the content of such discussions, any perspective taking evident during discussions and acts of discussion avoidance. Notes from observations would be analyzed in conjunction with experimental and diary results to more fully explore the process of political discussion and knowledge. The combination of these methods would not only provide controlled, over time data allowing over time changes in knowledge and discussion to be examined, but would also bring external validity to these results via diary records and observational data.

To conclude, this study assesses relationships between dimensions of political discussion and political knowledge, showing important mediating cognitive processes that are important to consider in the future, as well as potential (seen through supplementary analyses) moderating processes that should continue to be examined. Furthermore, non-significant results of several hypotheses allow for important theoretical and empirical considerations for future research. Also in the future, scholars should assess this process internationally, or even across states and communities. How might national, state, and local environments play an overarching role in this process?

Once again, the important normative and practical aspects of examining and, in the future, continuing to examine this process cannot be overstated. From a normative

point of view, individuals should know political facts and be able to structure them together into a meaningful whole in order to make quality decisions. In a practical sense, teachers should seek to have frequent political discussions within the classroom and utilize techniques that help facilitate elaboration on such topics. They should also make sure that varying points of view are represented in such classroom discussions. Campaign strategists should also seek how they might stimulate political discussion so that individuals may gain in knowledge and develop quality opinions. Scholars have long considered interpersonal interactions important in the context of political information gain. Now is the time to continue to examine the processes at work that facilitate this relationship.

APPENDIX A

FIGURES

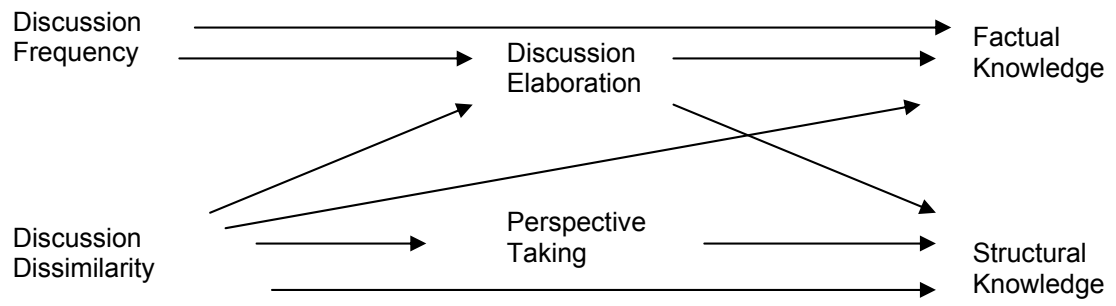


Figure 1. Model of concepts in the study.

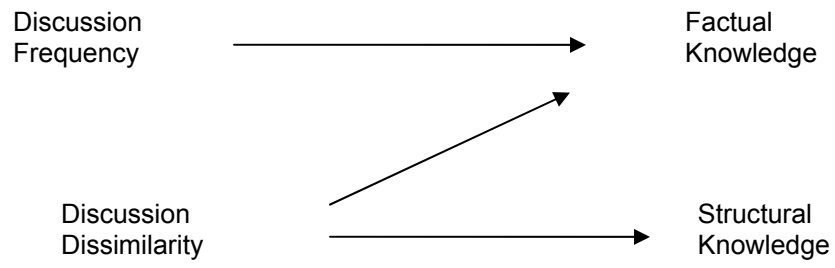


Figure 2. Model of relationships between discussion frequency, discussion dissimilarity, and each form of political knowledge.

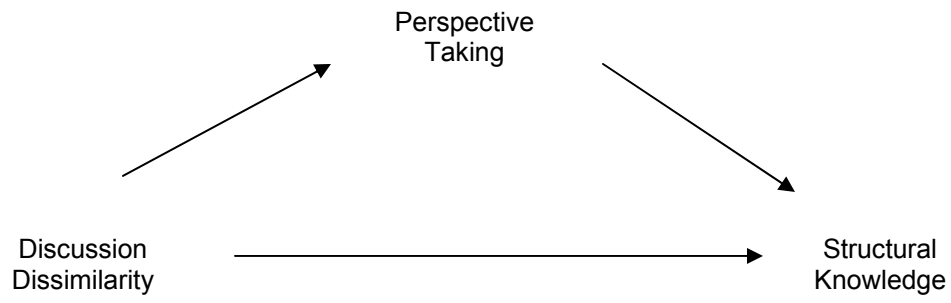


Figure 3. Model of relationships between discussion dissimilarity, perspective taking, and structural knowledge.

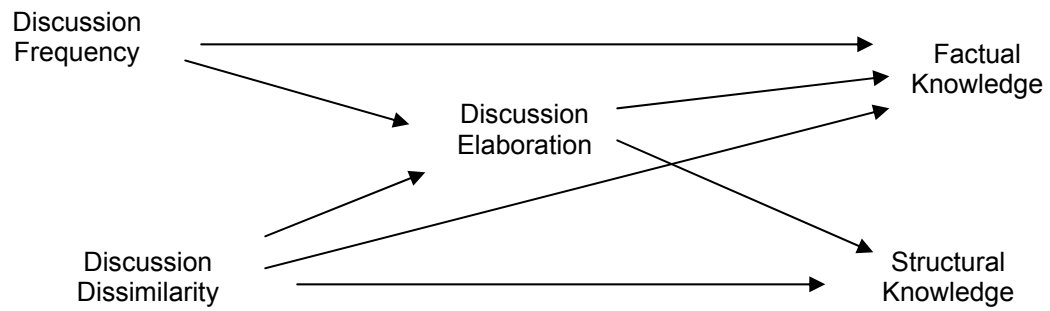


Figure 4. Model of discussion elaboration as a mediating variable between discussion frequency, discussion dissimilarity, and each form of political knowledge.



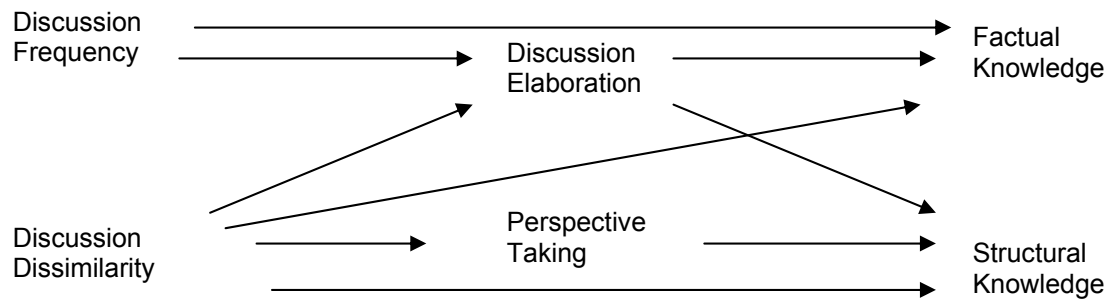


Figure 5. Model of all concepts in the study.

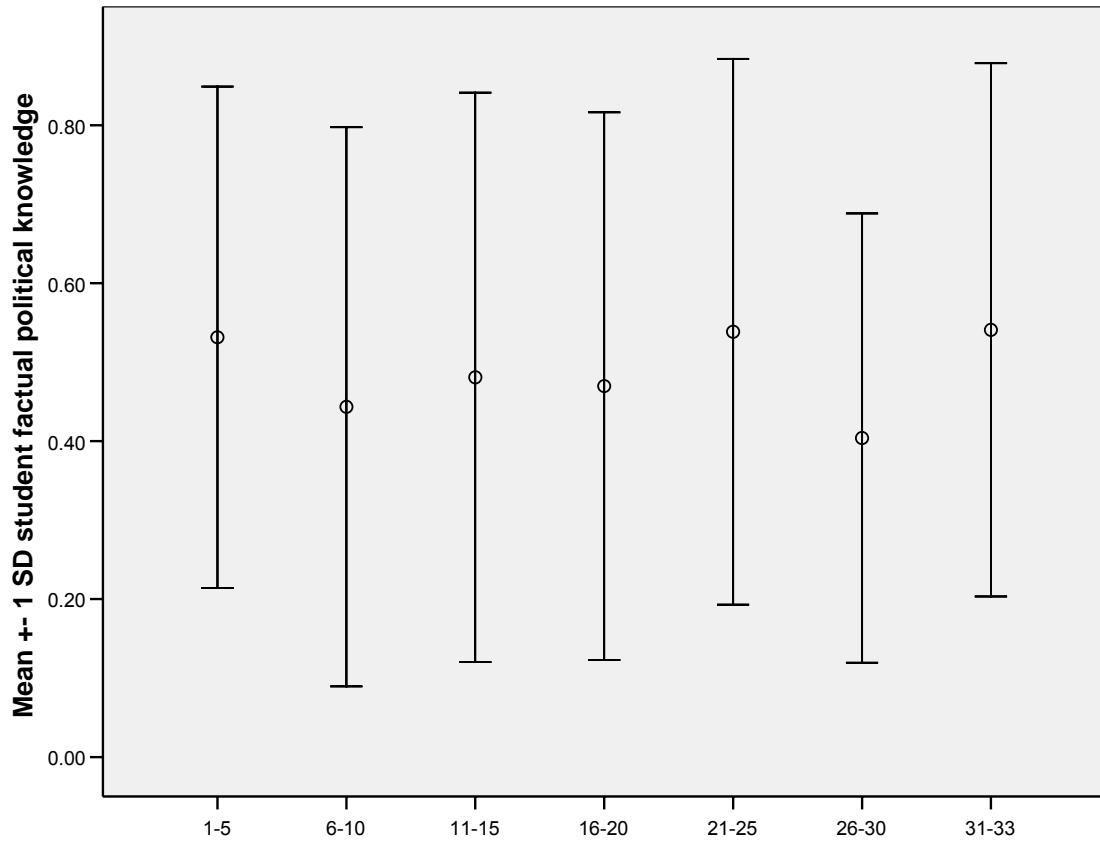


Figure 6. Error bar chart showing standard deviations in factual political knowledge by number of students contributed from each school.

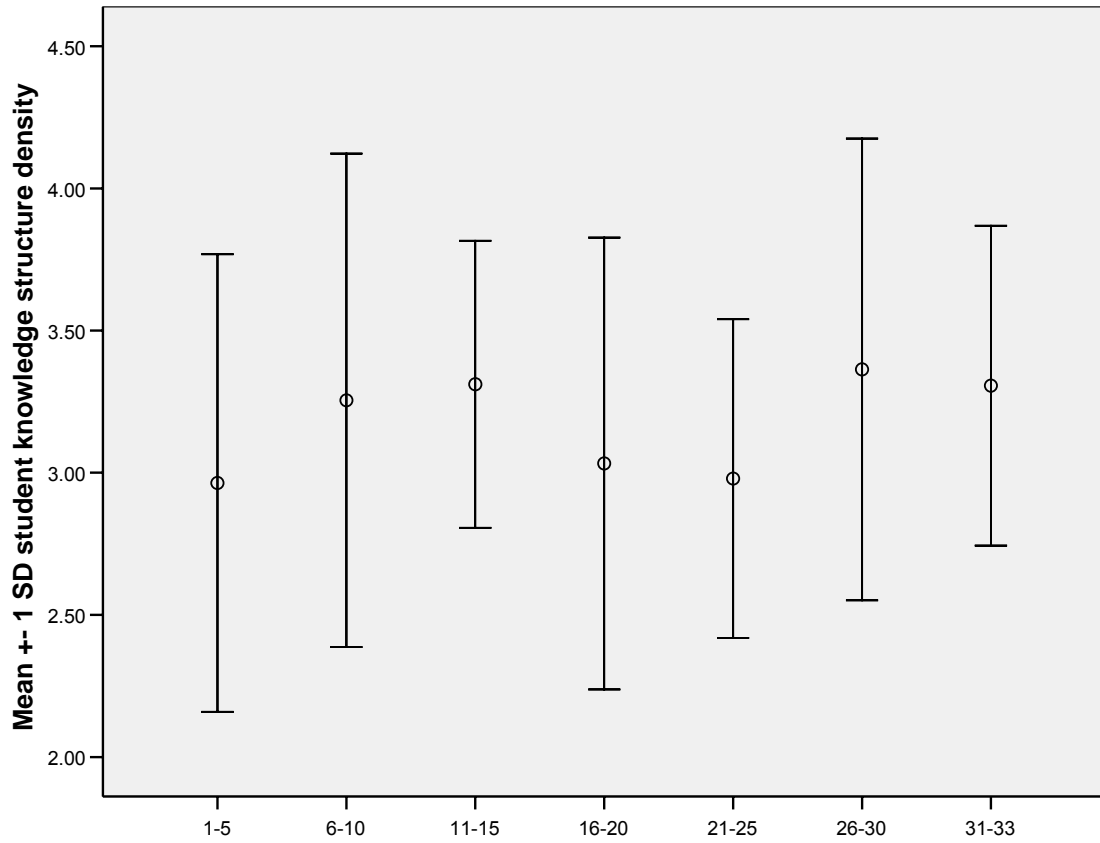


Figure 7. Error bar chart showing standard deviations in structural political knowledge by number of students contributed from each school.

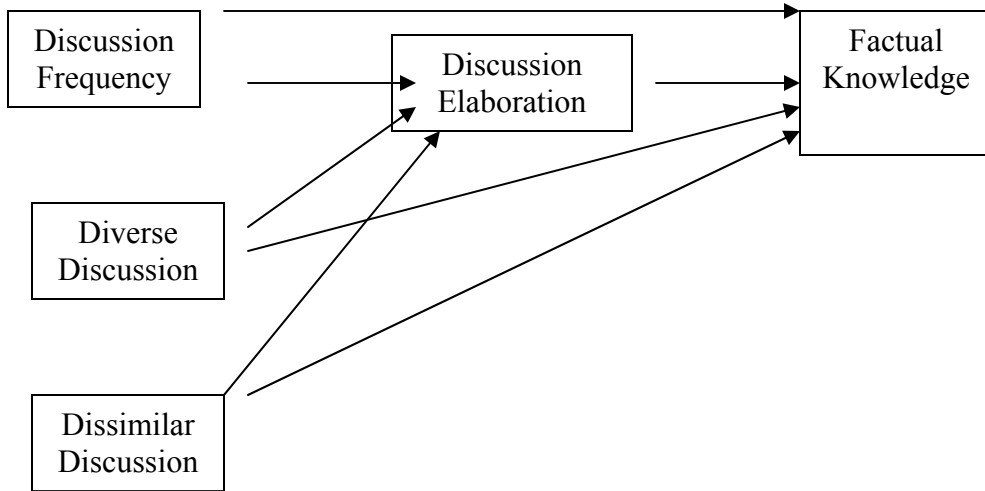


Figure 8. New model of discussion dimensions predicting factual knowledge.

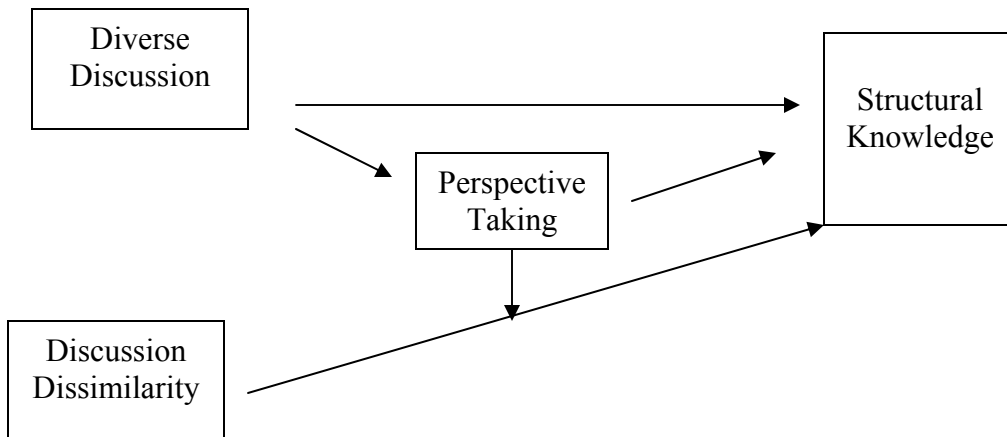


Figure 9. New model of discussion dimensions predicting structural knowledge.

APPENDIX B

TABLES

	Label	Definition	Measurement
Conover et al. (2002)	Political Discussion	Citizens having conversations that are spontaneous, unstructured, and without a clear goal	Amount of publicity, non-tyranny, and equality of discussion
Barabas (2004)	Political Discussion	Friends, family, and coworkers talking about politics informally	Whether or not discussion of national issues had taken place among friends, neighbors, family members, or co-workers within the last month
Eveland (2004)	Political Discussion	--	Number of days in past week one discussed politics with family and friends
Scheufele (2002)	Political Discussion	--	How often one discussed local and national politics with others
Holbert et al. (2003)	General Political Discussion	--	Number of days in the past week one discussed politics with family or friends
Kennamer (1990)	General Political Discussion	--	Frequency of discussion about politics or public issues (often, sometimes, rarely, never)
	Debate Discussion	--	Frequency of discussion (often, sometimes, rarely, never) about the Presidential debates
McLeod et al. (1999)	Interpersonal Discussion	--	Frequency of discussion about things happening in their neighborhoods and in the city at large (10-point scales)
Robinson & Levy (1986)	Interpersonal Discussion	--	How many conversations they had about the news in the previous week

Table 1. Labels, definitions, and measurements used for various discussion terms. (continued)

Table 1 (continued)

	Label	Definition	Measurement
Scheufele (2000)	Political Talk	Goal oriented talk with the purpose of exchanging information, voicing one's own viewpoints, and assessing what other people think about an issue	Frequency of discussion about national politics, local politics, and neighborhood issues
Schudson (1997)	Democratic Talk	Rule-governed, civil, oriented toward problem solving, and containing people from different values and backgrounds	--
Walsh (2004)	Casual Political Talk	Political talk derived from informal interactions and is not organized for the sake of decision making	Observed, recorded and analyzed conversations of a group of people who met regularly to talk about politics
Kim et al. (1999)	Political Conversations	All kinds of political talk, discussion, or argument as long as they are voluntarily carried out by free citizens without any specific purpose or predetermined agenda	Frequency of discussion on 9 different issues factoring into political talk (e.g., national and local government, the economy, foreign affairs) and personal talk (e.g., personal and family matters, crime, education, entertainment)
Wyatt et al. (2000)	Ordinary Political Conversations	Same as Kim et al. (1999)	Same as Kim et al. (1999)
Scheufele (2000)	Political Conversations	Talk that is not goal oriented and not serving an informational function	Frequency of discussion about personal, work related, and leisure related issues

(continued)

Table 1 (continued)

	Label	Definition	Measurement
Bonham (1996)	Deliberative Discussion	Publicness, non-tyranny, and equality as individuals come together to discuss an issue leading to some type of conclusion or consensus	--
Delli Carpini et al. (2004)	Deliberative Discussion	The careful examination of a problem of issue	--
Dutwin (2003)	Deliberative Discussion	A more formalized discussion than others where political decisions are weighed and debated	Account of the amount of speaking, number of topics, and count and ration of argumentative elements provided by each individual in a small group from a community deliberative forum
Luskin et al. (2002)	Deliberation	--	Examination of participants taking part in national public forums
Gastil & Dillard (1999)	Deliberation	--	Examination of participants taking part in local/community forums

(continued)



Table 1 (continued)

	Label	Definition	Measurement
Mutz (2000b)	Cross-Cutting Exposure	Exposure to political disagreement	Five items (similar political views, party identification, vote preference, views on political issues, and frequency of disagreement when discussing politics) across three discussion partners were standardized and combined.
Mutz & Martin (2001)	Cross-Cutting Exposure	Exposure to conflicting or dissimilar political views	Same as Mutz (2000b)
Huckfeldt et al. (1995)	Disagreement	Candidate preferences different from one's own	Respondents asked to indicate their perceptions of each of 5 discussion partners' Presidential candidate support
Huckfeldt et al. (2002)	Disagreement	Exposure to those holding divergent political viewpoints	Respondents were asked to name their perception regarding each of five discussant candidate preferences
Huckfeldt et al. (2004)	Disagreement	Discussion with those who hold politically divergent preferences	Respondents were asked to name their perception regarding each of four discussant candidate preferences
	Disagreement among discussants	--	Number of Gore discussants times the number of Bush discussants
Nir (2005)	Social Network Ambivalence	The balance of perceived competing political considerations within one's social network.	A scale of agreement and disagreement of vote preference was computed, comparing each discussant to the respondent. The balance of agreement and disagreement within the network captured ambivalence.

(continued)

Table 1 (continued)

	Label	Definition	Measurement
Eveland & Hively (2006)	Dangerous Discussion	Discussions that conflict with the views or characteristics of the ego	Number of discussion partners whose party identification is different from self
	Diverse Discussion	The degree to which discussions or discussion partners are evenly distributed	Degree of equal discussion partners similar and dissimilar to self on party identification
Scheufele et al. (2004)	Network Heterogeneity	A network comprised of citizens coming from a variety of sociopolitical backgrounds	Total amount of differences among discussion partners in sex, race, and extreme political views
Scheufele et al. (2006)	Discussion Heterogeneity	--	Same as Scheufele et al. (2004)
Kwak et al. (2005)	Network Heterogeneity	--	An additive scale of the frequency of political discussion with those with different characteristics such as age, gender, education, ethnicity and political views

(continued)

Table 1 (continued)

	Label	Definition	Measurement
Eveland, Seo, et al. (2004)	Discussion Attention	--	Attentiveness subscale of Cegala's (1981) Interaction Involvement Scale
Kwak et al. (2005)	Discussion Attention	Effortful mental commitment to select and process information communicated in political discussion	Extent to which a respondent reported paying attention to their conversations on local politics or community issues
	Integrative Discussion	Degree to which individuals incorporate news from the media into discussion	Whether individuals talked to someone about an issue they had learned about in the news, if they tried to recall something they had seen in the news when discussing with others, and if they used stories they learned from the news as examples in discussion
Eveland & Thomson (2006)	Discussion Elaboration	--	Whether a respondent thought of things to say in advance of a discussion, thought about a topic of discussion after the discussion is over, and/or thought about one's own opinion more during or after the conversation
	Perspective Taking	Ability to imagine another's inner states	Six items tapping the degree to which the respondent takes others' viewpoints into consideration

	Item Wording	Response Options	Recoding
Gender	Determined by Interviewer	Male=1; Female =2	N/A
Age	Summary of Age	Age in Years	N/A
Income	Total Household Income	22 Categories ranging from \$4,999 or less to \$200,000 and over in increments of \$5,000	N/A
Education	Summary of Education	1=8 grades or less and no diploma 2=9-11 grades, no further schooling 3=high school diploma or equivalency 4=more than 12 years of schooling, no higher degree 5=junior or community college degree 6=BA level degree 7=Advanced degree	N/A
National Television News Exposure	Number of days in the past week watched national television news	0-7 days	N/A
Local Television News Exposure	Number of days in the past week watched early local television news  Number of days in the past week watched late local television news	0-7 days	Averaged into a local television news scale.
Newspaper Exposure	Number of days in the past week read a daily newspaper	0-7 days	N/A
Survey Mode	Determined by Interviewer	Face to face =1; Telephone=5	N/A
Network Size	N/A	N/A	Total number of discussion partners a respondent mentioned out of a possibility of four

N/A=not applicable; Source of Data: ANES 2000

Table 2. Item wording, response options, and recoding for study 1. (continued)

Table 2 (continued)

Discussion Frequency	How many days in the past week they had talked about politics with family or friends	0-7 Days	N/A
Discussion Dissimilarity	For each of up to 4 people with whom they discuss government, elections, and politics: indication of who they thought their discussion partner voted in the previous election	1=Gore; 3=Bush; 7=Some Other	1=1(Gore); 3=2(Bush); 7=3(Some Other) **If discussion partner and respondent were similar in vote choice, they were coded as 0. If either in the pair voted for 'some other,' the pair was coded as 1. If the pair voted opposite from each other, they were coded as 2. A count procedure was then used to decipher whether or not dissimilarity was present in the network. If a pair was coded as either a 1 or 2, dissimilarity was counted in the network.
Structural Knowledge	Clinton placement on a lib-con scale Gore placement on a lib-con scale Bush placement on a lib-con scale Buchanan placement on a lib-con scale Democrat Party placement on a lib-con scale Republican Party placement on a lib-con scale	1=Extremely Liberal 2=Liberal 3=Slightly Liberal 4=Moderate 5=Slightly Conservative 6=Conservative 7=Extremely Conservative	Clinton: 1-4, Correct(1); 5-7, Incorrect (0) Gore: 1-4, Correct(1); 5-7, Incorrect (0) Bush: 1-4, Incorrect(0); 5-7, Correct (1) Buchanan: 1-4, Incorrect(0); 5-7, Correct (1) Democratic Party: 1-3, Correct(1); 4-7, Incorrect (1) Republican Party: 1-4, Incorrect(0); 5-7, Correct (1)

Table 2 (continued)

Factual Knowledge	Identification of Tony Blair	1=Correctly identifies Blair; 5=Identification is incomplete or wrong; 8=Makes no attempt to guess	1=Correct(1); 5& 8=Incorrect(0)
	Identification of William Renquist	1=Correctly identifies Renquist; 5=Identification is incomplete or wrong; 8=Makes no attempt to guess	1=Correct(1); 5& 8=Incorrect(0)
	Identification of Trent Lott	1=Correctly identifies Lott; 5=Identification is incomplete or wrong; 8=Makes no attempt to guess	1=Correct(1); 5& 8=Incorrect(0)
	Identification of Janet Reno	1=Correctly identifies Reno; 5=Identification is incomplete or wrong; 8=Makes no attempt to guess	1=Correct(1); 5& 8=Incorrect(0)
	State Bush Lives	1=Connecticut; 2=Tennessee; 3=Texas; 4=Wyoming; 8=Don't Know	3=Correct(1); Else=Incorrect(0)
	State Gore is From	1=Connecticut; 2=Tennessee; 3=Texas; 4=Wyoming; 8=Don't Know	2=Correct(1); Else=Incorrect(0)
	State Cheney Lives	1=Connecticut; 2=Tennessee; 3=Texas; 4=Wyoming; 8=Don't Know	4=Correct(1); Else=Incorrect(0)
	State Lieberman is From	1=Connecticut; 2=Tennessee; 3=Texas; 4=Wyoming; 8=Don't Know	1=Correct(1); Else=Incorrect(0)
	Party in control of the House before the election	1=Democrats; 5=Republicans; 8=Don't Know	5=Correct (1); Else =Incorrect (0)
	Party in control of the Senate before the election	1=Democrats; 5=Republicans; 8=Don't Know	5=Correct (1); Else =Incorrect (0)

	X	Median	SD	%	$\alpha$
Gender	n/a	n/a	n/a	56.3 (female)	n/a
Age	47.21	n/a	16.96	n/a	n/a
Income	n/a	6 (35,000- 49,999)	n/a	n/a	n/a
Education	n/a	4 (more than 12 years, no higher degree)	n/a	n/a	n/a
National television news exposure	3.29	n/a	2.80	n/a	n/a
Local television news exposure	2.92	n/a	2.33	n/a	.56
Newspaper exposure	3.45	n/a	2.92	n/a	n/a
Survey Mode	n/a	n/a	n/a	55.7% (face to face)	n/a
Network size	1.86	n/a	1.48	n/a	n/a
Discussion frequency	4.18	n/a	2.80	n/a	n/a
Discussion Dissimilarity	.25	n/a	.44	21.8	n/a
Factual Knowledge	.36	n/a	.28	n/a	.85
Structural Knowledge	.77	n/a	.29	n/a	.79

n/a= not applicable; Source of Data: ANES 2000

Table 3. Descriptive statistics for study 1.

	Item Wording	Response Options	Recoding
Gender	--	Male=0; Female =1	N/A
Age	Asked to provide year of birth	Year of Birth	Year of birth subtracted from the year in which they took the survey
Education	Summary of Education	1=8 <sup>th</sup> grade or less 2=Some high school 3=High school graduate 4=Some college 5=College graduate 6=MA degree 7=Ph.D/M.D./JDD/Professional school 8=Technical/Trade school	N/A
National Television News Exposure	Number of days in the past week watched national television news	0-7 days	N/A
Local Television News Exposure	Number of days in the past week watched local television news	0-7 days	N/A
Newspaper Exposure	Number of days in the past week read a print newspaper	0-7 days	N/A
Network Size	Number of different people a respondent talked to about Ohio politics in the past week	Total number of people	N/A
Discussion Frequency	Number of days last week one talked to someone-including friends, family, neighbors, and co-workers-about Ohio politics	0-7 Days	N/A

N/A=not applicable; Source of Data: TOPS 2006-2007

Table 4. Item wording, response options, and recoding for study 2. (continued)



Table 4 (continued)

	Item Wording	Response Options	Recoding
Discussion Dissimilarity	How many days last week one talked to one or more Republicans about Ohio politics	0-7 days	All participants were originally set to 0. If respondents talked to one or more Republicans at least one day a week and they were either a Democrat, considered themselves closer to the Democratic Party, or considered themselves and Independent not leaning closer to either party, their dissimilarity score was changed from 0 to 1.
	How many days last week one talked to one or more Democrats about Ohio politics	0-7 days	If respondents talked to one or more Democrats at least one day a week and they were either a Republican, considered themselves closer to the Republican Party, or considered themselves an Independent not leaning closer to either party, their dissimilarity score was changed from 0 to 1.
Perspective Taking	I try to look at everybody's side of a disagreement before I make a decision	5 point Likert scale where 1=Strongly disagree and 5=Strongly agree	Items combined into an additive index
	I sometimes try to understand others better by imagining how things look from their perspective		
	When I'm upset at someone, I usually try to put myself in his or her shoes for a while		
	Before criticizing somebody, I try to imagine how I would feel if I were in their place		

Table 4 (continued)

	Item Wording	Response Options	Recoding
Structural Knowledge Waves I and II (identical items and coding)	Think of Ken Blackwell, candidate for governor, as liberal, moderate, or conservative on most political issues?	1=liberal; 2=moderate; 3=conservative; 7=don't know	3=Correct(1); else =Incorrect (0) OR
	Would you say that he is more on the liberal side or the conservative side?	1=liberal side; 2=conservative side; 3=neither; 7=don't know	2=Correct (1); else =Incorrect (0)
	Think of Ted Strickland, candidate for governor, as liberal, moderate, or conservative on most political issues?	1=liberal; 2=moderate; 3=conservative; 7=don't know	1=Correct (1); else =Incorrect (0) OR
	Would you say that he is more on the liberal side or the conservative side?	1=liberal side; 2=conservative side; 3=neither; 7=don't know	1=Correct (1); else =Incorrect (0)
	Think of Mike DeWine, candidate for U.S. governor, as liberal, moderate, or conservative on most political issues?	1=liberal; 2=moderate; 3=conservative; 7=don't know	3=Correct(1); else =Incorrect (0) OR
	Would you say that he is more on the liberal side or the conservative side?	1=liberal side; 2=conservative side; 3=neither; 7=don't know	2=Correct (1); else =Incorrect (0)
	Think of Sherrod Brown, candidate for U.S. governor, as liberal, moderate, or conservative on most political issues?	1=liberal; 2=moderate; 3=conservative; 7=don't know	1=Correct (1); else =Incorrect (0) OR
	Would you say that he is more on the liberal side or the conservative side?	1=liberal side; 2=conservative side; 3=neither; 7=don't know	1=Correct (1); else =Incorrect (0)
			**Correct answers averaged together for a structural knowledge score

	X	Median	SD	%	A
Gender	n/a	n/a	n/a	58.4 (female)	n/a
Age	51.22	n/a	15.77	n/a	n/a
Education	n/a	4 (some college)	n/a	n/a	n/a
National television news exposure	3.35	n/a	2.78	n/a	n/a
Local television news exposure	4.61	n/a	2.65	n/a	n/a
Newspaper exposure	3.69	n/a	2.95	n/a	n/a
Network size	4.71	n/a	7.02	n/a	n/a
Discussion frequency	2.28	n/a	2.14	n/a	n/a
Discussion Dissimilarity	.49	n/a	.50	49.7%	n/a
Perspective Taking	3.83	n/a	.58	n/a	.63
Structural Knowledge Wave I	.52	n/a	.40	n/a	.82
Structural Knowledge Wave II	.64	n/a	.38	n/a	.81

n/a= not applicable; Source of Data: TOPS 2006-2007

Table 5. Descriptive statistics for study 2.

	Asian	Hispanic	African American	Caucasian	Native American
Beechcroft, N=8 (N=872)*	-- (2)	12 (3)	75 (79)	12.5 (16)	-- (--)
Hayes, N=4 (N=612)*	-- (2)	-- (2)	-- (66)	100 (29)	-- (--)
Linden McKinley, N=1 (N=753)*	-- (--)	-- (--)	100 (94)	-- (4)	-- (--)
Whetstone, N=33 (N=1071)*	-- (1)	-- (2)	18.8 (35)	81.3 (61)	-- (--)
North, N=1 (N=359)*	-- (--)	-- (--)	100 (77)	-- (20)	-- (--)
South, N=2 (N=838)*	-- (--)	-- (--)	50 (84)	50 (14)	-- (--)
Mifflin, N=4 (N=951)*	-- (--)	-- (--)	75 (92)	-- (7)	25 (--)
Independence, N=5 (N=973)*	-- (1)	-- (2)	100 (91)	-- (6)	-- (--)
West, N=3 (N=1096)*	-- (5)	-- (7)	33.3 (33)	66.7 (55)	-- (--)
Eastmoor, N=15 (N=739)*	-- (--)	-- (3)	92.3 (91)	7.7 (5)	-- (--)
Centennial, N=31 (N=768)*	-- (7)	-- (4)	13.3 (42)	73.3 (47)	13.3 (--)
Columbus Alternative, N=13 (N=601)*	8.3 (5)	8.3 (3)	-- (60)	75 (32)	8.3 (--)
Northland, N=23 (N= 1175)*	-- (2)	-- (5)	47.6 (73)	47.6 (20)	4.8 (--)
Marion- Franklin, N=28 (N=961)*	-- (1)	-- (1)	22.2 (53)	70.4 (45)	7.4 (--)
Briggs, N=19 (N=984)*	-- (4)	-- (3)	16.7 (25)	72.2 (68)	11.1 (--)
East, N=9 (N=940)*	-- (1)	-- (1)	100 (94)	-- (4)	-- (--)
Overall Percentages	.5 (1.9)	1.1 (5.2)	36.3 (61.4)	56.3 (28.3)	5.8 (.3)

()=School racial demographic percentages; \*=School enrollment

Table 6. Percentage of each racial demographic by school within Kids Voting sample.

	Item Wording	Response Options	Recoding
Gender	Asked to indicate gender	Male=1; Female =2	N/A
Age	Asked to provide year of birth	Year of Birth	Year of birth subtracted from the year in which they took the survey
Year in School	Asked if a freshman, sophomore, junior, or senior	1=freshman 2=sophomore 3=junior 4=senior	N/A
National Television News Exposure	Number of days in the past week watched national television news	0-7 days	N/A
Local Television News Exposure	Number of days in the past week watched local television news	0-7 days	N/A
Newspaper Exposure	Number of days in the past week read a print newspaper	0-7 days	N/A
Network Size	N/A	N/A	Computed by counting the number of discussion partners mentioned when asked to name up to two people with whom they discussed important matters
Discussion Frequency	Number of days in the past week talked to someone about the news	0-7 Days	N/A

N/A=not applicable; Source of Data: Kids Voting 2005

Table 7. Item wording, response options, and recoding for study 3. (continued)

Table 7 (continued)

	Item Wording	Response Options	Recoding
Discussion Dissimilarity	For each of up to 2 people with whom they discuss important matters: asked to indicate each partner's perceived party identification	1=democrat; 2=republican; 8=other; 9=don't know	If the respondent and a discussion partner were similar in party identification, they were coded 0. If the discussion partner was perceived to identify with 'some other' party the pair was coded as 1. If one partner aligned with the Republican Party and the other with the Democratic Party the pair was coded 2. A count procedure was then used to decipher whether or not dissimilarity was present in one's discussion network. If a pair was scored either a 1 or 2, dissimilarity was counted in the network. Those responding that they didn't know a respondent's party identification were not included.
Perspective Taking	I try to look at everybody's side of an issue before I make a decision  I sometimes try to understand others better by imagining how things look from their perspective  I am able to set my opinion aside to hear what others have to say about an issue	5 point Likert scale where 1=Strongly disagree and 5=Strongly agree	Items combined into an additive index

Table 7 (continued)

	Item Wording	Response Options	Recoding
Discussion Elaboration	<p>When I talk to someone about the news, I often relate what they say to my own experiences</p> <p>When I talk with others about something in the news, I usually think about that topic after the conversation is over</p> <p>When I talk to others about something in the news, it often makes me think more about my own opinions and beliefs</p>	Scale of 1=not at all and 10=very much	Items were averaged to create a measure of discussion elaboration
Factual Knowledge	Asked to match a list of names to their respective roles.	Chief Justice of the U.S. Supreme Court U.S. Secretary of Defense Vice President of the U.S. CIA agent at the center of a recent scandal Governor of Florida U.S. Secretary of State Person indicted for violation of campaign finance laws Speaker of the U.S. House of Representatives Nominee for seat on U.S. Supreme Court U.S. House Minority Leader U.S. Representative who called for pullout of troops from Iraq	Calculated as a percentage score (0-100) of correctly matched names and roles. Items were scored as either 1=correctly matched or 0=incorrectly matched.

Table 7 (continued)

	Item Wording	Response Options	Recoding
Structural Knowledge	Asked to indicate the extent to which five issues were related by circling the correct number, with “1” meaning “not at all related” and “5” meaning “very closely related.”	Terrorism and fuel prices Terrorism and the economy Terrorism and natural disasters Terrorism and unemployment Terrorism and the environment Terrorism and national debt Fuel prices and the economy Fuel prices and natural disasters Fuel prices and unemployment Fuel prices and the environment Fuel prices and national debt The economy and natural disasters The economy and unemployment The economy and the environment The economy and national debt Natural disasters and unemployment Natural disasters and the environment Natural disasters and national debt Unemployment and the environment Unemployment and national debt The environment and national debt	If a respondent indicated a response of 2 or higher for each issue pair, the pair was coded as 1 indicating a connection. If a 1 was indicated, the pair was coded as 0 for no connection. Items were averaged together to form a scale of structural knowledge.



	X	Median	SD	%	$\alpha$
Gender	n/a	n/a	n/a	53.7 (female)	n/a
Age	15.44	n/a	1.19	n/a	n/a
Year in School	n/a	2 (sophomore)	n/a	n/a	n/a
National television news exposure	2.68	n/a	2.26	n/a	n/a
Local television news exposure	4.42	n/a	2.03	n/a	n/a
Newspaper exposure	2.64	n/a	2.24	n/a	n/a
Network size	1.94	n/a	.30	n/a	n/a
Discussion frequency	3.45	n/a	2.16	n/a	n/a
Discussion Dissimilarity	.19	n/a	.40	19.4	n/a
Perspective Taking	3.90	n/a	.65	n/a	.60
Discussion Elaboration	5.70	n/a	2.08	n/a	.76
Factual Knowledge	.49	n/a	.33	n/a	.93
Structural Knowledge	.82	n/a	.19	n/a	.86

n/a= not applicable; Source of Data: Kids Voting 2005

Table 8. Descriptive statistics for study 3.

	Age	Year in School	Gender	National TV Exposure	Local TV Exposure	Newspaper Exposure
Beechcroft (N=8)	16.63 (.92)	3.38 (.92)	1.75 (.46)	2.89 (2.75)	5.25 (1.58)	3.25 (1.75)
Hayes (N=4)	15.75 (.50)	2.50 (.58)	1.25 (.50)	1.75 (1.71)	4.00 (2.45)	4.50 (1.73)
Linden	17.00	3.50	1.75	3.25	4.50	3.25
McKinley (N=4)	(.82)	(.58)	(.50)	(1.50)	(2.52)	(1.50)
North (N=1)	16.00	3.00	2.00	6.00	6.00	6.00
Whetstone (N=33)	15.73 (1.18)	2.09 (1.2)	1.42 (.50)	2.24 (2.11)	4.12 (2.08)	2.64 (2.45)
South (N=2)	15.00 (.00)	2.00 (.00)	1.50 (.71)	2.00 (1.41)	3.00 (2.83)	1.50 (2.12)
Mifflin (N=4)	16.50 (1.73)	2.75 (1.5)	2.00 (.00)	1.50 (1.91)	3.75 (2.75)	1.50 (1.29)
Independence (N=5)	14.60 (.55)	1.20 (.45)	1.80 (.45)	4.00 (1.15)	5.25 (2.36)	1.50 (1.00)
West (N=3)	16.00 (1.00)	2.67 (1.16)	1.67 (.58)	.67 (.58)	5.67 (1.63)	5.00 (2.00)
Eastmoor (N=15)	15.27 (1.53)	2.00 (1.25)	1.47 (.52)	3.33 (2.23)	5.47 (1.81)	2.67 (2.29)
Centennial (N=31)	15.23 (1.10)	1.87 (.99)	1.48 (.51)	2.87 (2.14)	4.29 (1.92)	2.90 (2.31)
Columbus Alternative (N=13)	15.54 (.97)	2.23 (.83)	1.54 (.52)	2.31 (2.32)	3.62 (1.80)	2.08 (2.36)
Northland (N=23)	15.00 (.80)	1.78 (.80)	1.48 (.51)	3.00 (2.45)	3.87 (2.20)	2.65 (2.04)
Marion- Franklin (N=28)	15.29 (1.08)	1.82 (1.02)	1.54 (.51)	2.50 (2.47)	4.18 (2.09)	2.86 (2.63)
Briggs (N=19)	15.26 (.148)	1.89 (1.20)	1.63 (.50)	2.53 (2.44)	5.16 (1.64)	1.73 (2.00)
East (N=9)	14.63 (1.85)	1.50 (.76)	1.63 (.52)	2.53 (2.60)	5.00 (2.06)	2.22 (1.64)

()=standard deviations

Source of Data: Kids Voting 2005

Table 9. Means and Standard Deviations of Kids Voting variables by school.

(continued)

Table 9 (continued)

	Discussion Dissimilarity	Discussion Frequency	Factual Political Knowledge	Discussion Elaboration	Knowledge Structure Density	Perspective Taking
Beechcroft (N=8)	.13 (.35)	4.88 (1.81)	.27 (.18)	6.46 (1.84)	3.12 (.55)	4.04 (.52)
Hayes (N=4)	.25 (.50)	5.25 (2.22)	.79 (.33)	6.67 (2.65)	2.56 (.70)	4.00 (.00)
Linden McKinley (N=4)	.00 (.00)	3.25 (2.63)	.31 (.30)	5.58 (.69)	2.68 (.72)	3.83 (.33)
North (N=1)	.00	6.00	.85	9.67	2.48	5.00
Whetstone (N=33)	.21 (.42)	3.33 (1.98)	.54 (.35)	6.10 (1.60)	3.28 (.54)	4.05 (.56)
South (N=2)	.00 (.00)	2.00 (2.83)	.31 (.00)	5.17 (2.12)	2.98 (.37)	3.83 (.24)
Mifflin (N=4)	.25 (.50)	2.50 (2.65)	.50 (.24)	4.67 (2.16)	3.16 (.77)	3.50 (.58)
Independence (N=5)	.40 (.55)	4.25 (2.22)	.63 (.35)	4.73 (2.32)	3.71 (.90)	3.50 (1.14)
West (N=3)	.00 (.00)	3.00 (2.00)	.35 (.27)	3.67 (.94)	2.40 (.77)	4.00 (.47)
Eastmoor (N=15)	.29 (.46)	3.80 (2.60)	.32 (.33)	5.33 (1.80)	3.21 (.48)	1.87 (.52)
Centennial (N=31)	.29 (.46)	3.35 (2.26)	.55 (.33)	5.61 (2.21)	3.33 (.59)	3.77 (.57)
Columbus Alternative (N=13)	.23 (.44)	3.00 (1.92)	.66 (.31)	5.15 (2.23)	3.43 (.53)	4.00 (.49)
Northland (N=23)	.26 (.45)	3.78 (2.39)	.54 (.35)	5.99 (2.31)	2.98 (.56)	1.87 (.48)
Marion- Franklin (N=28)	.25 (.44)	3.18 (1.96)	.40 (.28)	5.36 (2.30)	3.36 (.81)	1.86 (.46)
Briggs (N=19)	.12 (.32)	2.79 (1.96)	.47 (.35)	5.88 (2.22)	3.03 (.79)	4.05 (.42)
East (N=9)	.00 (.00)	4.00 (2.24)	.60 (.40)	6.04 (2.12)	3.39 (1.10)	1.88 (.35)

( )=standard deviations

Source of Data: Kids Voting 2005

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Mode (1)	1						
Gender (2)	.02	1					
Education (3)	.05*	-.07**	1				
Income (4)	.02	-.14**	.43**	1			
Age (5)	.00	.04	-.13**	-.09**	1		
Nat. TV (6)	.02	.00	.02	.04	.35**	1	
Loc. TV (7)	.00	.06**	-.11**	-.07**	.25**	.52**	1
Newspaper (8)	.05*	-.11**	.16**	.17**	.30**	.22**	.17**
Discussion Frequency (9)	.07**	-.07**	.26**	.25**	-.01	.19**	.07**
Network Size (10)	-.07**	-.09**	.29**	.25**	-.06*	.08**	-.01
Discussion Dissimilarity (11)	-.03	-.06*	.21**	.15**	-.03	.05**	-.04
Factual Knowledge (12)	.01	-.21**	.41**	.27**	.17**	.20**	.06**
Structural Knowledge (13)	.07**	-.07**	.32**	.19**	-.01	.05*	-.09**

\*\*p<.01 (two-tailed test), \*p<.05 (two-tailed test)

Source of data: ANES 2000

Table 10. Bivariate correlations of all control variables, independent variables, and dependent variables in study 1.

(continued)

Table 10 (continued)

	(8)	(9)	(10)	(11)	(12)	(13)
Mode (1)						
Gender (2)						
Education (3)						
Income (4)						
Age (5)						
Nat. TV (6)						
Loc. TV (7)						
Newspaper (8)	1					
Discussion Frequency (9)	.21**	1				
Network Size (10)	.12**	.44**	1			
Discussion Dissimilarity (11)	.10**	.22**	.44**	1		
Factual Knowledge (12)	.29**	.34**	.32**	.22**	1	
Structural Knowledge (13)	.09**	.19**	.19**	.14**	.40**	1

\*\*p<.01 (two-tailed test), \*p<.05 (two-tailed test)

	Model 1	Model 2	Model 3	Model 4	Model 5
<b>Block 1</b>					
Mode	.021	.003	.000	-.013	.001
<b>Block 2</b>					
Gender		-.252**	-.234**	-.230**	-.225**
Education		.429**	.400**	.372**	.343**
Income		.121**	.095**	.070**	.062*
Age		.216**	.117**	.134**	.136**
<b>Block 3</b>					
National TV			.138**	.109**	.103**
Local TV			.003	-.001	.006
Newspaper			.145**	.118**	.113**
<b>Block 4</b>					
Discussion Frequency				.176**	.119**
<b>Block 5</b>					
Network Size					.126**
Discussion Dissimilarity					.048*
<b>Adj. R<sup>2</sup></b>	.000	.345	.381	.407	.423
<b>Δ R<sup>2</sup></b>	.000	.347**	.038**	.026**	.017**
<b>N</b>	1288	1288	1288	1288	1288

Note: Coefficients are standardized regression coefficients (betas).

\*p<.05, \*\*p<.01.

Source of Data: ANES 2000

Table 11. Hierarchical regression predicting factual knowledge from discussion frequency and discussion dissimilarity.

	Model 1	Model 2	Model 3	Model 4	Model 5
<b>Block 1</b>					
Mode	.079**	.059*	.055*	.048#	.056*
<b>Block 2</b>					
Gender		-.035	-.029	-.028	-.026
Education		.277**	.258**	.245**	.228**
Income		.076*	.061*	.049	.044
Age		.016	.000	.009	.009
<b>Block 3</b>					
National TV			.100**	.085*	.082*
Local TV			-.131**	-.132**	-.127**
Newspaper			.047	.034	.032
<b>Block 4</b>					
Discussion Frequency				.092**	.059#
<b>Block 5</b>					
Network Size					.070*
Discussion Dissimilarity					.037
<b>Adj. R<sup>2</sup></b>	.005	.105	.121	.127	.132
<b>Δ R<sup>2</sup></b>	.006*	.102**	.018**	.007**	.006*
<b>N</b>	1213	1213	1213	1213	1213

Note: Coefficients are standardized regression coefficients (betas).

#p<.10, \*p<.05, \*\*p<.01.

Source of data: ANES 2000

Table 12. Hierarchical regression predicting structural knowledge from discussion dissimilarity.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Age (1)	1						
Education (2)	-.08	1					
Gender (3)	.04	-.05	1				
Nat TV (4)	.27**	-.05	.02	1			
Loc. TV (5)	.17**	-.18**	.09*	.30**	1		
Newspaper (6)	.26**	.07	-.01	.25**	.10*	1	
Perspective Taking (7)	-.08	-.01	.10*	.02	.00	-.05	1
Discussion Frequency (8)	.00	.09*	-.05	.21**	.08*	.13**	.07
Network Size (9)	-.04	.10*	-.05	.09*	-.00	.112**	.07
Discussion Dissimilarity (10)	.01	.03	-.10*	.12**	.01	.06	.06
Structural Knowledge T1 (11)	.04	.26**	-.15**	.08*	-.06	.15**	-.01
Structural Knowledge T2 (12)	.01	.24**	-.15	.10**	-.08	.11*	.03

\*\*p<.01 (two-tailed test), \*p<.05 (two-tailed test)

Source of Data: TOPS 2006-2007

Table 13. Bivariate correlations of all control variables, independent variables, and dependent variables in study 2.

(continued)



Table 13 (continued)

	(8)	(9)	(10)	(11)	(12)
Age (1)					
Education (2)					
Gender (3)					
Nat TV (4)					
Loc. TV (5)					
Newspaper (6)					
Perspective Taking (7)					
Discussion Frequency (8)	1				
Network Size (9)	.56**	1			
Discussion Dissimilarity (10)	.46**	.33**	1		
Structural Knowledge T1 (11)	.26**	.17**	.17**	1	
Structural Knowledge T2 (12)	.22**	.09	.11*	.74**	1

\*\*p<.01 (two-tailed test), \*p<.05 (two-tailed test)

	Model 1	Model 2	Model 3	Model 4	Model 5
<b>Block 1</b>					
Age	.037	-.004	.005	.002	.007
Education	.225**	.211**	.190**	.192**	.190**
Gender	-.149**	-.140**	-.133**	-.138**	-.146**
<b>Block 2</b>					
National TV Exposure		.116*	.082	.079	.077
Local TV Exposure		-.049	-.060	-.065	-.065
Newspaper Exposure		.057	.044	.048	.052
<b>Block 3</b>					
Discussion Frequency			.177**	.230**	.227**
<b>Block 4</b>					
Network Size				-.087	-.089
Discussion Dissimilarity				-.012	-.011
<b>Block 5</b>					
Perspective Taking					.047
<b>Adj. R<sup>2</sup></b>	.070	.078	.105	.106	.106
<b>Δ R<sup>2</sup></b>	.077**	.016*	.029**	.006	.002
<b>N</b>	360	360	360	360	360

Note: Coefficients are standardized regression coefficients (betas).

#p<.10, \*p<.05, \*\*p<.01.

Source of Data: TOPS 2006-2007

Table 14. Hierarchical regression predicting structural knowledge at Time II from discussion dissimilarity and perspective taking.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<b>Block 1</b>						
Structural Knowledge TI	.747**	.733**	.732**	.722**	.728**	.728**
<b>Block 2</b>						
Age		.012	.010	.011	.008	.008
Education		.043	.039	.037	.041	.041
Gender		-.013	-.007	-.007	-.009	-.009
<b>Block 3</b>						
National TV Exposure			.059	.055	.052	.052
Local TV Exposure			-.039	-.041	-.045	-.045
Newspaper Exposure			-.030	-.031	-.027	-.026
<b>Block 4</b>						
Discussion Frequency				.025	.064	.064
<b>Block 5</b>						
Network Size					-.096*	-.096*
Discussion Dissimilarity					.028	.028
<b>Block 6</b>						
Perspective Taking						.001
<b>Adj. R<sup>2</sup></b>	.557	.555	.555	.554	.558	.557
<b>Δ R<sup>2</sup></b>	.558**	.002	.004	.001	.006*	.000
<b>N</b>	360	360	360	360	360	360

Note: Coefficients are standardized regression coefficients (betas). #p<.10, \*p<.05, \*\*p<.01.  
Source of Data: TOPS 2006-2007

Table 15. Hierarchical regression predicting structural knowledge at Time II from discussion dissimilarity and perspective taking, controlling for Time I structural knowledge.

	Model 1	Model 2	Model 3	Model 4
<b>Block 1</b>				
Age	-.092*	-.096*	-.091*	-.090*
Education	-.014	-.013	-.021	-.021
Gender	.095*	.096*	.098*	.100*
<b>Block 2</b>				
National TV Exposure		.064	.049	.049
Local TV Exposure		-.022	-.024	-.022
Newspaper Exposure		-.037	-.044	-.046
<b>Block 3</b>				
Discussion Frequency			.073#	.046
<b>Block 4</b>				
Network Size				.030
Discussion Dissimilarity				.023
<b>Adj. R<sup>2</sup></b>	.011	.010	.013	.011
<b>Δ R<sup>2</sup></b>	.017*	.004	.005#	.001
<b>N</b>	550	550	550	550

Note: Coefficients are standardized regression coefficients (betas).

#p<.10, \*p<.05, \*\*p<.01.

Source of Data: TOPS 2006-2007

Table 16. Hierarchical regression predicting perspective taking from discussion dissimilarity.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Age (1)	1						
Gender (2)	.07	1					
Year in School (3)	.87**	.12	1				
Nat. TV (4)	.07	-.03	.08	1			
Loc. TV (5)	.05	.09	.07	.44**	1		
Newspaper (6)	.06	-.08	.08	.24**	.18*	1	
Discussion Frequency (7)	.10	.09	.14	.47**	.37**	.30*	1
Discussion Dissimilarity (8)	.07	-.18*	.01	.04	-.15*	.16**	.06
Discussion Elaboration (9)	.11	.04	.18*	.16*	.18*	.16*	.43**
Network Size (10)	-.07	-.02	-.01	.05	.05	-.06*	.14
Perspective Taking (11)	.05	.12	.03	.03	.08	-.00	.18*
Factual Knowledge (12)	-.09	-.10	-.02	.12	.02	.17**	.21**
Structural Knowledge (13)	-.06	-.02	-.06	.01	.04	-.07	.01

\*\*p<.01 (two-tailed test), \*p<.05 (two-tailed test)

Source of Data: Kids Voting 2005

Table 17. Bivariate correlations of all control variables, independent variables, and dependent variables in study 3.

(continued)

Table 17 (continued)

	(8)	(9)	(10)	(11)	(12)	(13)
Age (1)						
Gender (2)						
Year in School (3)						
Nat. TV (4)						
Loc. TV (5)						
Newspaper (6)						
Discussion Frequency (7)						
Discussion Dissimilarity (8)	1					
Discussion Elaboration (9)	.09	1				
Network Size (10)	.08	.12	1			
Perspective Taking (11)	-.09	.35**	.07	1		
Factual Knowledge (12)	.22**	.26**	.16*	.02	1	
Structural Knowledge (13)	.02	-.07	-.02	.10	.02	1

\*\*p<.01 (two-tailed test), \*p<.05 (two-tailed test)

	Model 1	Model 2	Model 3	Model 4
<b>Block 1</b>				
Gender	-.131#	-.113#	-.129#	-.130#
Year in School	.240	.216	.181	.135
Age	-.272#	-.268	-.245#	-.220
<b>Block 2</b>				
National TV Exposure		-.096	.029	.036
Local TV Exposure		.021	-.054	-.061
Newspaper Exposure		.123#	.088	.074
<b>Block 3</b>				
Discussion Frequency			.189*	.083
<b>Block 4</b>				
Discussion Elaboration				.255**
<b>Adj. R<sup>2</sup></b>	.016	.028	.048	.096
<b>Δ R<sup>2</sup></b>	.031	.027	.024*	.051**
<b>N</b>	196	196	196	196

Note: Coefficients are standardized regression coefficients (betas).

#p<.10, \*p<.05, \*\*p<.01.

Source of Data: Kids Voting 2005

Table 18. Hierarchical regression predicting factual knowledge from discussion frequency and discussion elaboration.

	Model 1	Model 2	Model 3
<b>Block 1</b>			
Gender	.030	.039	.005
Year in School	.296#	.257*	.180
Age	-.158	-.149	-.098
<b>Block 2</b>			
National TV Exposure		.123	-.024
Local TV Exposure		.100	.026
Newspaper Exposure		.133#	.055
<b>Block 3</b>			
Discussion Frequency			.414**
<b>Adj. R<sup>2</sup></b>	.019	.070	.186
<b>Δ R<sup>2</sup></b>	.034#	.064**	.117**
<b>N</b>	196	196	196

Note: Coefficients are standardized regression coefficients (betas).

#p<.10, \*p<.05, \*\*p<.01.

Source of Data: Kids Voting 2005

Table 19. Hierarchical regression predicting discussion elaboration from discussion frequency.



	Model 1	Model 2	Model 3	Model 4	Model 5
<b>Block 1</b>					
Gender	-.131#	-.113	-.129#	-.094	-.098
Year in School	.240	.216	.181	.203	.161
Age	-.272#	-.268#	-.245#	-.268#	-.245#
<b>Block 2</b>					
National TV Exposure		.096	.029	.019	.026
Local TV Exposure		-.021	-.054	-.013	-.022
Newspaper Exposure		.123#	.088	.069	.057
<b>Block 3</b>					
Discussion Frequency			.189*	.151#	.058
<b>Block 4</b>					
Network Size				.114	.100
Discussion Dissimilarity				.196**	.183*
<b>Block 5</b>					
Discussion Elaboration					.233**
<b>Adj. R<sup>2</sup></b>	.016	.028	.048	.092	.131
<b>Δ R<sup>2</sup></b>	.031	.027	.024*	.051**	.042**
<b>N</b>	196	196	196	196	196

Note: Coefficients are standardized regression coefficients (betas).

#p<.10, \*p<.05, \*\*p<.01.

Source of Data: Kids Voting 2005

Table 20. Hierarchical regression predicting factual knowledge from discussion dissimilarity and discussion elaboration.

	Model 1	Model 2	Model 3	Model 4
<b>Block 1</b>				
Gender	.030	.039	.005	.016
Year in School	.296*	.257#	.180	.182
Age	-.158	-.149	-.098	-.099
<b>Block 2</b>				
National TV Exposure		.123	-.024	-.027
Local TV Exposure		.100	.026	.038
Newspaper Exposure		.133#	.055	.053
<b>Block 3</b>				
Discussion Frequency			.414**	.398**
<b>Block 4</b>				
Network Size				.061
Discussion Dissimilarity				.059
<b>Adj. R<sup>2</sup></b>	.019	.070	.186	.185
<b>Δ R<sup>2</sup></b>	.034#	.064**	.117**	.007
<b>N</b>	196	196	196	196

Note: Coefficients are standardized regression coefficients (betas).

#p<.10, \*p<.05, \*\*p<.01.

Source of Data: Kids Voting 2005

Table 21. Hierarchical regression predicting discussion elaboration from discussion dissimilarity.

	Model 1	Model 2	Model 3	Model 4	Model 5
<b>Block 1</b>					
Gender	.008	-.003	-.001	.004	.006
Year in School	-.071	-.070	-.065	-.048	-.026
Age	.018	.018	.015	-.006	-.018
<b>Block 2</b>					
National TV Exposure		.046	.055	.051	.047
Local TV Exposure		.056	.061	.073	.078
Newspaper Exposure		-.094	-.089	-.102	-.096
<b>Block 3</b>					
Discussion Frequency			-.024	-.022	.025
<b>Block 4</b>					
Network Size				-.035	-.027
Discussion Dissimilarity				.055	.063
<b>Block 5</b>					
Discussion Elaboration					-.120
<b>Adj. R<sup>2</sup></b>	-.012	-.016	-.021	-.028	-.022
<b>Δ R<sup>2</sup></b>	.003	.012	.000	.003	.011
<b>N</b>	196	196	196	196	196

Note: Coefficients are standardized regression coefficients (betas).

#p<.10, \*p<.05, \*\*p<.01.

Source of Data: Kids Voting 2005

Table 22. Hierarchical regression predicting structural knowledge from discussion dissimilarity and discussion elaboration.

	Model 1	Model 2	Model 3	Model 4
<b>Block 1</b>				
Gender	.152*	.149*	.134#	.123#
Year in School	-.068	-.080	-.113	-.148
Age	.069	.072	.094	.135
<b>Block 2</b>				
National TV Exposure		.049	-.013	-.005
Local TV Exposure		.069	.038	.013
Newspaper Exposure		.009	-.024	.002
<b>Block 3</b>				
Discussion Frequency			.175*	.173*
<b>Block 4</b>				
Network Size				.067
Discussion Dissimilarity				-.108
<b>Adj. R<sup>2</sup></b>	.008	.003	.019	.022
<b>Δ R<sup>2</sup></b>	.023	.010	.021*	.013
<b>N</b>	196	196	196	196

Note: Coefficients are standardized regression coefficients (betas).

#p<.10, \*p<.05, \*\*p<.01.

Source of Data: Kids Voting 2005

Table 23. Hierarchical regression predicting perspective taking from discussion dissimilarity.

	Model 1	Model 2	Model 3	Model 4	Model 5
<b>Block 1</b>					
Gender	.008	-.003	-.001	.004	-.005
Year in School	-.071	-.070	-.065	-.048	-.036
Age	.018	.018	.015	-.006	-.017
<b>Block 2</b>					
National TV Exposure		.046	.055	.051	.051
Local TV Exposure		.056	.061	.073	.072
Newspaper Exposure		-.094	-.089	-.102	-.102
<b>Block 3</b>					
Discussion Frequency			-.024	-.022	-.036
<b>Block 4</b>					
Network Size				-.035	-.040
Discussion Dissimilarity				.055	.064
<b>Block 5</b>					
Perspective Taking					.078
<b>Adj. R<sup>2</sup></b>	-.012	-.016	-.021	-.028	-.028
<b>Δ R<sup>2</sup></b>	.003	.012	.000	.003	.006
<b>N</b>	196	196	196	196	196

Note: Coefficients are standardized regression coefficients (betas).

#p<.10, \*p<.05, \*\*p<.01.

Source of Data: Kids Voting 2005

Table 24. Hierarchical regression predicting structural knowledge from discussion dissimilarity and perspective taking.

	Model 1	Model 2	Model 3	Model 4
<b>Block 1</b>				
Gender	.008	-.003	-.001	-.001
Year in School	-.071	-.070	-.065	-.044
Age	.018	.018	.015	.004
<b>Block 2</b>				
National TV Exposure		.046	.055	.052
Local TV Exposure		.056	.061	.064
Newspaper Exposure		-.094	-.089	-.083
<b>Block 3</b>				
Discussion Frequency			-.024	.025
<b>Block 4</b>				
Discussion Elaboration				-.117
<b>Adj. R<sup>2</sup></b>	-.012	-.016	-.021	.015
<b>Δ R<sup>2</sup></b>	.003	.012	.000	.011
<b>N</b>	196	196	196	196

Note: Coefficients are standardized regression coefficients (betas).

#p<.10, \*p<.05, \*\*p<.01.

Source of Data: Kids Voting 2005

Table 25. Hierarchical regression predicting structural knowledge from discussion frequency and discussion elaboration.

	<b>Study 1</b> <b>Data: 2000 ANES</b>	<b>Study 2</b> <b>Data: TOPS 2006-2007</b>	<b>Study 3</b> <b>Data: Kids Voting</b> <b>2005</b>
<b>Hypothesis 1</b>	**	N/A	**
<b>Hypothesis 2</b>	N/A	N/A	**
<b>Hypothesis 3</b>	N/A	N/A	**
<b>Hypothesis 4</b>	N/A	N/A	--
<b>Hypothesis 5</b>	--	--	--
<b>Hypothesis 6</b>	N/A	--	--
<b>Hypothesis 7</b>	N/A	--	--
<b>Hypothesis 8</b>	**	N/A	**
<b>Hypothesis 9</b>	N/A	N/A	--
<b>Hypothesis 10</b>	N/A	N/A	--
<b>Hypothesis 11</b>	N/A	N/A	--

(\*\*) = supported; (--) = not supported; N/A= not applicable

Table 26. Summary of hypotheses tests across studies.

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