

POLITICAL ATTITUDES IN 140 CHARACTERS OR LESS

By

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To Dr. Kaid, a mentor and friend

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LIST OF ABBREVIATIONS AND DEFINITIONS

ATTITUDE	“A psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor” (Eagly and Chaiken, 1993 as cited in Clawson & Oxley, 2013, p. 17)
ATTITUDE EXTREMITY	“The extent to which an individual’s attitude deviates from the midpoint of favorable-unfavorable dimension” (Krosnick, Boninger, Chuang, Berent and Carnot, 1993, p. 1132). In the present study the dimensions include: favorable-unfavorable, good-bad, foolish-wise, harmful-beneficial
ATTITUDE INTENSITY	“The strength of emotional reaction provoked by the attitude object in an individual and is typically measured using self-reports of the intensity of feelings” (Krosnick, Boninger, Chuang, Berent and Carnot, 1993, p. 1132)
ATTITUDE STRENGTH	“The extent to which attitudes manifest the qualities of durability and impactfulness” (Krosnick & Petty, 1995, p. 3). According to Krosnick and Petty (1995), durability refers to the stability of an attitude over time and its ability to withstand attack
BEHAVIORAL INTENT	The expression of a user’s current, future plans or encouragement for the current or future plans of others
CERTAINTY	“The degree to which an individual is confident that his or her attitude toward an object is correct and is usually gauged by self-reports of certainty or confidence” (Krosnick, Boninger, Chuang, Berent and Carnot, 1993, p. 1132)
LIWC2007	Linguistic Inquiry Word Count 2007, an automated textual analysis program based on 80 linguistic categories
OPINION	Expression of a preference in regards to a specific object (Clawson & Oxley, 2013, p. 17)
PEOPLEBROWSR [®]	Social media analytics platform

PERSUASION STRATEGIES	Persuasion strategies include associating compromise with failure (Campbell et al., 1960; Gusfield, 1962, p.22), denying the legitimacy of a political institution (Gusfield, 1962, p.23), closing off deliberation to other political viewpoints (Gusfield, 1962, p.23), proposing an end to political institutions (Gusfield, 1962, p.23), attributing one factor for causing current conditions (Brock et al., 2005, p. 102; Smith, 2003), emphasizing a single value such as moralism, self reliance, equality (Brock et al., 2005, p. 102; Campbell et. al, 1960; Gusfield, 1962, p. 22; Smith, 2003) and expressing one's self interest is at stake (Binder et al., 2009, p. 317)
SNS	Social networking site
SPSS	Statistical Package for the Social Sciences, a statistical software program
TWITTER [©]	"A real-time information network that connects you to the latest stories, ideas, opinions and news about what you find interesting." (Twitter [©] , 2012)
TWITTERVERSE	The environment and events that occur across Twitter [©]

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Twitter[®] is a microblogging website where users read and write millions of short messages every day. This study uses the context of the 2011 debt debate to explore attitudes expressed on Twitter[®] and their influence on political polarization. This study is a content analysis using both manual coding and the computer-assisted program LIWC2007 to sample 4,500 messages, user biographies and online information linked in messages disseminated by politically interested and active Twitter[®] users. Independent of political party or ideology preference, this study's results indicated relationships among persuasive strategies, mentions of political issues and linked content that expressed attitude strength in messages that expressed attitude extremity. To explain these strong relationships, the researcher speculates that politically motivated individuals seek online content to support their attitudes and participate in politics while persuading others to follow by disseminating information. The present study extends previous research about Twitter[®]'s influence on polarization and lays the groundwork for practical applications of effective online content development by incorporating attitude strength, issue mention, persuasion strategies, and extreme positions to expand political influence online.

CHAPTER 1 INTRODUCTION

In the summer of 2011, the political atmosphere was as hot as the temperature concerning the nation's debt debate. Rhetoric from national figures encouraged political participation by the masses. Concurrently, the rise of Twitter[®] provided a perfect outlet for elites to get out their message, news media to cover the story, and individuals to join the discussion. President Obama gave two speeches in the last week of July as the deadline drew near encouraging the citizenry's participation,

Now, on Monday night, I asked the American people to make their voice heard in this debate, and the response was overwhelming. So please, to all the American people, keep it up. If you want to see a bipartisan compromise -- a bill that can pass both houses of Congress and that I can sign -- let your members of Congress know. Make a phone call. Send an email. Tweet. Keep the pressure on Washington, and we can get past this. (President Obama, July 29, 2011, para. 9)

The present study analyzed tweets from July 25, 2011 through August 2, 2011 to explore attitudes expressed on Twitter[®] and their influence on political polarization. The time period of the present study was chosen because of political events that occurred offline that may spur behavior online. During this week, offline events increased public awareness about the debt ceiling negotiations. On July 29th, President Obama encouraged citizens to contact their Congressperson, mentioning Twitter[®] as an avenue for communication. Later that week, United States Senator from Florida, Marco Rubio gave a passionate speech on the Senate floor, stating the stalled negotiations referenced a larger issue and claimed, "Washington is divided because America is divided" (Rubio, 2011, para 21). While many studies have analyzed connections between events to behavior during a campaign, the present study focused on these

relationships during national debate about a salient issue and an impending deadline for a solution.

The relationships among salient political issues, discussion and participation indicate the health of a democratic system. Normative democratic theory requires citizens to participate in politics after obtaining information, evaluating individual and group interests, connecting these interests to broader views and expressing ones' political attitudes (Delli Carpini & Keeter, 1996). How the Internet has reshaped this process and its impact on the health of democracy is a topic of debate. Online access to political information offers users a variety of sources. Stroud (2011) argued a broader range of content could spur political interest among new audiences, improve knowledge levels, mobilize citizens and increase political participation (Stroud, 2011). Counterarguments advocate Internet users will select information that aligns with their predispositions to avoid challenging their political attitudes (Abramowitz & Saunders, 2008; Abramowitz, 2010; Blum, 2011; Prior, 2006). Some argue this could harm a democracy by dividing partisans, preventing consensus building around salient political issues (Stroud, 2011, p. 176). The Internet has transformed both how people participate in politics and acquire political information.

According to the Pew Internet and American Life Project (2011), more than one-half of American adults gathered information online during the 2010-mid-term elections. In fact, online news, campaign activities and social networks were the sole source of information for one-fourth of American adults (Pew Internet and American Life Project, 2011). One available social network is the micro blogging site Twitter[®], the fastest growing social media tool (Hendricks & Denton, 2010, p. 38). Twitter[®] provides users

the ability to spread information quickly using messages called tweets. Each tweet is limited to 140-characters. Despite being 140 characters or less, Twitter[®] has shown to be an effective tool for political participation and offers a platform to express attitudes, engage in political discussions, disseminate information, advocate preferences and mobilize others (Howard, 2011; Lipschultz, 2011; Ostrow, 2011). According to Hendricks & Denton (2010), these features afford users the ability to influence electoral and policy outcomes, some worry at the cost of civil discourse and democratic deliberation.

The present study explored how Twitter[®] served as a tool for political participation through the dissemination of online content during the debt ceiling negotiations that began on July 25, 2011 and ended on August 2, 2011. The researcher selected a purposeful sample of likely interested and aware Twitter[®] users as determined by the social media analytics platform, PeopleBrowsr[®] (www.peoplebrowsr.com). Examining this group offers a better description of the features associated with polarization. Using a quantitative content analysis with both manual and computer-assisted coding, this study analyzed how users incorporated political identification in Twitter[®] biographies, expressed political party, ideology and attitudes in tweets and linked content.

As noted above, the debt ceiling debate of the summer 2011 was chosen as the issue for analysis. The debt ceiling debate is an appropriate topic for the study for several reasons. First, events surrounding the negotiations brought greater recognition of Twitter[®]'s use as a political communication tool. Secondly, the site became infamous for being peppered with partisan sentiment (Howard, 2011; Lipschultz, 2011; Ostrow, 2011) and replicating "the hyperpartisan atmosphere in Washington" online during this

time period (Howard, 2011 para. 1). Lastly, White House staffers credited social media, specifically Twitter[®], with forcing leaders to reach an agreement on the country's most prominent issue of the day (Howard, 2011; Lipschultz, 2011).

There are several potential implications for this research. First, the present study will lead to a more developed theoretical understanding of Twitter[®]'s influence on American politics by describing the nature and dissemination of political information across the site. For political communication scholars, this study contributes to a deeper understanding of social networking sites' impact on democracy. For practitioners, these results should provide a greater understanding of online information that may motivate a political base, an aware and active group of supporters. Finally, this research may be used to develop online messages that will build support within constituencies, form coalitions and maneuver public opinion more effectively in the digital environment.

CHAPTER 2 LITERATURE REVIEW

The impetus for the present study is to better understand Twitter[®]'s impact on democracy. More optimistic views have argued sites like Twitter[®] spur discussion and mobilize political participation (Boulianne, 2011; Brundidge, 2011; Kim, 2011). From this perspective, social media lives up to Jürgen Habermas's ideal of the public sphere: a space outside private life and institutions reserved for public discussion and deliberation (McQuail, 2010; Brundidge, 2011; Kim, 2011). However, several perspectives challenge this notion and claim social networking sites (SNSs) foster a polarized landscape. Polarization occurs when opposing issue positions align with political identities (Abelson, 1995). Previous research has approached this topic by analyzing hashtags, followers, partisan and ideological sentiment (Conover, Ratkiewicz, Francisco, Goncalves, Flammini & Menczer, 2011; Conover, Goncalves, Ratkiewicz, Flammini & Menczer, 2011; King, Orlando and Sparks, 2011; Tumansjan, Sprenger, Sander & Welp, 2010). However, polarization is shaped by attitudes that are influenced by a variety of factors (Zaller, 1992). To better understand this process, specifically whether communication of political information across Twitter[®] encourages polarization, more research is needed about the characteristics and environment surrounding this process.

An Affordance Theory Analysis of Twitter[®]

In 1977, J.J. Gibson coined the term affordances to describe factors that interact with an individual's perception and direct related behaviors. Gibson (1977) challenged the approaches to human psychologies that were solely cognitive. He favored a theory that focused on the interaction of environmental attributes, personal characteristics, and

considered salient events or patterns (Gaver, 1991, p. 79). Thus, the theory of affordances provides a framework that considers Twitter[®]'s features, the personal characteristics of its users and the political climate. For example, individuals who are compelled to stay informed about a particular topic may perceive Twitter[®] as an avenue for gathering topic-specific information by following other users with similar interests.

The theory of affordances has been previously used to analyze the adoption and use of new technologies. In *Technology Affordances*, Gaver (1991) incorporated this concept to postulate what benefits certain technologies provide to users. He noted benefits from technology exist regardless of whether they are recognized. Additionally, technology users can perceive an affordance that is nonexistent. The user's past experiences, social background and intent determine whether an affordance is perceived. Perception and its strength is the driving force behind behavior.

Garver (1991) argued affordances "encourages us to consider devices, technologies and media in terms of the actions they make possible and obvious" (p. 83). Twitter[®]'s features present users with unique opportunities to self-select political information, political messages online and incorporate their own opinions. Despite the 140-character limit, tweets have dramatically altered the flow of political information from elected official to citizen and from citizen to elected official. Political messages in the form of tweets have the potential to influence political outcomes based on their scalability. In 2009, a "Tweet Your Senator" plug-in was added to President Barack Obama's Facebook page (Hendricks & Denton, 2010, pp. 46-47). When clicked, this button supplies users with a tweet that indicates support for Obama's healthcare plan and the Twitter[®] username of their state's Senator (p. 47). The "Tweet Your Senator"

button mobilizes constituents by lowering the requirements for political participation. President Obama is using Twitter[®] to maintain engagement after Election Day and build support for his agenda. Constituents utilize his SNSs to demonstrate their preference for the President's position on an issue. In this case, Twitter[®] offered affordances to President Obama and constituents alike. More recent events support for this claim.

Twitter[®] offered several affordances to its users during the debt debate. The United States government was closely approaching deadline for a resolution to the debt dilemma. On July 29, 2011 President Barack Obama called on Americans to tweet their congressman. Constituents could reach elected officials while bypassing busy phone lines and avoid drafting emails or letters. While users may be constrained by 140 characters, elected officials are focused on tracking how constituents would like them to vote on an upcoming issue. For instance, a fifteen-minute phone call explaining a constituent's position on whether to raise the debt ceiling will be recoded as "yes" or "no" response. The symbol "@" before an elected official's username ensures a direct route from constituent to elected official. Thus, 140 characters are more than sufficient for participation in the political process under this definition of participation.

The present study was designed to describe the characteristics that afford political participation online. It focused on the relationships among attitude extremity, strength, information and participation by politically aware Twitter[®] users. By examining these attributes, the present study offers a different perspective of the features credited with instigating polarization on Twitter[®]. Each attribute will be discussed below, in turn.

Political Identification

Self-identifications of political party and ideology have been used to analyze how citizens structure attitudes (Converse, 1964; Zaller, 1992), evaluate information (Downs,

1957; Key, 1966; Popkin, 1994; Zaller, 1992) and participate in politics (Berelson, Lazarsfeld & McPhee, 1954; Campbell, Converse, Miller & Stokes, 1960). Party identification is defined as “an enduring sense of psychological attachment to a political party” (Goren, Federico & Kittilson, 2009 p. 806). Ideology is “a particularly elaborate, close-woven, and far-ranging structure of attitudes” (Campbell et al., 1960 p. 192). While distinct, these concepts are related to one another. Generally, both identifications remain the most stable component of an individual’s political beliefs throughout their lifetime (Campbell et al., 1960; Conover & Feldman, 1981). Both identifications are linked to one’s perceived social groupings and frame evaluations of salient political issues, candidates and events (Campbell et al., 1960; Conover & Feldman, 1980; Goren et al., 2009). However, party and ideology influence and structure political attitudes differently (Converse, 1964; Conover & Feldman, 1981). Previous studies have linked these discrepancies to knowledge, interest and engagement levels among the electorate (Converse, 1964; Conover & Feldman, 1981).

Public opinion research has relied on measurement of political sophistication to decipher the relationships among political attitudes and liberal-conservative orientations (Goren, 2011). Attitudes structured using this continuum rather than partisanship often reflect a higher level of political sophistication (Delli Carpini & Keeter, 1996; Zaller, 1992). Alternatively, Goren (2011) found political sophistication has little influence when it comes to policy preferences based on core beliefs and values about equal opportunity, self-reliance and limited government, the military and anticommunism. In his study, citizens incorporated values when evaluating salient issues similarly across levels of political sophistication. However, core principles were incorporated at low

rates across all levels of political sophistication. Attitude structure, whether ideologically or using partisanship, influences political participation.

There is general agreement among political communications research that party identification is more influential in shaping attitudes than shaping ideology (Campbell et al., 1960; Converse, 1964). The mass public does not frame thought processes using political ideology (Converse, 1964). Rather, ideological identification is reserved for “a relatively small, politically active segment of the public” called political elites (Erikson & Tedin, 2007, p. 82). Politically aware citizens look to elites for cues indicative of the appropriate ideology that aligns with their party preference. These cues lead to consistent political attitudes and motivate political behavior. Previous research has analyzed political identifications by studying voting behavior, public opinion and media choice (Campbell et al., 1960; Iyengar & Hahn, 2007; Zaller, 1992). More recently, research has predicted political alignment of Twitter[®] users by analyzing messages, hashtags and followers (Conover et al., 2011; Golbeck & Hansen, 2011). However, the present study is the first to examine whether politically interested and engaged Twitter[®] users identify using ideology or political party. This gap in political communications research informs the following research question:

RQ1a: For Twitter[®] users interested in politics, is partisanship or ideology used to describe the user in Twitter[®] biographies?

RQ1b: Do Twitter[®] users mention a dominant political party or ideology in tweets about the debt ceiling debate?

The Influence of Political Identification

Various contexts have been used to analyze the formation, influence and behavior associated with political identification. However, vote choice is the most common.

Voting choice or behavior refers to how individuals form preferences and an electorate reaches political decisions. Classic democratic theory argued election results and partisan attitudes reflect a rational electorate who desires and is able to form preferences on issues, candidates, and initiatives (Berelson, 1944). This process modeled a deliberative democracy where participants were interested in public affairs, maintained an accurate perception of political realities, engaged in political discourse, and considered the interests of others, the nation, as well as their own when forming preferences. However, early election studies determined political attitudes and voting behavior did not reflect normative democratic theory.

The People's Choice and Voting credited sociological characteristics with determining an individual's vote choice and partisan preferences (Lazarsfeld, Berelson & Gaudet, 1944; Berelson, Lazarsfeld & McPhee, 1954). In this model, socioeconomic status, race, age, geographic region, gender and religion were listed as accurate predictors of vote choice. Campaigns, salient issues and news coverage had little impact on attitudes or electoral decisions. Social and family groupings explained exposure to political information, attitudes and vote decisions. In the sociological model, political attitudes and voting behavior were reinforced, but rarely changed.

Previous theories of voting behavior failed to explain the shift in political opinion favoring the Republican Party marked by the 1952 presidential election (Campbell, Converse, Miller and Stokes, 1960, p. 66). In *The American Voter*, authors attributed Dwight D. Eisenhower's electoral success in 1952 and again in 1956, to evaluations of several characteristics outside a purely sociological model (Campbell et al., 1960, p. 66). In addition to sociological factors, candidate attributes, political groups, domestic

policy, foreign policy, and political parties track record while in office influences political preferences (p. 67). According to Campbell et al. (1960), partisan and group identifications determine long-term voting behavior. Short-term factors include candidate characteristics and salient issues, both of which change each election.

The formation of political preferences and whether they are based on long or short-term factors, reflect how individuals process political information. Campbell et al. (1960) asserted individuals use a “cognitive and affective map of politics” to guide decisions (Campbell et al., 1960, p. 42). In this process, attitudes “are tied in fundamental ways to the properties of the stimulus objects that are perceived” (p. 43). New information is evaluated and assimilated based on an individual’s identification.

Several political scholars have explained identification using an alternative approach, often called revisionist models. Revisionist models described partisanship as a comparative evaluation of political parties (Abramson et al., 2010, p. 195). This model is similar to its classic counterpart in two significant ways. First, revisionist models focused on how one processes and evaluates new political information (Green, Palmquist & Schickler, 2002, p. 110). Second, partisan identification played a central role in vote decisions (Abramson et al., 2010, p. 195). Revisionists diverge from earlier models regarding the development and structure of partisan attitudes (Green et al., 2002; Abramson et al., 2010).

Revisionist approaches credit both past and present evaluations with determining partisan identification and directing voting behavior (Abramson et al., 2010, p. 196). In *An Economic Theory of Democracy* (1957), Anthony Downs argued that voters base preferences on the perceived benefits expected from one party being in power versus

the other. Downs argued that citizens form preferences by incorporating the information they receive into their conception of an ideal society. According to V.O. Key Jr., (1966), if voters fail to encounter information challenging their predispositions or perceive both parties as offering similar benefits, vote decisions are based on partisan identification. Morris P. Fiorina (1981) described partisanship as a summary evaluation of the political past. Similarly, Achen (1992) posited that continuously updated observations would eventually lead voters to choose the political party that habitually resonated with their worldview.

Revisionist theories challenged previous theories in several ways. Earlier models credited social identification and psychological processes with determining partisan affiliation (Berelson, Lazarsfeld, & McPhee, 1954; Campbell et al., 1960). According to Green, Palmquist, and Schickler (2002), revisionist studies focused on how individuals obtain and assimilate new political information. These approaches highlight the dynamic relationships among partisanship and perceptions, evaluations and ultimately candidate and policy preferences (Abramson et al., 2010, p. 207).

Converse (1964) argued most Americans' attitudes are inconsistent and do not reflect a true ideological position or identification. For those who identify with a particular ideology, Conover and Feldman (1981) contend these attitudes reflect evaluations of symbols associated with groups, mainly political parties. Therefore, partisanship remains the core component influencing political attitudes and behavior. As previously mentioned, only a small fraction of individuals use ideology to structure their political attitudes.

The confluence of identification and political sophistication influences an individual in several ways. First, identification and political sophistication impact an individual's response to the political environment. Informed individuals are more responsive to political polarization among political elites than lesser-informed individuals (Niemi, Weisberg & Kinball, 2011). Secondly, these components guide an individual's vote choice. Lesser-informed individuals are more likely to make voting decisions inconsistent with their interests (Niemi et al., 2011). Lastly, identification and sophistication shape an individual's choice of media or political information, a topic that will be addressed later in this review. More recent research has examined how attitude structure may influence the flow of political information on Twitter[®].

Wu, Mason, Hofman and Watts (2011) determined the differences in attitude structure led to differences in content produced by users on Twitter[®]. Political elites are a small and focused group, however Twitter[®] affords them the ability to expand the reach of their messages through politically aware intermediaries (Epstein and Kraft, 2010; Wu et al. 2011). Wu et al. (2011) advocated that future research analyze how this information flow influences political attitudes and dialogue across this channel on Twitter[®]. In an effort to fill this gap in research, the present study examined attitudes and attributes expressed in tweets generated by politically aware users.

Political Attitudes

Cacioppo, Petty and Bertson (1991) defined attitude as "a general evaluative response or disposition to respond" (p. 799). Often political attitudes focus on an individual's evaluation toward candidates, issues, institutions or groups (Clawson & Oxley, 2013). Through political socialization, individuals acquire information early in life that establishes political attitudes, ideological values and party preferences (Downs,

1958). During both their formation and evolution, attitudes and their attributes are shaped by information (Erickson & Tedin, 2007). Generally, political attitudes endure over time, shifting mainly with transformations in socio-economic status, education, events or other life-altering changes.

The influence of political attitudes on the behavior, preferences and information processing is attitude strength (Abelson, 1995). Public opinion research has evaluated attitude strength by analyzing attitude attributes individually and in relation to one another (Krosnick, Boninger, Chuang, Berent & Carnot, 1993). Some of these attributes are studied directly using self-reports, while others rely on inferences derived from interviews or expressions (Abelson, 1995). Both approaches have analyzed attitude direction and importance (Abelson, 1995; Clawson & Oxley, 2013). Direction refers to whether an individual supports or opposes an attitude object, while importance indicates the saliency of an attitude (Abelson, 1995; Clawson & Oxley, 2013; Krosnick et al., 1993). The absolute value of an attitude position, regardless of the direction, indicates how far an attitude deviates from neutrality. The present study conceptualized extreme positions as the extent to which an attitude deviates from neutrality. To examine whether these positions were significant and their presentation in tweets, the present study analyzed the use of persuasive strategies and expressions of behavioral intent in Twitter[®] messages. This section details these conceptions and their relationship to one another and their manifestation in Twitter[®] messages.

Extremity

Attitude extremity refers to “the extent to which an individual’s attitude deviates from the midpoint of favorable-unfavorable dimension” (Krosnick et al., 1993, p. 1132). The direction of an attitude’s position is irrelevant. Extremity refers to whether an

individual's attitude toward an object is positioned at the midpoint, positively or negatively along an attitude scale (Binder et al., 2009; Smith, 2003). According to Smith (2003), simple solutions and ideological consistency are the core criteria for possessing politically extreme attitudes. Extreme attitudes can emerge anywhere along the ideological continuum (Smith, 2003). However, his study found that conservatives were more likely to hold ideologically consistent dispositions, thus, are more inclined to hold extreme attitudes than moderates or liberals.

To better understand the role of political communication on attitude extremity, Binder, Dalrymple, Brossard, & Scheufele (2009) questioned if participation through engaging in political discussions led to or was the result of political extremity. Their study found that interpersonal discussions solidified preferences and led to political extremism (Binder et al., 2009, p. 333). The micro-blogging site Twitter[®] mirrors the interpersonal discussion setting. These findings support earlier research that uncovered correlations between political discussion and extremity (Krosnick et al., 1993). Zaller (1992) contended individuals update political attitudes when called on to do so through political participation, including discussion. At this time, political elites “activate” components of party identification including biases and values (Goren, 2005, p. 895). When activated, individuals rely on values when shaping their attitude position. The saliency of these values and an individual's propensity for extremity can have a persuasive affect on politically attentive and aware individuals.

Persuasive Strategies

To describe how political information, particularly persuasion, is expressed in tweets, the present study examined rhetorical strategies. “Rhetoric is emotional persuasion” (O’Shaughnessy, 2004 p. 65). Twitter[®] messages that use affective

appeals indicate persuasion, possibly persuasion that incites political extremity. The partisan source cues and ethos appeals in linked-content are likely predictors of this type of opinion expression (Mondak, 1993). According to Chilton (2004), candidates create relationships with their opponents through this discourse (p. 201). Chilton (2004) argued that messages are be structured to symbolize group identities, promote certain representations, and define political associations. Similarly, Gamson (1992) claimed these messages are “teachers of values, ideologies, and beliefs and provide images for interpreting the world” (p. 24). These messages can affect the nature and structure of attitudes. Political persuasion that reinforces political attitudes may be the most powerful because it has the potential to mobilize vested individuals.

According to Campbell et al. (1960), attitude attributes include evaluative expressions and expressions associating a political policy with enhancing or denying a value or values. Similarly, emphasizing one political value (Brock et al., 2005; Campbell et al., 1960; Gusfield, 1962; Smith, 2003) and linking self-interest to the value and the associated political issue are manifestations of attitude intensity. Intensity is also expressed by associating compromise or negotiation with dishonor (Gusfield, 1962, p. 22), denying the legitimacy of a political institution (Gusfield, 1962 p. 23), closing off the deliberation process to individuals with other political views (Gusfield, 1962, p. 23) and proposing an end to political institutions, processes and procedures (Gusfield, 1962, p. 23). Other attributes include the oversimplification of complex or ambiguous issues including a single, narrow explanation for the current political climate (Brock, Huglen, Klumpp and Howell, 2005; Smith 2003). Additionally, Campbell et al. (1960) and Binder et al. (2009), a perceived stake in an issue or the political values salient to that issue, is

likely to spur attitude expressions. These statements indicate the dialogue, strategy and content pattern related to political extremism.

On Twitter[®], users create relationships among their attitudes and opposing viewpoints through communications, incorporating other media content and following other users (Binder et al., 2009). For politically attentive users, these relationships may have a persuasive effect based on the receiver's predisposition and what the communicated message reflects or references. The present study focused on the persuasive strategies expressed in Twitter[®] messages, regardless of whether the expression represents a user's true attitude, they advocate on behalf of the expressed position.

Behavioral Intent

Several studies have analyzed how the confluence of political identity, attitude attributes and political information influences and guides behavior (Binder et al., 2009; Campbell et al., 1960; Goren 2005). Since its creation, Twitter[®] has afforded users an additional avenue for political behavior. Political, communications and technology research has analyzed user behavior and its relation to political attitudes (Bode, Hanna, Sayre, Yang & Shah, 2011; Tumasjan, Sprenger, Sander and Welp, 2010). On Twitter[®], citizens can engage with elected officials, disseminate information and mobilize groups for a cause (Bode et al., 2011; Hendricks & Denton, 2010). Previous research has found that analyzing attitudes, persuasion and behavior identifies how coalitions build support within constituencies, steps that are crucial to maneuvering public opinion to achieve a political outcome (Bode et al., 2011; King, Orlando & Sparks, 2012; Tumasjan et al., 2010).

Tumasjan et al. (2010) used a content analysis to determine whether attitude expressions in tweets reflected the political climate offline. This study found that Twitter[®] could be used to accurately predict election results and “a valid real-time indicator of political sentiment” (Tumasjan et al., 2010, p. p.184). Hendricks and Denton (2010) found that President Barack Obama’s campaign relied on followers to spread the word about offline activities such as speeches, rallies and events. The authors wrote the book, *Communicator-in-Chief* to examine how President Obama’s administration has used online media, including Twitter[®], to mobilize political behavior outside of a campaign context.

The present study has conceptualized behavior as future action or encouragement for others to act. These conceptions stem from Twitter[®]’s use as a strategic mobilization tool during natural or manmade disasters, political revolutions and participation in offline events (Hendricks & Denton, 2010). To better understand whether Twitter[®] users are truly political elites and engage in participatory activities, the present study analyzed behavior outside these specific contexts. The present study will code for mentions of political action, intended action or encouragement for others to take action in tweets.

The Influence of Social Networking Sites on Polarization

According to Zaller (1992), it is when individuals apply political information that they update political attitudes. This application takes shape in the form of participation (Zaller, 1992). An individual’s predispositions and dialogue from political elites impacts whether an attitude is altered (Zaller, 1992). Zaller (1992) contends if political elites disagree, a polarization effect ensues and politically aware individuals will update their original attitudes along partisan and ideological lines. Fiorina, Abrams and Pope (2006)

described a similar process when he referenced sorting. Sorting is a phenomenon that has occurred over time making it more likely that individuals' partisan attitudes align with the associated ideology (Fiorina et al., 2006). However, these measures indicate positions formed through cognitive reasoning and do not capture "the increasing emotional polarization" occurring among political elites across the electorate (Fiorina et al., 2006, p. 69).

Popular press claimed passionate floor speeches and appeals targeting the public that capitalize on fear are an indication of the widespread polarization of America. Several studies have examined how Social Networking Sites (SNS) engage users in both sociological and psychological processes in a manner that fosters political polarization. Conover et al. (2011) analyzed the 2010-midterm elections to understand whether Twitter[®] contributed to polarization online. The authors determined Twitter[®] was highly partisan due to its discourse environment. This study's sample was comprised of tweets collected six weeks prior to Election Day, a time when political cues are highly visible. However, these results may reflect the context of the political study and rhetoric, but not necessarily individual's true positions (Fiorina & Abrams, 2011). The present study offers a unique context to study political attitudes and their influence on polarization. Unlike previous research, the present study analyzed whether Twitter[®] spurs polarization by examining content during national debate about a salient political issue and coded for attitude attributes that contribute to polarization.

RQ2: Are extremity, persuasive strategies or behavioral intent expressed in Twitter[®] messages?

Attitude Strength in Online Political Information

On Twitter[®], users can create relationships by linking content through messages. The present study examined content linked in Twitter[®] messages. Linked content is the hyperlinks incorporated in Twitter[®] messages referring to online media. An example of a tweet with linked content is “Republican stubbornness on debt negotiations will damage economy | The Progressive: <http://t.co/BloQrpq>” (PeopleBrowsr, 2011, July 30). This content may not be a full representation of an individual’s attitudes or preferences. However, its presence forms a picture that may influence the attitudes of other users by incorporating linked content to support their attitudes, enhance credibility, appeal to emotions or invoke fear in others. This process is what Moir (2011) identifies as “perceptual rhetoric.” This framework focuses on the flow of political information from the media to individuals and ones’ expression of opinions to the “external political world” (Moir, 2011, p. 246). This process involves political realities constructed by the media and shared with others (Moir, 2011, p. 246). Iyengar and Hahn (2009) claimed media choice reflects collective attitudes, particularly attitudes of politically aware and engaged groups.

Previous studies have revealed partisanship influences news choice (Iyengar & Hahn, 2009; Stroud, 2010). Several scholars assert the opportunity for selective exposure will encourage Internet users to access information, political or otherwise, that conforms with previously held beliefs and values (Abramowitz & Saunders, 2008; Abramowitz, 2010; Blum, 2011). This type of exposure may lead to the reinforcement of pre-existing attitudes, avoidance of information challenging opposite viewpoints, and an increase in political polarization (Abramowitz & Saunders, 2008; Abramowitz, 2010; Blum, 2011). These approaches conceptualized and operationalized political

partisanship and polarization by choice of media outlet, evaluations of political leaders, and vote choice (Iyengar & Hahn, 2009; Prior, 2006; Stroud, 2010).

Stroud (2010) analyzed selective exposure among partisans and determined their media choice led to polarization. In this study polarization was defined as reactions to President Bush and John Kerry in the 2004 National Annenberg Election Survey. Several scholars challenged this conception of polarization because measure issue positions across the conservative/liberal spectrum, but affective attitudes towards leaders (Fiorina & Abrams, 2007; Fiorina & Abrams, 2010).

Iyengar and Hahn (2009) argue the opportunity and accessibility to choose among several news sources will lead to further polarization. Cognitive consistency theory provides the theoretical underpinning for selective exposure research (Iyengar & Hahn, 2009). The authors conducted an experiment that prompted participants to indicate which news story they would like to read from the following sources: Fox News, NPR, CNN, the BBC, or click "Can't Say." According to Iyengar and Hahn (2009), the fact that a Republicans chose Fox News indicates that the mass electorate is polarized.

The Internet offers its users the ability to select content from a myriad of media choices, but this does not guarantee all choices will reflect political preferences. According to Brundidge (2011), Internet users are exposed to information that differs from their preferences in small amounts and often by accident. Brundidge (2010) defined this advantageous encounter as "inadvertency thesis" and argued neither "human selectivity nor structurally weakened social boundaries, but rather the extent to which the structural boundaries of the contemporary public sphere combine with

selective exposure processes and individual differences to facilitate opportunities for inadvertent exposure to political difference” (p. 681).

Regardless whether content aligns or contradicts one’s attitude, the position expressed in political information is not the only factor influencing attitudes. According to Edwards (1990), it is not position, but affective appeals that are likely to foster attitude change. Affective content is designed to induce an emotional response, an attribute more directly related to attitude than cognitive reasoning (Edwards, 1990). Attitude strength is extent to which these attitudes endure and encompasses both emotional and intellectual engagement (Krosnick & Petty, 1995, p. 3). The present study analyzed emotional and intellectual engagement of attitudes in linked content disseminated in Twitter[®] messages.

By analyzing attitude strength in linked content, the present study examined information that appealed to attitudes emotionally and cognitively. The present study conceptualized attitude strength as using previous research on intensity and certainty. The “strength of emotional reaction provoked by the attitude object” is attitude intensity (Krosnick et al., 1993, p. 1132). An individual’s level of confidence in their attitude being correct is certainty (Krosnick et al., 1993). Gross, Holtz, and Miller (1995) argued, “certainty about an attitudinal belief perpetuates its confirmation” (p. 232). The present study described whether linked content structured using attitude strength was attractive to politically aware and interested Twitter[®] users during the debt ceiling negotiations.

RQ3: What is the role of attitude strength in linked content of tweets in the spread of political information across Twitter[®]?

Issues as Political Cues

The present study examined the use of political issues in Twitter[®] messages. According to Fiorina et al. (2006), issues encouraged political participation, particularly discussion. To understand the dynamics of political discussion, Gamson (1992) argued discourse should be studied within a specific context. “We need to understand what this public discourse says about an issue, since it is a central part of the reality in which people negotiate meaning about political issues” (Gamson, 1992 p. 27). Additionally, by analyzing elements of political discussions, research identifies political cues derived from predispositions or designed to motivate behavior.

As previously mentioned, attitudes about issues are shaped by political predispositions, particularly political party and ideology. This structure creates a foundation for transforming policy issues into political cues. Benoit and Wells (1996) observed this connection is so strong that issue positions influenced voter perceptions of candidates’ moral character and vice versa. This may be an effect of the campaign communication setting. Issues develop a personal tone in an effort to communicate these cues with potential voters (Kaid, 2004). According to Goren, Federico and Kittilson (2009), the impact of these and other cues on attitudes may result in a rise in political extremism. According to Goren et al. (2009), these factors prime individuals to express ideological values that align with political identifications, often a process that leads to extremity. This study analyzed the relationship between issues mentioned in tweets, attitude attributes and linked content that expressed attitude strength to understand how policy issues may influence the polarization process online.

RQ4: What is the relationship between issues and extremism in tweets and between issues and attitude strength in content linked in Twitter[®] messages?

CHAPTER 3 METHODS

The present study employed a quantitative content analysis, that is, the systematic measurement of specified characteristics (Berelson, 1952). It also systematically summarized the partisanship, ideology, extremity, persuasion strategies, behavioral intent and attitude strength in linked content disseminated across Twitter[®] by the users of the social networking site. The present study was completed using manual and computer-assisted coding instruments.

Sample and Units of Analysis

The researcher collected 270 Twitter[®] messages with working hyperlinks from a nine-day period starting July 25, 2011, and ending August 2, 2011. The units of analyses were the Twitter[®] messages, the user's biography and the content linked through each tweet. The sample was collected from PeopleBrowsr[®], a social analytics platform with access to the Twitter[®] firehose, a datafeed of all Twitter[®] messages (www.peoplebrowsr.com). Using the PeopleBrowsr[®] grid platform, the researcher collected a purposeful sample of 500 Twitter[®] messages from each day that contained the keyword "debt." These Twitter[®] messages were published by users in the United States identified to members of the PeopleBrowsr[®] community, "Politics" (www.peoplebrowsr.com). "Communities" are groups of segmented Twitter[®] users based on self-identified interests, hashtags, previous tweets and hyperlinks (Personal Communication with Jonathan Craft, 2012). To understand if these users could be considered political elites, the present study examined how Twitter[®] users identified their political preferences in biographies. To better understand the salience of

identifications, the present study examined tweets for mentions of a political party or an ideology.

The researcher collected a purposeful sample of tweets that contained a working hyperlink to online content that contained text. As the sample was collected, tweets from news-media organizations or without hyperlinks were eliminated leaving an average of 134 tweets per day. A random sample of Twitter[®] messages was selected for each day during the nine-day period using a randomization feature on Microsoft Excel. After randomization, two tweets were eliminated because the linked content contained videos without text; eight tweets were eliminated because they were news organizations or media personalities; six tweets were eliminated because they were duplicate tweets, and 31 tweets were removed that contained non-working links were removed from the sample. Removed tweets were replaced with the next random tweet that met the criteria for that day. The total sample size was 270. Each selection included a tweet, biography and the content linked through Twitter[®] messages.

Coding Instrument

Independent variables included a Twitter[®] user's biography, message and the content linked through his or her tweet. The dependent variables include measures of extremity, behavioral intent expressed in Twitter[®] messages, persuasion strategies expressed in Twitter[®] messages and attitude strength in content linked through tweets. As previously mentioned, the present study relied on both human coders and a computer-assisted content analysis program. Therefore, two distinct measurement instruments were required for this project. For manual coding, the researcher conceptualized and operationalized variables in a codebook and provided coders with a coding form.

The second coding instrument was the textual analysis program, Linguistic Inquiry Word Count 2007 (LIWC2007). LIWC2007 relies on 80 language categories. These categories were designed to indicate a person's psychological, cognitive, physiological or emotional state from written or spoken language (Tausczik & Pennebaker, 2010).

The construction of these categories is based on the evaluations of three different groups of judges chosen from LIWC2007 who evaluated categories derived from dictionaries, thesauruses, questionnaires and lists consisting of research assistants (Tausczik & Pennebaker, 2010, p. 27). To be included in a category, two out of three judges had to agree on its inclusion or exclusions from the list. These trials were completed independently and repeated by a separate group of judges. The second rating phase produced between 93% and 100% agreement on all categories.

Measuring Independent Variables

Twitter[®] users' biographies were coded manually to determine whether or not users identified themselves by incorporating political party or ideology. The categories for partisan identifications were Democrat, Republican, Tea Party and Independent. The content categories for ideology were degrees of progressive, liberal, conservative and moderate self-identifications. A user's gender, if determined, was also coded. The intercoder reliability for these variables is summarized in Table 3-1.

Twitter[®] messages were coded manually to determine the presence or absence of a dominant political party, dominant ideology and issue mentions. The dominant political party and ideology mentioned in each tweet were defined as the first mention in each tweet and manually coded. The issue categories were determined by previous political communications research on debates and political advertisements' relevance to the national economy and federal government. Issues categories included

unemployment, the cost of living, taxes, recession/depression, social security, welfare, Medicare, dissatisfaction with government, healthcare and poverty. During intercoder reliability tests, the welfare category was not observed and was removed. The intercoder reliability for these variables is summarized in Table 3-2.

Measuring Dependent Variables

The dependent variables coded using manual coders were expressions of extremity, persuasion strategies and behavioral intent in Twitter[®] messages. These variables were coded manually to ensure the stated opinion, not its presentation, and were accurately measured according to the definition put forth by Krosnick et al., (1993). According to Krosnick et. al (1993), “Attitude extremity is the extent to which an individual’s attitude deviates from the midpoint of favorable-unfavorable dimension” and includes the following continuums: favorable-unfavorable, good-bad, foolish-wise, and harmful-beneficial (p. 1132). This measure determined whether or not tweets expressed an extreme position in regard to the debt ceiling debate.

Persuasion strategies were operationalized using previous studies’ analysis of language and extremity. Persuasion strategies were coded manually due to their specifications designed by the researcher and the nature of the content. Persuasion strategies included associating compromise with failure (Campbell et al., 1960; Gusfield, 1962, p. 22), denying the legitimacy of a political institution (Gusfield, 1962, p.23), closing off deliberation to other political viewpoints (Gusfield, 1962, p.23), proposing an end to political institutions (Gusfield, 1962, p.23), attributing one factor for causing current conditions (Brock et al., 2005, p. 102; Smith, 2003), emphasizing a single value such as moralism, self reliance, equality (Brock et al., 2005, p. 102; Campbell et. al, 1960; Gusfield, 1962, p. 22; Smith, 2003) and expressing an individual’s self interest are

all at stake (Binder et al., 2009, p. 317). Derailing democratic deliberation, overly expressing sentiment and symbolism and advocating for the overthrow of government entities are also predictors of political extremity (Brock et al., 2005; Gusfield, 1962). Due to the difficulty in identification in a tweet, this was operationalized by inclusion either in closing off deliberation to other viewpoints or proposing an end to political institutions. However, whether these indicators appear in tweets has not been examined. The present study fills this gap in political communication scholarship.

Behavioral intent was conceptualized as the expression of a user's current or future plans or encouragement of other users' current or future plans. Behavioral intentions can be considered as a "call to action" and include such examples as "tweet your congressman" or "vote no on raising the debt ceiling." Other examples include viewing a press conference or engaging in some other form of political participation. Political participation in both digital and offline spaces was analyzed in the present study. These expressions were coded manually because of human coders' ability to identify and measure this concept easily and effectively. Table 3-2 summarizes the intercoder reliability for categories in Twitter[®] messages.

The present study questioned whether Twitter[®] messages and content linked through tweets expressed attitude strength. The lack of theoretical and practical clarity distinguishing affect and certainty makes it difficult for human coders to capture without inducing political bias. The computer assisted content analysis program, LIWC2007, was designed to capture both of these variables and allows for these variables to be combined. Furthermore, it was developed to study emotional, cognitive and structural components in verbal and written language (LIWC2007 Manual). This program offers

an attractive solution to defining and measuring attitude strength, specifically as it relates to affect and certainty. To minimize the bias of measuring attitude strength, this was done using LIWC2007.

In the present study, attitude strength is conceptualized by a linked content's level of intensity. Attitude intensity is "the strength of emotional reaction provoked by the attitude object" while certainty is "the degree to which an individual is confident that his or her attitude toward an object is correct" (Krosnick et al., 1993, p. 1132). For the present study, LIWC2007 assessed attitude strength by measuring certainty and affective processes in content linked through a tweet. The variable certainty consists of 83 different words such as "always," "never," "definitely," or "apparently" (Tausczik & Pennebaker, 2010). In LIWC2007, certainty is a part of the larger category of cognitive processes. The category of affective processes combines positive emotion and negative emotion. Negative emotion consists of the smaller variables anxiety, anger and sadness. The statistical software program, Statistical Package for the Social Sciences (SPSS), was used to examine the relationship between affect and certainty in the present study. These two variables were found to have a strong correlation ($r = .74$).

Coding Procedure

Coder Training and Pretest

Twitter[®] biographies and messages were manually coded at separate times from one another. Therefore, the present study required two separate training sessions and intercoder reliability tests. For each session, two coders were trained in a 45-minute session. During these sessions, the researcher explained the coding scheme and operationalized each variable. After coders became familiar with the schemes, a pretest was conducted. Using a coding sheet, coders analyzed Twitter[®] biographies

and messages for clarification of the coding procedure and agreement. For biographies, the process required 5 sample units and 10 units for messages. Following the training, coders received a randomly selected sample set for intercoder reliability testing.

Due to the present study's requirements for its data set, the units of analysis, which were coded during reliability testing, were incorporated into the full sample. According to Lombard, Synder-Duch and Bracken (2010), this sample can be incorporated into a study after "having the researcher or other expert serve as a tie-breaker, or discussing and resolving the disagreements" (p. 4). This approach was utilized to solve disagreements and allow the reliability sample to be incorporated into the full sample set. The following section provides a more detailed description of the coding process for each unit of analysis: Twitter[®] biographies, messages and linked content.

Coder Independence

To maintain objectivity, coders completed their analysis separately and independently of one another. Similarly, the present study's units of analysis were coded separately. All Twitter[®] biographies were coded at the same time and independent of one another as were all Twitter[®] messages.

Intercoder Reliability

Coders analyzed 10% or 27 units that were randomly selected from the present study's sample set. The reliability calculator for 2 coders (ReCal2), which is "an online utility that computes intercoder/interater reliability," was used to determine reliability levels using Krippendorff's Alpha (Freelon, 2008, para. 1). After the first test for intercoder reliability, coder disagreements were assessed and resolved. As necessary,

the researcher made alterations to the coding guide. Subsequently, coders independently and separately coded an additional 10% of the sample. At this point, adequate intercoder reliability levels were achieved for variables measured in each unit of analysis.

Biographies

Initial intercoder reliability was weak due to inaccurate measurement levels and coding categories, which were not mutually exclusive. The initial scheme required coders to account for the presence or absence of party and ideological identification and also offered “other” as a coding option. Krippendorff’s alpha severely punishes presence or absence measurement levels in a covariant set. For example, if coders seldom observe “social conservative” and fail to agree on the few instances this ideological identification manifests itself, intercoder reliability will be lower when using Krippendorff’s alpha.

Additionally, this study’s initial categories inadvertently did not adequately capture users’ predominant ideological identifications as intended. Initial categories included very liberal, libertarian, social conservative and extremely conservative. These identifications were pared down to conservative, moderate, liberal and progressive. “Progressive” was retained due to its prevalence on Twitter[®]. Following these amendments to the coding guide, intercoder reliability was strong for gender, partisanship and ideology. Intercoder reliability is reported in Table 3-1.

Twitter[®] messages

After the initial 10% of tweets were coded, intercoder reliability was strong for a majority of the variables. However, after coding an additional 10% of the sample size, weaker intercoder reliability demonstrated several limitations with the coding scheme for

Twitter[®] messages. For example, offering “not applicable” as an option for questions regarding extremism, issues and valence toward issues multiplied coding errors. Additionally, the focus of each tweet is the debt debate. Therefore, requiring coders to indicate a separate focus or secondary topic was superfluous, particularly due to the lack of specificity inherent in Twitter[®] messages’ 140-character limitation. After secondary topics were eliminated, intercoder reliability improved using the adjusted coding scheme. Reliability indices are reported in Table 3-2.

Linked content

Computer-assisted programs cannot approach reliability measurements in a similar manner as other assisted content analysis methods can. For the textual analysis program LIWC2007, developers use a psychometrically validated internal dictionary program consisting of 80 different word categories. The LIWC2007 determines the rate at which words belong to psychological, affective, cognitive or structural categories (Tausczik, Y. & Pennebaker, J., 2009). The statistical software program SPSS was used to calculate the internal consistency of the two variables affect and certainty. “Affect” is a category consisting of positive emotion and negative emotion. Negative emotion includes anxiety, anger and sadness. These variables, combined with certainty, created six items that were tested for reliability. Cronbach’s alphas for these six items were .57. While the reliability is lower than ideal, Tumasjan, A., Sprenger, T., Sander, P., and Welpe, I. (2010) used LIWC2007 to successfully predict an election outcome. Tumasjan et al. (2010) analyzed political sentiment online using LIWC2007 and determined that “Twitter[®] can be seen as a valid real-time indicator of political sentiment” (p. 184). Thus, the conceptual nature of these variables suggests they should be examined together, albeit with caution.

Data Analysis

After intercoder reliability was achieved, attributes were collapsed into 12 variables for data analysis. Coding variables included user party identification, user ideology identification, user gender identification, type of post, issue mention, dominant party mention, dominant ideology mention, extremity, behavioral intent, persuasion strategy, hashtag and attitude strength in linked content. Data analysis was conducted using SPSS. Chi-Square and independent sample t-tests were used to examine the present study's research questions.

Table 3-1. Intercoder reliability indices for Twitter[®] user biographies

Variable	Reliability
Political party	0.88
Political ideology	0.87
Gender	0.76

Table 3-2. Intercoder reliability indices for Twitter[®] messages

Variable	Reliability
Tweets: Type of post: Retweet	1
Tweets: Type of post: Reply or mention	0.85
Tweets: Issues: Unemployment/lack of jobs	1
Tweets: Issues: Cost of living	1
Tweets: Issues: Taxes	1
Tweets: Issues: Recession/depression	1
Tweets: Issues: Social Security	1
Tweets: Issues: Medicare	1
Tweets: Issues: Dissatisfaction with government	0.82
Tweets: Issues: Healthcare	1
Tweets: Issues: Poverty	1
Tweets: Dominant party	0.91
Tweets: Valence toward party	0.95
Tweets: Ideology	1
Tweets: Valence toward individual	1
Tweets: Valence toward emphasized issue	0.95
Tweets: Extremity	0.86
Tweets: Call to action	1
Tweets: Associates negotiation or compromise with failure	0.84
Tweets: Denies the legitimacy of political institution	0.8
Tweets: Closes off deliberation process to other political viewpoints	0.85
Tweets: Proposes end to political institutions, processes and procedures	0.79
Tweets: Attributes one factor for causing current conditions	1
Tweets: Emphasis on single value such as moralism, self reliance, equality, etc.	0.79
Tweets: Expresses self-interest is at stake	1
Tweets: Hashtags: Does the story mention another user or subject using #?	0.90
Tweets: Top progressives: #topprogs	1
Tweets: Progressive: #p2/#p2b	1
Tweets: Top conservative: #tcot	1
Tweets: Organized Conservative Resistance Alliance: #ocra	1

Note: "Welfare" and #compromise, a hashtag promoted by President Obama during an address, were not observed in Twitter[®] messages. It is important to note the absence of these variables despite their exclusion in the present study.

CHAPTER 4 RESULTS

The present study analyzed three separate units of analysis: user biographies, user tweets, and content linked in tweets that consisted of 12 different variables. Table 4-1 summarizes users' self-identifications of political party, ideology and gender in Twitter[®] biographies. Table 4-2 summarizes the findings of six categories analyzed in tweets: issues, political party, ideology, extremity, behavioral intent and persuasion strategies. For linked content, Table 4-3 summarizes findings for the remaining category, attitude strength. The following sections will address each research question by outlining variable construction based on the present study's coding categories and will also report the descriptive statistics of the study sample.

The first research question analyzed whether Twitter[®] users interested in politics describe themselves using partisan or ideological terms in Twitter[®] biographies. Coders found that 8.5% ($n = 23$) of users' self-descriptions contained a political party. Political party was defined as biographies that identified the user as a member of the Democratic, Republican or Tea Party as well as indicating the absence of partisanship by identifying as an Independent. Ideology categories included progressive, liberal, moderate or conservative. Coders found that 24.1% ($n = 65$) of Twitter[®] users identified themselves incorporating ideology. To compare the relationship between party identification and ideology among Twitter[®] users, a Chi-square analysis was used. The results were not significant ($\chi^2 = .557, p = .456$). Users interested in politics are not more likely to describe themselves using one identity instead of another in Twitter[®] biographies.

Additionally, the second part of this research question examined whether tweets mention a dominant political party or ideology. A dominant political party was mentioned in 51.9% ($n = 140$) and a dominant ideology was mentioned in 4.8% ($n = 13$) of the 270 tweet samples. Due to the low cell counts within the ideology category, no analysis could be conducted. Table 4-4 summarizes these results.

The second research question explored expressions of extremity, behavioral intent or persuasive strategies in tweets. Extremity was expressed in 30.7% ($n = 83$) Twitter[®] messages. Coders were asked to determine behavioral intent based on whether a “call to action” was expressed in Twitter[®] messages. A “call to action” was expressed in 4.8% ($n = 13$) of tweets and encouraged other users to watch a presidential address, contact their U.S. congressional representatives or engage in a political activity. Persuasion strategies included were observed in 22.2% ($n = 60$) of tweets.

Three chi-square analyses were conducted comparing extremity versus persuasion strategies, extremity versus behavioral intent and behavioral intent versus persuasion strategies. The results for these tests are summarized in Tables 4-5, Table 4-6 and Table 4-7. For behavioral intent, no significant relationships occurred between extremity and persuasive strategies. For tweets that expressed extremism, these messages were significantly more likely to use persuasive strategies than tweets, which did not express extremity ($\chi^2 = 38.489$, $df = 1$, $p < .001$).

The third question analyzed the role of attitude strength in linked content in the spread of political information across Twitter[®]. An independent sample t-test was conducted to compare attitude strength in linked content in tweets that expressed extremity, persuasive strategies and behavioral intent. These findings are presented in

Table 4-8. Significant differences emerged for two of these conditions: Tweets that expressed extremity ($M = 5.81$, $SD = 3.15$) were significantly more likely than tweets that did not express extremism ($M = 4.81$, $SD = 2.18$) to link to content that expressed attitude strength, $t(268) = 3.04$, $p = .003$ (equal variances assumed). Twitter[®] messages which incorporated persuasion strategies ($M = 5.8$, $SD = 3.44$), were significantly more likely to link to content that expressed attitude strength than tweets that did not use persuasion strategies ($M = 4.91$, $SD = 2.21$); $t(73) = -2.005$, $p = .049$ (equal variances not assumed).

The fourth research question examined issue mentions in tweets. Coders catalogued the mention of 10 issues that were identified as salient to the debt debate and prevalent in previous political communication studies (Banwart & McKinney, 2003). Unemployment/lack of jobs, cost of living, taxes, recession/depression, social security, Medicare, dissatisfaction with government, healthcare and poverty were mentioned in 27.8% ($n = 75$) tweets. For tweets that expressed extremism, it is significantly more likely that these tweets mentioned an issue ($\chi^2 = 72.645$, $df = 1$, $p < .001$) than those without extremism. Also, Twitter[®] messages, which mentioned issues ($M = 5.83$, $SD = 3.26$) were significantly more likely to link to content that expresses attitude strength than tweets that did not mention issues ($M = 2.83$, $SD = 2.18$) in tweets; $t(268) = -2.901$, $p = .004$. See Tables 4-9 and 4-10 for a summary of these results.

Table 4-1. Frequencies in Twitter[®] user biographies

Variable	Count	Percentage
Political party	23	8.5
Ideology	65	24.1
Gender	120	44.4
<i>Male</i>	87	32.2
<i>Female</i>	33	12.2

Table 4-2. Frequencies for Twitter[®] messages

Variable	Count	Percentage
Issues	75	27.8
<i>Unemployment/lack of jobs</i>	1	0.4
<i>Cost of living</i>	3	1.1
<i>Taxes</i>	9	3.3
<i>Recession/depression</i>	5	1.9
<i>Social Security</i>	2	0.7
<i>Medicare</i>	1	0.4
<i>Dissatisfaction with government</i>	57	21.1
<i>Healthcare</i>	1	0.4
<i>Poverty</i>	4	1.5
Political party	140	51.9
Ideology	13	4.8
Extremity	83	30.7
Behavioral intent	13	4.8
Persuasion strategies	60	22.2
<i>Associates compromise with failure</i>	9	3.3
<i>Denies the legitimacy of a political institution</i>	24	8.9
<i>Closes off deliberation process to other viewpoints</i>	13	4.8
<i>Proposes an end to a political institution</i>	2	0.7
<i>Attributes one factor to causing current conditions</i>	16	5.9
<i>Emphasis on one single value</i>	2	0.7
<i>Expresses self-interest is at stake</i>	4	1.5

Table 4-3. Frequencies for attitude strength in linked content

Variable	Mean	Standard deviation
Attitude strength	5.12	2.56
Affect	4.18	2.36
<i>Positive emotion</i>	2.3	1.32
<i>Negative emotion</i>	1.82	1.74
<i>Anxiety</i>	0.30	0.40
<i>Anger</i>	0.69	0.84
<i>Sadness</i>	0.46	0.94
Certainty	.93	.71

Note: The variable “attitude strength” is a combination of affect and certainty. The variable “affect” is the combined variables of positive emotion, negative emotion, anxiety, anger and sadness.

Table 4-4. Comparison of political party and ideology mentions in Tweets

		Ideology mention		No ideology mention	Total
Political party	Yes	Count	11	129	140
		%	7.9%	92.1%	100%
	No	Count	2	128	130
		%	1.5%	98.5%	100%
Total		Count	13	257	270
		%	4.8%	95.2%	100%

Table 4-5. Comparisons of extremity and persuasive strategies

		Persuasion strategies		No persuasion strategies	Total
Extremity	Yes	Count	38	45	83
		%	45.8%	54.2%	100%
	No	Count	22	165	187
		%	11.8%	88.2%	100%
Total		Count	60	210	270
		%	22.2%	71.8%	100%

χ^2 (1, N = 270) = 38.489, (p < .001)

Table 4-6. Extremity and behavioral intent

		Behavioral intent		No behavioral intent	Total
Extremity	Yes	Count	6	77	83
		%	7.2%	92.8%	100%
	No	Count	7	180	187
		%	3.7%	96.3%	100%
Total		Count	13	257	270
		%	4.8%	95.2%	100%

Table 4-7. Persuasion strategies and behavioral intent

		Behavioral intent		No behavioral intent	Total
Persuasion strategies	Yes	Count	4	56	83
		%	6.7%	93.3%	100%
	No	Count	9	201	187
		%	4.3%	95.7%	100%
Total		Count	13	257	270
		%	4.8%	95.2%	100%

Table 4-8. Attitude strength in linked content found in tweets that express extremity, persuasion strategies and behavioral intent

					Attitude strength		
		N	Mean	Standard deviation	t	df	p
Extremity	Yes	83	5.81	3.15	3.04	268	.003*
	No	187	4.81	2.18			
Persuasion strategies	Yes	60	5.85	3.44	-2.005	73.373	.049*
	No	210	4.91	2.21			
Behavioral intent	Yes	13	5.79	2.31	.972	268	.332
	No	257	5.08	2.57			

t(73.373) = -2.005, p = .049; t(268) = 3.039, p = .003

Table 4-9. Comparing extremity and issue mention in tweets

		Issue mention		No issue mention	Total
Extremity	Yes	Count	52	31	83
		%	62.7%	37.3%	100%
	No	Count	23	164	187
		%	12.3%	87.7%	100%
Total		Count	75	195	270
		%	27.8%	72.2%	100%

χ^2 (1, N = 270) = 72.645, (p < .001).

Table 4-10. T-test attitude strength and issue mention

		N	Mean	Standard deviation	Attitude strength		
					t	df	p
Issue mention	Yes	75	5.83	3.26	-2.901	268	.004*
	No	195	4.84	2.18			

t(268) = -2.901, p = .004

CHAPTER 5 DISCUSSION AND CONCLUSION

The present study found a strong nexus between extremity, persuasion strategies, issue mentions and attitude strength.

Tweets that expressed extreme positions were more likely to mention issues and incorporate persuasion strategies than non-extreme tweets. Also, tweets that linked to online content, which expressed attitude strength were more likely to incorporate persuasion strategies and issues than tweets that linked to content not expressing attitude strength. Finally, tweets with extreme political attitudes were linked to content that expressed attitude strength more often than Twitter[®] messages that did not express extremity. This chapter describes these relationships and discusses how they impact the polarization process across Twitter[®].

Extremity in Twitter[®] Messages

One-third of the tweets in the present study's sample expressed extreme attitudes in regards to the ongoing negotiations. This is slightly higher than the estimated number of Americans who hold extreme viewpoints offline (Fiorina, et al., 2006). This slight increase is not surprising because extremity is linked to political discussion and participation in addition to polarization. These results extend previous studies findings that suggest Twitter[®] is a "micro-blog with the ability to spur polarization (Conover et al., 2011). The present study observed tweets that expressed extreme attitudes were significantly more likely to incorporate strategies, language and content to support their position. For the polarization process to take effect, extreme attitudes must be maintained or enhanced over time (Abelson, 1995).

The present study determined extreme attitudes were at the very least maintained, if not enhanced on Twitter[®] from July 25 through August 2, 2011, regarding the debt ceiling negotiations since there was a slightly higher percentage of extreme tweeters in the sample than the estimated number of extreme Americans generally. According to Binder et al. (2009), deliberation and expression of political preference influence attitude strength, while discussion solidifies preferences and leads to extremism. Applying Binder et al.'s (2009) findings to the present study, Twitter[®] messages that express attitudes should encourage extremity. The encouragement of extreme positions fosters and leads to polarization (Abelson, 1995). While the present study was not designed to determine whether or not expression leads to extremity, it does describe how incorporating political information and persuasion strategies may encourage extreme attitudes on Twitter[®].

Extremity and Persuasion Strategies

The present study observed that tweets expressing extreme attitudes advanced their position using persuasive strategies. The present study found that Twitter[®] users who expressed extreme viewpoints were more likely to incorporate a persuasive strategy than users that did not express extremism. These strategies are persuasive because they serve as sound bites, buzzwords, or markers that reflect positions along an ideological continuum. Particularly when coupled with extreme positions, these strategies persuade the political middle to move in either direction, thus organizing the political landscape (Brock, 2005, p.110). According to Brock et al. (2005), analyzing these strategies sheds light on attitude change and the motivations that link political participation to ideology.

Persuasion strategies present arguments indicative of an attitude's connection to past and future political behavior. For example, tweets, which deny the legitimacy of a political institution, undermine the ability of pluralist politics to mediate conflicts and favor political participation through extreme channels (Gusfield, 1962, p. 24). According to the blame attribution theory, individuals who attribute one factor for causing a condition are likely to perceive a benefit from acting to change that condition (Zuckerman, 1979; Kelley 1980). For users who expressed these tactics, the cost of voting will be a worthwhile investment because perceived different leadership will change the present conditions (Downs, 1958). While the current study does not liken persuasive strategies to voting, it provides a framework for understanding how messages encourage and foster online participation. These persuasion strategies are linked to extremity showing current political attitudes and may serve as indicators of future political behavior.

Persuasion strategies emerge independently of the current issues of the day and are useful for projecting the future political environment (Brock, 2005, p. 109). If the strategies expressed in the present study are valid indicators, users who expressed persuasion strategies are likely to engage in future political behavior. The current study's results showed users who expressed persuasion strategies were more likely to link to information that expressed attitude strength. If a campaign is looking to mobilize its base online, political messages should target extreme users and those incorporating persuasive strategies with content that expresses attitude strength. These extreme, persuasive users will further the reach of these messages by disseminating this information across Twitter[®].

Extremity and Issue Mention

The present study's findings indicated a strong relationship between issue mentions and extreme attitudes in tweets. The following tweets exemplify this relationship: "debt madness was always about killing social security", "Debt deal a scam, means more taxes" and "US debt gridlock roils markets as stocks fall and gold touches record high." These messages reveal considerations connected to the current salient issue, the debt ceiling debate. Whether media-generated or a true consideration, a message's dissemination reveals that the mentioned issue resonated with that Twitter[®] user and potentially with followers as well.

Alternatively, Twitter[®] users interested in politics may perceive the debt ceiling debate as an opportunity for online political participation, particularly discussing an issue of their choice. The affordance theory, which considers how the environment, individuals' attributes and events interact to guide behavior, provides the framework for analyzing this situation. Twitter[®] users perceived the debt debate as an opportunity to express their position or increase its saliency among the mass public. For one business, the debt debate climate afforded social media marketing opportunities. @Frank_Cava tweeted "How the debt crisis impacts homeowners and buyers."

For political communications research, these findings show that Twitter[®] users interested in politics often combine extreme attitudes with the use of current issues to make their point. For communications practitioners, the present study supports a campaign's use of online micro-targeting strategies. Campaigns have the opportunity to persuade partisan voters when their platform aligns with an individual's issue preference and the individual's position is extreme (Hillygus & Shields, 2008). As opinion-mining

technology continues to emerge, campaigns can effectively target Twitter[®] users who express extreme attitudes and cite current issues to appeal to these users.

Attitude Strength in Linked Content

The present study confirmed a strong relationship among linked content that expressed attitude strength and tweets that expressed extreme attitudes, persuasion strategies and mentioned issues. Findings were minimally significant for persuasion strategies. Content that expressed attitude strength asserted positions using emotion-laden words. These results indicated that the dynamics of the affective online content likely shape the flow of information across Twitter[®]. By analyzing political information linked through tweets, the present study provides insight into levels of attitude strength that resonate with users.

The present study's findings support the theoretical framework linking extremity and intensity as related concepts. Attitude strength indicates how intensely the stated opinion is held. According to Edwards (1990), affective attitude dimensions, including intensity, provoke biased information processing and are related to certain attributes of an attitude object. Applying, this theory to the present study, Twitter[®] users with extreme attitudes may have been attracted to political information that expressed intensity because it complemented their position and confirmed their predispositions. For political communications scholars, this relationship may indicate how Twitter[®] users attitudes are formed and the likelihood they may change in the future. For users who linked content that expressed attitude strength, its affective nature indicates user attitudes were formed under similar conditions (Edwards, 1990). Political strategists could use this knowledge to develop affective rhetoric and target content to Twitter[®] users who express extreme attitudes. These users could further disseminate this

information across Twitter[®] to strengthen a campaign's base or affect general attitude change.

By incorporating content generated by a third party, users have the ability to connect online content to a particular issue. This connection may serve to enhance the credibility of a position, to encourage engagement in an issue discussion or to update attitudes about an issue. For political communications scholars, issues reveal Twitter[®] users' considerations. Affective content may indicate how this information is processed. For campaigns looking to change issue dialogue, these results can provide insight into what type of content will gain traction online.

Partisanship and ideology were not a statistically significant subset of this study sample to determine whether these identifications were related to or influenced political information on Twitter[®]. The lack of connection between partisanship and information flow may indicate the public's overwhelming disgust with all political parties. During roughly the same period of this study, the Pew Research Center found that 72% of survey respondents reacted negatively toward the budget deal and these views crossed both party and ideological lines (Pew Research Center, August 1, 2011). During a political campaign, when voters must choose to vote for a Democratic or Republican candidate, partisan cues and symbols may be more readily apparent. Individuals are better primed to invoke partisanship when updating their political opinions. Campaign strategists may want to further study the connection between extremity, issue mention and partisanship within a campaign context. The majority of the mass public is not extreme, however most individuals disagree with their party on at least one issue and one-third disagree on a salient issue (Hillygus & Shields, 2008, p. 79). As previously

mentioned, partisans who feel strongly about an issue, but who disagree with their party, may be persuaded by a campaign whose platform aligns with these individuals' policy preferences.

Limitations and Future Directions

It is important to address several limitations of this descriptive research. In order for PeopleBrowsr[®] to comply with Twitter[®] policies, data extraction was limited to the last 500 tweets within a given search criteria. Therefore, the generalizability of this study's results is limited because it does not encompass all tweets in a chosen day. However, the information flow across Twitter[®] is repetitive and the sample was purposefully chosen to obtain the last information of that day. Secondly, the reliability for attitude strength was 0.57 using Cronbach's alpha. This level is lower than ideal, so the results relating to that variable need to be interpreted with caution.

Additionally, tweets may contain or reproduce the headline of linked content when a message is shared from an organization's website or retweeted from another user's Twitter[®] feed as opposed to solely user-generated content. A media-generated headline or other forms of automated content do not reflect an individual's true opinions or attitudes. However, the focus of this study was to analyze the flow of political information, as related to attitude strength and extremity, and whether or not that political information incorporated persuasion strategies, party, ideology and issues in tweets. As a result, this limitation should have had a minimal effect on this analysis. Finally, this study looked at only one topic, the debt debate negotiations. Future studies should consider a number of issues, time periods and political contexts.

Despite these limitations, this study provided both political communication scholars and practitioners with a method for analyzing the flow of political information across

Twitter[®]. This study's findings offer the first insight into how tweeting linked content may influence the polarization process online. Future research should work to develop and test methods for measuring extremity and attitude strength online, accounting for Twitter[®]'s 140-character limit. Twitter[®] is a medium that is growing exponentially in its political mobilization potential, so more research is needed to learn about how users employ these key concepts.

Additionally, future research should discern differences in the spread of political information by politicians, the media and other Twitter[®] users. These findings show that more research needs to be done to understand how information influences online political discussions. Extending this study to other topics, such as following an article tweeted by the media, politicians and interest groups, or analyzing how users incorporate linked content when messaging elected officials, or studying hashtags, as they are developed or discussed in online content, would help flesh out these ideas.

Further research into the segmentation and targeting of different publics on Twitter[®] may prove very useful for both the political and commercial arenas. Similar to strategies used in targeted mailing and door-to-door campaigns, voters or potential customers can be identified using multi-modal strategies. For example, new methods of opinion-mining can segment Twitter[®] users based on followers, interests, location and linguistics, which LIWC2007 analyzes to understand a users cognitive and physiological processes. For business application, this data identifies audiences for target specified advertisements or purchase-specific articles and materials. In terms of practical applications, this specialized search identifies potential voters and can determine wedge issues within a group or political party. These data can be used to reach out to

individual Twitter[®] users and their followers. Often, Twitter[®] users look to those they follow for information they find relevant, information that may be used to update their own political attitudes.

The strength of this application as opposed to other similar research is the ability to analyze political attitudes and their attributes using Twitter[®] messages. Unlike survey research, Tweets are organic self-identified statements whether user-generated or retweets unaffected by the atmosphere of a polling environment. Twitter[®] users are operating under their natural conditions, a situation that provides a better indication of an individual's true attitudes. The challenge facing this method stems from the limited number of characters, often leading to difficulty for coding and interpretation. With the 140-character limitation, it is difficult to differentiate agreement, ambivalence, preferences and attitudes. This has generally been a concern for research in the public opinion and political communications fields (Zaller, 1992). However, by analyzing tweets, research is capturing how citizens use information to form preferences and attitudes as this process unfolds and in real-time.

Conclusions

Rather than focusing on political polarization, political communication scholars and strategists should examine attitudes expressed across Twitter[®]. Various approaches have been made to analyze political opinions and attitudes online. Hashtags, followers, and language have been analyzed to gauge extremity and polarization of political opinions or attitudes across Twitter[®]. Little research has considered how Twitter[®] users impact the flow of political information, which is a key component in understanding political attitudes and the potential for a polarization effect.

This study explored attitude strength in linked content as well as expressions of extremity, persuasion strategies, issues and behavioral intent in tweets.

This study has developed a straightforward method for identifying and segmenting Twitter[®] users, based on the information that resonates with them and encourages political action. As previous research has demonstrated, the most likely participators are those who intensely hold extreme opinions. Persuasion strategies and issue mentions relating to extreme positions were observed with both extremity and attitude intensity. A campaign can use this knowledge to introduce issues that will spark political dialogue and invoke engagement, thus motivating political behavior. Campaigns can also mobilize online engagement by identifying which information incites extreme points, persuasion strategies and attitude strength. This can be used for online campaign strategies in the development of communication materials that engage political participation online.

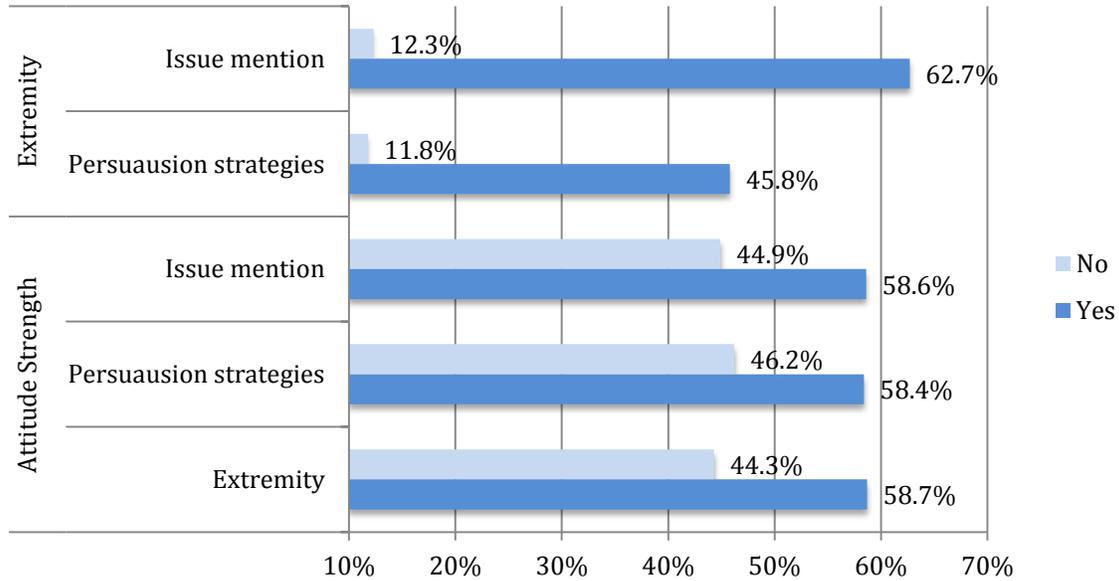


Figure 5-1. Extremity and attitude strength across Twitter[®]. This figure compares the relationships between extremity and issue mentions, extremity and persuasion strategies, attitude strength and issue mentions, attitude strength and persuasion strategies, and attitude strength and extremity. The dark blue “Yes” line indicates the presence of the middle categories (i.e. issue mention, persuasion strategies, and extremity) in tweets also with the presence of either extremity or linked content with attitude strength as referenced on the far left of the figure. The light blue “No” line indicates the presence of the middle categories in either non-extreme tweets or those linked to content lacking attitude strength. The length of the line and percentage indicate the corresponding presence of the middle categories. For example, the first row illustrates the statistically significant finding that issue mentions were present in 62.7% of extreme tweets while only present in 12.3% of non-extreme tweets.

Table 5-1. Critical views cross partisan and ideological lines

	Tone of one-word response (%)			
	Negative	Neutral	Positive	No Answer
Total	72	11	2	15
Republican	75	9	2	14
Democrat	72	13	4	12
Independent	72	11	1	16
Among Rep/lean R				
Tea Party	83	10	2	6
Not Tea	69	10	2	19

Pew Research Center/Washington Post July 28-31, 2011

APPENDIX
CODING GUIDE

Var	Definitions	Coding	Example
	Case number: Unique number identifying each tweet	101, 102, 103, etc.	
1	Coder ID: Name		
2	Biography: User party identification: Whether the user's biography identifies or describes him or herself by incorporating a political party (Choose 1. If more than one listed, choose the first one listed in each tweet.)	1. Democrat 2. Republican 3. Tea Party 4. Independent 99. N/A	"I'm a writer that enjoys blogging, politics, hard news, technology, and writing for other folks. I like to blog and consider myself a liberal Democrat."
3	Biography: User ideological identification: Whether the user's biography identifies or describes him or herself by incorporating ideological positions (Choose 1. If more than one listed, choose the first one listed in each tweet.) 1. Progressive 2. Liberal (left, left-leaning) 3. Moderate (center, middle) 4. Conservative (right, right-leaning) 99. N/A	1. Progressive 2. Liberal 3. Moderate 4. Conservative 99. N/A	"I love my wife, baseball, science, and liberal politics -- mostly in that order." "Opera singer. Blogger. Disciple of the arts, social media, progressive politics and pop culture. Based in Park Slope, Brooklyn with his wife and daughter."
4	Biography: User gender: User's gender is indicated or can be determined from one's biography (Choose 1)	1. Male 2. Female 3. Cannot determine	

Var	Definitions	Coding	Example
5	<p>Tweet: Type of post: Retweet or reply</p> <p>Indicate either 0:absent or 1:present</p> <p>Retweet: RT@username; Republishing someone else's Twitter[®] message</p> <p>Reply: @username; Commenting on another user's Twitter[®] message or replying to another's message</p>	<p>Retweet: 0 absence, 1 presence</p> <p>Reply: 0 absence, 1 presence</p>	<p>Retweets: RT@username</p> <p>Reply: @username</p>
6	<p>Tweets: Issues: Code for the presence or absence of issues</p> <p>Indicate either 0:absent or 1:present for each issue</p> <p>Unemployment/lack of jobs: Mentions unemployment rate, lack of jobs</p> <p>Cost of living: Mentions inflation, compares living costs to previous times</p> <p>Taxes: Mentions federal income taxes on individuals and/or corporations</p> <p>Recession/depression: Specific mention of recession or depression</p> <p>Social Security: Mention of Social Security program</p>	<ol style="list-style-type: none"> 1. Unemployment/lack of jobs 2. Cost of living 3. Taxes 4. Recession/depression 5. Social Security 6. Medicare 7. Dissatisfaction with government 8. Healthcare 9. Poverty 	

Var	Definitions	Coding	Example
6, cont.	<p>Medicare: Mention of Medicare program</p> <p>Dissatisfaction with government: Problematic issues with government structure, institutions or elected officials</p> <p>Healthcare: In general; cost of healthcare, insurance, access to healthcare</p> <p>Poverty: Homelessness, hunger</p>		
7	Tweets: Emphasized Issue: If multiple issues are discussed, is one emphasized more than others?	Please specify	
8	<p>Tweets: Dominant Party: The political party that is the predominant focus of the coded tweet</p> <p>Consider hashtags as well.</p> <p>(Choose 1)</p>	<p>1. Democrat</p> <p>2. Republican</p> <p>3. Tea Party</p> <p>4. Independent</p> <p>99. N/A</p>	
9	Tweets: Valence toward Party: For each, code whether feelings toward attitude object are negative, neutral, positive or N/A	<p>1. Negative</p> <p>2. Neutral</p> <p>3. Positive</p> <p>99. N/A</p>	
10	<p>Tweets: Political Ideology: Among the political ideologies, the coded tweet mentions...</p> <p>(Choose one; If more than one listed, choose first mentioned.)</p>	<p>1. Progressive</p> <p>2. Liberal</p> <p>3. Moderate</p> <p>4. Conservative</p> <p>99. N/A</p>	
11	Tweets: People: List all individuals in the		

	order that they appear in the message.		
Var	Definitions	Coding	Example
12	Tweets: People: Valence toward first individual mentioned: Code whether feelings are negative, neutral or positive toward this person	1. Negative 2. Neutral 3. Positive 99. N/A	
13	<p>Tweets: Extremity: Whether one refers to the debt debate overall as good, bad, wise, foolish, beneficial, harmful or whether one favors or opposes the focus (Krosnik et al., 1993)</p> <p>The object is the dominant focus of each tweet. For each continuum, select the appropriate code or N/A.</p> <p>1: Good, wise, beneficial or favorable 2: Bad, foolish, harmful, opposed 99: N/A</p> <p><u>Good-bad</u>: The dominant topic of each tweet (issue/policy, politician, political institution, political party, self-interest, political event or values) is viewed as extremely good, extremely bad, or neutral.</p> <p><u>Wise-foolish</u>: The dominant topic of each tweet (issue/policy, politician, political institution, political party, self-interest, political event or values) is viewed as extremely wise, extremely foolish or neutral.</p>	<p>1: Good, wise, beneficial or favorable 2: Bad, foolish, harmful, opposed 99: N/A</p>	

Var	Definitions	Coding	Example
13, cont.	<p><u>Beneficial-harmful</u>: The dominant topic of each tweet (issue/policy, politician, political institution, political party, self-interest, political event or values) is viewed as extremely beneficial, harmful or neutral.</p> <p><u>Favor-oppose</u>: The dominant topic of each tweet (issue/policy, politician, political institution, political party, self-interest, political event or values) is viewed as extremely favorable, faces extreme opposition or neutral.</p>		
14	<p>Tweet: Call to action: Indicate whether there is a call to action in each tweet. Choose one answer.</p> <p>The emphasis is on the author stating, "You should" or "I did."</p>	<ol style="list-style-type: none"> 1. Call to action 2. No call for action 	<p>"Join the movement" "Write your congressman" "Stand Up for America" "Tell them to vote No" "Tell them to vote yes" "Protest"</p>
15	<p>Tweets: Persuasion strategies: Indicate either the presence or absence for each strategy listed below.</p> <p>Indicate either 0:absent or 1:present for each issue.</p> <p>Associates negotiation or compromise with dishonor or failure (Campbell et. al, 1960; Gusfield, 1962, p. 22)</p> <p>Denies legitimacy of political institution</p>	<ol style="list-style-type: none"> 1. Associates negotiation or compromise with dishonor or failure 2. Denies legitimacy of political institution 	<ol style="list-style-type: none"> 1. The communist libs tactics are to wear us down,screw them !!!!cut spending!!!!We have not money to raise the debt limit,were are the cuts??? 2. Debt ceiling, just stash it the debt basement under machines that prints money. Come on congress, Arjun would turn over in his grave.

Var	Definitions	Coding	Example
15, cont.	<p>(Gusfield, 1962, p. 23)</p> <p>Closes off deliberation process to other political viewpoints (Gusfield, 1962, p. 23)</p> <p>Proposes end to political institutions, processes, and/or procedures (Gusfield, 1962, p. 23)</p> <p>Attributes one factor for causing current conditions (Brock et al., 2005, p. 102; Smith, 2003)</p> <p>Emphasis on single value such as moralism, self reliance, equality (Brock et al., 2005, p. 102; Campbell et. al, 1960; Gusfield, 1962, p. 22; Smith, 2003)</p> <p>Expresses self-interest is at stake (Binder et al. 2009, p. 317)</p>	<p>3. Closes off deliberation process to other political viewpoints</p> <p>4. Proposes end to political institutions, processes, and/or procedures</p> <p>5. Attributes one factor for causing current conditions</p> <p>6. Emphasis on single value such as moralism, self-reliance, equality</p> <p>7. Expresses self-interest is at stake</p>	<p>3. @count_01 The debt ceiling law should be repealed. Period. And by ignoring that fact we're allowing this whole issue to arise again.</p> <p>4. RT @TheNewDeal: #Retweet to Tell @BarackObama to Grow a Pair and Use the 14th Amendment Option to Raise the Debt Ceiling #TaxtheRich #p2 ...</p> <p>5. @DaneilSperling massive portions of this debt can be attributed to the Bush tax cuts, our defense spending increases</p> <p>6. It is IRRESPONSIBLE for anyone to think that the United States of America should default on its debt. #p2</p> <p>7. RT @Rep_Southerland: President ran up \$3.7 trillion in #debt over 30 months in office. I refuse to hand him a blank check to spend even ...</p>
16	<p>Tweets: Hashtags: Does the story mention another user or subject, using #?</p>	<p>1. Yes (please specify)_____</p> <p>2. No</p>	

Var	Definitions	Coding	Example
17	<p>Tweets: Hashtags: Code for the presence or absence of each hashtag (Conover, 2011).</p> <p>Indicate either 0:absent or 1:present for each issue</p> <ol style="list-style-type: none"> 1. Top progressives: #topprogs 2. Progressive: #p2/#p2b 3. Top conservative: #tcot 4. Organized Conservative Resistance Alliance: #ocra 5. Compromise: #compromise 	<p>#topprogs</p> <p>#p2/#p2b</p> <p>#tcot</p> <p>#ocra</p> <p>#compromise</p>	

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BIOGRAPHICAL SKETCH

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