

Fragmentation and Social Polarization: The Character of  
Political Attitude Extremism in America.

BY

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## Abstract

In spite of growing concerns about political extremism, no adequate measure exists to empirically test the character of political attitudes. The purpose of this study was to develop a measurement of political attitude extremism and, using this measure, assess the communication phenomena that contribute to political extremism. To this end, two surveys were distributed to a total of 504 participants (316 for Study 1 and 188 for Study 2). Study 1 assessed the properties of political attitude extremism. The second study used the measure developed in Study 1 to determine the extent to which media habits, homogeneity of social networks, partisan polarization, political information efficacy, political talk, and moral certainty contribute to political attitude extremism. Study 1 found that liberal attitude extremism and conservative attitude extremism are not opposite ends of the same spectrum but rather are distinct variables with unique measurement properties. Furthermore, conservative attitude extremism must be subdivided into fiscal conservative extremism and social conservative extremism, while liberalism did not require such a division. Study 2 found that these three extremism variables (liberal attitude extremism, social conservative attitude extremism, fiscal conservative attitude extremism) behave differently relative to the communication phenomenon examined. Specifically, ideological media use and political talk significantly predicted liberal attitude extremism, homogeneity of social network and partisan polarization significantly predicted social conservative attitude extremism, and partisan polarization and political information efficacy significantly predicted fiscal conservative attitude extremism. These findings demonstrate that scholarship must consider attitude extremism as multifaceted and must adjust theory accordingly. The new measurement tools provided by this study represent a significant advancement in the empirical study of political extremism.

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## Chapter 1: Introduction

Political civility has become a coveted resource in contemporary politics. Whether through Presidential addresses (Cooper & Zeleny, 2011), comedian-hosted rallies (Schwartzel, 2010), or a multitude of statements from politicians across the political spectrum (Bennett, 2010; Gregg, 2011; Maer, 2009; Steinhauer, 2010), it is clear that there is presently a tremendous appetite for greater civility in American politics. In academic circles, debate rages about the causes of social polarization and the political extremism that is likely to result. Among the most significant controversies to date regards the possibility that the contemporary media environment will exacerbate social polarization and political extremism. However, in spite of the tremendous attention that extremism is receiving both in mainstream conversations about civility and academic debates about polarization and extremism, there is a dearth of empirical information regarding the nature of political attitude extremism.

This project contributes to the conversation about political extremism by providing an empirical foundation for measuring and evaluating attitude extremism. Political extremism and social polarization have received much scholarly attention of late (Binder, Kasja, Dalrymple & Scheufele, 2009; Stroud, 2010; Sunstein, 2009; Wojcieszak, 2009) but few have sought to formulate a clear operational definition of the extremism. In context of the discussion of social fragmentation, political extremism is typically operationalized as when individuals hold positions further toward the polar ends of the ideological spectrum. Extremism can imply a proclivity for violence (Wojcieszak, 2009) but may merely indicate a more polarized attitude on the salient issues of the day (Binder et al, 2009). Sunstein (2009) sees extremism as inclusive of each, arguing that it explains fascism in the 1930s, Islamic terrorism in the 1990s (and beyond), the Rwandan genocide and even the financial crisis of 2008 (p. 1). He does not limit extremism

to these often violent examples, however, and freely includes opinions on global warming, climate change, and affirmative action (p. 6) within the context of political attitude extremism. What emerges from the scholarly discussion, then, is a somewhat imprecise consensus that extremism is a kind of ideological entrenchment or polarization of political attitudes that is evident when individuals cluster around the edges of the spectrum of political orientation.

While the emergent consensus on what constitutes extremism lacks some precision, what extremism does to the public sphere is more clearly theorized. Scholars and theorists agree that extremism can pose a major threat to the health of democracy. Modern societies are massive constellations of diverse groups with conflicting interests and finite resources. If these groups splinter into Balkanized poles of ideological entrenchment, the possibility for cooperation evaporates, as does the institutional trust required to give democracies their legitimacy. Allen (2004) argued that healthy democracy is impossible without political trust across group divisions. Mouffe (2005) warned that when group divisions develop an extremist character, members in opposing groups are not able to see each other as legitimate political adversaries. Her concern was that extremism, if unchecked, could transform group divisions into the friend/enemy relations that endanger the health of democracy. Sunstein (2007, 2009) argued that polarization of this variety risks making society ungovernable and may degenerate into wide-scale violence. In short, political extremism risks a Balkanized society which in turn erodes democratic trust and splinters the public sphere into polarized interest groups who may eventually recourse to violence.

Knowing the dangers posed by extremism, scholars have been speculating about the potential for the internet to breed this kind of Balkanization for over a decade (Selnow, 1998, Sunstein, 2007). Research conceptualizing this relationship is still in its infancy, however.

Bimber and Davis (2004) suggested that arguments about media fragmentation and extremism, while well theorized, lack empirical testing. What is “desperately needed,” they argued, “is hard evidence” (p. 7). Much of the scholarship that has followed demonstrates that media fragmentation is occurring but leaves the relationship between this fragmentation and extremism to future research. Indeed, presently no adequate measure of extremism exists. What few studies have engaged the question of attitude extremism have tended to use ad-hoc measurements developed for a specific time or focus. However, if a significant body of empirical knowledge is to emerge regarding extremism in politics, a stable and valid measurement tool is required. One goal of this dissertation is therefore to develop a general measure of political attitude extremism.

In addition, further empirical research is needed to provide a clearer picture of the character of attitude extremism in American politics. Thus, the second goal of this project is to assess to what extent media fragmentation, political polarization, and other social phenomenon contribute to the formation of extremist political attitudes. It is because Balkanization has the potential to pose such a dramatic threat to the social fabric of the public sphere that this research is needed. This project seeks to meaningfully add to the active debate along these lines.

Prior to engaging the project, however, the existing literature on fragmentation and political attitude extremism need to be considered. What follows in Chapter Two is a general review of the literature focused on social polarization and, in particular, the media fragmentation thesis. Theoretical approaches to extremism and the public sphere will then be summarized and scholars’ existing attempts at operationalizing extremism will be considered. Following this, two studies will be presented that provide a basis for future understanding and evaluating political extremism. The first study, presented in Chapter Three, clarifies the characteristics of political attitude extremism and adds an important measure for fragmentation research. Chapter Four will

present the second study which deploys the measure developed in the first study in an effort to understand the communication phenomena that contribute to political attitude extremism.

Chapter Five will conclude with a discussion of the major findings from these studies as well as the limitations of this project and directions for future research.

## **Chapter 2: Review of Relevant Literature**

What follows is a review research on media fragmentation, group polarization, and political attitude extremism. This review will explore the social dynamics that are believed to contribute to social fragmentation, the role of new media in accelerating this fragmentation, how group communication dynamics move this process from fragmentation to polarization and why political extremism may be the result. Following this, the current practices of measurement used assess political extremism will be discussed.

### **The Threat of Online Fragmentation**

Research clearly shows that the potential for deliberation online persists (Delli Carpini, Cook & Jacobs, 2004). However, while a rise in diverse civic cultures may help foster productive democratic deliberation, if media fragments people into narrowly defined interest groups—pockets of likeminded individuals who speak and think alike but rarely encounter alternative perspectives—the hope that communication across these interest groups will generate valuable deliberation may be misguided. In order for deliberation to achieve any success there must be a certain level of shared understanding and common culture. As Selnow (1998) warns, the internet has the potential to erode the shared social and cultural experiences that emerge when people participate in common social conversations. He argues,

For nearly two decades, television was the community hearth. It delivered the news and told the stories that fed conversations around office coffeepots and dining room tables.

For a brief period, television provided a common information currency that could be traded anywhere in the nation. (p. 184)

This community hearth has been replaced with media that allow individuals to preselect to which content they will be exposed. As a result, random encounters with difference can be replaced by

a homogeneous political environment personalized by each individual. The implication of this selective exposure is that individuals can exist in clusters of associations that reinforce rather than challenge their opinions.

It is with this in mind that scholars like Selnow (1998) warn that the Internet is ushering in an era of great personalization and fragmentation in media consumption, “the internet is laser-focused on homogenous, special interest groups” (p. 186). Fragmentation, defined by Sunstein (2007) is “the creation of diverse speech communities whose members talk and listen mostly to one another” (p. 44). Instead of participating in a shared American social culture, people splinter into interest groups of seemingly endless number and diversity. Worse, this splintering fosters extremism and ideological homogeneity within each interest group, for

When society is fragmented in this way, diverse groups will tend to polarize in a way that can breed extremism and even hatred and violence. New technologies, emphatically including the internet, are dramatically increasing people’s ability to hear echoes of their own voices and to wall themselves off from others. (Sunstein, 2007, p. 44)

This is the “fragmentation thesis,” or the idea that the internet will increase extremism and Balkanization by splitting Americans into numerous groups of likeminded individuals.

Gergen (2003, 2008) has argued that people with small networks of homogeneous ties now have the technological facility to isolate themselves in bubbles of ideological consistency, or “monadic clusters,” that reinforce already existing values and beliefs. Research on the political use of mobile technology found support for the notion that small, homogeneous networks decrease political openness (Campbell & Kwak, 2010). The same research found that heterogeneous ties in small networks could reverse this trend. It is therefore important to

consider whether the use of fragmented media is likely to increase or decrease the heterogeneity of political encounters.

While the possibility of this type of homogeneous selective exposure continues to receive attention in political communication scholarship (e.g. Holbert, Garrett, & Gleason, 2010), some argue that the connection between online media and network homogeneity is overstated. Uses and gratifications research has found that people primarily use internet news out of convenience and as a supplement to traditional media outlets (Kaye & Johnson, 2006). Recent survey research confirms that a majority of those who frequently use the internet as a news source supplement this use with more traditional media (PEW Research Center, 2008). While there may be increasing numbers of people turning to the internet as an alternative to broadcast news, it is unlikely that television will be replaced as the dominant mode of media in our society. Furthermore, Lee (2007) found that different types of online media present information similar to more traditional forms of media. Specialization may not, therefore, occur as frequently as some warn. Similarly, Brundidge (2006) examined the ability of online messaging and chatting about politics to predict ideological heterogeneity. The study found that, contrary to the fragmentation thesis, participation in online discussion about politics was a significant predictor of ideological heterogeneity even when other variables (political interest, discussion at work and discussion with friends) were controlled. Likewise, Garrett (2009) also found that, while people seek opinion-reinforcing information online, they do not avoid different perspectives. A study of political blogs prior to the 2004 presidential election also found that bloggers were unlikely to isolate themselves from dissenting viewpoints (Hargittai, Zehnder & Gallo, 2005).

In a somewhat different take on social polarization, Prior (2007) found that balkanization happens not necessarily because people use fragmented media to isolate themselves from diverse

viewpoints, but rather because increased media choice gives people who are only passively interested in the news (those who only watch news when options for entertainment media are low) the ability to opt out of politics. Prior suggested that society became more polarized because this segment of the population represented the majority of moderate voters. His findings suggest that media fragmentation increases partisanship in the electorate not necessarily through attitude change, but rather through a transformation of the electorate. Moderate voters are less likely to follow politics and subsequently less likely to vote given increased entertainment media options. Prior's findings can be interpreted as a challenge to the fragmentation thesis to the extent that increases in social polarization are not necessarily a product of a media effect so much as the ability for moderates to opt out of political engagement. However, because the internet provides so many venues for people to pursue their interests, the attitude reinforcement that is theorized to drive greater extremism may still be happening among those who opt into politics. Stroud (2010) found that, while partisan media predicts attitude polarization, attitude polarization also predicts (to a lesser extent) partisan media use. In other words, while moderates may opt out of politics in a digital media environment, more polarized individuals opt in and subsequently become more extremist. This is consistent with a recent finding that individuals with partisan leanings tend to use media with a shared ideological perspective (PEW Research Center, 2011).

Psychological research of group behavior provides some insight into this phenomenon. Early research on group polarization found that when people engage in extended group discussion driven toward consensus, the result is an increase in the extremism of individuals' attitudes resulting from the discussion (Moscovici & Zavalloni, 1969). Abelson's (1995) review of research in experimental psychology found that this trend has been consistently replicated in subsequent studies. The research reviewed by Abelson demonstrated that even individuals who

agree with a moderate position on an issue are brought to greater extremism after discussion with like-minded others. Ableson found that attitude polarization occurs because people are exposed to new arguments that they had not previously considered. People also seek to distinguish themselves in the group as being “more pure on the issues” (p. 28). Finally, groups seek to limit heterogeneity inside the group as a means to create separate identities from outgroup members. Similarly, Isenberg (1986) found substantial evidence that groups polarize because individuals wish to appear socially desirable in their group and therefore are willing to stake out more extreme positions. Isenberg further found that because the a group discussion can generate a greater quantity of persuasive messages than an individual alone, people inside homogeneous groups discover more reasons to strengthen the conviction of prior beliefs. This effect has been demonstrated consistently in numerous contexts (Sunstein, 2009).

Social identity theory (SIT) offers important insights into the functioning of groups that helps to further clarify the reasons groups tend to polarize (for a thorough review of SIT research, see Hornsey, 2008). Research from the SIT perspective demonstrates how group identification becomes a motivation for derogating members of an outgroup. SIT suggests that the formation of ingroups and outgroups automatically triggers a tendency toward polarization. SIT further posits that, because people wish to have a positive self-concept, they are inclined to think well of groups with which they identify. Because groups are not conceived in isolation, individuals only understand the characteristics of their group through comparison with other groups. Combined with the insight that individuals wish to think well of their group, SIT has demonstrated members of the ingroup develop a tendency to think ill of outgroup members.

The research on group behavior and identity formation reconciles some of the seemingly contradictory findings about source heterogeneity and social polarization. Because a person’s

ideology can function as a filter for the news they encounter, the fact that other media are consulted is no guarantee that group polarization will not occur. News stories can be interpreted to fit within an ideological schema or can appear to be evidence of outgroup bias. If people consult the internet as a supplement to mainstream media it may be because they do not fully trust other media outlets and view their online resources as an opportunity to receive more accurate, less filtered information. Individuals may see themselves as spectators of a corrupt mainstream society, critiquing from within their ideological enclave. If the ability to seek out likeminded individuals and avoid dissenting viewpoints in political discussion risks polarization, the mere presence of other perspectives does not preclude this fragmentation.

Bimber and Davis (2004) found that the result of online information seeking was to reinforce knowledge and beliefs. Given the vast quantity of political news available and the great diversity of mediums and ideological positions, consumers of media are forced to make selections about where to direct their attention. The research from Bimber and Davis illustrates that the selections people make are more likely than not to reinforce pre-existing ideologies. Tewksbury (2005) confirmed that Internet users take advantage of opportunities to specialize their news consumption, segmenting themselves in pre-selected interest areas. These findings support fears that internet use can generate political fragmentation and risk isolating people from cross-cutting political perspectives, a trend that risks minimizing diversity of perspectives (Goldman & Mutz, 2011). In contrast, other research has demonstrated that online communicators seek out diverse viewpoints only in certain instances (Garrett, 2009; Stromer-Galley, 2003; Stromer-Galley & Muhlberger, 2009). Support for the fragmentation thesis is therefore somewhat mixed.

It is possible that people focus on news of primary interest to them (supporting the notion of fragmentation) while not existing in isolation of contrary positions. Bimber and Davis (2004) and Tewksbury (2005) demonstrate that people will focus online media consumption on content amenable to their ideological positions. Garrett (2009) and Stromer-Galley (2003) establish that this fragmentation does not insulate people from dissent. Therefore, it may be that the fragmentation thesis is correct when it predicts that the internet enhances specialization but incorrect in presuming that the result is isolation from dissent. Notably, each study approached online news consumption from a different angle. While some studies examined discussion boards and blogs others looked at online newspaper reading. Indeed, it is possible that those who participate in discussion boards approach the internet with different agendas than those who read an online newspaper. It is also possible that the same person may approach each form of online communication differently.

When considering these somewhat divergent findings, it is also important to consider the implications of specialized news consumption in the context a mixed environment in which individuals may have ideologically friendly content but may also encounter diversity. If specialization yields group polarization, exposure to dissenting views may do little to prevent balkanization. This is because, if dissent is filtered through an ideological lens produced by group polarization, the mere presence of diverse perspectives may not defuse the extremist trajectory of group polarization.

More recent studies that have engaged the relationship between media use, heterogeneity of political discussion and political extremism offer more clarity. For instance, Binder et al., (2009) were able to establish a causal relationship between political discussions in homogeneous networks and attitude extremity. Individuals who engaged in discussions among likeminded

others were more likely to have extreme attitudes. Media use also indirectly affected attitude extremity in this study (though it was divided based on election media and science media, not based on fragmented and mainstream media). Warner (2010) found that when participants in a study were exposed to consistently conservative online media their attitudes became more extremist, though the same was not true of exposure to liberal media content. This is not to say that all media fragmentation occurs on the internet. Cable news, when used to preselect ideologically consistent messages, has been demonstrated to foster ideological polarization in certain contexts as well (Lin, 2009). Consistent with this, media fragmentation should be considered beyond the context of the internet, as cable news outlets (along with partisan blogs) have been shown to demonstrate more partisan filtering than other traditional news sources (Baum & Groeling, 2009) and that incivility is common on blogs, talk radio, and cable news (Sobierai & Berry, 2011). Given the finding that exposure to partisan media increases partisan polarization (Stroud, 2010), there is reason to suspect that those who primarily use fragmented media may become more extremist.

Scholarship has also investigated the relationship between homogeneity of network ties, media environment, extremism, and the likelihood that an individual will be more highly politically engaged. Wojcieszak (2009) found that participation in online forums with homogeneous political orientations significantly predicted political engagement. The amount an individual participated in an online discussion board for either neo-Nazi groups or radical environmentalist groups significantly predicted the amount of movement-supporting and movement-promoting activities (fundraising, contacting a legislator or media outlet, etc.) that the individual engaged in. This held even when ideological extremism, frequency of political discussion, and news media exposure were controlled for. Similarly, Boulianne (2009) found that

use of online news might increase engagement, though the effect tends to be small. Similarly, Skitka and Bauman (2008) found that strength of attitude conviction predicts political engagement as well. Research in a similar vein suggests that confrontations over politics with heterogeneous perspectives can demobilize political engagement and discourage voting (Mutz, 2002), though other research argues that the effect is minimal and, among alienated individuals, can actually increase the likelihood of engagement (Lee, 2009). Moreover, homogeneity of political discussion has been demonstrated to implicate political knowledge (Eveland, & Hively, 2009; Hively & Eveland, 2009).

### **Measuring and Defining Extremism**

While many studies incorporate political extremism in some fashion, no clear consensus has emerged about how to best operationalize this variable. The most common method used is a measure of orientation polarization. This is typically measured with a one-item Likert-type scale that asks people to place themselves on a continuum from very liberal to very conservative. For example, Lin (2009) measured extremism by asking people to identify where they fall on a 1-7 liberal/conservative spectrum. The scale was then folded so that the mid-point represented a moderate score and either end represented an extremist position. The use of a single item self report is among the more common measures of political ideology (Chirumbolo, 2000; Doosje, Rojahn & Fischer, 1999; van Hiel & Mervielde, 2003; Thorisdottir, Jost, Liviatan & Shrout, 2007). Alternatives to this single item include orientation measures based on favorability evaluations of presidential candidates (Stroud, 2010) and assessments of Republicans, Democrats, conservatives, and liberals (Skitka, Bauman, & Sargis, 2005).

While the single item self-report has generated important findings, there are many disadvantages to using it in studies about fragmentation and polarization. First, polarization of

political orientation is not necessarily the same thing as political extremism. If the fragmentation thesis posits that social Balkanization may lead to extremism, distrust, and violence, it may be insufficient to merely gauge the amount of polarization on a one-dimensional liberal-conservative spectrum. Failing to include a separate measure of extremism conflates polarization with extremism potentially causing inappropriate conclusions about the nature of political extremism. Not including a separate measure of extremism also precludes the investigation of the relationship between a polarized political orientation and attitude extremism.

A second problem associated with the orientation measure is that it treats extremism one-dimensionally. While orientations may exist on a linear metric from highly liberal to highly conservative, attitudes may be more dynamic. It is possible that political extremists hold a variety of positions across the traditional political spectrum. Furthermore, individuals with extremist positions may equally dislike both political parties, preferring candidates from third parties or eschewing electoral politics altogether. These individuals may not appear as extremists in even the more nuanced measures of polarized political orientations (e.g. Skitka et al., 2005; Stroud, 2010) because extremist respondents may reject identification traditional political ideologies. For measures that do not deploy these types of favorability measures, the orientation scale faces even greater problems with validity. Extremism is not always socially desirable. Many who hold strong liberal or conservative opinions may wish to consider themselves somewhat moderate. A single item extremism measure therefore carries a high risk of response bias. Moreover, given the nature of the fragmentation thesis, it is possible that people with extreme political views consider themselves fairly mainstream. In a media echo chamber (Sunstein, 2007) people may develop more extreme attitudes while simultaneously believing that they share them with a large section of society. A single item self report about an individual's

level of political extremism requires that they accurately understand where their positions stand relative to the society that surrounds them. If a person's experience with that society is mediated by fragmented, self-affirming reference groups, one can expect that respondents will view themselves as being more moderate than they actually are.

Other research has operationalized attitude extremism by measuring strength of partisan affiliation (Blee, 1985; Evans, 1997; Prior, 2007). This, too, limits the scholarship on extremism. Even strong party affiliation does not necessitate extremism. It is not unreasonable to imagine moderate members of each major party with strong feelings of loyalty. Furthermore, strong identification with one's party does not mandate extreme ideological or political extremism. Senators Ted Kennedy and Bob Dole were each considered firmly entrenched in their political parties yet did not exhibit signs of political extremism as it has been discussed thus far. To conflate strength of party identification with political extremism would be to overlook much of the nuance in the definition of extremism. This also forces attitude extremists to exist in the context of major party politics, a problem discussed above.

A third potential strategy for measuring extremism can be found in studies of attitude strength. Wojcieszak (2009) sought to measure ideological extremism being expressed on discussion boards of researcher-identified radical groups by asking a series of questions about either Nazi or radical environmentalist issue positions. While this strategy seems to assess issues of extremism and avoids the potential bias of a single item orientation question, the items were designed specifically for the Nazi/environmentalist discussion boards and are thus not generalizable to other research projects or populations. Warner (2010) also used a domain specific issue measure to evaluate attitude extremism. The experimental design explored attitudes in the context of U.S. policy toward Iran. As such, the measure was specific to extremist

attitudes regarding Iran. Fox and Williams (1974) deployed a similar methodology over more generalizable issues. Unfortunately, the issues they selected were highly time sensitive (two of the three were the Viet Nam war and the Civil Rights movement) and are no longer applicable to modern politics. Their items also treated liberalism and conservatism as one-dimensional and as existing on the same ideological spectrum. The three issues collectively measured a single attitude. This forecloses the possibility that liberalism and conservatism are separate constructs or that they are potentially sub divisible (e.g. along social and fiscal lines).

Binder, et al. (2009) measured attitude extremity similarly to Fox and Williams (1974), Warner (2010), and Wojcieszak (2009). Their issue-based measure asked questions about stem cell research. Their survey data was collected during the 2004 election cycle, and although they argued that the nature of the political climate in 2004 justified focusing on stem cell research as a marker for extremism, it is likely that positions on this issue will not be generalizable across multiple election cycles. Indeed, since this study, stem cell research has faded from the national dialogue. Furthermore, because this was the only issue selected, there was no way to test the relationship between liberal extremist attitudes and conservative extremist attitudes. Instead, extremism was again treated as a unidimensional construct. While it may be the case that conservatism and liberalism are merely different ends of the same spectrum, without multiple issues to measure each, there can be no empirical basis for this assumption. A final disadvantage to selecting a single issue as a metric for attitude extremism is that the results will be biased by the unique characteristics of the issue. Stem cell research was a major issue at the time and it undoubtedly contains important information about political attitudes. However, the issue specific information in these questions (e.g. attitudes about medical research, cloning, embryonic research, terminal diseases, etc.) will all contribute to the general attitude score. Without multiple

issues in an attitude measure it is impossible to determine how much information in a set of items is due to attitude extremism and how much of the information is attributable to the particular controversy surrounding the issue.

Beyond the disadvantages associated with each of the particular measures of extremism and polarization, the absence of a consistent measure in the literature about political socialization limits the usefulness of each study. If each study uses an ad hoc measure, the body of scholarship generated by political communication researchers about attitude extremism will not be comparable. No future data can be reliably compared to past findings and no stable picture of social trends in political extremism will emerge. Furthermore, situational measures like the ones used by Wojcieszak (2009) are too context bound to be analogized to measures of another context. There is no way to be certain that neo-Nazi extremism will behave like other forms of political and ideological extremism. Third, if researchers continue in the path of Binder et al. (2009), findings about extremism will be confounded by questions about the specific variance of the issue selected.

It is also dangerous to assume that the same issues can reliably predict both conservative and liberal attitudes. The stem cell issue is an excellent case in point: while opposition to it tended to take on a highly conservative character, both liberals and a non insignificant number of moderates voiced strong support for stem cell research in the 2004 election cycle. There may be issues that statistically behave as strong indicators of both liberal and conservative extremism, and perhaps stem cell research is among them, but this assumption should be subject to empirical testing.

The folding method of calculating extremism (Binder et al., 2009; Lin, 2009) should also be reconsidered. Each of these studies treated both high and low scores on a Likert-style item as

extremist (e.g. both a 1 and a 7 represent the ‘polls’ of the measure). Meanwhile, the middle of the item (e.g. the 4 on a 7-item measure) was treated as a moderate response. While the opposite polls on a single orientation measure can reliably be folded, doing the same with items on an issue questionnaire makes the untested assumption that absolute disagreement with a question represents an extreme opinion in the other direction. For example, while “abortion is murder” may be shown to reliably predict conservative attitudes, strong disagreement may be indicative of both moderate and extreme liberal positions. It may be that “strongly disagree” tends to indicate extremity in the other direction, but it should not be assumed so without statistical evidence demonstrating this to be the case.

In light of the shortcomings with current measures of attitude extremism, Chapter Three presents a study that sought to develop an improved extremism scale. Study one hypothesized that attitude extremism could be evaluated by determining individual responses to issue-based questions. This study further hypothesized that conservative and liberal attitude extremism would be distinct but highly related concepts and that these concepts would sub-divide based on economic and social attitudes. What follows is a rationale for these measurement hypotheses, a description of the procedures and methods used to develop the measure, the results of the study, and a discussion of the significant findings.

### **Chapter 3: Study 1 – Measuring Attitude Extremism**

#### **Rationale**

Given the lack of a consistent and well-defined measure of extremism, the purpose of the first study was to determine a valid and reliable scale to operationalize political attitude extremism. Specifically, this study provides an issue-based measure of attitude extremism that compliments assessments of political polarization through orientation-based measures (e.g. Skitka et al., 2005; Stroud, 2010). Second, this attitude measure contains multiple items to allow for the correction of response bias (i.e. the social desirability to be seen as moderate, the potential for people to not correctly perceive their political standing relative to others). Third, this measure contains multiple issues to allow for the assessment of individual issues as markers for overall attitude. Because all issues will have issue-specific characteristics that may bias results (e.g. attitudes about terminal diseases complicating a stem cell research measure), using multiple issues allows this study to make comparisons that correct this issue-specific bias. Finally, this measure should be divided into sub-dimensions of attitude (e.g. liberal/conservative, social/fiscal) to determine if attitude ideology is, as is often assumed in the literature, one-dimensional.

To begin, based on the positive results of some past research that focused on issue attitudes (Binder et al., 2009; Fox & Williams, 1974; Warner, 2010; Wojcieszak, 2009), a survey was distributed that contained statements on a wide range of politically salient issues. The issues were selected through consultation with relevant experts in political communication, careful attention to current and past political controversies, and through four focus group interviews. Because past measures have been either too context specific (Binder et al., 2009; Warner, 2010; Wojcieszak, 2009) or time sensitive (Fox & Williams, 1974), issues were selected in part to

ensure the measure was as generalizable across time and context as is reasonable. This was consistent with the recommendations of the focus groups. Because theory suggests that extremism is particularly defined as framed in the moral register (Mouffe, 2005; Skitka & Mullen, 2002; Skitka et al., 2005) and in the language of good versus evil (Burke, 1937; Mouffe, 2005), questions were loaded with heavy moral judgments. This was consistent with recommendations from participants in the focus groups, many of whom believed it was important to have items that went beyond simple issue assessments and required respondents to take a position on a more extremist statement (e.g. “abortion is murder” rather than “I consider myself pro-life” and “tax and spend policies are destroying the constitution” rather than “I generally oppose new government spending”). A series of 57 items were developed to measure 16 different issues. In most cases there were three attitude-based indicators to measure each issue, though some issues had six-item measures. It was thus hypothesized that:

H1a: Issues will cluster around each other to form issue-based latent constructs.

H1b: These issue constructs will be the lowest order constructs, no issues will subdivide into further factors.

Of these 16 issues, eight were designed to measure conservative attitude extremism and the other eight were designed to measure liberal attitude extremism. Thus, it was hypothesized that:

H2a: Conservative issues will load together on a higher order construct measuring conservative attitude extremism.

H2b: Liberal issues will load together on a higher order construct measuring liberal attitude extremism.

Because liberalism and conservatism may be further divided by fiscal/economic attitudes and social attitudes, the issues were further divided along social/economic lines. Hence:

H3a: Two lower order factors will emerge along the dividing lines of social and fiscal conservative attitude extremism.

H3b: Two lower order factors will emerge along the dividing lines of social and economic liberal attitude extremism.

Finally, past research has treated liberalism and conservatism as opposite constructs (Binder et al., 2009; Lin, 2009). If this is the case the constructs should be highly negatively correlated such that those who have low scores on conservative extremism have correspondingly high scores on liberal extremism. In other words, respondents who indicated they “strongly disagree” on an item are not expressing moderate perspectives but rather an extreme attitude in the opposite direction. This is consistent with the belief that a single indicator simultaneously measures liberal attitude extremism on one pole of the scale and conservative attitude extremism on the other. Thus, this study hypothesized:

H4: The liberal construct will have a strong negative correlation with the conservative construct.

## **Method**

**Participants.** A survey was distributed to 316 undergraduate students at a major Midwestern university. Participants were recruited from a pool of subjects enrolled in Communication Studies courses that carry a research participation requirement. Participation was voluntary but students were awarded research participation credit in fulfilling part of the course requirement. The age of the sample ranged from 18-45 ( $M = 19.92$ ,  $SD = 2.45$ ) with 176 (56%) male respondents and 138 (44%) female. A majority, 256 (81%), of the respondents were Caucasian, 16 (5%) were Hispanic, and no other ethnicity represented 5% of the sample. Of the respondents, 136 (43%) reported identification with the Democratic party, 93 (29%) reported

identification with the Republican party, and 87 (28%) either identified with no party or with a third party.

**Procedure.** Students were provided a link to the survey via the *Qualtrics* online survey software. The survey was offered as one among many research participation options and students who did not wish to participate in research were provided alternative means to earn credit for the assignment. A statement of informed consent was presented at the beginning of the survey that assured confidentiality and informed the students of their right to terminate the study at any time without fear of reprisal. The survey included basic demographic questions in addition to the items included in the political extremism measure. The political extremism measure included 54 items.

**Extremism Measure.** Extremism was measured with a series of indicators of political attitude regarding various issues of political controversy. The measure was designed to allow issues to be divided by those intended to measure liberalism and those intended to measure conservatism. Further divisions were planned in both liberalism and conservatism on the basis of social and economic issues. Prior to the final selection of items, four focus groups were conducted to provide further insight into how extremism should be measured, what issues best assess this concept, and which types of wordings were most appropriate. Participants in the focus groups were recruited from the same research pool as participants in the survey. They were presented with statements of informed consent and briefed on their rights as participants in academic research. Each focus group contained 10-12 participants.

The set of issues selected to measure liberal economic extremism were anti-capitalism, wealth re-distribution, and education spending. Issues measuring liberal social extremism were radical feminism, the war on drugs, torture, government killing, and state violence. The issues

selected to measure conservative economic extremism were taxes, the national debt, and socialism. The issues selected to measure conservative social extremism were gun control, gay marriage, abortion, the role of church in public, and the use of religion in policymaking. Questions were worded to take strong, extremist positions on these issues, to imply a good versus evil perspective and to invoke moral judgments. Wording the questions in this way was consistent with recommendations of the focus groups and research about extremism in political discourse (Burke, 1937; Mouffe, 2005). A full list of items measuring liberalism can be seen in Appendix A. The full list of items measuring conservatism can be seen in Appendix B. The hypothesized measurement relationships among these 57 items, the 16 issues, and the four extremism attitude variables (i.e. economic liberal, social liberal, fiscal conservative, social conservative) are presented in Figure 1.1 and Figure 1.2. In addition to the relationships already discussed, two issue variable correlations were specified. The two religion issues were specified to correlated (based on the significant amount of predicted commonality regarding attitudes about religion in public and religion in policymaking). Additionally, the state violence and torture issue variables were specified to correlate because of anticipated commonality regarding governmental use of force. Also, because education funding can be considered both a fiscal issue (spending) and a social issue (education), this issue variable was specified to load on both social and economic liberal attitude extremism.

**Analytic Procedures.** Structural equation modeling with maximum likelihood estimation using LISREL 8.80 was employed to test the relationships between the indicators and issue variables. Following the two step process recommended by Kline (2005), a confirmatory factor analysis (CFA) of the measurement structure was fit to establish a baseline measurement model. CFA allows evaluation of discriminate validity, or the extent to which indicators do not load on

constructs they are not intended to measure, and convergent validity, or the extent to which indicators load onto constructs they are designed to measure (Brown, 2006; Klein, 2005). CFA is thus superior to correlation-based methods that rely exclusively on reliability because they avoid the problem of having highly reliable but invalid measures of a construct (Little, Lindenberger, & Nesselroade, 1999). The baseline established by the CFA was used to evaluate the suitability of the hierarchical structure (e.g. that the issue variables will load on higher order attitude extremism variables). Issues with model fit in the CFA and hierarchical models lead to three additional model specifications: a parceled model (Figure 2), a multi-trait, multi-method (MTMM) model (Figure 3.1 and Figure 3.2), and a subsequent hierarchical model (Figure 4) based on the measurement structure dictated by an exploratory factor analysis (EFA).

## **Results**

**Measurement model (CFA).** The first model fit was the initial CFA for the issue variables. Model fit for the initial CFA was not adequate,  $\chi^2 (1256, N=316) = 3312.16, p < .01$ , TLI/NNFI = 0.82, CFI = .84, RMSEA = .086 with a 90% confidence interval of .083-.089. Given the complexity of attitude structures regarding such a wide range of political issues, and given that this measure is exploratory, there was little reason to expect strong model fit initially. A large number of indicators were deployed with a wide variety of rationale. This study attempts to determine which ones are effective at measuring extremism and it should be expected that not all will perform adequately. Furthermore, the issues and items are liable to share many relationships that go beyond the shared issue variance pre-specified in the model, so it is reasonable to expect some indicators to cross load on other issues and some residual variance in similarly worded items to correlate.

Modification indices were examined to determine the parameter specifications that contributed most to model misfit. Decisions on which parameter estimates to free were based on a theory-driven assessments of the modification indices and done iteratively to avoid redundant re-specifications. Each modification is discussed below in the order of specification. All changes to model fit are presented in Table 1. The first change made to the model regarded two items that loaded very poorly on their latent constructs. The items “It should be legal for women to kill their abusers” and “People who commit multiple drug offenses should be thrown in prison and left there” did not load on their respective constructs. Their loadings were specified at 0.0 and the model was run to test for differences. As can be seen in Table 1, no significant loss in model fit occurred with these modifications.

To improve model fit, the following modifications were made to the parameter specifications. The first modification was to allow an item in the church/state issue category about homosexuality to have a cross loading on the gay marriage issue construct. While the item is not about marriage rights in particular, the shared variance about homosexuality made this a logical first modification. The second modification allowed a human rights question, “The United States has been a routine violator of human rights” to load on the anti-capitalism construct. This modification is theoretically sound as many of the anti-capitalism items also dealt with elements of U.S imperialism and foreign policy, a literature that often accompanies accusations of rights abuses. The correlation of residual variance for an item in the taxes construct and an item in the debt construct was freed because both shared wording about prioritizing social/welfare policies over fiscal concerns. Correlated residuals were also specified with two of the three wealth redistribution questions because, while one of them contained wording directly speculating about the value of socialism, the other two avoided the socialist

lable and instead asked about wealth redistribution more generally. An item in the tax issue was freed to load on the wealth redistribution construct because it asked about using taxes to expand resources for poor people, a concept with information relevant to the wealth redistribution questions in the liberal construct. The same decision, with the same rationale, was made to allow an item in the debt cluster to load on the liberal socialism construct.

The above parameter modifications were in line with expectations about the complex inter-relationships shared by issues and indicators across the political landscape. Their modification indices were among the largest and theoretical justifications for model respecification were straightforward. A few modifications were made that, while theoretically tenable, were not anticipated and considered primarily because of the high modification index for each specification. Two items with high correlated residual variance, “People who commit multiple drug offenses should be thrown in prison and left there” and “it should be legal for women to kill their abusers,” were specified to correlate. These were the same two items that did not load on their pre-specified constructs. It appears that there is an element of lawlessness/crime inherent in each of these items that caused respondents to react to them similarly and separate them from the other drug and feminism questions. A cross loading was allowed for the indicator “The government should protect certain social institutions such as marriage because doing so protects our culture,” on the conservative socialism construct. While this item was intended to merely measure attitudes about gay marriage, the wording contains a strong cultural element that implies a conservative attitude about the protection of institutions. It is reasonable for this attitude to be present in reaction to questions about the threat of socialism, particularly given how frequently capitalism is treated as a cultural institution in the United States. Finally, an item in the drug issue cluster, “The war on drugs is a strategy to keep poor and minority populations

in oppression,” was allowed to cross load on the anti-capitalism construct. After looking at the abnormal size of the modification index for this cross loading, it became clear that there was information in this item about the way people perceive the government’s treatment of the poor that was sufficiently similar to the attitudes captured by the anti-capitalism items.

All of the above modifications were selected on the basis of modification index scores sufficiently outside of the norm and in concert with theoretical assumptions about the model. Modifications were made one at a time and analysis of the modification indices was conducted subsequent to each modification. As can be seen, even after making the appropriate changes to the parameter specifications, model fit was just within the bounds of acceptability,  $\chi^2$  (1250, N=316) = 2759.45,  $p < .01$ , TLI/NNFI = 0.88, CFI = .90, RMSEA = .071 with a 90% confidence interval of .068-.074. For the sake of interpretability, item loadings are not recreated in the path model but are rather presented in table form, Table 2, as are latent variable correlations, Table 3. Given that this study is exploratory in nature, it should be expected that some of the items do not behave as was specified *a priori*. Some of the issues variables may not even have coherent unified meaning. The aim of this study was to determine which items effectively assess extremism and therefore poor model fit can be expected while ineffective indicators remain in the model. These findings provide some support for H1a and H1b, that the indicators will load onto issue-based latent variables. Nevertheless, given the large number of modifications required to achieve adequate model fit, further consideration of the assumptions of the measurement model are warranted.

**Hierarchical model.** The initial CFA was fit to determine the relationship between issue attitudes and the higher order constructs of economic liberal attitude extremism, social liberal attitude extremism, fiscal conservative attitude extremism and social conservative attitude

extremism. Before reconsidering the structure of the measurement model then, the hierarchical model that specified this higher order relationship was analyzed. This model, represented in Figure 1.1 and Figure 1.2, assumes that the relationships between the issue constructs are explained by their overall relationship to political attitude extremism. To allow LISREL to converge this model, the church and religion constructs were merged. It was initially speculated that respondents would have slightly different attitudes toward the mixing of church and state and the use of religious belief in policymaking, but the shared variance was significantly strong such that that the Beta weight estimates were impossibly high and the model would not converge. After these two constructs were merged the model converged. The education issue failed to load on either liberal construct. The Beta weight was therefore specified at 0.0 for this relationship. The hierarchical model did not adequately fit,  $\chi^2$  (1353, N=316) = 3674.18,  $p < .01$ , TLI/NNFI = 0.82, CFI = .83, RMSEA = .088 with a 90% confidence interval of .085-.091. This challenges H2a and H2b, that the issue clusters would function as lower order constructs to measure extremism.

A series of modifications that apply more reasonable assumptions about the complex interrelationships between the lower order constructs and that allow cross loadings from issue constructs onto other political ideology constructs would likely improve the fit of the hierarchical model and may even achieve adequate fit. However, given the large number of modifications required on top of the nine modification in the initial CFA, there was sufficient evidence to warrant a re-examination of the structure of the measurement model. Three solutions were proposed to find more accurate relationships between the items, the latent variables, and the higher order constructs of interest: a parceled model, a multi-trait multi-method (MTMM) model,

and a new CFA measurement model based on findings from an exploratory factor analysis of the items (EFA).

**Parceled Model.** Parceling items, or combining indicators and using their average, can be a valuable technique to improve reliability, lower the number of parameter estimates necessary, and improve the identification of the latent construct (Kline, 2005; Little, Cunningham, Shahar, & Widaman, 2002). Parceling is typically used to combine items in a latent variable with a large number of indicators. The parceled model specified here (see Figure 2) treats each of the issues (i.e. abortion, taxation) as a parcel of the three to six indicators that make up the latent variable. Each parcel is then treated as an indicator for the latent variables specified in the hierarchical model. The parceled model is valuable because it provides information about how individual issues (e.g. taxation, debt) perform as measures of their higher order constructs (e.g. fiscal conservative attitude extremism). This model can also provide information about the relationships among the latent variables (i.e. the correlations between the four attitude extremism variables). However, this particular parceled model cannot be an endpoint because, rather than providing information about the specific indicators (i.e. H1-H2), it groups items based on the *a priori* assumptions of the initial measurement model. While this model does provide useful information about the relationships among issues and the attitude constructs that they are designed to measure, these findings are preliminary and must be regarded with some skepticism until a better fitting measurement model is specified.

The parceled model did not initially achieve acceptable fit, CFA,  $\chi^2$  (72, N=316) = 447.06,  $p < .01$ , TLI/NNFI = 0.81, CFI = .85, RMSEA = .124 with a 90% confidence interval of .113-.136. To achieve acceptable fit, five modifications were necessary. Before modifications were performed, education was removed as were questions about gun control. These issues did

not demonstrate significant loading on any latent variable and their removal did not diminish the performance of the model. The first modification was to allow the feminism and abortion issues to have correlated residual variance, as they cover substantially similar concepts and the feminism issue contained an abortion question. Human rights was freed to load on the social conservatism construct, a decision made in part because two of the three human rights issues involved enhanced interrogation/torture of suspected terrorists, an issue that social conservatives (particularly former vice president Dick Cheney) have spoken about frequently.

As a further modification, the human rights parcel was also freed to correlate with the government killing parcel, a logical decision given that attitudes about government killing are likely to overlap with human rights values regarding the death penalty and war fighting. Feminism and human rights were also specified to have a correlation, and the correlation was negative, likely because of the item discussed above in the CFA that sought to give license to women to kill their abusers. The final modification allowed the war on drugs parcel to cross-load on the social conservative construct, a reasonable modification given that the issue of drug control is meaningful to social conservatives beyond the relationship between social and liberal conservatism. Improvement in model fit after each modification can be seen in Table 4.

Final model fit was moderate and interpretation of the results should be treated with skepticism until verified with additional analyses,  $\chi^2 (70, N=316) = 314.69, p < .01$ , TLI/NNFI = 0.87, CFI = .90, RMSEA = .105 with a 90% confidence interval of .092-.117. It should be noted that, because the RMSEA is in part a function of the complexity of the model, the simplicity of the parceled model can inflate the value of the RMSEA. In small models it is typical to have a higher RMSEA, TLI/NNFI and CFI are therefore more accurate representations of model fit in such cases.

As can be seen in Figure 5, economic and social liberalism were highly correlated such that there was no interpretable distinction between the two constructs. For liberal attitude extremism, it appears unnecessary to separate economic and social issues. Extremist attitudes about fiscal and social conservatism were also strongly correlated, but not nearly to the extent that the liberal constructs were. Based on this model it appears there is support for H3a, that conservatism will divide along social and fiscal lines, but that H3b should be rejected, liberalism cannot be divided along social and economic lines. Furthermore, contrary to H4, the liberal and conservative variables do not have strong negative correlations in this model. While three of the correlations are negative (social conservatism with both economic and social liberalism and fiscal conservatism with economic liberalism), none of the correlations are strong. Furthermore, the correlation between social liberalism and fiscal conservatism is positive (though very small). The findings of this model do not support H4.

**Multi-trait, multi-method model.** As noted above, the parceled model has limitations. It assumes indicators will perform as specified *a priori*, an assumption that received tepid support from the initial CFA. Furthermore, because one goal of this study is to assess the performance of individual indicators as measures of attitude extremism, a model that does not provide information on individual indicators is not sufficient. However, because the hierarchical model did not fit, a different approach is required to determine which items best measure attitude extremism. One such approach, the MTMM approach, treats the issue variables as method variables. The information about respondents' attitudes toward taxes, for example, are relevant only insofar as they inform about an attitude toward fiscal conservatism. Specific variance explained by the relationship that individual indicators have with each other based on their issue construct can be treated as method variance because the issues were merely the methods of

measuring attitude extremism. Furthermore, the MTMM model corrects for one of the more tenuous assumptions of the hierarchical model, that individual issues would only correlate with each other via shared variance contributing to a higher order attitude variable. The poor fit of the hierarchical model is evidence that this assumption is not tenable.

In the MTMM model each indicator can be evaluated separately from the issue in which it groups. The assumption of this model is that each question contains item variance (both random variance and item specific variance) method variance (specific to the issue variable, e.g. abortion) and attitude variance (i.e. the information about overall political attitude extremism). Because education failed to load on the attitude constructs, the loadings of the education indicators on the liberalism constructs were set to 0.0. This was consistent with the findings of the parceled model. The MTMM model had greater model fit than either the hierarchical model or the initial CFA,  $\chi^2(1212, N=316) = 2448.46, p < .01, TLI/NNFI = 0.91, CFI = .93, RMSEA = .061$  with a 90% confidence interval of .059-.065. This finding suggests that the issue variables were operating as method factors that complicated model fit for previous models.

Fitting an MTMM model allowed the method variance to be separated from the variance associated with the variables of interest (i.e. the attitude extremism variables). However, further inspection of the factor loadings (presented in Table 5) suggest there may be problems with an MTMM solution. With such a large proportion of shared item variance being pulled into the issue (or method) factors, little information is contributed to the attitude constructs. As a result, some factor loadings appear miniscule and at times uninterruptable (e.g. some items had negative loadings on the attitude constructs). While this may indicate that some of the items performed well at assessing the issue but poorly at measuring attitude extremism, it could also indicate a theoretical shortcoming of the MTMM model in this context. An assumption of the MTMM

model is that the method variance being removed from the variables of interest is unrelated nuisance variance, a distraction from the information of interest. However, because an individual's position on a given issue (e.g. abortion) is closely related to an overall political attitude (e.g. social conservatism), removing the issue based information from an indicator that is may not be possible without removing a great deal of the information associated with the over all political attitude. In other words, the item loadings for the MTMM model may be skewed by questionable theoretical assumptions regarding the relationship between attitudes about particular issues and attitudes about politics in general (namely that the two can be mathematically divided). Given this difficulty, a third model was specified based on the factor structure from an exploratory factor analysis.

**Exploratory factor analysis.** Exploratory factor analysis (EFA) is a common tool in measurement development and often precedes CFA. However, some disadvantages to EFA make CFA a more desirable method if sufficient theory exists to specify the measurement model. While CFA is entirely theory driven, EFA can extract method factors (e.g. reverse-coded questions factor separately) and may be more vulnerable to measurement error (Brown, 2006). However, if appropriate procedures are followed, EFA can be vital in uncovering the initial structure of measurement (Fabrigar, Wegener, MacCallum, Strahan, 1999; Kline, 2005; Russell, 2002). Because the initial measurement model required a significant amount of modification to achieve model fit and because of the poor performance of certain latent variables in the parceled and MTMM model, there was sufficient evidence to question the hypothesized model. An EFA of the items was thus conducted to determine a more accurate measurement structure for the extremism variables.

The conservative and liberal measures were analyzed separately because, while it is possible (even likely) that some of the items from the conservative measure would be adopted in liberal factors and vice versa, the objective is to create two separate measures and assess them for correlation. Decisions about how many factors to extract were made based on an examination of Eigenvalues, the scree test, and theory-driven analysis of coherent factor groupings. A five-factor solution best described the liberal measure. This is contrary to the initial measurement hypothesis that the items would cluster into eight issue factors. Total variance explained by this solution is presented in Table 6. Descriptive statistics for each item in the five factors are presented in Table 7. The first factor, labeled radical leftism, included many of the items designed to measure economic liberalism (anti-capitalist sentiments, favorability toward wealth redistribution) as well as items concerning U.S. imperialism and human rights abuses (consistent with model modifications in the initial CFA). The second factor, war on terror, included questions that were hypothesized to measure attitudes about the use of force by the government but which address elements of the government's war on terrorism. The third factor, education, includes the items assessing attitudes about education policy. The fourth factor, drugs, included two of the three items regarding drug policy. The third question about drug policy factored more strongly with the radical leftism factor (consistent with a specified cross-loading in the initial CFA). The fifth factor, State Violence, included four items assessing state use of force. Factor loadings for each item are presented in Table 8.

A four-factor solution best described the conservative measure. This is also contrary to the hypothesized measurement model which predicted eight separate issue-based factors. Total variance explained by this measure is presented in Table 9. Descriptive statistics for each item in the measure are presented in Table 10. The first factor, social/religious conservatism, included

items from each of the religious attitude issues as well as abortion questions. This is contrary to the initial measurement hypothesis but confirmed assumptions about social issues factoring together and supported the findings in the attempted hierarchical model in which both religious issues were merged into a single factor. The second factor, fiscal conservatism, included the questions designed to measure attitudes toward taxation, debt, and spending policy. This contradicted the assumption in the measurement hypothesis that fiscal conservatism would divide into sub-factors but confirms that these questions measure attitudes about fiscal conservatism. Factor three, homosexuality, included questions about gay marriage, confirming this facet of the measurement hypothesis, but included an additional question about homosexuality that was originally hypothesized to factor with other religious attitude questions. This homosexuality indicator was the one specified to cross-load on the gay marriage issue in the initial CFA. The fourth factor included the items designed to measure attitudes about gun control, conforming to the hypothesized measurement model. All factor loadings are presented in Table 11.

**Confirming the EFA factor structure.** The measurement model based on findings from the EFA hypothesized that each of the indicators would load into the respective nine factors. Initial model fit was somewhat less than desirable,  $\chi^2$  (910 N=316) = 2552.84,  $p < .01$ , TLI/NNFI = 0.88, CFI = .89, RMSEA = .081 with a 90% confidence interval of .078-.085. After inspection of the modification indices, four modifications were made following the same iterative process followed in the initial CFA. The first three modifications were to allow residual item variance to correlate. Two items in the radical leftism construct, ‘no-one deserves to be rich...’ and ‘excessive wealth is immoral...,’ were correlated. Given that both of these questions contain wording about the ethics of wealth inequality, it is reasonable that they shared variance

not accounted for by the overall construct. The residual variance on the third and fourth items in the state violence construct were freed, each of these items share wording about police brutality. Finally, the two items in the social conservatism construct that included the word 'abortion' were freed to correlate. A fourth modification was made to allow an item in the radical leftism factor to cross-load on the fiscal conservatism construct. The cross-loaded item valued socialism above capitalism and had a negative loading on the fiscal conservatism construct. Given that the construct includes items about socialism, this is a theoretically tenable cross-loading. Model fit was acceptable after the four modifications,  $\chi^2(906, N=316) = 2297.17, p < .01$ , TLI/NNFI = 0.90, CFI = .91, RMSEA = .075 with a 90% confidence interval of .071-.078. The improvement in model fit after each modification can be seen in Table 12. All loadings are presented in Table 13. Correlations between the latent constructs are presented in Table 14.

**Hierarchical EFA model.** The objective of fitting the measurement model was to generate a baseline for comparison when fitting a hierarchical model that represents the higher order political attitudes (i.e. liberal attitude extremism, fiscal conservative attitude extremism, and social conservative attitude extremism). The results of the EFA minimize the importance of this step to an extent because many of the issue-based constructs (e.g. abortion, religion in policy) did not constitute individual factors. As a result, the larger factors (radical liberalism, fiscal conservatism, social conservatism) closely mirror the desired higher order latent variables. Nevertheless, given the remaining presence of other issue factors (war on terrorism, state violence, education, drugs, gun control, homosexuality), a hierarchical model was fit. They hypothesized model adjusts some of the *a priori* assumptions based on findings from previous analyses. Given the poor performance of gun control and education in the parceled model and their low correlations in the follow-up CFA, they were not included in the hierarchical structure

(though they were kept in the overall model and specified to correlate with the higher order variables). Furthermore, based on the nature of the correlations in the follow-up CFA, the drugs variable and the war on terrorism variable were hypothesized to load on the conservative factor. The hierarchical model fit the data acceptably,  $\chi^2$  (927, N=316) = 2446.63,  $p < .01$ , TLI/NNFI = 0.89, CFI = .90, RMSEA = .078 with a 90% confidence interval of .074-.081,  $\Delta\chi^2 = 149.46$ ,  $p < .01$ ,  $\Delta$ CFI = .009.

Fitting the hierarchical model allows interpretation of the relationships between higher order latent variables of interest (social conservative extremism and liberal extremism) and between these variables and other latent constructs (fiscal conservatism). It also allows interpretation of the loadings of issues onto the higher order variables, though the liberal extremism variable loadings were given an equality constraint to achieve model identification. The relationships between the issue variables and the attitude variables are presented in Figure 6. Individual indicators and item loadings were omitted from the figure for parsimony but can be seen in Table 13. Consistent with the findings of the parceled model, fiscal and social conservatism are highly correlated but distinct factors. This further confirms H3a. Liberalism, however, did not divide along economic and social lines in the EFA nor did any follow-up analysis demonstrate that such a division would be warranted, further disproving H3b. Furthermore, consistent with the findings of the parceled model, the relationship between social conservative extremism and liberal extremism is not strongly negative. In fact, there is virtually no relationship. The relationship between liberalism and fiscal conservatism further reflects the findings of the parceled model. There is therefore no support in this data for H4, that liberalism and conservatism would be highly negatively correlated.

**Measurement short form.** After establishing a baseline model for measurement of political attitude extremism, Study 1 sought to develop a short-form for the measure that could be included in larger surveys with more variables without risking survey fatigue (e.g. Study 2). Consistent with current best practices in developing survey short forms as recommended by (Widaman, Little, Preacher, & Sawalani, 2010), latent variable relationships from the hierarchical model were used as a baseline to assess the accuracy of the short form in recreating the latent relationships. Items for the short form were selected based on a two tiered process that gave initial preference to items which were most theoretically consistent with the objectives of the study and, among these items, which ones had the best statistical performance in the earlier measurement models.

Because the measure was developed in hopes of creating a somewhat stable measure of attitude extremism that could be useful across studies and over longer periods of time than previous measures, items were selected in part based on the likelihood that they would perform similarly across time. This was the rationale for not including any inherently time-sensitive measures in the initial study (i.e. questions about attitude toward Iraq and Afghanistan wars or about sitting presidents). For similar reasons, indicators about attitudes toward homosexuality were excluded from the short form given the possibility that attitude toward issues such as homosexuality will shift as younger generations age. While the indicators of attitude toward homosexuality performed well in the various models, they were highly correlated with the other social conservatism variables such that little unique information is likely to be lost with their exclusion. Furthermore, given that other social conservatism issues did not require an individual factor in the EFA (e.g. abortion and religion questions were in the same factor) it is likely that a significant amount of the unique variance associated with homosexuality could bias a measure

that did not remove the issue variance via a hierarchical or MTMM design. Similarly, items in the war on terrorism variable were given less preference in item selection with the rationale that, as more time passes, the war on terrorism will assume different meaning and may fade from public consciousness. Questions about education funding and gun control were not considered because they consistently failed to load on any of the extremism variables in the parceled model, the MTMM, the EFA/CFA or the final hierarchical model.

Of the remaining variables, decisions about which indicators to include were based on the statistical performance of individual indicators. Cross-loaded indicators were disadvantaged because of the model misfit problems they created and because of the theoretical problems associated with including polysemous indicators in the measure. In instances of correlated residuals preference was given to selecting the best performing of the two indicators. This resolved the model misfit associated with their correlation without sacrificing the information provided by the questions. Overall item performance was evaluated by looking for items with high loadings on their constructs and low item-specific error. Loadings from the final hierarchical model were used as the baseline but initial decisions were crosschecked with the loadings from the MTMM model with particular attention paid to the indicator loadings on the ideology construct relative to loadings on the method variables. The process described above generated two possible measurement short forms. Among these two measures, the first one best recreated the latent relationships in the final hierarchical model and was thus selected for use in Study 2. The indicators in the final short form measure of attitude extremism are presented in Appendix C. All indicator loadings and intercepts for the measurement short form are presented in Table 15.

## **Discussion**

The objective of this study was to understand the way issue based attitude items measure overall attitude extremism. The results confirm that this method of measurement is effective at assessing the broader attitude construct. However, the findings of this study challenge a number of assumptions and provide important insights for future issue-based measures of political attitude extremism. The initial measurement hypotheses posited that the 54 indicators of attitude extremism would subdivide into 16 issue-based variables and that these issue variables would further divide into four attitude constructs: economic liberal attitude extremism, social liberal attitude extremism, fiscal conservative attitude extremism, and social conservative attitude extremism. Problems with the initial measurement model suggested that the indicators did not behave as was speculated.

Therefore, three alternative models were fit to address the problems associated with the measurement hypotheses. The first alternative was a parceled model in which each of the questions intended to measure a given issue were averaged together to create a single average score for each issue (e.g. instead of three abortion questions loading onto an abortion variable, one abortion average loaded directly on the social conservatism variable). While this model provided some useful information about the relationship between the four attitude extremism variables (i.e. economic liberalism, social liberalism, fiscal conservatism, social conservatism), it did not resolve all of the problems associated with the initial measurement model. The second alternative model was an MTMM model that attempted to separate the item level information about the issue variables (e.g. abortion) from the information associated with the attitude variables (e.g. social conservatism). While model fit was encouraging, the item loadings

suggested that this was not a tenable. It was speculated that, because issue attitudes are intrinsic to overall political ideology, meaningful statistical divisions between the two were not possible.

Given the failure to resolve measurement issues in the parceled and MTMM models, a third and final alternative was pursued. An exploratory factor analysis was conducted to provide issue-based groupings of the survey questions based on their statistical properties rather than the *a priori* assumptions that guided the design of the initial measurement model. The confirmatory factor analysis conducted on this new measurement structure demonstrated that the problems associated with the initial measurement model were resolved through the EFA.

What follows is a detailed discussion of the implications from each phase of this process beginning with the initial measurement model and proceeding through each of the three alternative models (i.e. the parceled model, the MTMM model, and the EFA model). After the findings from each of the models are discussed, five guidelines for future issue-based attitude measures are presented: 1) liberalism, fiscal conservatism, and social conservatism are separate variables and need to be measured independent of one another, 2) attitude based measures of extremism are tenable, 3) researchers should avoid single-issue attitude measures, 4) the issues selected for attitude measures should either be established through previous empirical testing or tested against previously tested issues, 5) if measures are designed with facet-representative parcels in mind the need for hierarchical or MTMM model structures can be avoided.

**Problems specifying a measure of attitude extremism.** The first study was premised on the belief that attitude extremism can be measured by selecting issues positions that act as markers for an overall ideological extremism. Fifty-four survey items were designed to measure 16 different issues. It was believed that these 16 issues would then measure four higher order attitude extremism variables (fiscal conservatism, social conservatism, economic liberalism, and

social liberalism). The measurement model used to test the first set of hypotheses, that the 54 indicators would measure 16 different political issues, encountered a series of problems. Many of these problems were reasonable given the exploratory nature of the study. Some of the survey questions performed poorly likely as a result of poor design. Other items—items which may have been designed well—presented problems by virtue of the complexity of social attitudes. The measurement model imposed rigid assumptions on the discrete nature of political attitudes, assumptions that are probably not reasonable. Nevertheless, after significant modifications to that corrected for poor performing items and allowed for more reasonable assumptions about political attitudes, the initial measurement model only narrowly achieved acceptable fit. When the model that sought to measure extremism through the 16 issues was specified (the hierarchical model), fit was sufficiently problematic to warrant pursuit of alternative measurement hypotheses. These results challenge the first two sets of hypotheses—H1a, H1b, H2a, H2b—which predicted the issue relationships described above. By fitting subsequent models, a parceled mode, a multi-trait multi-method (MTMM) model, and an EFA model, the problems associated with the initial model were resolved and a final issue-based measure of political attitude extremism was developed.

**Findings from the parceled model.** The first solution to the measurement problems was to minimize unreliability in the indicators of the issues by creating parcels (or averages of all survey questions measuring a given issue). Parceling can be an elegant solution to the measurement problems because averaging the items reduces the number of indicators from 54 to 16 and eliminates the need for a hierarchical structure to be fit. Given the poor fit of the initial hierarchical model, this provided an alternative opportunity to determine which issues best measure attitude extremism. However, the parceled model relies on the *a priori* assumptions

from the initial measurement model to make decisions about how to average the items. If the assumptions about the nature of the measurement model are incorrect, the parceling decisions may be based on flawed assumptions and the parceled model will be little better than the initial measurement model. In this instance the parceled model encountered difficulties similar to the initial CFA, further suggesting that *a priori* assumptions about the issue and attitude measures needed to be reexamined. Nevertheless, some similar modifications to the parceled model allowed sufficient model fit. Preliminary analysis of the relationships among the latent variables was thus possible with the caveat that these findings are preliminary.

The parceled model suggested important relationships that, if confirmed, have profound ramifications for how scholars measure attitude extremism. First, social and fiscal liberalism were correlated strongly such that it is untenable to treat them as separate constructs. This model found no support for H3b, liberalism was not divisible by economic and social attitudes. Second, while highly correlated, social and fiscal conservatism were clearly separate constructs and should not be treated as unidimensional in future research. Scholars who use a single issue to measure conservative attitudes (e.g. Binder et al., 2009; Warner, 2010; Wojcieszak, 2009), or who use an orientation measure (e.g. Lin, 2009; Skitka et al., 2005; Stroud, 2010), will ignore this important feature of conservative attitudes.

The relationship between liberal attitude extremism and the conservative attitude extremism represents another significant finding from the parceled model. Rather than having a strong negative correlation, liberal and conservative attitude extremism had very little relationship at all. This suggests that when scholars deal with political attitude extremism they should not treat liberalism and conservatism as existing on the same spectrum. While this may be the case in some instances of partisan polarization, attitude extremism does not follow this

pattern. The one-dimensional measures of polarization and extremism in the vast majority of contemporary political communication scholarship cannot account for the differences in attitudes across liberal and conservative ideologies.

In addition to preliminary findings about the latent relationships among the extremism variables, the parceled model provides some insight about which issues best measure overall attitude extremism. Because of their poor loadings, education and the gun control were both removed from the model. This suggests that these issues do not assess overall attitude extremism, a finding that is contrary to the theoretical expectations and focus group recommendations about each issue. The poor performance of the education parcel likely suggests that, while people may have strong political attitudes about the nature of education policy, these attitudes do not contribute much information about the extent to which their overall political attitudes are extremist. In other words, strong support (or opposition) to education funding seems to mean little about attitude extremism. Gun control similarly failed to contribute information about attitude extremism, perhaps because attitudes about gun control behave independent of broader political ideologies. Regardless of the explanation, education and gun control failed to contribute significant information about overall political attitude extremism.

The finding that gun control and education funding are poor performers is significant beyond what it says about these particular issues. Gun control and education were included after careful theoretical consideration and focus group analysis. Single issue-based attitude measures, regardless of how carefully they are selected and specified, cannot reliably measure attitude extremism because there are no other issues to test them against. Had gun control been the only issue used in the measure there would have been no way to know of how poorly this issue performs as a measure of attitude extremism.

**Issues as method factors.** The parceled model yielded some valuable insights regarding the relationships among the attitude extremism variables. However, because each of the individual indicators was averaged into parcels, no information about specific items is available for analysis. A primary objective of this study was to determine how effective individual questions are at measuring attitude extremism. A different solution, therefore, is needed to provide item-level data. Furthermore, given some of the difficulties with the initial measurement model, the assumptions of the parceled model may not be justified. The MTMM model was fit to correct this by providing greater detail regarding individual indicators while also allowing examination of the latent correlations among the attitude extremism variables. The MTMM model assumes that each issue variable, rather than being a lower order factor contributing information to a higher order extremism variable (as is assumed with the hierarchical and parceled model), is merely a method factor. In other words, rather than being meaningful variance pertaining to the extremism variable (e.g. liberal extremism), each issue factor contains nuisance variance that distracts from the variable of interest (i.e. attitude extremism). The MTMM model removes this method (or issue) variance by splitting the shared information among indicators into variance that is common amongst all items in a given extremism variable (e.g. social conservative extremism) and the method specific variance of the items associated with the issues they share in common (e.g. abortion questions). In theory, this method resolves the problem of method factors by only allowing information shared across all of the indicators to load on the higher order construct.

The dramatic improvement in model fit for the MTMM model suggests that issues do in fact act as method factors and that measures which use issues to assess political attitudes need to remove the issue variance from the model via an MTMM design. However, when loadings and

latent relationships were examined, theoretical problems emerged. Items specified to load equally on the extremism variables behaved erratically such that similarly worded items intended to communicate identical information would load in opposite directions and with uninterpretable differences in magnitude. The solution estimated by the model did not seem to explain the data in a coherent way. This is likely because the overlap between the information conveyed about the issue being measured (e.g. abortion) is not clearly distinct from information about overall political attitude (e.g. social conservative attitude extremism). The MTMM model assumes that the information shared regarding a respondent's attitude toward abortion is distinct and statistically separate from the respondent's overall social conservative attitude. In practice these two attitudes are likely not divisible and, when the model attempted to divide them, the results were somewhat erratic and difficult to interpret.

If the MTMM model is theoretically untenable, the improvement in model fit remains to be explained. Given that a great deal of the model misfit associated with the initial measurement model involved correlated residuals (indicators that share item-specific variance with one another), the MTMM provides a statistical outlet for most of these correlations. While not all indicator residuals are freed to correlate, each indicator within a higher order construct (e.g. social and fiscal conservatism) can contribute the correlated variance to the higher order variable. At the same time, all of the issue variables are specified to correlate freely with one another, removing the restriction that all relationships among them be explained by their overall commonality. In other words, the improvement in model fit is to be expected given the nature of model misfit in the earlier models.

While the data from the MTMM model was somewhat erratic and the model itself faced theoretical challenges, some of the parameter estimates are worth discussion to the extent that

they mirror findings from the previous models. Specifically, consistent with the findings of the parceled model, the indicators for the education variable failed to load on the liberalism variable. The loadings were poor such that a solution would not converge until the loadings were fixed at zero. This strongly reinforces the earlier finding that attitudes about education policy are poor measures of attitude extremism. It is also worth noting that, while the magnitude of all latent correlations between social and fiscal conservatism/liberalism were much higher in the MTMM model, the pattern of relationships were the same as with the parceled model. While it would be unwise to read too much into this finding (given the erratic nature of item loadings on the attitude variables) it adds some additional support for the inferences drawn from the parceled model. Specifically, social and economic liberalism were perfectly correlated in the MTMM model and, while highly correlated, fiscal and social conservatism were clearly distinct constructs.

**Re-specifying the issue measures.** Given that neither the parceled model nor the MTMM model provided sufficient solutions to the problems associated with the hypothesized measurement model, an exploratory factor analysis was conducted to establish a new structure for the issue variables. The initial model hypothesized that both liberalism and conservatism would divide along economic and social lines, a hypothesis that only held in the conservative measure (both in the parceled model and in the MTMM model). The findings of the EFA confirmed this trend and lent final support for H3a that social and fiscal conservatism are separate constructs. All of the indicators designated to measure fiscal conservatism factored together. This also contradicted a component of H1a. Rather than dividing into three separate issue variables (taxation, debt, spending), the fiscal conservatism attitude extremism variable was one-dimensional. This provides further evidence that an MTMM solution is not necessary with

regard to fiscal conservatism, as the EFA did not extract issue factors within fiscal conservatism. This finding was consistent with the high number of correlated residuals among indicators in the fiscal conservatism factor that created problems for the hypothesized measurement model.

The initial measurement model hypothesized that social conservatism would be composed of five issue-based factors. Findings from the EFA demonstrated that there were three, not five, issue factors. Gay marriage and gun control each factored separately but abortion rights, religion in public, and religion in policy all emerged as a unified factor. However, there was an item in the religion issues that referenced attitudes toward homosexuality, an item that was specified to cross-load on the gay marriage construct when the initial CFA was modified. In the EFA, this item factored with the gay marriage indicators. These findings lend some support to the hypothesis that social conservatism would sub-divide into issue factors (H1a), though given the poor performance of gun control in the parceled model it may be more accurate to conclude that social conservatism is composed of four issues (the two religion issues, abortion, and gay marriage) only one of which (homosexuality) contains enough issue specific variance to warrant a method factor. Interpreted this way, social conservatism behaves much the same as fiscal conservatism, as a unidimensional factor, with the caveat that questions about homosexuality contain issue specific variance that, if not controlled for, could bias the social conservative attitude extremism measure. Researchers including items about homosexuality in a measure could resolve this by creating one method factor for the homosexuality items, by using the hierarchical structure for all of the issue variables, or by parceling each of the issue domains.

Findings from the EFA on the measure of liberal attitude extremism lent more support to H1a than did findings for the conservative measures. Five issue-based factors emerged. However, as consistent with findings from the parceled model and the MTMM model, there was

no division along economic and social lines. The first factor was the largest and included many of the indicators intended to measure economic issues but also included items about human rights, a question about the war on terrorism, and a question about the war on drugs. The war on terrorism item included was the same indicator that was specified to cross-load on the anti-capitalism variable in the initial CFA. The inclusion of items regarding human rights and other social issues suggest that, whatever divisions there are in liberal attitudes, there are not clear distinctions between economic and social policy as is the case with conservatism. The next largest factor to emerge was a combination of four items regarding government violence. Consistent with the findings of the parceled model and the initial CFA, the items about education policy factored together. The other two factors included questions regarding the war on terrorism and questions about drug policy. While the drug policy factor was specified in the initial measurement model, only two of the three indicators ended up in this factor.

In some sense the findings from the EFA of the liberalism measure confirm that lower order issue factors will compose an overall extremism variable (e.g. H1a). However, given the size and diversity of the first factor, it may be the case that the indicators which best measure liberal attitude extremism factor together and the others, while perhaps contributing meaningfully to the attitude variable, contain sufficient issue-based (or method) variance to warrant a separate factor.

The resulting factors were fit to a measurement model that confirmed the structure of the EFA. However, inspection of the correlations among the factors suggested that the war on drugs and war on terrorism variables shared more information with the social conservative attitude extremism issues. When a hierarchical model was fit, these issues were specified to load on the social conservatism model, and the findings confirmed that war on drugs and war on terrorism

are effective issues to measure social conservatism. However, when developing the measurement short form, the latent relationships were recreated without any of the indicators from the war on drugs, war on terrorism, or homosexuality factors. Given the desire to keep indicators more stable across time, and given the benefits of a more parsimonious short form, the final measure of attitude extremism did not use any items from these three issue variables. Given that the variable relationships in the short form were adequately recreated, the decision not to include these issues was not seen as a disadvantage to the measurement short form.

**Recommendations for future researchers.** While this study was designed to create a measure that could be deployed in future scholarship, researchers may wish to develop their own measure. Given the exploratory nature of this study, it would be wise even for those who use this measure to continue to add to and modify the items in the questionnaire to improve precision and validity. In making modifications, and for those who elect to develop their own measure of attitude extremism, the findings from this study provide important guidelines. First, no measure of attitude extremism should treat liberalism, social conservatism, and fiscal conservatism as a single construct. These variables are distinct and should be measured with separate items. Second, while extremism is likely a multifaceted construct, this study demonstrates issue-based attitude measures of extremism are tenable. Future scholars may find complementary ways to measure political extremism. Nevertheless, issue measures are an effective way to measure attitude extremism and, given the disadvantages associated with measures of orientation (e.g. 1 = “very liberal” 7 = “very conservative”), issue measures should be used in future extremism research. Third, researchers should refrain from using single-issue measures of attitude extremism. Because extremism is multi-dimensional, it is unclear which variable the single item would be measuring. While the correlations across attitude variables confirm that each issue

contains some shared information about all three facets of attitude extremism (liberalism, fiscal conservatism, social conservatism), a single issue cannot equally and reliably measure all three components. Furthermore, the method variance associated with the single issue would be impossible to separate from the attitude measure and would likely bias the findings. Fourth, as researchers use issue based attitude extremism measures, care should be taken in selecting the issues. In spite of good theoretical assumptions and focus group research suggesting education funding and gun control would be wise to include, they failed to perform in the model. Without testing, all decisions about which issues to include will be speculative. Beyond this, without inclusion of issues with known measurement properties, it will be difficult to assess the amount of issue-specific variance associated with the variables. Researchers should therefore include items from issues with existing measurement properties (e.g. abortion) to contrast with any new issues they add to future measures. Finally, given the benefits of parceling and the hierarchical nature of the measurement structure, researchers should design issue-based measures in a way that facilitates facet representative parcels. This will improve and simplify the estimation of the measurement model. It is also a more parsimonious solution to issue-based variance than the hierarchical structure or the MTMM model specification.

Following the development of the political attitude extremism measurement short form, a second study was conducted to evaluate specific elements of the fragmentation thesis. Specifically, ideological media, social homogeneity, political engagement, and moral conviction are hypothesized as contributors to political attitude extremism. Chapter four presents the rationale for these hypotheses as well as the methods and procedures used to test these relationships, the results of the study, and a discussion of the major findings.

## Chapter 4: Study 2 – The Nature of Attitude Extremism

### Rationale

Study 1 sought to create a measure of political attitude extremism in an effort to better evaluate what communication behaviors contribute to attitude extremism. The truncated measure of political attitude extremism developed in the first study was included in a survey that measured a series of communication phenomenon previously linked to extremism. The objective of the second study was to determine which variables predict higher levels of attitude extremism. Furthermore, because Study 1 demonstrated that liberalism, social conservatism, and fiscal conservatism are different constructs, it is possible that different factors contribute to the formation of each. This study therefore sought to test whether prediction is uniform across all three extremism variables (liberal attitude extremism, social conservative attitude extremism, and fiscal conservative attitude extremism). However, because past research has not delineated between the three attitude variables, no differences are hypothesized. In addition to the three measures of attitude extremism created in Study 1, a measure of partisan polarization was also included as a potential marker for political extremism.

A great deal of the literature on media fragmentation suggests that as the media becomes increasingly fragmented individuals will exhibit greater levels of political extremism (Bimber & Davis; Lin, 2009; Selnow, 1998; Stroud, 2010; Sunstein, 2007; Tewksbury, 2005; Warner, 2010). Higher levels of media use for political purposes should predict greater extremism in the extremism variables. Hence, this study tested the following hypotheses:

H1: Political media use will positively predict liberal attitude extremism.

H2: Political media use will positively predict social conservative attitude extremism.

H3: Political media use will positively predict fiscal conservative attitude extremism.

H4: Political media use will positively predict partisan polarization.

Though research suggests that the overall trend of media is toward polarization (Tewksbury, 2002; Sunstein, 2007), some scholars argue that even frequent users of new technology will continue to consume traditional media sources (Kaye & Johnson, 2006). Other research suggests partisan or ideological media is more likely to generate polarization and extremism (Lin, 2009; Stroud, 2010; Warner, 2010). In addition to testing whether overall media consumption predicts attitude extremism, this study also hypothesized that higher use of ideological media for political news will be associated with higher levels of attitude extremism. Specifically:

H5: Ideological media use will positively predict liberal attitude extremism.

H6: Ideological media use will positively predict social conservative attitude extremism.

H7: Ideological media use will positively predict fiscal conservative attitude extremism.

H8: Ideological media use will positively predict partisan polarization.

One of the primary arguments offered for the polarizing effect of fragmented media is that political conversation will occur in ideologically homogeneous social situations (Sunstein, 2007). This is consistent with research in other contexts that suggests homogeneity of social networks may drive greater attitude extremism (Abelson, 1995; Binder et al., 2009; Gergen, 2003; Gergen, 2008; Isenberg, 1986; Lin, 2009; Sunstein, 2009; Wojcieszak, 2009). This study thus hypothesized:

H9: Homogeneous social networks will positively predict liberal attitude extremism.

H10: Homogeneous social networks will positively predict social conservative attitude extremism.

H11: Homogeneous social networks will positively predict fiscal conservative attitude extremism.

H12: Homogeneous social networks will positively predict partisan polarization.

Research also argues that greater levels of moral conviction and moral certainty may contribute to stronger, more extremist attitudes (Skitka, et al, 2005; Skitka & Mullen, 2002). To test this relationship, the following hypotheses were offered:

H13: Moral conviction will positively predict liberal attitude extremism.

H14: Moral conviction will positively predict social conservative attitude extremism.

H15: Moral conviction will positively predict fiscal conservative attitude extremism.

H16: Moral conviction will positively predict partisan polarization.

While the above hypotheses test the social behaviors and attitudes that are presumed to contribute to attitude extremism, it is also believed that those who are more interested and engaged in politics in general will be more likely to exhibit extremists attitudes (e.g. Prior, 2007; Stroud, 2010). The following hypotheses were therefore offered:

H17: Greater political engagement will positively predict liberal attitude extremism.

H18: Greater political engagement will positively predict social conservative attitude extremism.

H19: Greater political engagement will positively predict fiscal conservative attitude extremism.

H20: Greater political engagement will positively predict partisan polarization.

While these variables are presumed to contribute to attitude extremism, political party identification should successfully predict the type of attitude polarization associated with the extremism variables. The relationship of party identification and attitude extremism was therefore tested with the following hypotheses:

H21a: Democratic Party identification will positively predict liberal attitude extremism.

H21b: Democratic Party identification will negatively predict social conservative attitude extremism.

H21c: Democratic Party identification will negatively predict fiscal social conservative attitude extremism.

H21d: Democratic Party identification will predict liberal partisan polarization.

H22a: Republican Party identification will negatively predict liberal attitude extremism.

H22b: Republican Party identification will positively predict social conservative attitude extremism.

H22c: Republican Party identification will positively predict fiscal conservative attitude extremism.

H22d: Republican Party identification will predict conservative partisan polarization.

While partisan polarization and attitude extremism are often conflated in research and there is little theorizing about the relationship between partisan polarization and political attitude extremism, this study presents an opportunity to explore possible relationships. It may be the case that, rather than serving as a different marker for the same polarization/extremism phenomena, a polarized political orientation is a component of the process that contributes to attitude extremism. Because there is no theoretical reason to assume, *a priori*, that partisan polarization should be treated as a dependent variable rather than predictor, this study also seeks to test the prediction of partisan polarization on the attitude extremism variables. To this end, the following hypothesis are offered:

H23: Liberal partisan polarization will predict liberal attitude extremism.

H24: Conservative partisan polarization will positively predict social conservative attitude extremism.

H25: Conservative partisan polarization will positively predict fiscal conservative attitude extremism.

## **Method**

**Participants.** A survey was distributed to 188 undergraduate students at a major Midwestern University. Participants were recruited from a pool of subjects enrolled in Communication Studies courses that carry a research participation requirement. Participation was voluntary but students were awarded research participation credit in fulfilling part of the course requirement. The age of the sample ranged from 18-54 ( $M = 20.52$ ,  $SD = 3.38$ ) with 81 (43%) male respondents and 106 (57%) female. A majority, 159 (85%), of the respondents were Caucasian, 10 (5%) were Hispanic, and no other ethnicity represented greater than 3% of the sample. Seventy (37%) of the respondents indicated that they primarily identified with the Democratic Party, 75 (40%) the Republican Party, and 43 (23%) indicated that they were Independent or identified with a third party.

## **Measures.**

**Media diet.** To measure media habits respondents were asked to record the amount of times per week they used a variety of news media. The items included examples of national and local print media, television, radio, online papers, e-mail, political/news blogs, etc. This is consistent with previous research measuring news media use (Pinkleton, 2002). To assess overall media consumption the items were added together to create a sum total of days per week the respondent consumed media related to news or political events. Ideological media use was measured by creating a sum of the days per week respondents reported using political blogs,

cable news, and news radio. These three mediums were selected because, relative to the other mediums, they demonstrate greater overt partisanship and extremist rhetoric than other political news mediums (Sobieraj & Berry, 2011).

***Homogeneity of social network.*** Homogeneity of social network was measured using a scale that assessed the dissimilarity of network ties used in Wojcieszak (2009). Respondents were instructed to “think about those people you feel VERY close to, such as your family and close friends,” and questioned about their perceptions of dissimilarity (“How many of them do you think generally have opinions on political issues that are DIFFERENT from yours?” from 1 “Almost none” to 5 “Almost all of them”), exposure to dissimilar opinions (“...how often do they express views on political issues that are DIFFERENT from yours?” 1 “Almost never,” 5 “Almost always”), and political disagreement (“...how often do you DISAGREE with them when you talk about politics?” 1 “Almost never” 5 “Almost always”). Respondents were then asked to think about their more extended network (people they were “SOMEWHAT CLOSE to. They’re more than just causal acquaintances, but they’re not as close as the friends and relatives you already identified above”), and parallel questions were asked. These measures have been shown in past research to reflect the extent to which people think that their offline ties expose them to views unlike their own (Mutz, 2002; Wojcieszak, 2009). Given the direction of the item wordings, a high score would indicate heterogeneous network ties.

***Moral conviction.*** Moral conviction was measured using two scales. Respondents were provided an open-ended question and asked to write down the political issue that they believed was the most important issue facing the country today. The first scale asked respondents to assess the strength of their attitude on this issue (1 “not at all” to 5 “very”): how strongly they felt about the issue; how important it was to them personally; how much it was related to how

they see themselves as a person; and how much their feelings on the issue they identified connected to their core moral beliefs or convictions. The second measure used a scale of social distance and asked respondents the extent to which they agreed or disagreed with the statement “I would be very happy to have someone who did not share my views on (their identified most important issue)” (1 = “very much agree” 7 = “very much disagree”) as: President of the U.S.; Governor of my state; a neighbor; to come and work at the same place I do; as a room mate; to marry into my family; someone I would personally date; my personal physician; a close personal friend; the owner of a store or restaurant I frequent; the teacher of my children; my spiritual advisor. Each of these measures were adopted from Skitka, et al, (2005) and Skitka & Mullen (2002).

***Political engagement.*** Political engagement was measured using two different measures, a measure of frequency of political talk and a measure of political efficacy. To assess the frequency of political talk respondents were asked to indicate the frequency with which they engage in political conversations (“how often would you say you discuss politics with people you feel VERY close to, such as your family and close friends” and “people you feel SOMEWHAT CLOSE to” 1 “Almost never” to 5 “Almost always”). This procedure is consistent with past research on extremism (Wojcieszak, 2009). Political efficacy was measured using the political information efficacy (PIE) scale developed by Kaid, McKinney & Tedesco (2007). PIE is measured by asking respondents to indicate their level of agreement on three statements reflecting confidence in political knowledge (“I consider myself well qualified to participate in politics”; “I think I am better informed about politics and government than most people”; and “I feel that I have a pretty good understanding of the important political issues facing our country” 1 “Disagree strongly” to 5 “Agree strongly”). PIE has been demonstrated to be a valid measure

of an individual's confidence and willingness to participate in political activities, including voting, (Kaid, McKinney & Tedesco, 2007; McKinney & Chattopadhyay, 2007; McKinney & Rill, 2009).

***Attitude extremism.*** Attitude extremism was measured using the truncated measures of liberal attitude extremism, social conservative attitude extremism, and fiscal conservative attitude extremism developed in Study 1. Ideological polarization was measured by asking participants whether they like or dislike: liberals; conservatives; Democrats; Republicans. The respondents indicated their level of like or dislike on 100-point feeling thermometers. The scores for like of Republicans and conservatives were added, as were the scores for like of Democrats and liberals. These were then combined to create an overall measure of ideological polarization such that -200 represents complete like of liberals and Democrats and dislike of conservatives and Republicans and 200 represents complete dislike of liberals and Democrats and like of conservatives and Republicans. This type of measure is consistent with Skitka, et al, (2005).

**Analytic procedures.** Structural equation modeling (SEM) with maximum likelihood using LISREL 8.80 was employed to assess the relationships between the variables because it allows for the simultaneous assessment of complex variables and because it allows relationships between latent and observed variables to be measured simultaneously (Brown, 2006, Kline, 2003). Because the variables of interest in this study have many complex interrelationships with each other, the ability to simultaneously account for all of the relationships among the constructs of interest in SEM makes it a valuable tool. Each measured relationship in the structural models represents the unique relationship of a particular variable when controlling for the direct and indirect effects of all of the others. Furthermore, given that this is the first study deploying the

measure of extremism, SEM is an appropriate technique to test relationships between manifest indicators and latent constructs while simultaneously examining the relationships various latent constructs have with each other. Recent scholarship has demonstrated the value of this procedure in political communication research (e.g. Binder et al., 2009; Shah & Scheufele, 2006). The structural model specified based hypotheses 1-22 is presented in Figure 7, the structural model specified based on hypotheses 23-25 is presented in Figure 8.

Given the benefits of parceling both in achieving model identification and in establishing a more reliable model (Little et al., 2002) parceling was used to modify over-identified measures. Specifically, facet representative parceling was used to create three parcels for liberal attitude extremism. The first facet contained six indicators based on the anti-capitalism/anti-imperialism items from the truncated measure. Two parcels were created from this facet and balancing was used in the assignment of parcels within the facet. The second facet, three indicators representing the government violence factor, was assigned the third parcel. Each measure of moral conviction was also parceled. The four items in the certainty component of moral conviction measure were parceled into three by assigning the highest and lowest loading within the latent variable to a parcel.

The social distance component of the moral certainty measure was also parceled. The two politics related items (President and Governor) were parceled due to an unusually high correlated residual between them. The other items were balanced within the two facets, higher intimacy and lower intimacy, based on Skitka, et al, (2005). Six parcels were created for the social distance measure. While this does create overidentification in the model, a six-indicator measure in an otherwise well identified model will generally not provide estimation difficulties. Because the politician indicators in the measure were more strongly related to each other than the other items

it was concluded that they may represent a separate facet and that parceling them with another indicator would therefore potentially bias that parcel. This risk was deemed more significant than the benefits of further parceling the social distance measure.

The final parceling decisions involved the homogeneity/heterogeneity of social network measures. While the measures were divided along two different facets, those who were “very close” and those who were “somewhat close,” domain representative parceling was selected to retain the variance associated with closeness. In other words, because a homogeneous social network of “very close” people could influence attitude extremism even if the “somewhat close” network was more heterogeneous, leaving this information behind in a facet representative parceling scheme is undesirable. While the distinction between level of closeness and contribution to extremism may be worth study and thus merit keeping these facets as separate measures of attitude extremism, this study is merely interested in the overall homogeneity of social network and thus collapsed the two facets into three parcels. Each parcel consisted of two indicators with the same wording, one referencing those people who were “very close” and the other referencing those who were “somewhat close.”

To test the hypothesized measurement models an iterative process following the recommendations of Kline (2005) was deployed. This process involves first fitting a confirmatory factor analysis (CFA) of the measurement model to establish the reliability of the indicators and their relationships to the latent constructs. Model fit was assessed using the ML  $\chi^2$  statistic. Given the sensitivity of the  $\chi^2$  statistic to sample size, the convention in SEM scholarship is to evaluate model fit with reference to the Tucker-Lewis/non-normed fit index (TLI/NNFI), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA). Values above .90 for the TLI/NNFI and CFI are considered reasonably good fit (Hu

& Bentler, 1999) and RMSEA values between .05-.08 suggest reasonable fit while values less than .05 represent close model fit (Browne & Cudeck, 1993). Upon establishing a baseline of fit for the measurement model, the structural model was fit to determine acceptability of the hypothesized model. After fitting the structural model, each hypothesized parameter was tested for significance using the  $\chi^2$  difference test.

## Results

**Media Model.** The initial measurement model demonstrated reasonable model fit,  $\chi^2$  (344, N=175) = 521.95,  $p < .01$ , TLI/NNFI = 0.94, CFI = .95, RMSEA = .051 with a 90% confidence interval of .041-061. All latent correlations for the measurement model are presented in Table 16. Following the iterative process described above, a structural model was fit to test the prediction of political party, frequency of media use, political information efficacy, homogeneity of social network, political talk, moral certainty, and social distance on partisan polarization and the three attitude extremism variables (liberal, social conservative, fiscal conservative). Model fit for the structural model was reasonable,  $\chi^2$  (344, N=175) = 521.95,  $p < .01$ , TLI/NNFI = 0.94, CFI = .95, RMSEA = .051 with a 90% confidence interval of .041-061. However, there were many non-significant pathways. All non-significant paths were removed iteratively with the lowest path loadings being removed first until only significant paths remained. Evaluation of significance was based on the change in  $\chi^2$ . Changes in model fit for this and all subsequent models are presented in Table 17. For ease of interpretation, the significant pathways are presented in four separate path diagrams, one for each of the dependent variables. The structural model for partisan polarization is presented in Figure 9, liberal attitude extremism in Figure 10, social conservative attitude extremism in Figure 11, and fiscal conservative attitude extremism in

Figure 12. Because only ideological media contained a significant pathway, loadings on the structural model represent estimates from the ideological media model.

As can be seen in the structural model, overall media use, moral certainty, and social distance were not significant predictors of any outcome variable. Thus no support was found for H1-4 and H13-16. Homogeneity of social network significantly predicted social conservative attitude extremism. Given that a high score on the measure of network diversity is associated with a heterogeneous social network, the negative loading is consistent with H10. In other words, those with more homogeneous social networks were more likely to possess higher levels of social conservative attitude extremism. Homogeneity of social network failed to predict partisan polarization, liberal attitude extremism, or fiscal conservative attitude extremism. Thus there was no support for H9, H11, and H12. In other words, those with homogeneous social networks were no more likely to exhibit higher levels of conservative extremism or partisan polarization than were those who had more heterogeneous social networks. Support for H17-20 was mixed.

Frequency of political talk positively predicted liberal attitude extremism, supporting H17, but failed to significantly predict either conservatism variable or partisan polarization, challenging H18-20. In other words, those who engaged in political talk more frequently were more likely to possess greater levels of liberal attitude extremism but were no more likely to exhibit greater ideological polarization or conservative attitude extremism than those who did not engage in frequent political talk. Political information efficacy significantly predicted fiscal conservative attitude extremism, lending support to H19, but failed to predict liberal attitude extremism, social conservative attitude extremism, or partisan polarization. This challenged H17, H18, and H20. In other words, those with high levels of political information efficacy were more likely to exhibit higher levels of fiscal conservative attitude extremism but were no more likely

to exhibit higher levels of partisan polarization, social conservative attitude extremism, or liberal attitude extremism. Regarding political party, identification with the Democratic Party only significantly predicted partisan polarization. Consistent with the hypothesis, the loading was negative. In other words, identification with the Democratic Party was associated with more leftist attitudes. This supported H21d. However, no support was found for H21a-c, identification with the Democratic Party failed to significantly predict liberal attitude extremism and was not negatively associated with either conservative attitude extremism variable. Identification with the Republican Party significantly predicted all for attitude extremism variables in the predicted direction, supporting H22a-d. In other words, people who identify with the Republican Party were more likely to exhibit both social and fiscal attitude extremism than those who do not, are more likely to exhibit a right wing orientation, and are less likely to have liberal extremist attitudes.

**Ideological media model.** To test H9-12 a separate measurement model was fit that replaced the overall media use variable with the ideological media use variable. Model fit was reasonable,  $\chi^2 (344, N=175) = 530.77, p < .01, TLI/NNFI = 0.93, CFI = .95, RMSEA = .052$  with a 90% confidence interval of .042-062. A structural model was then fit to test H5-9. Model fit was reasonable,  $\chi^2 (344, N=175) = 530.77, p < .01, TLI/NNFI = 0.93, CFI = .95, RMSEA = .052$  with a 90% confidence interval of .042-062. Following the process outlined above, all non-significant paths were removed. Regarding all but the media variable, the findings were unchanged from the previous model. All loadings in Figures 9-12 reflect estimates from this model. Consistent with H5, ideological media significantly predicted liberal attitude extremism. In other words, the more respondents used ideological media the greater their liberal attitude extremism. Ideological media failed to significantly predict either conservative variable or the

partisan polarization variable. Thus, no support was found for H6-8. Those who exhibited greater levels of ideological media use were no more likely to have higher levels of conservative attitude extremism or partisan polarization.

**Polarization model.** To test H23-25 a third structural model was fit that included ideological polarization as a predictor of the three attitude extremism variables. Model fit was acceptable,  $\chi^2(361, N=175) = 547.90, p < .01$ , TLI/NNFI = 0.94, CFI = .95, RMSEA = .052 with a 90% confidence interval of .042-062. All non-significant paths were removed and the final structural models are presented in Figures 13 (social conservative attitude extremism) and 14 (fiscal conservative attitude extremism). Only structural models with changes in significant pathways are presented. As can be seen, all but one of the significant paths did not change when partisan polarization was included as a predictor variable. However, after accounting for the predictive influence of partisan polarization, identification with the Republican Party was no longer a significant predictor of social conservative attitude extremism. Partisan polarization significantly predicted both social conservative attitude extremism and fiscal conservative attitude extremism, confirming H24 and H25. In other words, those with a more right-wing orientation had significantly more conservative attitude extremism. However, partisan polarization failed to significantly predict liberal attitude extremism, challenging H23. In other words, those with a more left-leaning ideological disposition were no more likely to exhibit liberal attitude extremism than were those whose disposition was not left-leaning. Model fit statistics for all of the models are presented in Table 17.

## **Discussion**

The objective of these studies has been to establish a basis for the measurement and study of extremism in American politics and to assess the communication phenomena that contribute

meaningfully to extremist political attitudes. The first study developed a new system to measure political attitude extremism that divides attitude extremism into three dimensions: liberal attitude extremism, social conservative attitude extremism, and fiscal conservative attitude extremism. Study 2 advances the conversation about political attitude extremism by deploying this new measure in a study of Sunstein's (2007) fragmentation thesis: than an evolving media environment risks polarizing American society.

In particular, findings from this second study offer important contributions to the conversation about media fragmentation, social polarization, and political extremism in general. Most importantly, this study definitively demonstrates that political attitude extremism should not be treated as a unidimensional construct. While it is the norm in scholarly literature to include a single measure of polarization/extremism (Binder et al., 2009; Lin, 2009; Stroud, 2010; Warner, 2010; Wojcieszak, 2009), future studies should include a measure that allows for distinctions to be made between the three dimensions of attitude extremism. Liberal attitude extremism, social conservative attitude extremism, and fiscal conservative attitude extremism have separate properties and respond differently to communication phenomenon. Failure to appreciate these differences in future research risks stagnating our understanding of political extremism.

The relationship between political attitude extremism and partisan polarization represents the second major finding of this study. Much of the initial theorizing about the fragmentation thesis (Bimber & Davis, 2004; Sunstein, 2007) discussed polarization and extremism hand-in-hand. Most research testing the effects of selective exposure, however, uses either a measure of partisan polarization (e.g. Stroud, 2010) or attitude extremism (e.g. Binder et al., 2009). While each of these studies represent significant advances in our understanding of the nature of

polarization and attitude extremism, they forgo the opportunity to explore the relationship between partisan polarization and attitude extremism.

This study offers the first step in that direction by considering attitude extremism relative to partisan polarization. The findings demonstrate that, while polarization may act as a stand-in for extremism, it is not equivalent and should not be conflated with attitude extremism in studies of the fragmentation thesis. Furthermore, this study suggests that partisan polarization, rather than acting as a separate marker for attitude extremism, may participate in a much more dynamic process. It may be a strongly polarized political orientation that drives ideological media habits, or that generate homogeneous social networks. Conversely, ideological media habits and/or homogeneous social networks may polarize individual political orientations. In either case, polarization may drive attitude extremism. This study opens the door for these questions, questions that are not possible if partisan polarization and attitude extremism are treated as an either/or.

Finally, the third major finding from this study was that, while there was evidence to support the fragmentation thesis, this evidence was not consistent across the various instances of political attitude extremism. Ideological media predicted political attitude extremism as past research has argued (Bimber & Davis, 2004; Lin, 2009; Stroud, 2010; Sunstein, 2007; Warner, 2010), but only in the instance of liberal attitude extremism. Furthermore, as research on group polarization suggests (Abelson, 1995; Isenberg, 1986; Sunstein, 2009), politically homogeneous social networks predicted greater attitude extremism, but only relative to social conservative attitude extremism. This finding provides a significant challenge to the conventional wisdom that communication behaviors will influence extremism irrespective of ideology. As such, this study

represents an initial attempt to understand how political extremism differs with respect to ideology.

The remainder of the discussion is divided into a section regarding the insights about the study of fragmentation/extremism and a second section dealing with the specific findings regarding the communication phenomena that contribute to attitude extremism. The first section will consider three major findings: that attitude extremism must be sub-divided into three ideological forms of extremism, that partisan polarization should be considered relative to attitude extremism—not separate from it, and that the role of media in the fragmentation process warrants reconsideration. The second section will explore the implications of media use, homogeneity of social group, moral conviction, political engagement, party identification, and partisan polarization as predictors of political attitude extremism.

#### **Lessons for the study of extremism.**

*Liberalism, social conservatism, fiscal conservatism.* In this study the three attitude extremism variables—liberal attitude extremism, social conservative attitude extremism, fiscal conservative attitude extremism—exhibited statistically distinct characteristics. As discussed earlier, current theorizing about attitude extremism treats it as a unified social phenomenon, as though communication patterns that contribute to extremist attitudes for one ideological perspective (e.g. liberal, social conservative, fiscal conservative) would affect another in the same way. For example, Sunstein (2007; 2009) has powerfully argued that both media fragmentation and group homogeneity breed political extremism. However, scholarship in this vein has not previously considered the possibility that partisan media use may contribute to liberal attitude extremism while homogeneous social networks are more significant factors in determining social conservative attitude extremism. The findings of this study present a profound

challenge to the assumption that attitude extremism is consistent across these different ideologies. Among the variables expected to predict attitude extremism, only identification with the Republican Party significantly predicted all three facets of attitude extremism.

That attitude extremism behaves differently across liberal, social conservative, and fiscal conservative ideologies should not be a particularly surprising outcome. Liberal attitude extremism is, after all, a unique social phenomenon with distinct beliefs and behaviors relative to conservative attitude extremism. Researchers should not expect people who possess extremist liberal attitudes to think and behave in the same ways that their conservative counterparts do. Furthermore, conservatism did not behave as a unidimensional phenomenon in this study. There was no core set of variables that similarly predicted conservative attitude irrespective of the social and fiscal division. Rather, fiscal and social conservatism behaved independent of each other in this sample. Though it is commonplace to discuss fiscal and social conservative attitudes as distinctly different, theorizing about attitude extremism has not yet considered how these differences complicate this intricate social dynamic. In other words, many accept that an individual may consider themselves conservative on issues such as taxation and spending policy but more liberal on abortion, sexuality, etc. Nevertheless, research on attitude extremism continues to approach these attitudes as if they were unified.

Discussion in political communication scholarship should become more nuanced to account for the diverse nature of extremist attitudes. At present there is a deficit of theory to account for why attitude extremism behaves differently depending on the nature of the attitudes. A theory of political attitude extremism that does not account for the differences between liberals, social conservatives, and fiscal conservatives will necessarily lack the explanatory power to understand which communication practices meaningfully contribute to social

polarization. This theoretical shortcoming can only lead to a misdiagnosis of the proximate causes of political extremism in America. To understand the character of extremism, the distinctions between liberalism, social conservatism, and fiscal conservatism must be considered.

***Polarization of political orientation.*** A second major finding relative to studies of the fragmentation thesis regards the connection between partisan polarization and political attitude extremism. Most research either looks at partisan polarization (e.g. Lin, 2009; Stroud, 2010) or at attitude extremism (e.g. Binder et al., 2009; Wojcieszak, 2009). Findings from this research demonstrate that, while the study of each has individual value, many important questions can be answered when political attitude extremism and partisan polarization are studied together. Though partisan polarization is highly related to political attitude extremism, the variables that predict polarization are not necessarily the same as predictors of attitude extremism. Furthermore, when partisan polarization and attitude extremism are separated, orientation can be considered in the broader context of political socialization. It may be the case that orientation acts as a separate marker for extremism and that it should be combined with attitude extremism measures to achieve a more complete assessment of extremist social polarization. Alternatively, it may be that polarized partisan orientations contribute to the context of political socialization that generates attitude extremism. The interaction between orientation and political extremism is therefore fundamental to any understanding of the communication processes that contribute to political polarization. However, if scholarship continues to use the either/or approach wherein extremism is measured via either attitude scales or orientation measures, understanding the interaction between partisan polarization and attitude extremism will not be possible.

***Reconsidering media fragmentation.*** The objective of this study was to evaluate the fragmentation thesis, that ideologically homogeneous media environments will be associated with greater political extremism. While the method of evaluating attitude extremism in this study was more nuanced than past approaches, the conceptualization of media use was fairly basic. Specifically, this study considered media one among many predictors of attitude extremism. It may be the case, however, that more complex relationships exist. If, for example, a polarized partisan orientation predicts the use of ideological media, and this media environment subsequently predicts attitude extremism, media use could be a carrier for the effect of orientation on attitude extremism, or a mediator variable. Ideological media may be a catalyzing agent, exacerbating the influence of partisan polarization on attitude extremism. To test this relationship would require a carefully designed longitudinal study that would allow researchers to trace the influence of media on attitude extremism over time. A cross-sectional study such as this one cannot assess the relationships of these variables across time and as such the structure of the relationships are very basic. However, with this study as a basis, future designs can continue to explore the complexity of the relationship among these social phenomena.

#### **Predictors of extremism.**

***Overall media use.*** Media use was the predictor variable of primary interest in this study. Much of the literature about social polarization and fragmentation posits that, as political media diets become more fragmented, attitude extremism will result (e.g. Sunstein, 2007). However, in this study, overall media diet did not significantly predict either the extremism variables or the political orientation polarization variable. This is consistent with those who argue that, while new technology may facilitate greater fragmentation, a majority of people will merely supplement a more mainstream media diet with alternative media (e.g. Kaye

& Johnson, 2006; PEW Research Center, 2008). Warner (2010) found that when mixed with mainstream media sources, the effect of ideological media on attitude extremism is minimized and that attitude polarization is more likely among those who live in Sunstein's ideological media "echo chambers." Thus, it is not surprising that overall media use does not predict attitude extremism, as this measure includes both mainstream and ideological sources. A measure of ideological media is therefore better suited to assess the relationship between fragmented media and attitude extremism.

***Ideological Media.*** Ideological media use (e.g. political blogs, cable news, political talk radio) was measured as a unique variable independent of overall media use. Theory strongly suggests ideological media use will strongly drive attitude extremism (e.g. Bimber & Davis, 2004; Sunstein, 2007). While ideological media use in study two successfully predicted liberal attitude extremism, it failed to predict either fiscal or social conservative attitude extremism. This result is somewhat puzzling. As noted above, there is as yet no reason to suspect that the influence of ideological media is stronger on those with a liberal set of attitudes. This could point to a unique characteristic of those with extremist liberal attitudes or it could suggest something unique about liberal ideological media. One explanation might propose that, if liberal ideas are generally outside of the mainstream political dialogue, alternative news sources may be the dominant source of political information for those on the left wing. Granted, in this study the measure of liberal extremist attitudes consisted of issues about state violence, human rights abuses, imperialism and anti-capitalist sentiments. While these perspectives may be common in left-leaning media, they are not common expressions by mainstream liberal politicians. It is therefore likely these attitudes may not be as present in the public sphere as the attitudes typically characteristic of right wing polarization. In other words, because anti-capitalists

attitudes are more controversial in mainstream Democratic politics than right wing attitudes about taxation, abortion, etc. are in the contemporary Republican Party, left wing media outlets may be the primary recourse for those with liberal extremist attitudes.

In addition to these theoretical explanations for the incongruent behavior of ideological media, there are also possible measurement confounds. Arguably the measure of ideological media was rather basic, a simple average of three broad types of mediums (blogs, radio, cable TV). Given this finding, future scholarship should deploy a more sophisticated operationalization of ideological media. First and foremost, it would be wise to have a measure divided by liberal and conservative media. The measure used in this study, for example, asked how many times per week a respondent watched cable news (e.g. Fox News, MSNBC). It would be more precise to ask how many times per week an individual watched a conservative leaning news program (e.g. The O'Reilly Factor, The Glen Beck Show) and, in a separate item, how many times per week an individual watched a liberal leaning news program (e.g. The Rachel Maddow Show, Hardball with Chris Matthews). Designing such a measure would necessitate careful consideration given the intense public debates about ideological bias in media, but it would certainly be worth the effort to allow for more precise conversations about the influence of ideological media on attitude extremism. The measure used in Stroud (2010) is a quality example of how more sophisticated measures of partisan media can be structured. Combined with a more nuanced measure of ideological media, the attitude extremism measures developed in the first study provide the opportunity for significant advances in our understanding of the contribution of media fragmentation to attitude extremism.

***Homogeneity.*** A recurring premise in the literature on media fragmentation is that, as people surround themselves with like-minded others, their attitudes will become more

polarized (Binder et al., 2009; Sunstein, 2009;). The reasoning behind this thesis deals with group dynamics. Group formation is inherently polarizing (Abelson, 1995; Isenberg, 1986) and, in the context of political discussion, can reinforce existing attitudes. This process adds incentive for group members to take increasingly extremist positions (Sunstein, 2009). The logic of group polarization seems to apply equally to all regardless of one's ideological perspective. However, in this study, homogeneity of social network only significantly predicted social conservative attitude extremism. This indicates a difference in the influence of group polarization depending on ideology. While those on the left wing may rely more on alternative media outlets, social conservatives may engage in political socialization primarily with members of their in-group.

Religious communities may be driving the difference between social conservative attitude extremism and the other measures. Many of the strongest indicators of social conservatism included strongly religious values. Of all the issues in the social conservative scale, those that best measured the construct were either explicitly about religion or about abortion and homosexuality. Given that conservative attitudes about both abortion and homosexuality typically have religious values underpinning them, it can easily be inferred that a particular brand religious conservatism was at the core of social conservative attitude extremism. Thus, it may be that the process of political socialization for a social conservative is heavily grounded in the interaction with a religious community. Oldenberg (1999) has argued that political interaction is strengthened by "third places" outside of work and home life where people can freely associate with those they choose to be around. As one of America's last great third places, religious communities likely a major role in the political socialization of social conservatives. While this finding is not particularly surprising, it illustrates how communication behaviors that are assumed to influence attitude extremism irrespective of ideology are, in practice, subject to

group differences. Social homogeneity may contribute to attitude extremism (e.g. Sunstein, 2009), but only among social conservatives.

Because this study contained no measure of religious fundamentalism, spirituality, or religious community, the connection between religious communities and group polarization is speculative. Studies designed to more carefully assess the nature of group dynamics within ideological perspectives can provide more compelling evidence to either support or refute this speculation. However, the finding that group homogeneity uniquely influences social conservatism presents an important challenge to the current thinking on fragmentation and group polarization. If new media contribute to liberal attitude extremism, but traditional interpersonal and community networks are at the core of social conservative attitude formation, the question of communication medium becomes central to the process of social polarization and extremist attitude formation. Again, the communication processes that contribute to political attitude extremism appear to be contingent upon what type of extremism is being investigated.

***Engagement.*** Political engagement was measured with two different variables in this study: frequency of political talk and political information efficacy. It was assumed that those who are more interested in engaging in political discussion would, by nature of their more frequent involvement, develop stronger attitudes than those who tended to eschew political conversations. This was only the case in the instance of liberal attitude extremism. Those who engaged in more frequent political talk were more likely to have liberal extremist attitudes. Given that there was no greater proclivity for those with liberal extremist attitudes to exist in homogeneous social networks but liberal extremist attitudes were more likely to be associated with ideological media use, it may be that individuals with liberal extremist attitudes feel compelled to share perspectives with others that they do not believe are sufficiently represented

in mainstream political discourse. If this is the case, greater propensity for political talk may be an outcome of liberal attitude extremism. Alternatively, it may be an outcome of ideological media use moderated by homogeneity of social network, such that those who use ideological media and feel that those around them have generally different perspectives are more likely to engage in frequent political discussions. The design of this study does not facilitate such an investigation but future research should test the possibility that political talk is an outcome variable (potentially of either liberal attitude extremism or media use by homogeneity of social network). If this is the case, it could provide some support for Prior's (2007) argument that those individuals who remain highly engaged in politics are more likely to have polarized political attitudes.

This study hypothesized that both political talk and political information efficacy would each measure political engagement and thus would generally behave the same relative to the extremism variables. Individuals who have greater confidence in their political knowledge and in their ability to be effective in political discussions were presumed to be more likely to engage in frequent political discussions. Consistent with this belief, political information efficacy and political talk were highly correlated. Nevertheless, while political talk was a significant predictor of liberal attitude extremism, political information efficacy was not. Similarly, political information efficacy significantly predicted fiscal conservative attitude extremism while frequency of political talk did not.

The fiscal conservatism attitude extremism variable was the only variable significantly predicted by political information efficacy. Again, there are presently no theoretical reasons to assume that political information efficacy would be stronger in those with fiscally conservative extremist attitudes relative to extremist attitudes in the socially conservative or liberal variables.

Because political information efficacy has been found to be a predictor of high levels of political engagement (e.g. voting, etc.), this finding could have important implications regarding how extremist political attitudes influence subsequent political behavior. Because there is now evidence that this influence will not be uniform across ideology, a longitudinal study that explores the relationships of these extremism variables across the course of a political cycle (e.g. an election) is better suited to assess the role of political information efficacy in this dynamic process.

***Moral Conviction.*** While a majority of research about political attitude extremism considers the role of communication phenomenon in fostering social polarization (e.g. fragmented media, political socialization in homogeneous networks, political talk and efficacy), there is reason to suspect that attitude extremism contains a moral affect as well (e.g. Mouffe, 2005). It is also likely that communicative frames contribute to this moral loading of attitude extremism (Burke, 1935). However, the measure of moral certainty was not a significant predictor of attitude extremism or ideological polarization. This is perhaps evidence that one can strongly believe they possess the moral high ground in a political controversy without holding an extremist position. It should be noted that the moral conviction measure asked participants to think about the issue that they felt was most important and used this issue as the measurement baseline. Perhaps a different framing of the question could better assess the extent to which people ascribe a certain moral affect to their political attitudes. Future studies should continue to investigate this concept to determine if there is a better way to measure the affective component of political beliefs that may drive extremist politics.

The measure of social distance also failed to predict any attitude extremism. This study hypothesized that those with more extremist attitudes would find it more objectionable to have

people who did not agree with them in various social relationships. Extremists, it was thought, would be less open-minded and sympathetic to people who did not share their perspective on politics. It was surprising to discover that, in this sample, people with extremist attitudes did not differ in their willingness to be socially engaged with people of a different set of political values and attitudes. This measure used the same scenario as the moral certainty measure, asking respondents to think of the issue they identified as most important to them. Perhaps it would be more effective to ask respondents to think more broadly about their political attitudes and the extent to which it is important for people they interact with share similar attitudes. In other words, by only thinking about one issue, respondents may have been able to rationalize disagreements as inevitable and minor.

*Party.* While political party affiliation was included as a predictor in the structural model, there were no direct hypotheses about party in the study. This is because, theoretically, it is to be expected that those with liberal extremism are more likely to be Democrats and less likely to be Republicans. Likewise, those with various conservative attitudes are less likely to be Democrats and more likely to be Republicans. This finding, it was thought, would not be particularly informative about the nature of attitude extremism. Rather, it would merely confirm that Democrats tend to have liberal ideologies (of both a moderate and extremist variety) and that Republicans are more likely to have conservative beliefs (including conservative extremist attitudes). However, the results of this study challenge some of these assumptions. While identification with the Republican Party positively predicted both social and fiscal attitude extremism and predicted a more conservative orientation, identification with the Democratic Party only predicted a more liberal orientation. This means that membership in the Democratic Party was not a factor in predicting either liberal attitude extremism (positively) or conservative

attitude extremism (negatively). Regarding the lack of association with liberal attitude extremism, this may be more evidence that the Democratic Party itself is more mainstream and does not significantly embody the anti-capitalist, anti-state, human rights activist positions that constitute liberal extremism. Perhaps this is in part why Green Party candidates like Ralph Nader and outsider candidates like Howard Dean continue to emerge outside of the traditional Democratic Party structure. This line of thinking would also posit that the Republican Party has more effectively courted those whose attitudes tend to be more extremist and thus that those with more extremist ideologies do not hesitate to identify with the Republican Party.

While there may be a genuine difference between the parties and their appeal to those with extremist attitudes, it is also possible that sampling/measurement may confound these findings. It may be that Democrats in a conservative Midwestern state are less apt to have extremist attitudes because liberal extremism is more unsustainable among this particular sample. A more nationally representative survey may yield different results. Furthermore, there are likely improvements that can be made to the measure of liberal extremism. Future research should add and modify issues and questions to see if the measurement can yield more predictable results.

***Partisan polarization.*** When partisan polarization was included as another marker for extremism along with the liberal, social conservative and fiscal conservative attitude extremism variables, it was only significantly predicted by party identification. That Democrats are more likely to have a liberal orientation and Republicans are more likely to have a conservative orientation is not surprising, especially considering that half of the measure is composed of questions about the extent to which the respondent likes and dislikes Republicans/Democrats. It is important to note that none of the other predictor variables—media,

homogeneity of social network, engagement, or moral conviction—significantly predicted partisan polarization. This means that, had this study merely operationalized extremism as the extent to which one’s orientation was polarized, the findings would have been dramatically different. This finding strongly suggests that future scholarship should include attitude-based extremism measures and not merely rely on measures of political polarization.

Partisan polarization, when specified to predict the three attitude extremism variables, did not significantly predict liberal attitude extremism. This is contrary to the hypothesis but consistent with the finding that Democratic Party identification did not predict liberal attitude extremism. Again, because the orientation measure included attitudes about party as well as liberalism/conservatism in general, it should behave similarly to the party identification variables. However, because attitude toward liberals and conservatives were also included in the measure, this finding provides stronger evidence that the liberal extremism variable behaves unexpectedly. This could be because liberal extremism is a dynamic concept that does not fit cleanly in the context of an ideological spectrum represented by two political parties. It could also be further evidence that the sample for this study was not sufficiently representative to include liberal extremist positions. Finally, it may be more evidence that the liberal attitude extremism measure may need modifications. If this finding is consistent in future samples and with different study designs, this would require a dramatic rethinking of liberal extremism relative to the political parties and the typical unidimensional conception of political orientation.

The orientation measure predicted both social and fiscal conservative attitude extremism as hypothesized. Furthermore, while identification with the Republican Party successfully predicted all of the extremism variables in the initial structural model, it no longer predicted social conservative attitude extremism in the model with ideological orientation as a predictor.

This means that, after the influence of orientation is accounted for, identification with the Republican Party no longer significantly predicted socially conservative attitude extremism. In other words, ideological orientation was a more significant predictor of social conservatism than political party. The sample for this study was surveyed during the 2010 election cycle in which candidates who were not deemed sufficiently socially conservative were subject to primary challenges from more ideologically conservative candidates. In some cases, this happened at the expense of what pundits assumed were the best interests of the Republican Party (e.g. Kristine O'Donnell beating Mike Castle in the Delaware Senate Republican primary and Sharron Angle winning the Nevada Senate primary). If those with more social conservative attitude extremism do prefer ideological consistency over political party, this could help explain the trend in the 2010 election and the findings in this data. However, without these findings, an over-determination of party relative to ideology is likely, as it is easy to conflate conservatism with the Republican Party.

## **Chapter 5: Conclusion**

This research sought to improve our understanding of political attitude extremism by providing a process of measurement that facilitates significantly more nuance in considering extremist political attitudes than had previously been available and by examining the communication processes that contribute to political attitude extremism. Specifically, these studies were designed to improve empirical understanding of the character of political attitude extremism in American politics. To this end, the first study was an exploration of the dimensions of political attitude extremism. While research has made great advances in the study of media habits in the digital environment, scholars lack a measurement tool to effectively assess the consequences of this evolving environment on social polarization. Study 1 offers a solution to this research challenge through the development of a measure that provides important insights into the characteristics of attitude extremism. Using this measure, the second study sought to expand scholarly understanding of the communication practices that contribute to political attitude extremism. Study 2 presents important corrections to current theorizing about media fragmentation and political extremism.

Three important findings emerge from this project that transform the way research about extremism and fragmentation are conducted. First, political attitude extremism is a multi-dimensional construct. Liberal attitude extremism is not compensatory with conservative attitude extremism. Furthermore, conservative attitude extremism cannot be thought of as a singular set of attitudes. There are clear divisions between social conservative attitude extremism and fiscal conservative attitude extremism. Second, communication phenomena affect these three sets of extremist attitudes differently. Liberal attitude extremism arises from different practices than does social conservative attitude extremism. Likewise, fiscal conservative attitude extremism has

a distinct set of properties. And, third, political attitude extremism does not square with the bi-directional ideological spectrum inhabited by the two party system. The Democratic Party offered little information about liberal attitude extremism and, while the Republican Party was among the most reliable predictors of the extremism variables, it was less significant than ideological orientation with respect to social conservative attitude extremism. Taken together, these three findings represent significant changes in the way researchers should approach the fragmentation debate and the discussion of attitude extremism in general. What follows is a discussion of each of these three findings followed by the limitations of these studies and suggestions for future research.

The first major finding from these studies is that political extremism is not a unified set of attitudes. Rather, attitude extremism has different dimensions that divide along ideological lines. This insight should significantly change the way extremism is currently operationalized. Conventional thinking suggests that conservatism and liberalism exist on opposite ends of the same ideological spectrum. This property would allow researchers to measure extremism with one variable and conclude that a high score represents one facet (e.g. conservative extremism) while a low score is indicative of the opposite (e.g. liberal extremism). The first study definitively demonstrates that this is not the case relative to political attitude extremism. The second study confirmed this relationship. If a respondent has a low score on conservative attitude extremism, it does not necessarily mean this individual is more liberal. Quite the contrary, an individual could score quite low on both the liberal extremism measure and measures of conservative attitude extremism. If only one measure were used, a potentially moderate score could be misinterpreted as an extremist score.

Furthermore, because the same issues do not equally measure each variable, an individual may have moderate attitudes about abortion but still be an extremist with regard to issues that assess liberal attitudes. This study demonstrates that it is a mistake to assume one issue will measure attitude extremism equally across distinct political ideologies. The current practice of using a single variable to evaluate attitude extremism should cease. Instead, measures that allow for differences across ideologies should become the norm in research about political attitude extremism.

These studies also demonstrated that within conservative attitude extremism there is an important distinction between attitudes about social issues and attitudes regarding fiscal policy. This finding is common in mainstream conversations about politics but it remains neglected in political communication scholarship. Just as liberal extremist attitudes have different characteristics than conservative extremist attitudes, fiscal conservative extremist attitudes differ from social conservative attitudes. This distinction confounds research that seeks to understand conservative extremism as a social phenomenon. Scholars are either measuring one and speaking about both (e.g. a measure of social conservative extremism is allowed to stand in for fiscal conservative attitudes) or measuring neither (by measuring and grouping both, the individual properties of neither will emerge). Unlike conservative attitude extremism, however, liberal attitude extremism did not divide along social and economic lines. Instead, economic attitudes about capitalism, social welfare spending, and wealth redistribution freely grouped with attitudes about human rights abuses, state violence, and police brutality. Liberal attitude extremism, it seems, should not be separated along economic and social lines.

The second major finding from these studies is an implication of the first. In addition to being separate sets of attitudes, liberal extremism, fiscal conservative extremism, and social

conservative extremism are influenced differently by different communication processes. The fragmentation thesis is an elegant description of how new media habits create social homogeneity, arguing that ideological monocultures will result in greater attitude extremism. In practice, the process is not nearly so neat. Ideological media use predicts liberal attitude extremism but a homogeneous social network does not. Furthermore, in spite of not being any more likely to be surrounded by like-minded others, those with liberal extremist attitudes were more likely to engage in political talk.

Unlike liberal attitude extremism, social conservative attitude extremism was predicted by homogenous social networks but not by ideological media use. Meanwhile, neither media nor social networks influenced fiscal conservative attitude extremism, though these attitudes were associated with higher confidence in one's political agency. These findings, taken as a whole, suggest that the communication processes contributing to attitude extremism do not affect all people the same. It should be news to no one that liberals think differently than conservatives, and that fiscal conservatives are not of the same mind as social conservatives. That these differences manifest in the process of political socialization is a challenge to theories that seek to find neat explanations for the emergence of political attitude extremism. The results of these studies defy simple explanations and call for nuanced typologies that account for the differences in each set of extremist beliefs.

The relationship between partisanship and political attitude extremism represents a third and final major finding from these studies. Identification with the Republican Party was the most stable predictor of attitude extremism in these studies. People who identified with the Republican Party were significantly less likely to hold liberal extremist attitudes and were significantly more likely to hold both social and fiscal conservative extremist attitudes. This finding is not

noteworthy by itself. It is somewhat dramatic in context of the finding that identification with the Democratic Party was not associated with higher liberal attitude extremism nor was it indicative of a lower propensity for extremist conservative attitudes. This seems to suggest that, while people with conservative extremist attitudes have no compunction about identifying with the Republican Party, there is a disconnect between those on the left wing and the Democratic Party. For researchers this finding means that the discussion about extremist political ideology does not fit the two-party, left-right divide that permeates American politics. For whatever reason, those with extremist liberal attitudes eschew the traditional left. Scholars would do well to keep this disconnect in mind when discussing the relationship between partisanship and extremism, as current measurement practices often treat political attitude extremism within the context of the left/right binary and thus risk misidentifying liberal extremism altogether.

These studies have identified dramatic shortcomings in the current tools political communication scholars have at their disposal when seeking to measure political extremism. This research provides a mechanism for measuring attitude extremism that facilitates more accurate assessments of extremism in future research and therefore a more nuanced understanding of the character of extremism in American politics. Nevertheless, this research begins the process of understanding political extremism and is not without limitations. This study is exploratory in nature and should not be considered an end-point. Because no theory exists to predict the nature of differences in liberal, social conservative, and fiscal conservative attitude extremism, the differences that were found are subject to sampling bias. If a clear typology of these different facets of attitude extremism is to emerge, it will come from future findings that confirm the characteristics identified in this study.

Anomalies with the liberal attitude extremism measure represent a second limitation of the study. While the findings about liberal attitude extremism constitute some of the most noteworthy findings from these studies, the variable was somewhat unpredictable. That liberal attitude extremism was not associated with partisanship in any significant manner could suggest validity problems with the measure. The indicators of liberal attitude extremism were developed through careful research, consultation with experts in the field, and extensive focus group discussion. Nevertheless, if the liberal attitude extremism variable is somehow misspecified, this could explain why neither the Democratic Party nor favorability toward liberals predicted liberal attitude extremism. It is strongly recommended that scholars use these issue-based attitude measures in future research for all of the reasons outlined above. However, in addition to these measures, scholars should continue to innovate additional strategies to assess attitude extremism. If researchers take this advice, more confidence can be established in these measures and more precise versions of them are likely to emerge as this line of research continues to mature.

A third limitation of these studies involves the relatively simplistic design of the structural models. While the communication events that contribute to the formation of political attitude extremism are no doubt dynamic and complex, this study divided the social relationships into those that predict attitude extremism and those that measure attitude extremism. It is possible that, if liberal attitude extremists feel isolated in their viewpoints (e.g. heterogeneous social networks) they will seek reinforcement from highly partisan media and, hoping to find allies in their circle of friends, will attempt to spread this information. This could explain why liberal attitude extremism was not associated with homogeneous social networks but was associated with greater frequency of political talk. However, this presumes that both frequency of political talk and ideological media use are moderated by heterogeneity of social network.

Furthermore, it may be the case that partisan political orientation drives ideological media use and that this mediating relationship explains the influence of both media and orientation on attitude extremism. Due to the cross-sectional nature of this data and the simplicity of the study design, however, these complex interrelationships were not tested. In the future scholars should imagine increasingly sophisticated study designs in an effort to explain how and why the predictor variables in this study behaved differently across attitude ideologies.

Finally, the sample for this study limits the generalizability of the findings. The participants were predominantly young college students from a conservative Midwestern state. It is possible that any anomalies in the liberal extremism measure are a product of the region. For example, it may be difficult to find sufficiently extremist liberal attitudes in a conservative region. The measurement properties were consistent across two independent samples, so the findings should be robust amongst the population sampled, but they are generalizable to the larger U.S. population only insofar as political extremism in these students behaves similarly in different populations. These findings should be replicated in more diverse and representative samples to confirm that findings were not biased by the particular characteristics of the participants in these studies.

In spite of these limitations, these studies present important contributions to the literature on political extremism. Most importantly, scholars should heed the call to develop a more sophisticated profile of liberal attitude extremism, social conservative attitude extremism, and fiscal conservative attitude extremism. Fragmentation does not happen in a vacuum, it happens to groups of people with different perspectives, beliefs, and behaviors. Research should reflect this social dynamic. Furthermore, the sampling questions associated with convenience samples will remain unresolved until these measures are tested in a nationally representative sample. To

some extent political attitudes will vary by age, region, and demographic. A truly compelling picture of the process of attitude extremism can therefore only come from a nationally representative sample.

In addition to the recommendations above, future studies should seek more complex and sophisticated designs that can test the possibilities of mediated and moderated relationships among the likely inputs to attitude extremism. While some of these more complex relationships have been suggested above, these studies were exploratory in nature. A truly dynamic understanding of the communication phenomena that contribute to political attitude extremism will emerge from the creativity of studies that follow this one. Rather than acting as an endpoint, this study should open the door for the research that will bring empirical clarity to the causes and consequences of attitude extremism in an increasingly fragmented political culture.

This project began by observing an apparent hunger for greater civility in American politics. If this desire is to be satiated, we must understand political extremism and the communication processes that make civility more difficult to achieve. While a great deal of theorizing has suggested that fragmented media, social homogeneity, moral absolutism, and various other social phenomenon contribute to the venom in contemporary politics, there is little empirical testing of these theories. In part this is because extremism is difficult to measure and, to date, no consistent measure has been accepted in the academic community. These studies demonstrate a process for creating the measurement tools necessary and begin empirically testing the communication phenomena thought to undermine civility and generate social polarization. This project is conducted with the belief that, from here, it is possible to better understand the nature of political extremism and the practices necessary to finally create a political culture oriented toward greater civility.

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## Appendix A

### Liberal Attitude Extremism

#### **Anti-capitalism.**

1. The war on terror is a smoke-screen for capitalist-imperialist violence.
2. Most U.S. wars nowadays are fought to help corporations.
3. Most of the world's problems can be traced back to U.S. imperialism.
4. It doesn't matter who is president these days, major corporations call all the shots.
5. Every president answers to the same corporate masters.
6. Corporations get a bad rap, they aren't nearly the villains people think they are. \*

#### **Radical feminism.**

7. Marriage is a sexist institution.
8. Laws against abortion are violent attempts to control women's bodies.
9. It should be legal for abused women to kill their abusers.

#### **War on drugs.**

10. The war on drugs is a government strategy to keep poor and minority populations in oppression.
11. All uses of marijuana should be made legal.
12. People who commit multiple drug offenses should be thrown in prison and left there.\*

#### **Torture.**

13. Enhanced interrogation techniques are ok if they are only used on America's enemies.\*
14. The United States has been a routine violator of human rights.
15. It is ok to torture terrorists and war criminals as a last resort.\*

#### **Government killing.**

16. The death penalty is an immoral act of state-sponsored murder.
17. There is no such thing as a justified war.
18. It is justified for the government to take the life of an enemy of the state if it is necessary to make America safer.\*

#### **State violence.**

19. State violence is among the worst kind of violence.
20. Police are just as corrupt as organized crime.
21. Americans are more likely to be abused by the police than by a criminal.

#### **Wealth redistribution.**

22. No one deserves to be rich as long as the poor are denied a fair quality of life.
23. Our society would be better off if it were more socialist and less capitalist.
24. Excessive wealth is immoral in the face of extreme poverty.

#### **Education spending.**

25. More resources need to be devoted to education.
26. Education should be a foremost priority for the allocation of federal resources.
27. Every American has a right to a good education.

\*Indicates reverse coding.

## Appendix B

### Conservative Attitude Extremism

#### **Taxation.**

1. Taxing Americans more than they are already taxed is wrong.
2. I don't support raising taxes under any circumstances.
3. Taxation violates personal freedom.
4. More tax dollars should be devoted to the expansion of social programs.\*
5. Tax and spend policies are destroying the constitution.
6. I don't mind paying more taxes if it helps in the long run.\*

#### **Gun control.**

7. The right to own a gun is a fundamental part of what it means to live in America.
8. Restrictions on gun ownership make America safer.\*
9. Aggressive government control of handguns is needed.\*

#### **Gay marriage.**

10. Marriage is the union of one man and one woman and should not be redefined.
11. The government should protect certain social institutions such as marriage because doing so protects our culture.
12. Marriage is a right and opportunity that should be provided for all regardless of sexual orientation.\*

#### **Abortion.**

13. Nobody has the right to terminate a pregnancy.
14. The government should not regulate how a woman chooses to handle her pregnancy. \*
15. Abortion is murder.

#### **Debt.**

16. Increasing the national debt is the greatest threat to our nation.
17. I don't mind increasing the government budget deficit as long as it helps domestic programs.\*
18. It is immoral to leave our children with massive government debt.

#### **Socialism.**

19. Government takeovers of services like healthcare are un-American.
20. Socialism is marching on America.
21. Government entitlements for social benefits are nothing more than socialism.

#### **Religion in public.**

22. There should be more prayer in school.
23. It is immoral to conduct research on embryonic stem cells.
24. Homosexuality is a personal choice that the government should respect and accommodate.\*

#### **Religion in policymaking.**

25. Many policy disputes can be decided by looking to moral laws.
26. Politicians should follow the Bible in making legislation.
27. Religion doesn't belong in politics.\*

\*Indicates reverse coding.

## Appendix C

### Measurement Short Form

#### Liberal Extremism

##### Leftism

1. Most of the world's problems can be traced back to U.S. imperialism.
2. It doesn't matter who is president these days, major corporations call all the shots.
3. The war on terror is a smoke-screen for capitalist-imperialist violence.
4. Most U.S. wars nowadays are fought to help corporations.
5. Our society would be better off if it were more socialist and less capitalist.
6. The United States has been a routine violator of human rights.

##### State violence

1. The death penalty is an immoral act of state-sponsored murder.
2. There is no such thing as a justified war.
3. Americans are more likely to be abused by the police than by a criminal.

#### Conservative Extremism

##### Social conservative attitude extremism

1. Abortion is murder.
2. There should be more prayer in school.
3. Politicians should follow the Bible in making legislation.

##### Fiscal conservative attitude extremism

1. Taxing Americans more than they are already taxed is wrong.
2. Tax and spend policies are destroying the constitution.
3. Government takeovers of services like healthcare are un-American.

Table 1 Modifications of the Initial CFA

Model	Chi2 (DF)	RMSEA	95% CI	TLI/NNFI	CFI
CFA	3312.16 (1257)	.086	.083-.089	.82	.84
CFA*	3313.09 (1259)	.086	.083-.089	.82	.85
CFA M1	3212.15 (1258)	.084	.081-.089	.83	.85
CFA M2	3129.27 (1257)	.081	.078-.084	.84	.86
CFA M3	3070.41 (1256)	.079	.075-.082	.85	.87
CFA M4	3009.21 (1255)	.075	.075-.081	.86	.87
CFA M5	2955.72 (1254)	.077	.074-.080	.86	.88
CFA M6	2895.71 (1253)	.075	.072-.079	.86	.88
CFA M7	2860.89 (1252)	.074	.071-.077	.87	.89
CFA M8	2801.98 (1251)	.072	.069-.075	.88	.89
CFA M9	2759.45 (1250)	.071	.068-.074	.88	.90
Hierarchical**	3674.18 (1353)	.088	.085-.091	.82	.83
MTMM**	2384.89 (1206)	.060	.057-.063	.91	.93
MTMM***	2448.46 (1212)	.061	.059-.065	.91	.93

\*Results warranted fixing 2 loadings at 0.0

\*\*To achieve convergence, the church/state & religiosity constructs were merged.

\*\*\*Because of its poor performance in the model and subsequent adverse effects on parameter estimates, loadings for the education construct were set to 0.0

Table 2. Indicator Loadings and Intercepts for the CFA Model

<i>Indicator</i>	<u>Equated Estimates</u>		<u>Standardized</u>		<i>R</i> <sup>2</sup>
	<i>Loading (SE)</i>	<i>Intercept (SE)</i>	<i>Loading*</i>	<i>Theta</i>	
<u>Anti-Capitalism:</u>					
Capitalism_1	.960 (.08)	1.04 (.10)	.686	.530	.470
Capitalism_2	.847 (.07)	.937 (.09)	.658	.567	.433
Capitalism_3	.779 (.08)	1.07 (.10)	.601	.639	.361
Capitalism_4	.850 (.08)	1.31 (.12)	.596	.645	.355
Capitalism_5	.660 (.07)	1.07 (.10)	.538	.710	.290
Capitalism_6	.269 (.08)	1.48 (.13)	.216	.953	.047
<u>Liberal Socialism:</u>					
Socialism_1	.848 (.09)	1.75 (.16)	.540	.708	.292
Socialism_2	.923 (.08)	1.17 (.12)	.649	.579	.421
Socialism_3	.748 (.09)	1.72 (.15)	.495	.755	.245
<u>Education:</u>					
Education_1	.912 (.08)	.709 (.10)	.735	.460	.540
Education_2	.848 (.08)	.831 (.10)	.681	.536	.464
Education_3	.829 (.08)	.869 (.10)	.665	.558	.442
<u>Feminism:</u>					
Feminism_1	.651 (.10)	1.95 (.17)	.422	.822	.178
Feminism_2	1.26 (.12)	1.62 (.24)	.702	.507	.493
Feminism_3	.080 (.09)	2.47 (.21)	.051	.997	.003
<u>Drugs:</u>					
Drugs_1	1.29 (.14)	.671 (.31)	.844	.288	.712
Drugs_2	.556 (.12)	3.25 (.28)	.295	.913	.087
Drugs_3	.210 (.10)	2.33 (.20)	.136	.981	.019
<u>Human Rights:</u>					
Rights_1	1.33 (.08)	.607 (.12)	.862	.256	.744
Rights_2	.079 (.08)	1.27 (.12)	.056	.657	.343
Rights_3	1.22 (.10)	1.44 (.15)	.714	.491	.509
<u>Government Killing:</u>					
Killing_1	.983 (.10)	1.85 (.18)	.586	.656	.344
Killing_2	.917 (.10)	1.53 (.15)	.594	.646	.354
Killing_3	.651 (.09)	1.52 (.14)	.467	.782	.218
<u>State Violence:</u>					
Violence_1	.202 (.07)	1.07 (.09)	.192	.963	.037
Violence_2	1.11 (.09)	1.05 (.12)	.734	.461	.539
Violence_3	1.18 (.08)	.655 (.11)	.824	.322	.678

<u>Tax Cuts:</u>					
Tax_1	1.02 (.80)	1.05 (.11)	.703	.505	.495
Tax_2	1.11 (.08)	1.05 (.11)	.734	.461	.539
Tax_3	.988 (.08)	.934 (.10)	.715	.489	.511
Tax_4	.406 (.07)	.978 (.10)	.310	.569	.431
Tax_5	.676 (.07)	.817 (.08)	.599	.642	.358
Tax_6	.776 (.09)	1.50 (.14)	.535	.713	.287
<u>Debt:</u>					
Debt_1	1.07 (.10)	.767 (.16)	.775	.400	.600
Debt_2	.448 (.08)	1.10 (.11)	.343	.648	.352
Debt_3	.722 (.08)	.959 (.11)	.594	.648	.352
<u>Conservative Socialism:</u>					
Socialism_1	1.28 (.09)	.948 (.12)	.796	.367	.633
Socialism_2	.823 (.08)	1.08 (.10)	.620	.615	.385
Socialism_3	.737 (.07)	.886 (.08)	.617	.620	.380
<u>Gun Control:</u>					
Guns_1	.925 (.11)	2.27 (.22)	.524	.726	.274
Guns_2	1.01 (.09)	1.21 (.15)	.677	.542	.458
Guns_3	1.16 (.10)	.892 (.16)	.776	.398	.602
<u>Gay Marriage:</u>					
Marriage_1	1.73 (.10)	1.31 (.14)	.835	.304	.696
Marriage_2	.779 (.09)	1.18 (.11)	.452	.397	.603
Marriage_3	1.65 (.09)	.511 (.09)	.918	.158	.842
<u>Abortion:</u>					
Abortion_1	1.52 (.09)	1.08 (.12)	.826	.318	.682
Abortion_2	1.11 (.09)	1.30 (.12)	.697	.514	.486
Abortion_3	1.71 (.09)	.824 (.11)	.883	.220	.780
<u>Church and State:</u>					
Church_1	1.41 (.10)	1.14 (.15)	.796	.366	.634
Church_2	1.05 (.09)	1.64 (.15)	.632	.600	.400
Church_3	-.121 (.10)	1.23 (.12)	-.070	.416	.584
<u>Religion in Public:</u>					
Religion_1	.522 (.07)	1.25 (.11)	.423	.821	.179
Religion_2	1.39 (.09)	1.08 (.13)	.800	.360	.640
Religion_3	1.15 (.09)	1.45 (.14)	.689	.526	.474

Table 3. Latent Variable Correlations for Initial CFA

	Tax	Debt	Soc	Guns	Marg	Abort	Church	Rel	Cap	Wealth	Educ	Fem	Drugs	Rts	GovKI	StVio
Tax	1															
Debt	.418	1														
Soc	.732	.499	1													
Guns	.091	.177	.216	1												
Marg	.298	.035	.481	.382	1											
Abort	.340	.072	.453	.124	.557	1										
Church	.533	.146	.631	.044	.649	.885	1									
Rel	.492	.111	.635	.091	.735	.782	1.03	1								
Cap	.218	.213	-.027	-.282	-.193	-.052	.035	-.010	1							
Wealth	-.062	-.084	-.302	-.472	-.334	.001	.042	-.060	.869	1						
Educ	-.297	.140	-.226	-.276	-.417	-.242	-.323	-.368	.171	.344	1					
Fem	.010	.112	-.278	-.344	-.553	-.847	-.533	-.639	.551	.517	.321	1				
Drugs	.301	.080	.074	-.117	.011	.030	.044	.134	.661	.634	-.010	.243	1			
HumRts	-.447	-.004	-.563	-.236	-.483	-.261	-.403	-.438	.229	.288	.289	.115	-.029	1		
GovKI	.303	.247	-.052	-.410	-.325	.085	.153	.051	.590	.553	.059	.448	.407	.582	1	
StVio	.430	.125	.163	-.170	.038	-.007	.130	.117	.657	.532	.006	.475	.742	-.028	.399	1

Table 4. Modifications of Parceled Model

Model	Chi2 (DF)	RMSEA	95% CI	TLI/NNFI	CFI
Parcel	447.06 (72)	.124	.113-.136	.81	.85
Parcel M1	406.13 (71)	.118	.106-.129	.83	.87
Parcel M2	370.28 (70)	.117	.105-.129	.83	.87
Parcel M3	314.69 (69)	.105	.092-.117	.87	.90
Parcel M4	292.52(68)	.102	.090-.114	.88	.91
Parcel M5	256.01(67)	.097	.085-.109	.89	.92

Table 5. Indicator Loadings and Intercepts for the MTMM Model

<i>Indicator</i>	<i>Issue (SE)</i>	<u>Equated Estimates</u>			<u>Standardized</u>		
		<i>Ideology (SE)</i>	<i>Intercept (SE)</i>	<i>Issue</i>	<i>Ideol.</i>	<i>Theta</i>	<i>R2</i>
<u>Anti-Capitalism</u>		<u>Economic Lib.</u>					
Capitalism_1	.864 (.08)	.425 (.09)	1.03 (.11)	.618	.304	.525	0.48
Capitalism_2	.762 (.08)	.384 (.08)	.920 (.09)	.534	.299	.559	0.44
Capitalism_3	.578 (.08)	.567 (.09)	1.02 (.10)	.447	.439	.608	0.39
Capitalism_4	.767 (.09)	.386 (.09)	1.29 (.12)	.538	.271	.637	0.36
Capitalism_5	.539 (.08)	.360 (.08)	1.08 (.10)	.440	.294	.720	0.28
Capitalism_6	.560 (.08)	-.305 (.08)	1.14 (.12)	.450	-.245	.737	0.26
<u>Liberal Socialism</u>							
Socialism_1	.686 (.09)	.616 (.10)	1.60 (.15)	.438	.393	.654	0.35
Socialism_2	.992 (.08)	.181 (.09)	1.00 (.12)	.699	.127	.496	0.50
Socialism_3	.633 (.09)	.482 (.10)	1.64 (.15)	.420	.320	.721	0.30
<u>Education</u>							
Education_1	.906 (.07)	.000**	.720 (.09)	.730	.000**	.467	0.53
Education_2	.856 (.08)	.000**	.818 (.10)	.687	.000**	.527	0.47
Education_3	.803 (.08)	.000**	.912 (.10)	.643	.000**	.586	0.41
<u>Feminism</u>		<u>Social Lib.</u>					
Feminism_1	.600 (.10)	.270 (.10)	1.95 (.17)	.389	.175	.818	0.18
Feminism_2	1.24 (.13)	.235 (.11)	1.60 (.25)	.694	.131	.501	0.50
Feminism_3	.000**	.751 (.10)	1.90 (.17)	.000**	.478	.771	0.23
<u>Drugs</u>							
Drugs_1	.962 (.12)	.481 (.10)	1.17 (.19)	.630	.315	.504	0.50
Drugs_2	.737 (.13)	-.071 (.12)	3.01 (.28)	.391	-.038	.846	0.15
Drugs_3	.000**	-.671 (.09)	1.89 (.17)	.000**	-.439	.807	0.19
<u>Human Rights</u>							
Rights_1	1.22 (.08)	-.385 (.10)	.724 (.12)	.795	-.250	.306	0.69
Rights_2	.046 (.10)	.383 (.09)	1.33 (.12)	.033	.276	.687	0.31
Rights_3	1.21 (.09)	-.386 (.11)	1.33 (.15)	.704	-.226	.454	0.55
<u>Government Killing</u>							
Killing_1	.868 (.10)	.602 (.11)	1.71 (.17)	.517	.358	.605	0.40
Killing_2	.771 (.09)	.552 (.10)	1.48 (.14)	.500	.358	.622	0.38
Killing_3	.844 (.09)	-.153 (.09)	1.21 (.13)	.606	-.110	.621	0.38
<u>State Violence</u>							
Violence_1	.065 (.07)	.291 (.07)	1.02 (.09)	.062	.276	.920	0.08
Violence_2	1.05 (.09)	.453 (.10)	.976 (.13)	.695	.300	.427	0.57
Violence_3	1.02 (.08)	.530 (.09)	.722 (.11)	.712	.372	.355	0.65

<u>Tax Cuts</u>		<u>Fiscal Cons.</u>					
Tax_1	.850 (.08)	-.565 (.09)	1.04 (.10)	.589	-.391	.500	0.50
Tax_2	.997 (.08)	-.521 (.10)	1.01 (.11)	.661	-.345	.445	0.56
Tax_3	.744 (.08)	-.640 (.09)	.945 (.09)	.539	-.464	.495	0.51
Tax_4	.636 (.09)	.344 (.08)	.982 (.10)	.488	.264	.578	0.42
Tax_5	.455 (.07)	-.530 (.07)	.786 (.07)	.403	-.469	.617	0.38
Tax_6	1.10 (.08)	.165 (.10)	.859 (.11)	.760	.114	.409	0.59
<u>Debt</u>							
Debt_1	.940 (.09)	-.350 (.09)	.900 (.13)	.681	-.254	.472	0.53
Debt_2	.837 (.09)	.432 (.08)	.749 (.11)	.644	.332	.443	0.56
Debt_3	.655 (.08)	-.275 (.08)	.969 (.10)	.540	-.226	.657	0.34
<u>Conservative Socialism</u>							
Socialism_1	1.16 (.09)	-.522 (.10)	.952 (.13)	.724	-.326	.370	0.63
Socialism_2	.666 (.08)	-.479 (.08)	1.08 (.10)	.503	-.362	.616	0.38
Socialism_3	.612 (.07)	-.429 (.08)	.867 (.08)	.512	-.360	.608	0.39
<u>Gun Control</u>		<u>Social Cons.</u>					
Guns_1	1.07 (.11)	-.278 (.12)	1.89 (.21)	.607	-.157	.606	0.39
Guns_2	.974 (.09)	.196 (.10)	1.26 (.14)	.650	.131	.560	0.44
Guns_3	1.11 (.09)	.447 (.10)	.817 (.14)	.740	.298	.363	0.64
<u>Gay Marriage</u>							
Marriage_1	1.68 (.10)	-.666 (.14)	1.05 (.12)	.810	-.320	.242	0.76
Marriage_2	.788 (.10)	-.579 (.11)	1.17 (.11)	.458	-.337	.397	0.60
Marriage_3	1.71 (.08)	-.009 (.12)	.315 (.09)	.950	-.005	.097	0.90
<u>Abortion</u>							
Abortion_1	1.33 (.09)	-.789 (.12)	1.06 (.12)	.716	-.426	.307	0.69
Abortion_2	1.24 (.08)	-.013 (.11)	1.01 (.11)	.776	-.008	.398	0.60
Abortion_3	1.55 (.10)	-.758 (.13)	.809 (.11)	.797	-.398	.213	0.79
<u>Church and State</u>							
Church_1	1.23 (.09)	-.833 (.11)	.959 (.11)	.690	-.469	.304	0.70
Church_2	.886 (.10)	-.594 (.11)	1.61 (.15)	.534	-.358	.586	0.41
Church_3	.121 (.12)	.030 (.12)	1.27 (.12)	.071	.018	.428	0.57
Church_4	.367 (.08)	-.461 (.08)	1.18 (.10)	.298	-.374	.772	0.23
Church_5	1.21 (.09)	-.707 (.11)	1.07 (.11)	.695	-.405	.352	0.65
Church_6	1.30 (.09)	-.090 (.11)	1.09 (.13)	.778	-.054	.392	0.61

Table 6. Total Variance Explained, Liberal Measure

<i>Factor</i>	<i>Initial Eigenvalues</i>			<i>Extraction Sums of Squared Loadings</i>		
	<i>Total</i>	<i>% of Variance</i>	<i>Cumulative %</i>	<i>Total</i>	<i>% of Variance</i>	<i>Cumulative %</i>
1	5.729	21.219	21.219	5.133	19.012	19.012
2	2.775	10.278	31.497	2.275	8.428	27.439
3	2.155	7.98	39.477	3.194	5.998	33.438
4	1.689	6.256	45.733	2.427	3.847	37.285
5	1.406	5.207	50.94	2.652	2.772	40.057

Table 7. Descriptive Statistics for Liberal Measure

	M	SD
<b>Factor 1: Radical Leftist</b>		
The war on terror is a smokescreen for capitalist/imperialist violence	3.69	1.42
Most U.S. wars nowadays are fought to help corporations	3.85	1.41
Most of the world's problems can be traced back to U.S. imperialism	3.63	1.35
It doesn't matter who is president these days, major corporations call all the shots	3.60	1.45
Every president answers to the same corporate masters	3.85	1.29
The war on drugs is a government strategy to keep poor and minority populations in oppression	3.25	1.55
The United States has been a routine violator of human rights	4.08	1.42
No one deserves to be rich as long as the poor are denied a fair quality of life	3.47	1.58
Our society would be better off if it were more socialist and less capitalist	3.75	1.45
Excessive wealth is immoral in the face of extreme poverty	3.79	1.54
<b>Factor 2: War on Terror</b>		
Enhanced interrogation techniques are ok if they are only used on America's enemies	4.52	1.56
It is ok to torture terrorists and war criminals as a last resort	4.39	1.72
It is justified for the government to take the life of an enemy of the state if it is necessary to make America safer	3.51	1.42
<b>Factor 3: Education</b>		
More resources need to be devoted to education	5.58	1.24
Education should be a foremost priority for the allocation of federal resources	5.29	1.26
Every American has a right to a good education	6.06	1.25
<b>Factor 4: Drugs</b>		
All uses of marijuana should be made legal	4.49	1.90
People who commit multiple drug offenses should be thrown in prison and left there	4.57	1.55
<b>Factor 5: State Violence</b>		
The death penalty is an immoral act of state-sponsored murder	3.61	1.68
There is no such thing as a justified war	3.62	1.54
Police are just as corrupt as organized crime	3.84	1.53
Americans are more likely to be abused by police than by a criminal	3.44	1.43

Table 8. Factor Loadings for Liberal Measure

Factors	1	2	3	4	5
<b>Factor 1: Radical Leftism</b>					
The war on terror is a smokescreen for capitalist-imperialist violence	.627	.161	.122	.170	.457
Most U.S. wars nowadays are fought to help corporations	.675	.126	.121	.065	.359
Most of the world's problems can be traced back to U.S. imperialism	.603	.024	.185	-.046	.512
It doesn't matter who is president these days, major corporations call all the shots	.690	-.019	.030	.138	.152
Every president answers to the same corporate masters	.584	.019	-.005	.087	.306
The war on drugs is a government strategy to keep poor and minority populations in oppression	.510	-.093	-.023	.386	.412
The United States has been a routine violator of human rights	.539	.088	.239	.250	.334
No one deserves to be rich as long as the poor are denied a fair quality of life	.513	.016	.151	-.037	.431
Our society would be better off if it were more socialist and less capitalist	.618	.219	.202	.257	.211
Excessive wealth is immoral in the face of extreme poverty	.487	.047	.178	-.074	.322
<b>Factor 2: War on Terror</b>					
Enhanced interrogation techniques are ok if they are only used on America's enemies	.191	.750	.218	.057	-.011
It is ok to torture terrorists and war criminals as a last resort	.099	.809	.128	-.051	.108
It is justified for the government to take the life of an enemy of the state if it is necessary to make America safer	.088	.531	-.117	-.062	.184
<b>Factor 3: Education</b>					
More resources need to be devoted to education	.096	.036	.701	.127	-.049
Education should be a foremost priority for the allocation of federal resources	.163	.025	.729	.107	.175
Every American has a right to a good education	-.025	.124	.672	.004	-.011
<b>Factor 4: Drugs</b>					
All uses of marijuana should be made legal	.150	-.026	.133	.482	.088
People who commit multiple drug offenses should be thrown in prison and left there	-.092	.324	.065	.477	-.219
<b>Factor 5: State Violence</b>					
The death penalty is an immoral act of					

state-sponsored murder	.337	.334	.061	-.153	.436
There is no such thing as a justified war	.401	.228	.142	-.056	.553
Police are just as corrupt as organized crime	.416	-.094	.060	.441	.549
Americans are more likely to be abused by police than by a criminal	.481	-.157	.017	.355	.616

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Table 9. Total Variance Explained, Conservative Measure

<i>Factor</i>	<i>Initial Eigenvalues</i>			<i>Extraction Sums of Squared Loadings</i>		
	<i>Total</i>	<i>% of Variance</i>	<i>Cumulative %</i>	<i>Total</i>	<i>% of Variance</i>	<i>Cumulative %</i>
1	7.302	31.747	31.747	6.576	28.592	28.592
2	2.86	12.434	44.181	2.116	9.199	37.791
3	2.213	9.622	53.803	2.173	9.449	47.241
4	1.161	5.049	58.852	0.876	3.809	51.050

Table 10. Descriptive Statistics for Conservative Measure

	M	SD
<b>Factor 1: Social/Religious</b>		
Nobody has the right to terminate a pregnancy	3.25	1.84
The government should not regulate how a woman chooses to handle her pregnancy	2.92	1.64
Abortion is murder	3.66	1.93
There should be more prayer in school	3.05	1.76
It is immoral to conduct research on embryonic stem cells	3.17	1.69
Politicians should follow the Bible in making legislation	2.80	1.73
Religion doesn't belong in politics	3.00	1.70
<b>Factor 2: Fiscal Conservatism</b>		
Taxing Americans more than they are already taxed is wrong	4.06	1.48
I don't support raising taxes under any circumstances	3.41	1.54
Taxation violates personal freedom	3.26	1.41
Tax and spend policies are destroying the constitution	3.90	1.18
Government takeovers of services like healthcare are un-American	3.86	1.65
Socialism is marching on America	3.91	1.38
Government entitlements for social benefits are nothing more than socialism	3.81	1.26
<b>Factor 3: Homosexuality</b>		
Marriage is the union of one man and one woman and should not be redefined	3.45	2.08
The government should protect certain social institutions such as marriage because doing so protects our culture	3.67	1.74
Marriage is a right and opportunity that should be provided regardless of sexual orientation	2.89	1.79
Homosexuality is a personal choice that the government should respect and accommodate	2.84	1.70
<b>Factor 4: Gun Control</b>		
The right to own a gun is a fundamental part of what it means to live in America	4.20	1.78
Restrictions on gun ownership make America safer	3.69	1.52
Aggressive government control of handguns is needed	3.83	1.55

Table 11. Factor Loadings for Conservative Measure

Factors	1	2	3	4
<b>Factor 1: Social/Religious</b>				
Nobody has the right to terminate a pregnancy	.837	.370	.443	-.055
The government should not regulate how a woman chooses to handle her pregnancy	.687	.040	.491	.078
Abortion is murder	.835	.376	.457	.015
There should be more prayer in school	.735	.440	.538	-.036
It is immoral to conduct research on embryonic stem cells	.686	.381	.400	-.182
Politicians should follow the Bible in making legislation	.701	.470	.579	-.085
Religion doesn't belong in politics	.620	.168	.569	-.032
<b>Factor 2: Fiscal Conservatism</b>				
Taxing Americans more than they are already taxed is wrong	.244	.716	.268	-.002
I don't support raising taxes under any circumstances	.302	.610	.218	.024
Taxation violates personal freedom	.306	.602	.185	-.042
Tax and spend policies are destroying the constitution	.222	.691	.184	.105
Government takeovers of services like healthcare are un-American	.377	.731	.369	.141
Socialism is marching on America	.292	.616	.314	.144
Government entitlements for social benefits are nothing more than socialism	.254	.565	.287	.145
<b>Factor 3: Homosexuality</b>				
Marriage is the union of one man and one woman and should not be redefined	.609	.459	.822	.058
The government should protect certain social institutions such as marriage because doing so protects our culture	.557	.544	.649	.033
Marriage is a right and opportunity that should be provided regardless of sexual orientation	.523	.237	.928	.241
Homosexuality is a personal choice that the government should respect and accommodate	.434	.175	.755	.284
<b>Factor 4: Gun Control</b>				
The right to own a gun is a fundamental part of what it means to live in America	.024	.332	.158	.506
Restrictions on gun ownership make America safer	.048	.111	.231	.609
Aggressive government control of handguns is needed	-.037	.020	.191	.841

Table 12. Modifications of EFA Model

Model	Chi2 (DF)	RMSEA	95% CI	TLI/NNFI	CFI
EFA	2552.84 (910)	.081	.078-.085	.88	.89
EFA M1	2471.90 (909)	.079	.076-.083	.89	.89
EFA M2	2403.68 (908)	.077	.072-.081	.89	.90
EFA M3	2353.12 (907)	.076	.072-.079	.89	.90
EFA M4	2297.17 (906)	.075	.071-.078	.90	.91

Table 13. Indicator Loadings and Intercepts for the EFA Model

<i>Indicator</i>	<u>Equated Estimates</u>		<u>Standardized</u>		
	<i>Loading (SE)</i>	<i>Intercept (SE)</i>	<i>Loading*</i>	<i>Theta</i>	<i>R2</i>
<u>Radical Leftism:</u>					
Leftism_1	.983 (.08)	1.09 (.10)	.686	.529	0.47
Leftism_2	.943 (.07)	1.08 (.10)	.673	.548	0.45
Leftism_3	.868 (.07)	1.07 (.10)	.644	.585	0.42
Leftism_4	.873 (.08)	1.34 (.12)	.602	.638	0.36
Leftism_5	.731 (.07)	1.13 (.10)	.566	.679	0.32
Leftism_6	.853 (.09)	1.13 (.10)	.551	.696	0.30
Leftism_7	.780 (.08)	1.67 (.14)	.551	.696	0.30
Leftism_8	.792 (.09)	1.91 (.16)	.497	.753	0.25
Leftism_9	.974 (.08)	1.05 (.10)	.673	.500	0.50
Leftism_10	.700 (.09)	1.90 (.16)	.453	.795	0.20
<u>War on Terror:</u>					
Terror_1	1.27 (.08)	1.55 (.13)	.814	.337	0.66
Terror_2	1.34 (.09)	.732 (.09)	.774	.401	0.60
Terror_3	.702 (.08)	.825 (.10)	.491	.759	0.24
<u>Education:</u>					
Education_1	.898 (.07)	.732 (.09)	.724	.476	0.52
Education_2	.873 (.07)	.825 (.10)	.693	.520	0.48
Education_3	.867 (.07)	.799 (.09)	.696	.515	0.49
<u>Drugs:</u>					
Drugs_1	.858 (.10)	2.92 (.09)	.449	.799	0.20
Drugs_2	.858 (.10)	1.65 (.19)	.555	.692	0.31
<u>State Violence:</u>					
Violence_1	.861 (.10)	2.10 (.18)	.511	.739	0.26
Violence_2	.883 (.09)	1.61 (.15)	.571	.674	0.33
Violence_3	.669 (.09)	1.91 (.16)	.436	.810	0.19
Violence_4	.745 (.08)	1.52 (.13)	.518	.732	0.27
<u>Social Conservatism:</u>					
Social_1	1.35 (.09)	1.56 (.14)	.734	.461	0.54
Social_2	.999 (.09)	1.69 (.14)	.609	.629	0.37
Social_3	1.42 (.10)	1.72 (.16)	.734	.461	0.54
Social_4	1.42 (.09)	1.09 (.11)	.805	.352	0.65
Social_5	1.13 (.09)	1.58 (.14)	.669	.552	0.45
Social_6	.577 (.07)	1.31 (.11)	.450	.797	0.20
Social_7	1.38 (.08)	1.09 (.11)	.797	.365	0.64
Social_8	1.16 (.09)	1.53 (.14)	.684	.532	0.47

Fiscal Conservatism:

Fiscal_1	1.04 (.08)	1.12 (.11)	.702	.507	0.49
Fiscal_2	1.01 (.08)	1.35 (.12)	.655	.571	0.43
Fiscal_3	.914 (.08)	1.15 (.10)	.649	.578	0.42
Fiscal_4	.797 (.06)	.747 (.07)	.678	.540	0.46
Fiscal_5	.363 (.07)	1.39 (.11)	.294	.913	0.09
Fiscal_6	1.19 (.09)	1.31 (.13)	.721	.481	0.52
Fiscal_7	.851 (.08)	1.18 (.10)	.616	.620	0.38
Fiscal_8	.707 (.07)	1.08 (.09)	.562	.684	0.32

Gay Rights:

Rights_1	1.76 (.10)	1.22 (.14)	.848	.281	0.72
Rights_2	1.19 (.09)	1.60 (.14)	.686	.529	0.47
Rights_3	1.57 (.08)	.753 (.10)	.875	.234	0.77
Rights_4	1.27 (.09)	1.28 (.12)	.747	.442	0.56

Gun Control:

Guns_1	1.24 (.09)	.875 (.15)	.799	.362	0.64
Guns_2	.945 (.11)	2.26 (.21)	.532	.717	0.28
Guns_3	.989 (.09)	1.32 (.14)	.653	.574	0.43

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Table 14. Latent Variable Correlations for EFA Model

	Left	WOT	Edu	Drug	StVio	Soc	Fisc	Marg	Guns
Left	1								
WOT	.178	1							
Edu	.128	.167	1						
Drug	.071	.290	.194	1					
StVio	.914	.389	.104	.014	1				
Soc	.070	-.308	-.285	-.751	.185	1			
Fisc	.190	-.478	-.175	-.390	.371	.474	1		
Marg	-.121	-.437	-.374	-.548	-.146	.720	.407	1	
Guns	.218	-.247	-.268	.286	-.476	.003	.192	.292	1

Table 15. Indicator Loadings and Intercepts for the Short Form Model

Indicator	<u>Equated Estimates</u>		<u>Standardized</u>		
	<i>Loading (SE)</i>	<i>Intercept (SE)</i>	<i>Loading*</i>	<i>Theta</i>	<i>R<sup>2</sup></i>
<u>Radical Leftism:</u>					
Leftism_1	1.01 (.08)	1.03 (.10)	.706	.502	0.50
Leftism_2	.808 (.08)	1.45 (.13)	.557	.690	0.31
Leftism_3	1.01 (.07)	.947 (.10)	.720	.481	0.52
Leftism_4	.884 (.07)	1.04 (.10)	.655	.570	0.43
Leftism_5	.791 (.08)	1.38 (.12)	.558	.688	0.31
Leftism_6	.832 (.08)	1.40 (.12)	.575	.669	0.33
<u>State Violence:</u>					
Violence_1	.738 (.10)	2.30 (.20)	.438	.808	0.19
Violence_2	.884 (.09)	1.61 (.15)	.571	.674	0.33
Violence_3	.839 (.09)	1.37 (.13)	.583	.660	0.34
<u>Social Conservatism:</u>					
Social_1	1.33 (.10)	1.97 (.19)	.687	.527	0.47
Social_2	1.49 (.09)	.891 (.14)	.844	.287	0.71
Social_3	1.40 (.09)	1.03 (.14)	.811	.343	0.67
<u>Fiscal Conservatism:</u>					
Fiscal_1	1.11 (.08)	.989 (.12)	.743	.448	0.55
Fiscal_2	.821 (.07)	.709 (.08)	.698	.513	0.49
Fiscal_3	1.17 (.09)	1.35 (.15)	.711	.495	0.51
<u>Education:</u>					
Education_1	.897 (.07)	.735 (.10)	.723	.447	0.52
Education_2	.875 (.07)	.813 (.10)	.696	.515	0.49
Education_3	.862 (.07)	.808 (.10)	.692	.521	0.48
<u>Gun Control:</u>					
Guns_1	.945 (.11)	2.27 (.21)	.532	.717	0.28
Guns_2	1.01 (.09)	1.27 (.15)	.667	.555	0.45
Guns_3	1.21 (.09)	.930 (.16)	.783	.387	0.61

\*Completely Standardized Solution

Table 16. Latent Variable Standardized Correlations for Measurement Model – Study 2

	Dem	Rep	Med	Ideol	PIE	Nwk	Talk	Cert	Prox	Orient	Lib	Soc	Fisc
Dem	1												
Rep	-.707	1											
Med	.014	-.093	1										
Ideol	.138	-.173	***	1									
Pie	.047	-.062	-.502	-.422	1								
Nwk	.127	-.139	.080	.145	-.139	1							
Talk	.021	-.003	-.535	-.491	.662	-.387	1						
Cert	-.051	-.061	.296	.277	-.147	-.130	-.277	1					
Prox	-.077	.150	.059	.175	-.043	-.128	.038	.328	1				
Orient	-.676	.748	-.065	-.179	-.003	-.163	-.056	-.001	.114	1			
Lib	.288	-.369	.037	.268	.153	.122	.157	.006	.082	-.360	1		
Soc	-.410	.488	.019	-.067	-.048	-.286	-.048	.177	.232	.650	-.141	1	
Fisc	-.390	.461	-.186	-.243	.279	-.149	.108	-.026	.018	.513	-.236	.585	1

The correlation between overall media use and ideological media use was not estimated

Table 17. Model Fit for Structural Models – Study 2

Model	Chi2 (DF)	RMSEA	95% CI	TLI/NNFI	CFI
<u>Overall Media</u>					
CFA	521.97(344)	.051	.041-.061	.937	.950
Structural	521.97(344)	.051	.041-.061	.937	.950
Pruned	547.28(368)	.049	.039-.059	.940	.949
<u>Ideological Media</u>					
CFA	530.77(344)	.052	.042-.062	.934	.948
Structural	530.77(344)	.052	.042-.062	.934	.948
Pruned	556.35(367)	.051	.041-.060	.937	.947
<u>Partisan Polarization</u>					
Structural	547.90 (361)	.052	.042-.061	.937	.948
Pruned	548.73(362)	.051	.042-.061	.937	.948

Figure 1.1

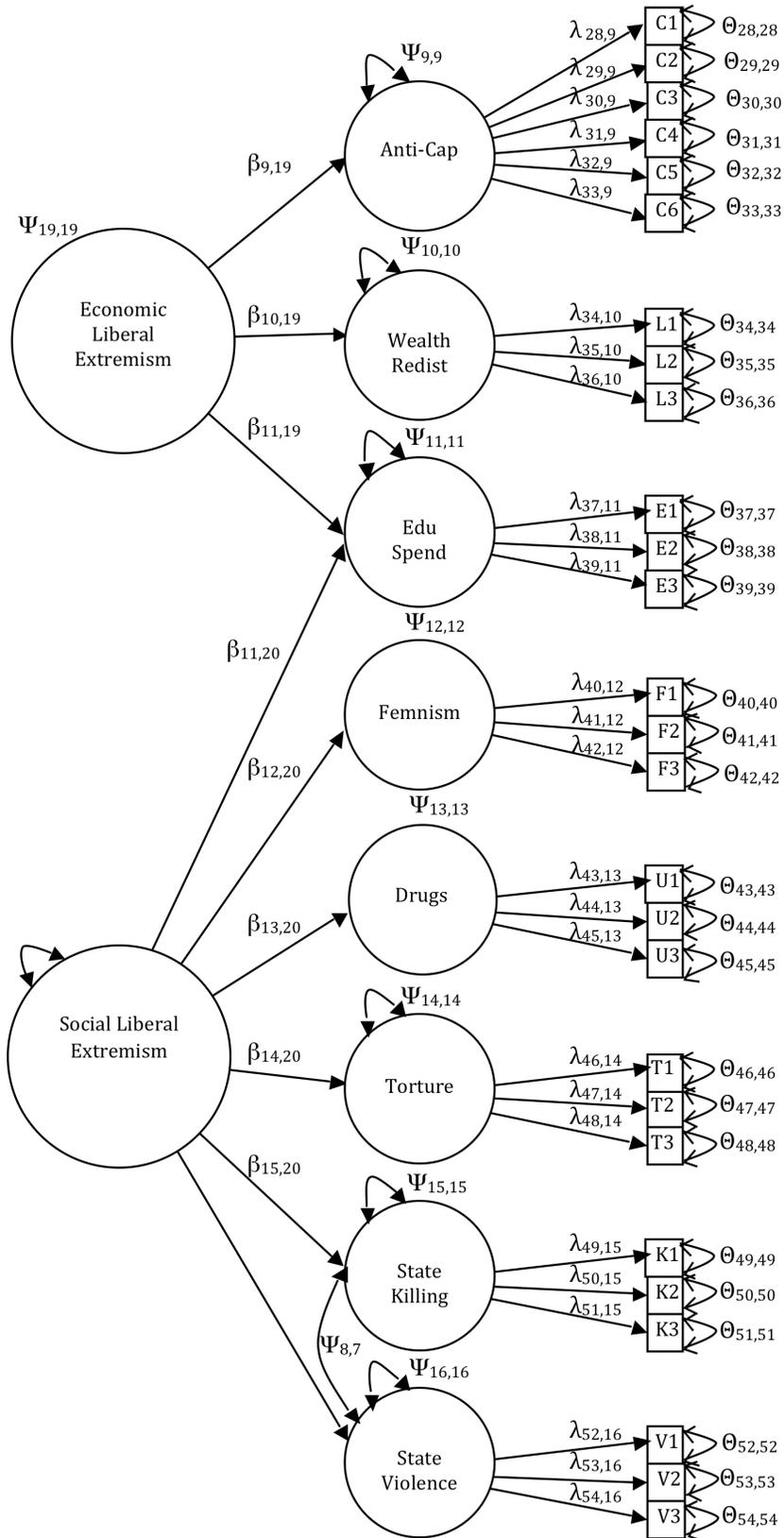


Figure 1.2

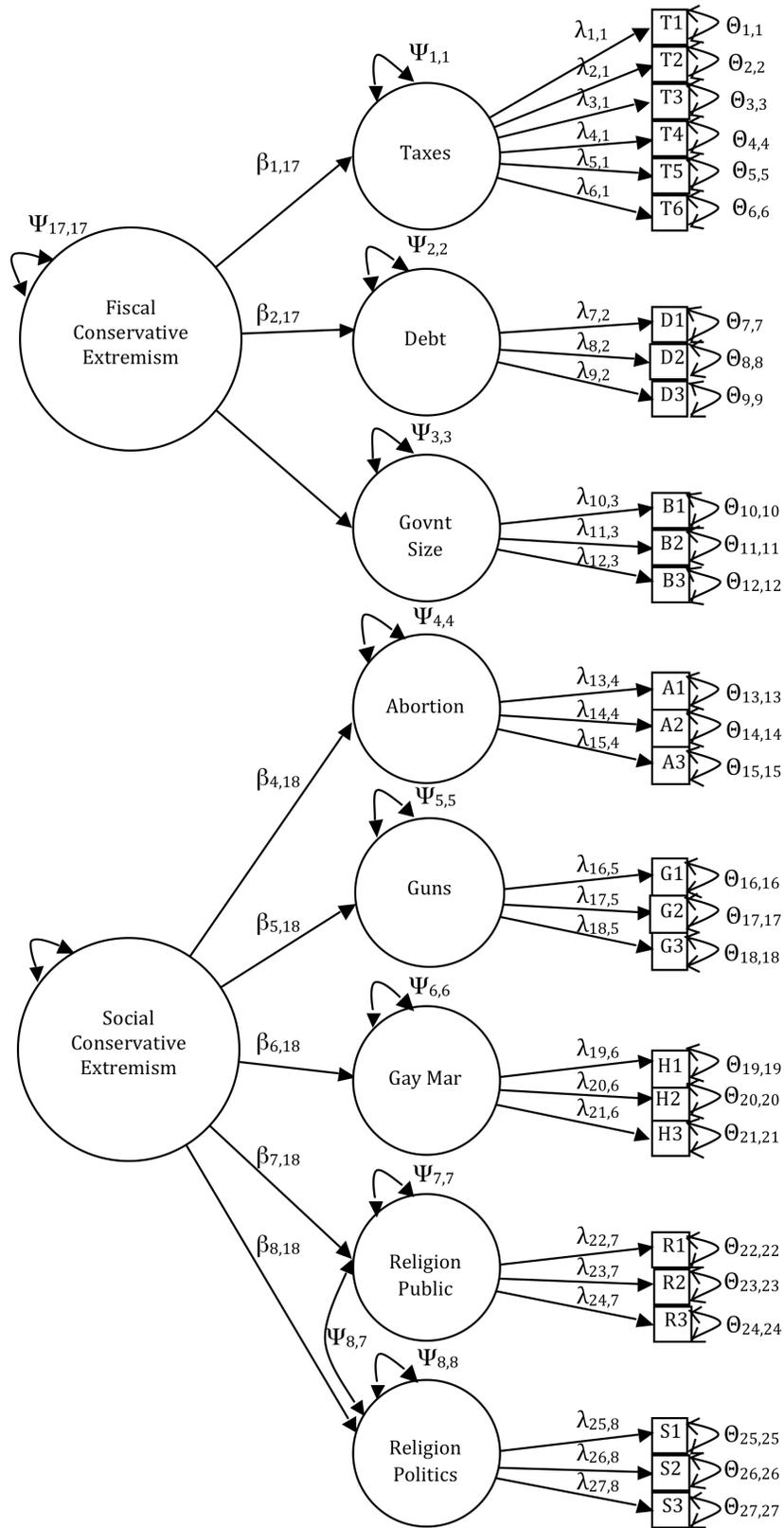


Figure 2

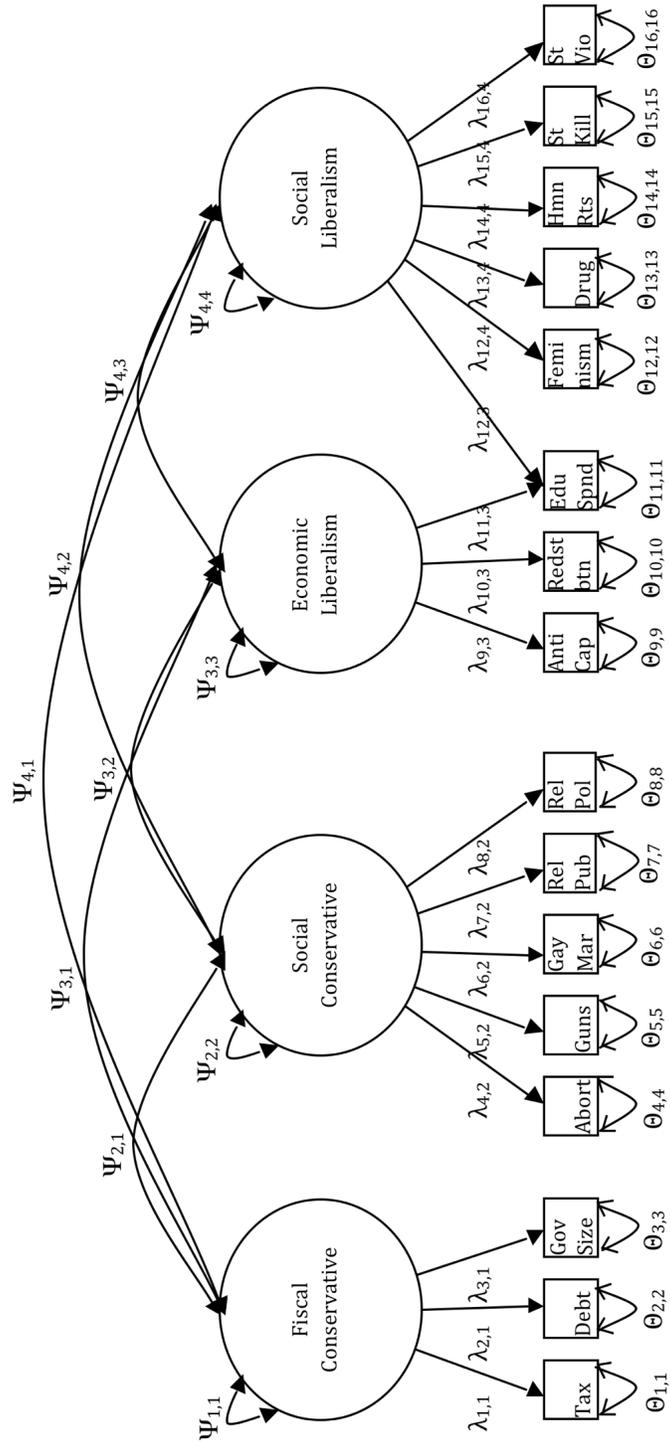


Figure 3.1

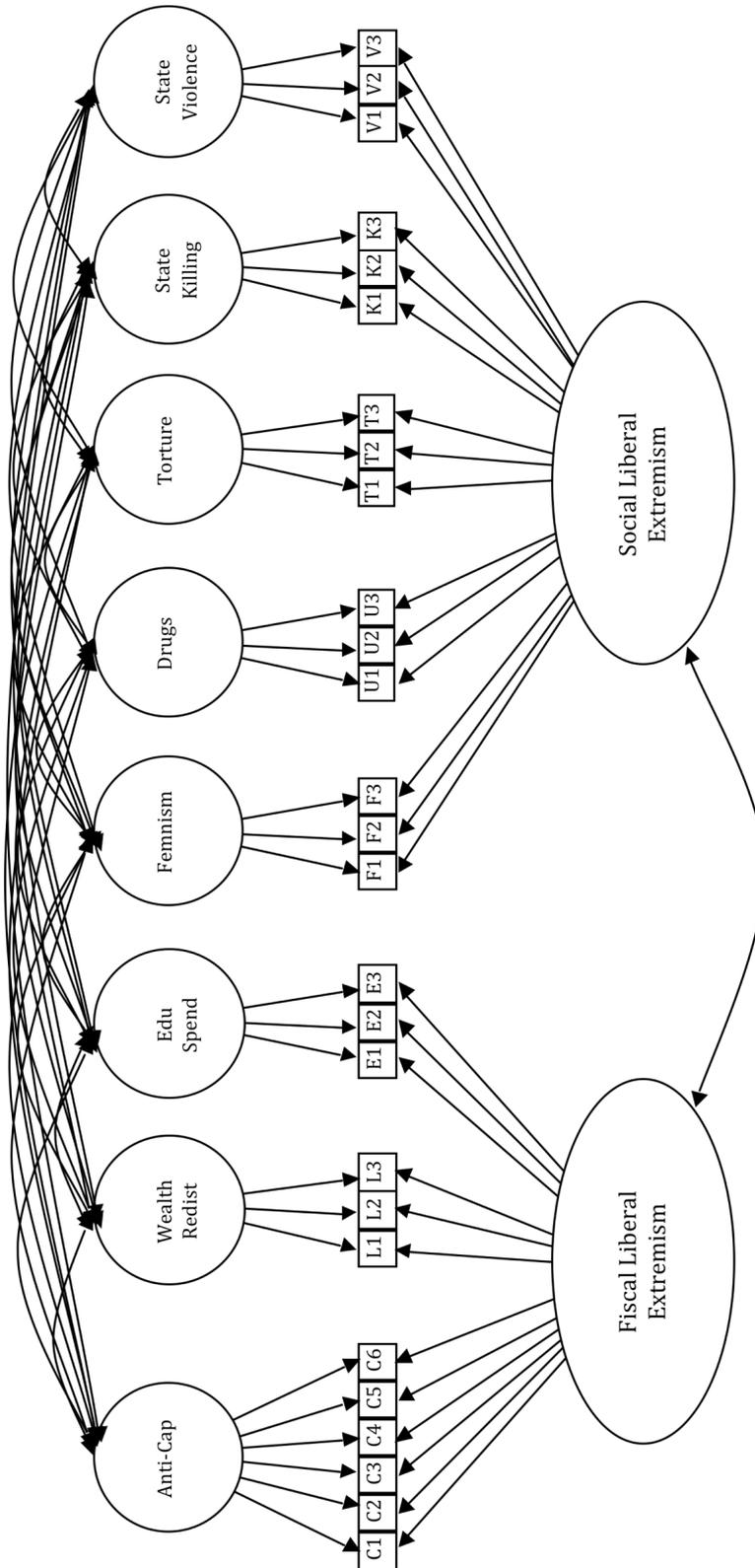


Figure 3.2

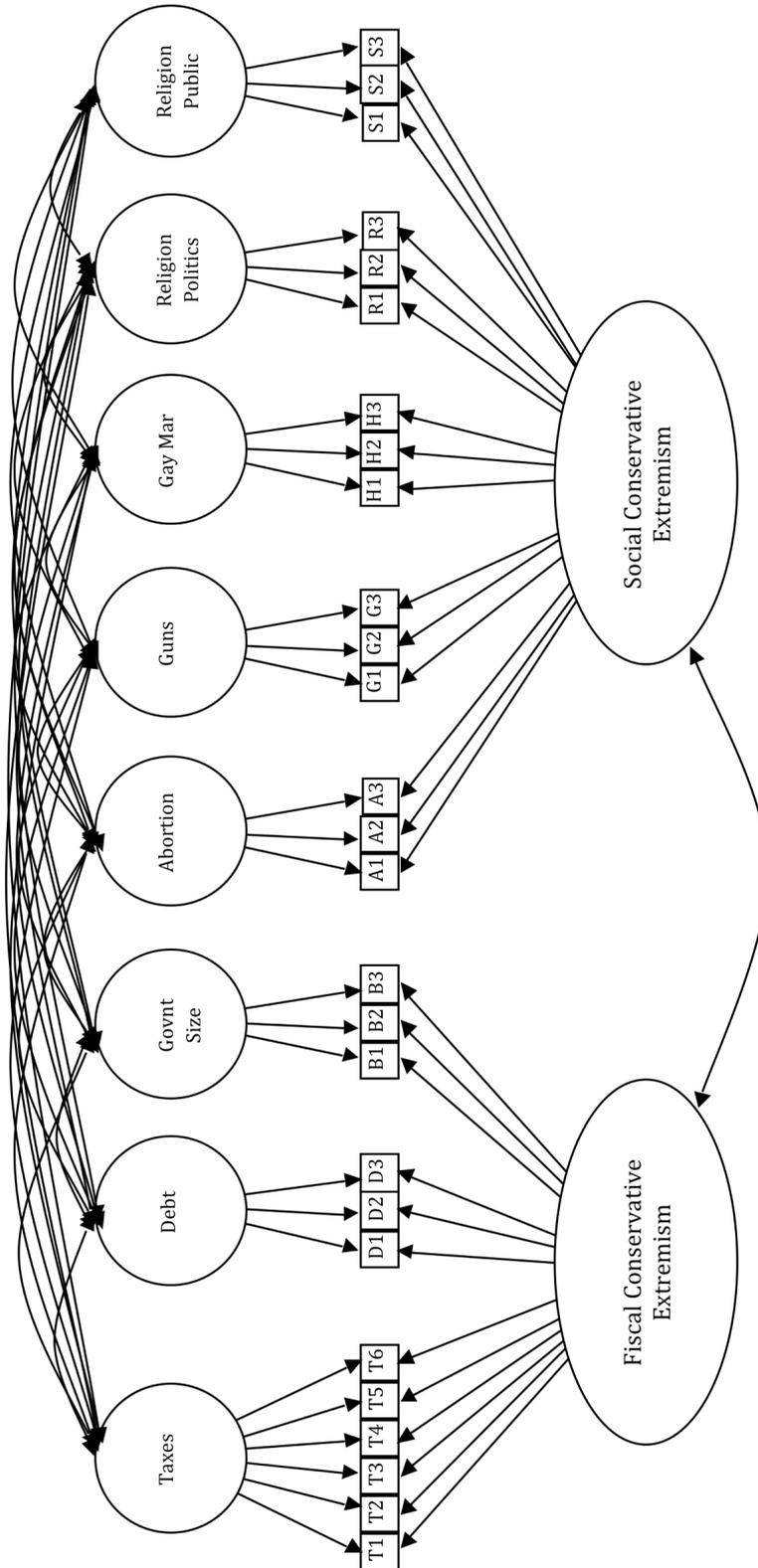


Figure 4

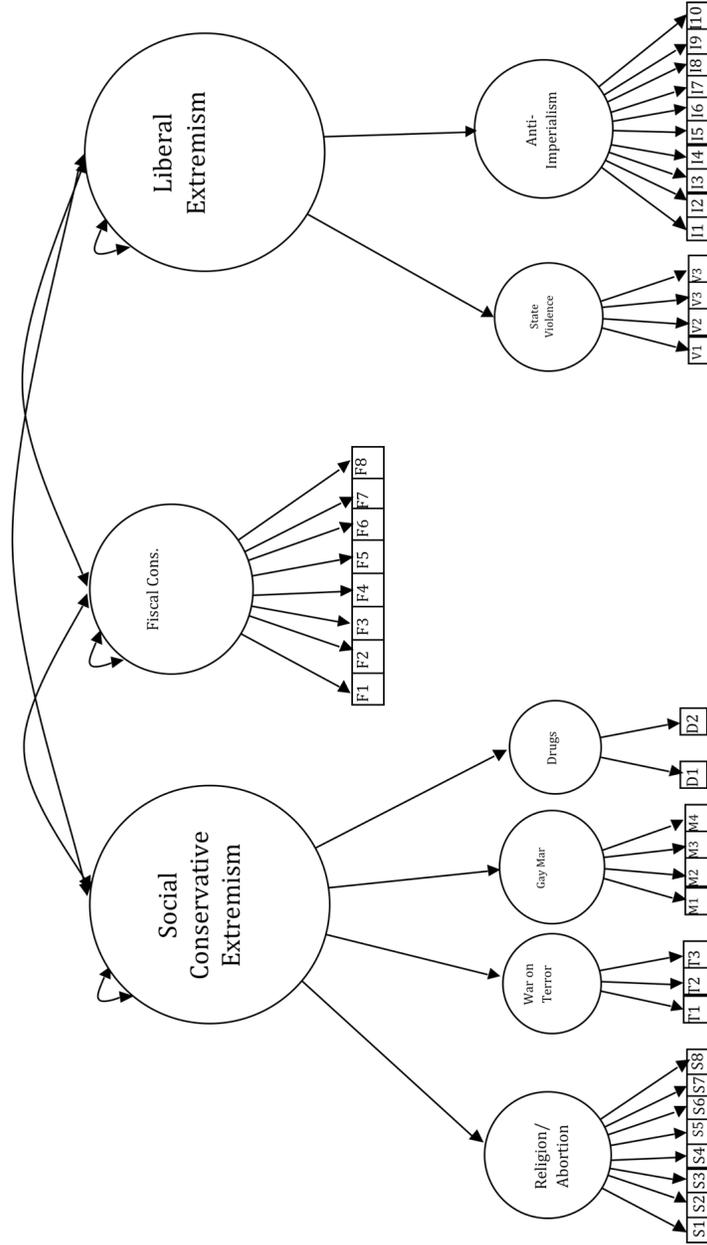


Figure 5

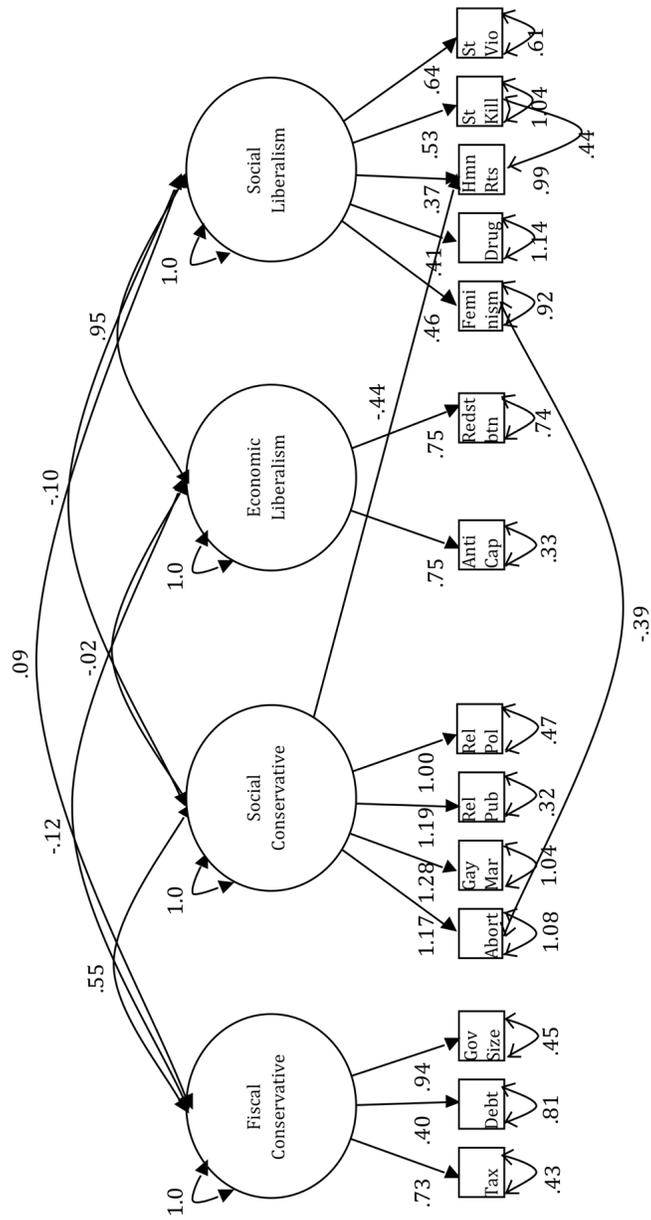


Figure 6

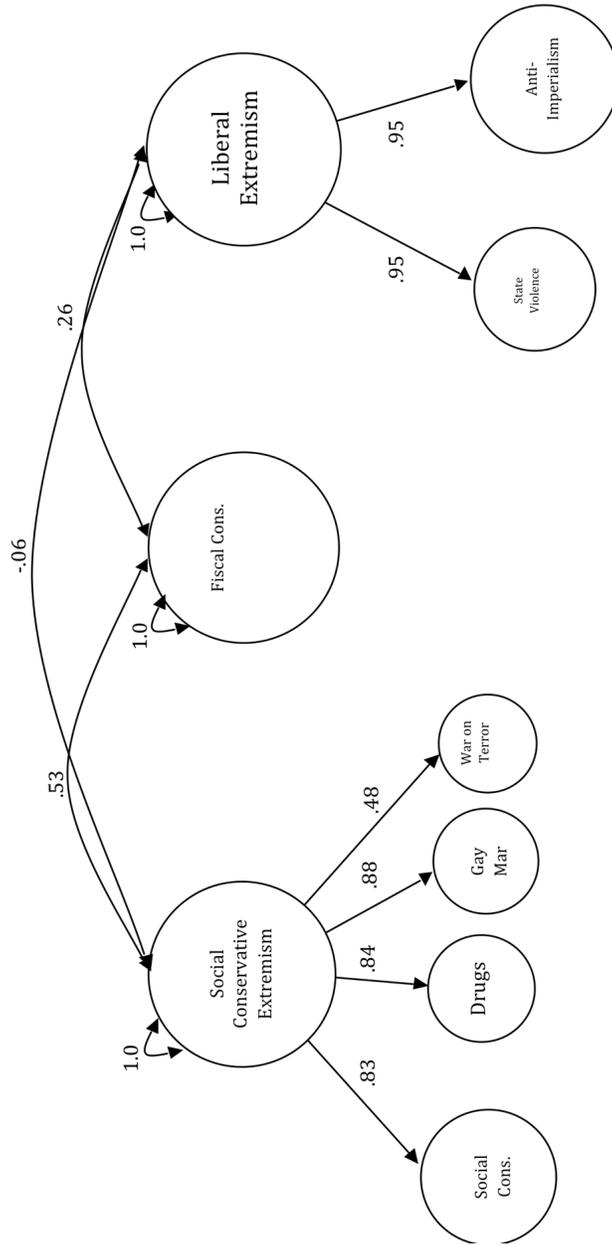


Figure 7

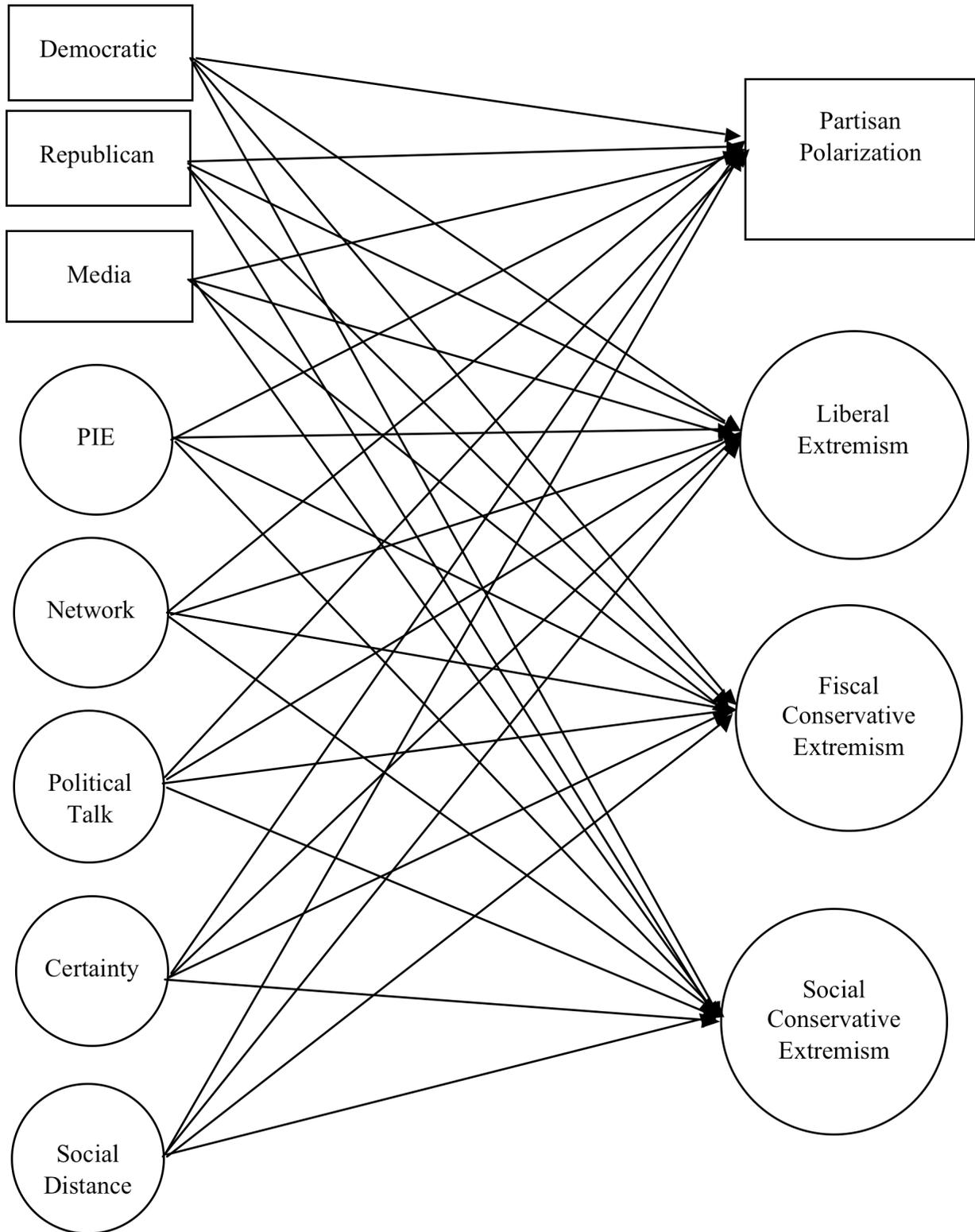
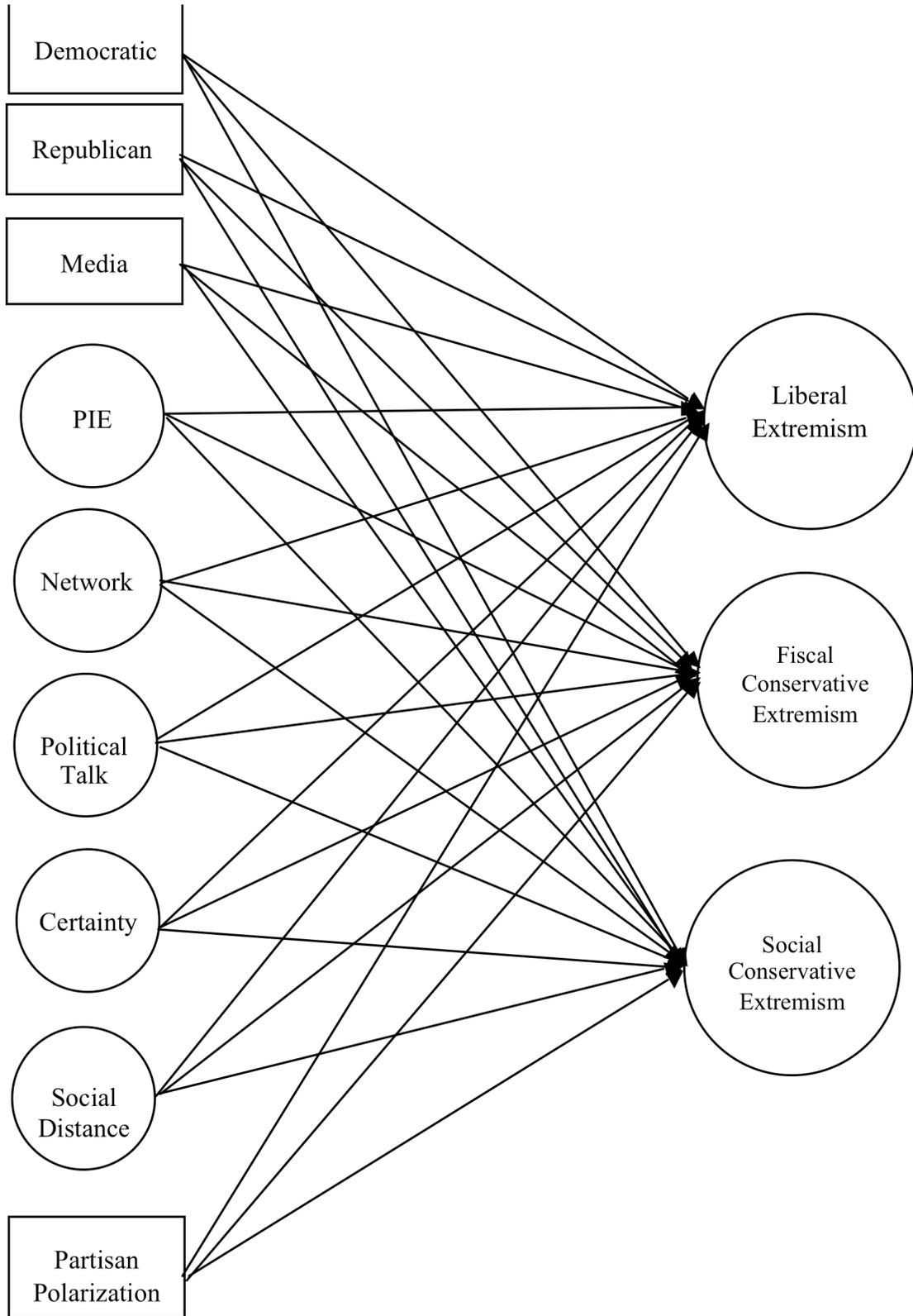
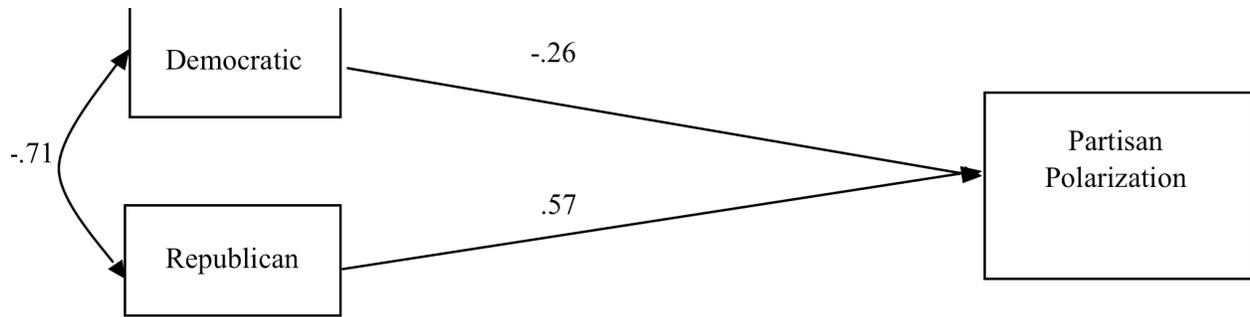


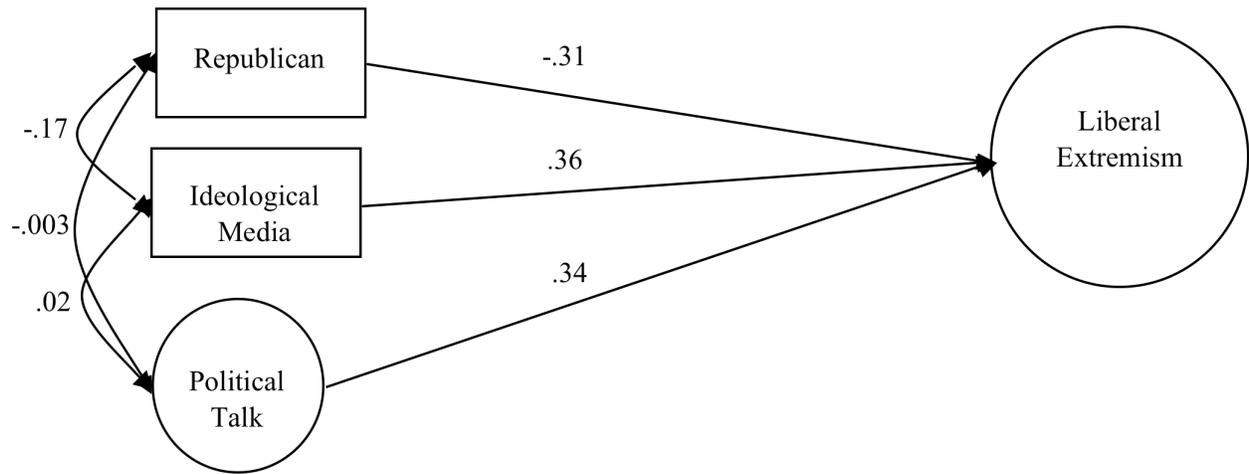
Figure 8



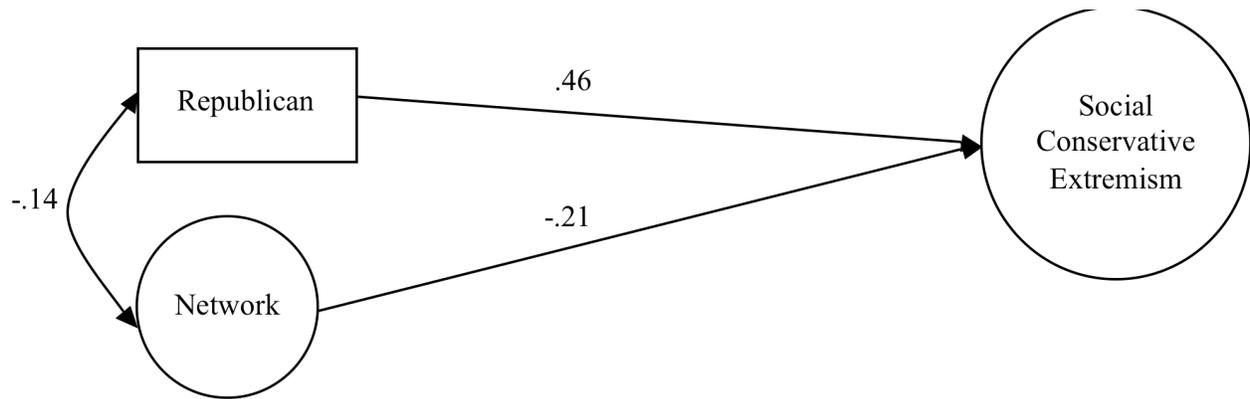
**Figure 9**



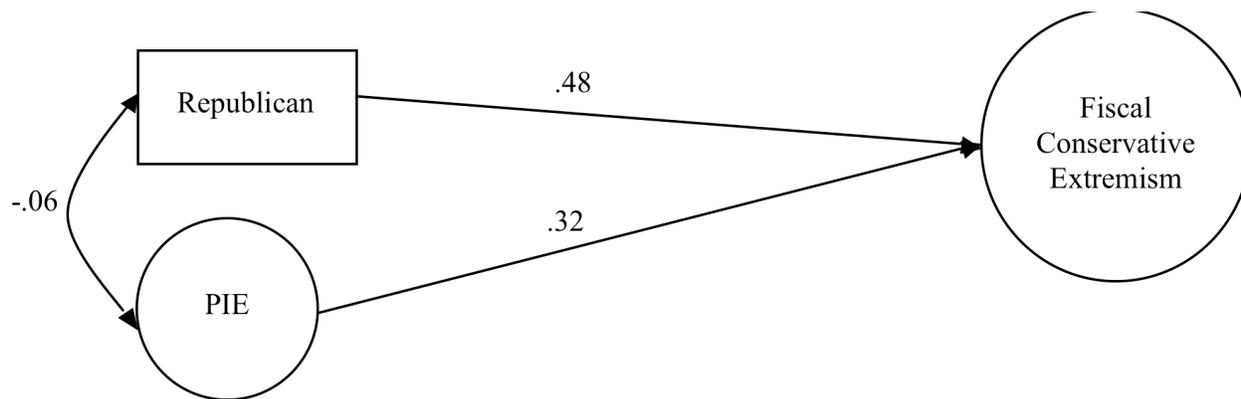
**Figure 10**



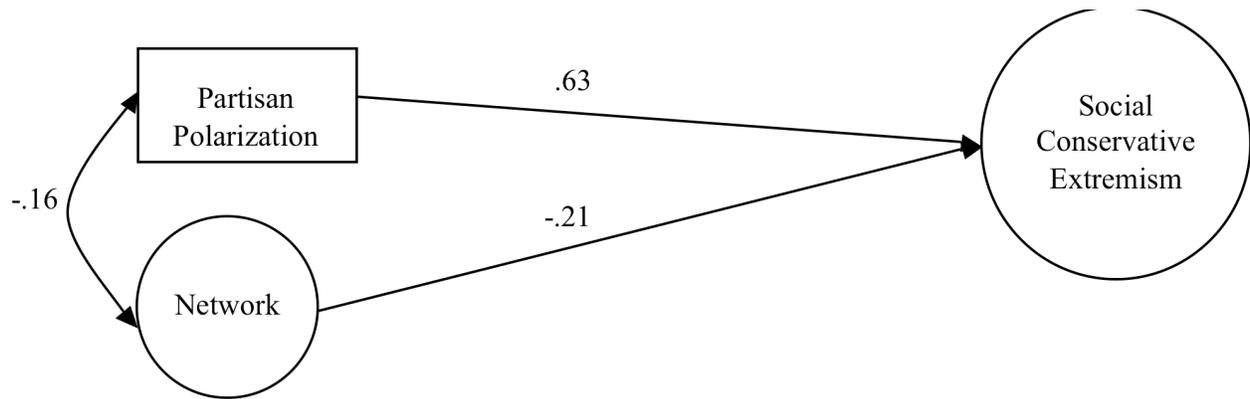
**Figure 11**



**Figure 12**



**Figure 13**



**Figure 14**

