

DeMOCKracy Now: The Effect of Political Comedy on Knowledge and Ideological Constraint,
A Model of Humor-Triggered Cognition

by

Krysha Dawn Gregorowicz

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Doctoral Committee:

Professor Nicholas A. Valentino, Chair
Professor Ted Brader
Professor Nojin Kwak
Professor W. Russell Neuman

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To Dad

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Abstract

The importance of comedy as a mode of political communication is widely recognized, and the correlation between exposure to political comedy and knowledge has been well documented. Still, empirical research has produced decidedly mixed conclusions about whether, how and for whom political comedy might promote learning and influence attitudes. This dissertation incorporates socio-psychological theories of humor into a model of humor-triggered cognition which produces theoretically derived expectations about the effect of comedy on political sophistication. Political comedy is not merely an alternative news source but a unique communicative form which, by encouraging effortful processing and cognitive engagement, enhances learning and attitude constraint. Further, the strongest effects are predicted not among apathetic citizens incidentally exposed to information, but among moderately sophisticated audiences capable of comprehending and appreciating humorous messages but generally unmotivated to think deeply about politics absent the potential emotional gratification of amusement.

These expectations are empirically tested using both experimental and survey methodologies. A controlled experiment isolates the effect of comedy from the influence of exposure to information by manipulating the presence of humor in political news stories but otherwise holding content constant. Consistent with the model of humor-triggered cognition, experimental results demonstrate that political comedy promotes learning and ideological constraint beyond exposure to identical information in hard news form, and its relative influence

is greatest among those with moderate prior political knowledge. Learning is mediated by the experience of amusement, not perceptions that the (identical) information is more interesting. Secondary survey data are used to replicate experimental analysis and examine the relationship between real-world exposure to political comedy and the structure of political attitudes. Self-reported exposure to political comedy is strongly correlated with several alternative measures of ideological constraint, suggesting that experimental findings are generalizable.

Overall, results indicate that effects of political media depend on the way information is presented. Political comedy enhances sophistication by not only providing important political information but also by arousing and engaging audiences so that they think more deeply about politics, become more ideologically consistent, and are potentially more capable of effective democratic citizenship.

Chapter 1. Introduction

Democracy is best served by political media that are both informative and engaging, but shrinking audiences have inspired concern that traditional news is failing on both these counts. Understanding the effects of political comedy is critically important as citizens increasingly abandon traditional hard news media and turn instead to these alternative sources for information about politics and public affairs. Substantial popular and scholarly attention has been paid to the adequacy and implications of political comedy as a source of political information. However, empirical investigations have drawn inconsistent and often contradictory conclusions: Comedy is informative (Baum, 2002, 2003a, 2003b; Brewer & Cao, 2006), but not on matters of political importance (Baek & Wojcieszak, 2009; Prior, 2003, 2005). Comedy shrinks the political knowledge gap by reducing motivational and resource barriers to learning (Baum, 2002, 2003a, 2003b; Rottinghaus, Bird, Ridout & Self, 2008), but primarily attracts and disproportionately benefits sophisticated audiences (Cao, 2008; Landreville, Holbert & LaMarre, 2010; Morris, 2009; Moy, 2008; Young & Tissinger, 2007; Young, 2008). It encourages viewers to seek further information (Cao, 2010; Xenos & Becker, 2009) from media they come to view as biased and untrustworthy (Baumgartner & Morris, 2006; Holbert, Lambe, Dudo & Carlton, 2007). Comedy draws attention to politically relevant cues (Kim & Vishak, 2008; Xenos, Moy & Becker, 2011; Young, 2004, 2006), yet has no discernible influence on political attitudes (Polk, Young & Holbert, 2009; Young, 2004; 2006; 2008). Viewers are more likely to vote (Cao & Brewer, 2008; Moy, Xenos & Hess, 2005a) in unfair elections (Baumgartner & Morris, 2006), and report

warm feelings toward leaders (Baum, 2005; Moy, Xenos & Hess, 2005b) whom they view as incompetent and dishonest (Baumgartner & Morris, 2006; Guggenheim, Kwak & Campbell, 2011). What should we make of all these findings as we explore the societal impact and value of new media forms in the political realm?

This dissertation attempts to bring clarity to our understanding of the effects of political comedy by offering a theoretical account of *how* exposure might influence knowledge and attitudes. I will argue that a few simple factors—the total volume of factual information one has and nature of the attitudes derived from these considerations—are important building blocks of citizen competence. Thus, evaluating the effects of political comedy on learning and ideological constraint allows the democratic consequences of this non-traditional mode of political communication to be better understood.

Well informed citizens are demonstrably better citizens. They are better able to understand political discourse, fully recognize what is at stake in political controversies, form and articulate coherent attitudes that are meaningful reflections of personal interests and beliefs, and make rational political choices to effectively advance goals. As a result, knowledgeable citizens have a decided political advantage over those who, because they are either unmotivated or unable to pay attention to and learn about public affairs, do not know or think much about politics.

Mass media play an important role in providing citizens with the information necessary for effective political engagement, but are often found to have “minimal effects” because chronic differences in motivation and ability determine what citizens learn and how they interpret and utilize information (Prior, 2007; Zaller, 1992). From this perspective, the mass media environment provides opportunities for learning and determines the mosaic of information

available, but the social distribution of political knowledge is ultimately a function of individual consumption choices, particularly the choice between news and entertainment.

However, political sophistication is not solely determined by the conscious, utilitarian decision to acquire information by consuming hard news. In fact, many of the most politically aware citizens follow politics not out of a high-minded notion of civic duty or in furtherance of any particular goal but because they find politics entertaining (Delli Carpini & Keeter, 1996; Verba & Nie, 1972). Though normative democratic theory places special value and significance on hard news, citizens engage politics through a variety of media, and there is no obvious conceptual distinction between political content delivered via the news versus entertainment programming. In the contemporary mass media environment, the line between news and entertainment is increasingly blurry. Political relevance cannot be determined, a priori, by the source or format of information, but must take into consideration how media are utilized by citizens as they attempt to learn about and make sense of the mediated political world (Delli Carpini & Williams, 2001; Williams & Delli Carpini, 2011).

Perhaps now more than ever, entertainment media may play an important role in shaping what citizens know and how they come to understand politics. In fact, the pursuit of entertainment or amusement does not preclude learning or meaningful engagement with political information. “The idea that serious learning is incompatible with humor has disastrous consequences. It has encouraged dull, ponderous, fact-overloaded presentations of political information in all types of mass media as well as in classrooms and public lectures. Use of such user-hostile formats ignores the fact that learning is stimulated when audiences become involved and aroused” (Graber, 2008, p. 336). Political comedy is not merely an alternative source for important political information but has the potential to enhance competence and sophistication

by presenting information in a way that interests and engages audiences. To understand the democratic consequences of political comedy it is necessary to consider the patterns of cognitive processing and engagement associated with comprehending and enjoying this unique and complex form of political communication.

Goals of This Dissertation

Though political comedy is assumed to be an important source of political information, its effects are not well understood. Empirical work has produced decidedly mixed conclusions about the influence of political comedy relative to traditional news sources. While some suggest that political comedy might inform audiences and enhance competence, others contend that its influence is at best minimal and at worst, by expanding gaps in knowledge and promoting a cynical perspective on the political world, may be potentially harmful. Two primary questions related to the democratic consequences of political comedy motivate the current research:

1. How does political comedy affect political sophistication?
2. Do some citizens benefit, informationally or in other ways, more than others from political comedy?

This dissertation addresses these questions and expands on previous work by incorporating socio-psychological theories of humor into a theoretical framework that explains how political comedy affects knowledge and attitudes. Political comedy is not merely an alternative source of information but a unique and complex communicative form which promotes effortful processing and thoughtful engagement. The model of humor-triggered cognition produces three general expectations about the effects of political comedy:

1. Exposure to political comedy will boost learning and attitude constraint beyond exposure to identical information presented in traditional hard news.
2. Effects will be strongest among those with moderate levels of prior political knowledge.
3. The patterns of cognitive processing and engagement associated with humor comprehension and the experience of amusement will mediate learning and attitude effects.

To test these expectations, this dissertation takes a multi-methodological approach, utilizing both experimental and secondary survey data to investigate the effects of political comedy on knowledge and attitudes. A controlled experiment manipulating the presence of humor but holding information constant allows these effects to be evaluated relative to those stemming from exposure to identical information in hard news form and permits the precise causal mechanism driving effects to be examined. Additionally, because prior political knowledge is exogenous, experimental exposure to comedy facilitates comparison of effects across levels of prior knowledge. While experimental methodology establishes causality, replication with secondary survey data is used to assess the generalizability of effects in the real-world. By leveraging both experimental and survey methodologies, the effects of political comedy on knowledge and attitudes can be fully explored.

Organization of the Dissertation

Chapter 2 lays the theoretical groundwork for the current research. I start by reviewing relevant literature about the importance of knowledge and ideological constraint as indicators of citizen competence and the factors shaping the distribution of political sophistication, focusing

on current debates about the role of mass media and the impact of changes in the media environment. I then describe previous research examining the effects of political comedy on knowledge and attitudes. There is no consensus about how political comedy might influence viewers or whether comedy ultimately expands or attenuates gaps in knowledge and sophistication. To better understand the effects of political comedy, I incorporate socio-psychological theories of humor into a model of humor-triggered cognition. This model produces theoretically driven expectations about whether, how and for whom political comedy affects knowledge and attitudes.

The model of humor-triggered cognition described in Chapter 2 predicts that the patterns of cognitive processing and engagement associated with comprehending and enjoying humor will boost learning, enhance sophistication and promote ideological constraint. Chapter 3 describes a controlled experiment designed to test these expectations. Experimental stimuli manipulating the presence of humor but holding information constant were developed to isolate the effects of comedy from the influence of exposure to information. Pretest results establish the content equivalence of the news and comedy stimuli and rule out potentially confounding factors such as differing perceptions of information or patterns of emotional arousal that may bias results. Experimental methods are well suited to identify media effects, establish causality and test the underlying mechanism driving effects.

The next three chapters describe empirical investigations of the relationship between exposure to comedy and political sophistication. In Chapter 4, an experiment examines the effect of political comedy on information acquisition. Results show that political comedy boosts learning beyond exposure to identical information presented in hard news form. Consistent with my theory, learning is greatest among those with moderate levels of prior political knowledge.

Additionally, mediation analysis indicates that the experience of amusement is the key causal mechanism driving learning. Overall, results are consistent with expectations derived from the model of humor-triggered cognition.

I then shift focus to the effects of political comedy on attitude consistency: the way opinions are organized and linked together in memory. The model of humor-triggered cognition predicts that, compared to traditional hard news, exposure to political comedy will promote more ideologically consistent political attitudes. Chapter 5 describes experimental tests utilizing several alternative measures of attitude consistency to demonstrate the effect of political comedy on ideological constraint. Among those with moderate levels of prior political knowledge, exposure to political comedy results in greater ideological consistency of political attitudes than exposure to identical information in hard news form. In Chapter 6, I use survey data from the 2008 National Annenberg Election Survey to replicate the experimental results on a national sample. Results indicate that the causal relationship between political comedy and ideological constraint can be generalized to the real-world.

The concluding chapter summarizes key empirical findings and elaborates on the contributions made by the current research and how results advance our understanding of political comedy as a source of information and mode of political communication. I also discuss the limitations of the current study, identify several questions that remain unanswered, and suggest directions for future research. I conclude with a consideration of the larger implications of the results for the role of political comedy and mass media, more generally, in democratic discourse. By encouraging attention and thoughtful cognitive engagement, political comedy can promote sophistication and enhance competence. When political information is presented in a way that is both intellectually and emotionally stimulating, citizens are more able to make sense

of the complex and remote political world and are better prepared for effective democratic engagement.

Chapter 2. Political Sophistication, Mass Media and Humor-Triggered Cognition

In a 2009 TIME online poll, 44 percent of respondents rated Jon Stewart, host of Comedy Central's fake news program *The Daily Show*, the most trusted newscaster in America. When asked where they get information about politics, young people mention comedy programs as often as traditional news sources such as newspapers and network television newscasts (Pew 2004, 2012). Such anecdotes have inspired much curiosity and concern from both journalists and scholars about whether or not political comedy can provide viewers with the information necessary to fulfill their democratic obligations as citizens. Political comedy is important not just for the presence of political information, but also because it is a unique communicative form. Comedy has a distinct structure and function, requiring particular patterns of cognitive engagement and processing to comprehend and enjoy. A socio-psychological perspective on humor suggests that political comedy affects not only what people know but also how knowledge is structured in memory and utilized in political judgment.

Political Knowledge and Attitude Formation

A reoccurring theme in evaluations of democratic functioning is concern about the implications of startlingly low levels of political information (Delli Carpini & Keeter, 1996; Downs, 1957; Neuman, 1986). When it comes to the distribution of information in American society, the mean is low and the variance high (Converse, 1990, 2000). Though the amount of information and engagement required for effective citizenship is the subject of contentious

debate, low levels of knowledge exhibited by citizens and its unequal distribution across the electorate are troubling (Neuman, 1986).

The uneven distribution of political knowledge is a cause for concern because information is the “raw material” through which citizens construct their understanding of the political world (Gamson, 1992). In their seminal work, Berelson, Lazarsfeld and McPhee (1954) explain the centrality of political knowledge in normative expectations about democratic citizenship, “The democratic citizen is expected to be well informed about political affairs. He is supposed to know what the issues are, what their history is, what the relevant facts are, what alternatives are proposed, what the party stands for, what the likely consequences are. By such standards the voter falls short” (p. 308). Investigating the phenomenon of partisan voting, Campbell, Converse, Miller and Stokes (1960) echo this concern, arguing that democratic theory assumes that citizens have the information necessary for rational decisions and that they are able to connect policy preferences to the partisan alternatives offered. But citizens with limited understanding of policy controversies may even fail to recognize the policy platforms of political parties.

The importance of political knowledge stems from the role information plays in preference formation. For democracy to work as intended, the choices that citizens make must communicate information about their real interests and preferences. Lacking sufficient information, citizens are less able to comprehend important political questions, form and articulate coherent opinions and fully appreciate the consequences of the choices they make (Converse, 1964; Lippmann, 1922; Schumpeter, 1942). “The less sophisticated the public, the less alert to its interests, the less active and unswerving in pursuit of them, and the less resistant to manipulation from above—the further, in short, from the democratic ideal” (Luskin, 1990, p.

333). Society operates more democratically when citizens are well informed and political information is distributed more equitably (Delli Carpini & Keeter, 1996).

Some have countered concern about low levels of information in the electorate by noting that good decisions can be made even in the nearly complete absence of hard facts (Sniderman, Brady & Tetlock, 1991; Lupia & McCubbins, 1998; Popkin, 1991, 1994). Citizens can compensate for limited knowledge by taking advantage of judgmental heuristics, decision-making shortcuts that simplify complex choices and allow dependable decisions to be made efficiently and with relatively little information (Sniderman et al., 1991). For example, voters may base decisions on their party affiliation (Lodge & Hamill, 1986; Rahn, 1993), the “likability” of a candidate (Brady & Sniderman, 1985), affective responses to stimuli (Lodge & Taber, 2000) or attitudinal cues from trusted individuals and groups (Lupia, 1994).

While heuristics provide an efficient shortcut to decision-making, they do not ensure good choices and may actually increase the likelihood of judgment errors (Kahneman & Tversky, 1972, 1973; Mondak, 1994). In fact, citizens relying on heuristics make choices significantly different than those that would hypothetically be made given more complete information (Bartels, 1996). Low information rationality models are problematic because they assume knowledge of where parties, interest groups or other opinion leaders stand on particular issues and in broader ideological terms, and many citizens lack the type of information necessary for effective use of decision-making shortcuts (Delli Carpini & Keeter, 1996). Partisan or ideological cues are only useful to the extent that they are recognized and provide a reliable indicator of personal interests and political beliefs. Knowledgeable citizens are more likely to encounter cues, are more familiar with the ideological principles, political beliefs and group interests that cues represent, and are better able to interpret and respond to relevant cues as they

make decisions and form opinions (Delli Carpini & Keeter, 1996; Zaller, 1992). As a result, heuristic cues are more reliable judgment guides for well-informed citizens than for those with limited political knowledge (Lau & Redlawsk, 2001).

Online processing models suggest that the volume of information stored in memory is not a strong indicator of well-informed decision-making, and that good choices can be made by updating attitudes in response to new information, even if the specific information that inspired an attitude shift cannot be recalled later (Hastie & Park, 1986; Lodge, McGraw & Stroh, 1989; McGraw, Lodge & Stroh, 1990). From this perspective, an individual may appear uninformed but still express attitudes that are well-reasoned and based on extensive information.

Here to, however, knowledgeable citizens have a comparative advantage relative to those who are less politically aware. For online processing to work as intended, new information must be immediately evaluated and used to update all potentially relevant attitudes. Those who know and have thought more about politics possess a better understanding of how political ideas ‘go together’ and are more capable of recognizing and responding appropriately to elite cues about the implications of new information for personal interests, values and beliefs (Zaller, 1992). Relatively knowledgeable citizens are more likely to have immediately accessible summary evaluations and, thus, can most efficiently and effectively engage in online processing to make political judgments (Lodge & Taber, 2005; Taber & Lodge, 2006).

Whether it is processed online or stored for later use, new information is most beneficial to those with large stores of pre-existing information (Delli Carpini & Keeter, 1996).

Knowledgeable citizens have well developed, highly structured political belief systems that enable systematic and efficient organization and storage of information and guide decision-making (Delli Carpini & Keeter, 1996; Judd & Downing, 1990; Judd & Krosnick, 1989; Luskin,

1990; McGraw, Pinney & Neumann, 1991). Conceived by Converse (1964), political belief systems are, “a configuration of ideas and attitudes in which the elements are bound together by some form of constraint or a functional interdependence” (p. 207). Political sophistication is a function of the total volume of information contained, range of topics covered and degree of interconnectedness or constraint within a political belief system (Luskin, 1987, 1990).

Knowledge and constraint are closely related because the retention and recall of a large volume of diverse information necessitates a highly structured organizational system (Campbell et al., 1960; Converse, 1964; Luskin, 1987, 1990; Neuman, 1986). As Neuman (1986) explains, “one needs a conceptual hook in one’s head on which to hang new information, a cognitive cubbyhole in which to store, compare, and contrast arguments made at different times on similar issues” (p. 18). Political information is most efficiently organized using the same abstract ideological principles that structure elite political discourse. For sophisticated citizens, ideology structures knowledge and provides the framework through which the political world is understood and evaluated (Delli Carpini & Keeter, 1996; Kinder & Sears, 1985; Lusk & Judd, 1988; Luskin, 1987, 1990).

Information held in memory constitutes the considerations available when forming political opinions (Zaller, 1992). To the extent that they are organized by abstract ideological concepts, these considerations will produce attitudes that are constrained by ideology (Converse, 1990). As a result, knowledgeable citizens express attitudes that are stable, internally consistent and reflective of political interests and beliefs (Delli Carpini & Keeter, 1996; Converse, 1964; Lusk & Judd, 1988; Neuman, 1981; Zaller, 1992). Most citizens, however, are unable to connect policy views in an ideologically coherent way, and instead base opinions on whatever considerations happen to be most immediately accessible in memory (Converse, 1964; Zaller,

1992). These top-of-the-head, nonattitudes do not meaningfully communicate information about citizens' needs, interests or beliefs. Thus, uninformed citizens are less able to effectively engage the political system or hold elected officials accountable for their actions.

Though political knowledge constitutes a valuable resource and facilitates more effective citizenship, only a small subset of the population chooses to become informed and actively engaged in politics. There are three broad factors that jointly influence political knowledge: motivation, ability and opportunity (Delli Carpini & Keeter, 1996; Luskin, 1990). "To become highly sophisticated, we must encounter a certain quantity of political information, be intellectually able enough to retain and organize large portions of the information we encounter, and have reason enough to make the effort" (Luskin 1990, p. 335). Motivation, ability and opportunity are shaped by a variety of individual characteristics, predispositions and contextual factors.

Because cognitive resources are limited, learning necessitates tradeoffs, and the costs of attending to information must be overcome by prospective benefits (Conover & Feldman, 1984; Lupia & McCubbins, 1998; Page & Shapiro, 1992; Popkin, 1994; Sniderman et al., 1991). Among the primary motivations for attention and learning are self-interest and the perception of personal relevance (Citrin & Green, 1990; Sears & Funk, 1990, 1991), and the expectation that information will be useful in making some decision (Lupia & McCubbins, 1998). However, the decision to become informed is not necessarily guided by this utilitarian calculus, and it is often possible to make good decisions on the basis of information acquired for reasons unrelated to any particular political question or choice problem (Fiorina, 1990). A sense of civic duty drives some citizens to follow news about politics and public affairs (Almond & Verba, 1963; Delli Carpini & Keeter, 1996; McGraw & Scholz, 1991; Tetlock, 1983; Verba, Scholzman & Brady,

1995). Though not motivated to invest time or effort in staying informed, politically apathetic citizens may encounter low-cost political information as the accidental by-product of non-political daily activities (Downs, 1957; Fiorina, 1990; Popkin, 1991). Conversely, some citizens find politics interesting and are motivated to learn simply due to their enjoyment of politics as a social activity (Delli Carpini & Keeter, 1996; Verba & Nie, 1972).

Information inequalities stemming from differences in motivation and interest are less problematic than those attributable to differential resource constraints that impact citizens' capability to become informed and politically engaged (Verba, 1996). The unequal distribution of political information distorts the quality of representation as those who have this valuable resource are able to exert a disproportionate influence on government (Althaus, 2003; Verba, 1996). There is a troubling correspondence, "between the distribution of political knowledge across the public and the distribution of other valuable resources that are both the source of political power and a consequence of it" (Delli Carpini & Keeter, 1996, p. 174). Information is most abundant among those belonging to traditionally empowered groups—wealthy, educated, white men (Althaus, 2003; Bennett, 1988; Delli Carpini & Keeter, 1996).

These demographic variables may play a causal role in determining the motivation, ability and opportunity to learn (Delli Carpini & Keeter, 1996; Jennings, 1996; Luskin, 1990; Neuman, Just & Crigler, 1992). For example, education expands opportunities for political discussion, improves one's ability to find and process political information and may also increase the motivation to do so by fostering a sense of civic duty (Delli Carpini & Keeter, 1996; Nie, Junn & Stehlik-Barry, 1996). Further, education leads to social connections, career opportunities, income and civic skills which enhance opportunities and ability for political engagement throughout one's lifetime (Nie et al., 1996; Rosenstone & Hansen, 1993;

Schlozman, 2002; Verba et al., 1995). Conversely, belonging to a traditionally disempowered group is associated with decreased opportunity and greater motivational and skills barriers to political engagement (Delli Carpini & Keeter, 1996; Luskin, 1990).

This perspective on political information is highly pessimistic because the variables correlated with knowledge are either unchangeable (e.g. race and gender) or highly stable over the lifespan (e.g. education and income). Though some have suggested that information inequalities might be overcome through mobilization efforts and more equitable access to education (Converse, 1972), higher levels of educational achievement have not corresponded with increased aggregate levels of political knowledge (Bennett, 1989, 1996; Delli Carpini & Keeter, 1996; Pew, 2007). In fact, rather than promote political sophistication, educational attainment may be a proxy for cognitive abilities, family background and early socialization experiences and could actually expand gaps in political knowledge and engagement present in pre-adulthood (Highton, 2009; Kam & Palmer, 2008). Even political interest, among the most powerful dispositional predictors of political knowledge and behavior, is highly stable and resistant to influence (Prior, 2010).

These variables, however, do not tell the whole story. Though much of the social distribution of political knowledge can be explained by “the usual suspects,” demographic variables such as age, income and education (Bennett, 1988), the media environment also influences what people know about politics and how information is utilized (Althaus, 1998; Bartels, 1993; Tichenor, Donohue & Olien, 1970; Zaller, 1992). Dramatic changes in mass media, including the expansion of available options through cable television, the Internet and other new media, may have a profound impact on political knowledge by altering opportunities to become informed, motivational barriers to attention and even the skills and abilities necessary

for learning (Baum, 2003b; Prior, 2007). By changing the relative importance of these factors, new media, especially political entertainment media, might affect which citizens acquire information and become politically engaged. There is debate, however, about how the changing information environment will ultimately impact the distribution of political knowledge.

Informed Citizenship—The Impact of the (New) Media Environment

The traditional view is that the information environment is insufficient to offset inequalities because the “informationally rich get richer” (Price & Zaller, 1993, p. 138). What one learns is dependent on what one already knows. Not only is exposure to new information most likely among the politically engaged, prior knowledge provides the framework through which new information is understood and interpreted (Delli Carpini & Keeter, 1996; Tichenor et al., 1970; Zaller, 1992). Those who are already knowledgeable about politics are better able to evaluate the implications of new information and more capable of incorporating it into long-term memory (Zaller, 1992; see also Petty & Cacioppo, 1986). Thus, as new information enters the environment it is most likely to benefit those who are already well informed, resulting in an expanding knowledge gap (Tichenor et al., 1970).

While individual characteristics and predispositions powerfully shape how much one knows about politics, features of the information environment can also increase or decrease information inequalities by conditioning the importance of opportunity, motivation and cognitive skills. Not all media are created equal in terms of the motivation and skills required for learning, and different formats can have very different effects on the way information is processed and whether and how it is later remembered (Neuman et al., 1992; Petty & Cacioppo, 1986). Some media can increase the information gap while the features of others may reduce information

inequalities (Jerit, Barabas & Bolsen, 2006; Neuman et al., 1992). While television brings political information to otherwise disinterested audiences, it does not seem to have the same positive effect on political knowledge as print media (Chaffee & Frank, 1996; Chaffee, Zhao & Leshner, 1994; McLeod & McDonald, 1985; McLeod et al., 1996; Neuman et al., 1992; Patterson & McClure, 1976). Print news benefits those with high levels of education because they have stronger reading comprehension abilities and are better at identifying important pieces of information and storing key points in long term memory (Graber, 2004; Price & Zaller, 1993; Zaller, 1992). Additionally, the inverted pyramid style of print journalism is concerned with efficient presentation of information, and newspaper stories typically lead with hard facts which require contextual knowledge to interpret (Neuman et al., 1992). Focused on dramatic, emotional and visual elements, television news is more accessible to those with weaker skills and less prior knowledge (Graber, 2004; Jerit et al., 2006; Neuman et al., 1992). As such, newspaper coverage tends to increase knowledge among the most educated and cognitively skilled, while television news has more universal benefits.

Of course, citizens are no longer limited to print newspapers and television news as sources of political information. New media—mass communication forms with non-political origins that have acquired political roles by offering outlets for political discussion and engagement—have further expanded opportunities for political learning (Davis & Owen, 1998). It is unclear, however, whether greater opportunity to learn about politics will promote more universal engagement or primarily benefit citizens with pre-existing interest in politics and public affairs.

Prior (2007) contends that the expansion of the media environment has adverse effects on the distribution of political knowledge because greater opportunity to learn about politics is not

coupled with increased motivation to do so. “Two different paths—accidental exposure and enjoyment of politics—both lead to political learning. Some people learn about politics because they are motivated to do so; others learn because they cannot help it and it is free” (p. 31). According to Prior’s (2007) *Conditional Political Learning* model, the new media environment has made the later path significantly more important than the former because the role of motivation is heavily dependent on the features of the information environment in which one acts. In the era of broadcasting, even those with little interest in politics encountered some political information during the daily television news hour; but in the cable age, citizens with a preference for non-political content can more effectively opt out of the political information environment almost entirely. With widely available entertainment alternatives, consumers can more effectively align media choices with personal interests. As a result, only those with an interest in staying informed will do so. Indeed, wider availability of political information has not coincided with a smaller knowledge gap because new sources are consumed primarily by those already engaged in politics (Davis & Owen, 1998; Pew, 2007). In the high choice new media environment, citizens are divided by their preference for news versus entertainment, and a wide gap in political knowledge has developed between these groups (Prior, 2007).

However, the new media environment provides not only more opportunities to stay informed about politics, but also a greater variety of formats in which political information is available. Recognizing that the way information is presented can affect the ease with which it is learned, Baum (2003b) suggests that new media may motivate interest and lessen the cognitive demands for learning so that the political knowledge gap shrinks. He identifies a puzzle that cannot be explained by the *Conditional Political Learning* model. Specifically, whereas Prior (2005, 2007) contends that the media environment should strengthen the link between interest

and information, in the area of foreign affairs, the opposite seems to be true. That is, despite declining concern about international politics in the post cold war era prior to 9/11, attentiveness to foreign affairs increased.

To explain this phenomenon, Baum (2002, 2003a, 2003b) notes that the line between entertainment and information has blurred and non-traditional media play an increasingly important role in shaping how citizens learn about and understand politics. Whereas knowledge studies have traditionally emphasized the distinct civic function of news as an information gatekeeper, “the opposite of *news* is not *entertainment*” (Delli Carpini & Williams, 2001, p. 162, emphasis in original). Soft news is a news-entertainment hybrid characterized by sensationalized stories, personality-centered coverage, and emphasis on human-interest themes and dramatic subject matter (Baum, 2002, 2003b; Patterson, 2000). Baum (2003b) traces the development of soft news programming to the introduction of cable, satellite broadcasting, the Internet, and a more relaxed regulatory environment, the combined impact of which was a highly competitive media marketplace in which broadcasters could no longer rely on a large audience for dispassionate nightly newscasts. Instead, networks sought to increase news profitability by making it more entertaining and accessible to politically disinterested audiences. In doing so, news was transformed from a civic oriented loss leader into an inexpensively produced, profitable entertainment format.

Several studies find a correlation between exposure to entertainment oriented news programs and knowledge (Baum, 2002, 2003a, 2003b; Brewer & Cao, 2006; Cao, 2008; Kim & Vishak, 2008; Pew, 2004, 2012). According to Baum’s (2003b) *Incidental Exposure Theory*, soft news reduces the cost of receiving political information and, thus, viewers learn as a by-product of being entertained. The development of softer, more entertaining, user-friendly news

formats, “render[s] any tradeoff between being entertained and learning about politics moot by, in effect, transforming a select few of the major political issues of the day *into* the entertainment that people seek” (Baum, 2002, p. 96, emphasis in original). Soft news viewers are not otherwise motivated to learn about politics; however, because political information is presented in an easily digestible, entertaining way, motivational and cognitive requirements are significantly lower than for more complex, hard news formats. Audiences learn as a result of incidental exposure to political information presented within entertainment oriented programming.

Baum (2002, 2003a) finds evidence for incidental exposure looking specifically at foreign policy issues, an area where Americans are consistently found to be woefully uninformed (Delli Carpini & Keeter, 1996; Converse, 1964). Examining a unique case of foreign policy coverage where soft news programs pointed out similarities between the plot of just released movie *Wag the Dog* and President Clinton’s decision to bomb terrorist targets in the midst of the Lewinski scandal, Baum (2003a) finds that those exposed to this coverage, particularly those who would not otherwise follow foreign affairs, reported higher levels of attention to and were more likely to have an opinion about the issue. He finds similar increases in attention in response to soft news coverage of other international affairs issues (2003b).

Politically oriented entertainment can directly impact knowledge through incidental exposure to information, or indirectly promote learning by boosting interest in politics and encouraging further information seeking. The *gateway hypothesis* predicts that the learning effect of political entertainment is mediated by awareness and interest, and that soft news may decrease the knowledge gap by promoting attention to politics among those who might otherwise turn away (Baum, 2003b; Xenos & Becker, 2009). Audience analysis showing soft news to be a supplement to rather than replacement for hard news (Young & Tisinger, 2006) as well as

experimental research showing that exposure to political entertainment leads to information seeking behavior (Xenos & Becker, 2009) lend support to the gateway hypothesis.

Nonetheless, skeptics contend that soft news at best mitigates broader trends of disengagement from news and political information (Prior, 2003, 2005, 2007). Increased interest and awareness do not necessarily translate into greater recall of factual information (Hollander, 2005; Prior, 2005), and information acquisition from soft news is often less than that resulting from exposure to hard news (Baumgartner & Morris, 2006; Kim & Vishak, 2008; Prior, 2003, 2005). Prior (2007) maintains that despite the development of soft news alternatives, incidental exposure is less likely in the high choice media environment than when options were more limited. After all, “for some of the entertainment-seekers, soft news offers the preferred mix of news and entertainment. The important point is that they are former hard-news consumers” (p. 281). Thus, the net effect of soft news should be an expansion of the knowledge gap.

Further, critics indict the content of soft news (Niven, Lichter & Amundson, 2003). Almost by definition, the political content of soft news tends to be limited to scandalous events, relies on cheap, moralistic frames, and emphasizes personality over policy. Consequently, some argue that knowledge gain is limited to trivial matters of personality and scandal as opposed to the type of politically relevant policy issue information assumed in normative models of enlightened democratic citizenship (Baek & Wojcieszak, 2009; Baumgartner & Morris, 2006; Prior, 2003, 2005). Moreover, there is great variance in the amount and type of political content within and characteristic audiences for different political entertainment formats, leading some to call for a more nuanced view of the entertainment landscape and subsequent effects (Delli Carpini, 2012; Feldman & Young, 2008; Holbert, 2005). This is particularly true of a distinct subset of political entertainment—political comedy.

Effects of Political Comedy on Knowledge, Attitudes and Behavior

While certainly not a ‘new’ form of communication, political comedy programs have peaked much scholarly interest given the popularity of television shows like *The Daily Show with Jon Stewart*, *The Colbert Report* and *Real Time with Bill Maher*,¹ as well as the resurgent popularity of *Saturday Night Live* during the election season. The Pew Research Center for The People and the Press has documented the growing importance of comedy programs as sources of political information and exceptions to the general trend of news abandonment by young Americans (2004, 2008, 2010, 2012). By 2012, *The Daily Show* and *Colbert Report* were among the most frequently identified sources of political information for those under 30 (Pew, 2012).

Content analyses have shown that comedy programs such as *The Daily Show* and *Colbert Report* discuss important stories with similar depth to the coverage found in traditional television news (Brewer & Marquardt, 2007; Fox, Koloen & Sahin, 2007; Jones, 2005, 2010; PEJ, 2008; Zukas, 2012). The Project for Excellence in Journalism at the Pew Research Center examined an entire year of content from *The Daily Show with Jon Stewart* and found an agenda closely resembling that of mainstream news sources. However, the political comedy program operates outside of the daily news cycle, and blunt commentary, cutting criticism of the press and partisan imbalance more closely resemble cable news and talk radio than traditional, civic-oriented hard news. They conclude that despite substantive, journalistic coverage of public affairs, *The Daily Show* does not provide a factual accounting of current events and is primarily entertainment rather than news (PEJ, 2008).

Others contend that the entertainment orientation heightens the informative power of political comedy programs. Jones (2005, 2010) considers *The Daily Show* from a cultural studies

¹ Previously *Politically Incorrect*

perspective and, though the implied effect is not empirically tested, argues that the juxtaposition of humor with the serious conventions of reporting and interviewing conveys important information while comically “processing” the news to help audiences make sense of complex political issues. Despite humor and jokes, election coverage on *The Daily Show* is no less substantive than its hard news counterparts, which tend to emphasize the “hype and hoopla” surrounding campaign events (Fox et al., 2007). In fact, the responsibility and morality frames utilized by Jon Stewart are perhaps more useful to viewers than the much maligned horse-race and strategy framing that characterizes most traditional election news coverage (Zukas, 2012). Further, by prominently featuring substantive issue frames in discussions of important political stories and events, *The Daily Show* may enhance political knowledge and promote critical thinking (Brewer & Marquardt, 2007). Not only does comedy present politically relevant information, it does so in a way that may help viewers contextualize information so that it is better understood and more useful in formulating political judgments.

Studies consistently find a correlation between exposure to political comedy and political knowledge, often on par with that associated with hard news (Brewer & Cao, 2008; Cao, 2008; Feldman & Young, 2008; Graber, 2008; Hollander, 2005; Parkin, 2010; Xenos & Becker, 2009; Young & Hoffman, 2009). Relative to similar non-viewers, late-night comedy viewers have higher overall levels of campaign knowledge and are more informed about candidate backgrounds and issue positions (NAES, 2004). Comparing audiences for a variety of traditional and alternative sources of information, Pew surveys find regular viewers of *The Daily Show* and *Colbert Report* are among the most informed, with levels of political knowledge rivaled only by those who regularly read major newspaper websites (Pew, 2007, 2012).

Critics raise the reasonable concern that these correlations are spurious. Programs such as *The Daily Show* and *Colbert Report* appeal to audiences that are wealthy, educated and politically engaged (Morris, 2009; Moy, 2008; Moy et al., 2005a; Pew, 2008, 2010, 2012; Young & Tisinger, 2006), characteristics commonly associated with political knowledge. In addition, political comedy tends to be used as a supplement to rather than replacement for traditional political media (Landreville et al., 2010; Moy et al., 2005a; Young & Tisinger, 2006). This suggests that the relationship between comedy use and political knowledge is simply the result of audience characteristics and patterns of behavior and not evidence of a media effect.

Rather than engaging and informing politically apathetic audiences, political comedy might give greater information advantages to those who are already knowledgeable. “Viewers who rely on *The Daily Show* as a source of information must already know enough about the story and the pop culture reference to get the joke” (PEJ, 2008, p. 14). Young (2008) suggests that the cognitive burden associated with understanding humor may distract from substantive messages and hinder learning among those with limited political knowledge and experience. Several studies predict a linear relationship between pre-existing knowledge and learning from political comedy, with individual skills and resources moderating this effect so that sophisticated citizens benefit most (Cao, 2008; Landreville et al., 2010; Moy et al., 2005b).

Others accept that comedy can help citizens learn about politics, but are cautioned in their assessment of the magnitude of the effect. Utilizing data from the 2004 Pew Political Communication Survey, Hollander (2005) identifies a relationship between comedy use and awareness of campaign events but not recall of factual information about candidates, and questions whether competence is meaningfully enhanced by the modest amount of information gleaned. Echoing this concern, Baek and Wojcieszak (2009) analyze data from the 2004

National Annenberg Election Study from the perspective of Item Response Theory. They find comedy viewing to be associated with knowledge among relatively inattentive viewers, but that performance improves primarily on easier knowledge items. Though correlational studies identify modest learning effects among politically apathetic viewers, it is possible that effects on more sophisticated audiences are difficult to detect because of endogeneity in measures of engagement, knowledge and self-reported exposure to political comedy.

Despite these caveats, political comedy may be a viable information source which can, directly or indirectly, promote learning. Whereas politically apathetic young viewers struggled to make sense of dull, hard news, *The Daily Show* was recognized as an interesting and accessible alternative for quality news and information (Rottinghaus et al., 2008). Kim and Vishak (2008) find that both news and comedy produce sizable learning effects, but that the type of information recalled differs significantly. News encouraged memory-based processing and was associated with slightly greater correct recall of factual information. Comedy enhanced memory for opinion statements and information recall was more closely associated with evaluations of political leaders, which they interpret as evidence of online processing. However, this pattern of results is also consistent with the alternative interpretation that the comedic presentation enhanced viewers' motivation and ability to recognize the meaning and implications that discrete pieces of information held for political judgments. Indeed, others find that the comedic context enhances information acquisition (Parkin, 2010), especially among those positively oriented toward political comedy (Young & Hoffman, 2009). These studies suggest that learning is not the result of incidental exposure to information that might not otherwise be encountered, but that political comedy has particular features which may enhance knowledge.

However, because informational content has only been loosely controlled, if at all, experimental research has not been able to identify the precise mechanism driving effects.

Rather than directly informing otherwise disinterested audiences, political comedy may boost learning indirectly by enhancing interest and attention (Baum, 2003b; Cao, 2010; Feldman & Young, 2008), promoting information seeking (Xenos & Becker, 2009), encouraging interpersonal discussion (Landreville et al., 2010) and reducing the motivational and resource requirements for following complex policy issues (Feldman, Leiserowitz & Maibach, 2011; Xenos & Becker, 2009). Two related experiments by Xenos and Becker (2009) empirically demonstrate the mediation of learning by engagement and the knowledge equalizing effect of political comedy. In the first experiment, participants were exposed to comedy, news or a hybrid video stimulus and subsequent information seeking behavior was tracked. Participants with low pre-existing interest in politics sought more politically relevant information after exposure to comedy than similar participants receiving only hard news. In a related experiment, participants were exposed to a comedy or news clip discussing either the economy or steroids in baseball followed by news stories covering both these topics. Consistent with the gateway hypothesis, disinterested subjects exposed to comedy were better able to learn from subsequent media exposure and knew more about economic issues than those exposed only to news. However, this effect was found regardless of the topic covered in the initial clip, indicating that political comedy did not simply prime relevant information, but enhanced learning and comprehension through a more complex cognitive mechanism.

Attitudinal studies find that political comedy enhances viewers' perception of their own competence and ability to understand and participate in the political world. Internal efficacy is positively associated with exposure to political comedy (Baumgartner & Morris, 2006; Becker,

2011; Hoffman & Thompson, 2009), and functions as a mediator between political comedy and hard news media use (Cao & Brewer, 2008), gratifications derived from news (Holbert et al., 2007), and civic and political participation (Cao & Brewer, 2008; Hoffman & Thompson, 2009; Hoffman & Young, 2011).

There is disagreement, however, about whether comedy boosts internal efficacy because viewers are better able to understand politics or merely because they perceive themselves this way. Some contend that political comedy enhances feelings of competence by presenting a simplified rendering of events that makes politics seem more comprehensible (Baumgartner & Morris, 2006; Rottinghaus et al., 2008). From this perspective, political comedy, “paints the complexities of politics as a function of the absurdity and incompetence of political elites, thus leading viewers to blame any lack of understanding not on themselves but on those who run the system” (Baumgartner & Morris, 2006, p. 362). Though Becker (2011) finds comedy to be associated with more positive assessments of political competence and understanding, the relationship is stronger for more complex, satirical comedy, such as *The Daily Show* or online newspaper *The Onion*, than for simpler, more broadly accessible late-night and sketch comedy shows. Further, Feldman (2013) finds that effortful processing enhances learning from political comedy relative to more passive viewing. In summary, political comedy may be an accessible source of information or may promote learning by challenging viewers to think more deeply about politics.

Though political comedy may enhance self-confidence, negative portrayals of politicians, the political system and news media might also have deleterious effects on democratically consequential beliefs and attitudes. Political comedy viewers, especially young viewers and those with weak partisan attachments, tend to be more cynical about the political

system and express less trust in political leaders and the news media (Baumgartner & Morris, 2006; Guggenheim et al., 2011; Morris & Baumgartner, 2008). The biting satire on programs like *The Daily Show* has particularly negative consequences for how viewers perceive politics and political leaders (Becker, 2011; Guggenheim et al., 2011). In fact, *Daily Show* viewers frequently list the government itself as the most important problem facing the nation (Cao & Brewer, 2009). This correlation evidence cannot support causal claims about effects; however, it does suggest that political comedy might influence broader political world-views.

Not only does political comedy convey important information, it does so in a manner which might powerfully shape political attitudes and perceptions. Though regularly subject to ridicule, candidates increasingly utilize political comedy programs to communicate directly with voters and highlight positive personal characteristics (Baum, 2005; Moy et al., 2005b). Brewer and Cao (2006) find late-night comedy programs to be the most frequently identified source of exposure to candidate interviews, more likely to be seen than appearances in any other forum, and that viewers acquire important campaign information by watching these appearances. Further, candidates can prime favorable considerations and shape evaluative criteria more successfully through non-confrontational guest appearances on comedy programs than by participating in traditional hard news interviews (Parkin, 2010), and those appearing on political comedy programs improve favorability ratings and increase candidate vote shares (Baum, 2005; Taniguchi, 2010). Fowler (2008) investigates what comedian Steven Colbert often refers to as “the Colbert Bump” achieved by political leaders who appear on his program. Perhaps hoping to reverse their fortunes, candidates appearing on *The Colbert Report* tend to be struggling financially. Immediately prior to their appearance, guests raise more money than similarly situated candidates. For Democrats, fund raising success continues in the weeks following their

appearance. Republicans, however, suffer from what Fowler calls “the Colbert bust” in campaign contributions after appearing on the show.

Though appearances may have potential strategic value for some candidates, political comedy programs are an unlikely forum for outreach efforts given the generally negative portrayal of politicians and tendency of comedians to focus on the least admirable characteristics of political leaders. “The stance of late-night humor is fundamentally cynical; each politician is defined only by his or her most glaring weaknesses, and the system produces only venal, corrupt candidates unfit for office” (Jamieson & Waldman, 2003, p. 68). While engaging in self-parody can make a politician seem more likeable, ridicule by comedians has been shown to decrease favorability ratings even more than attack ads (Becker, 2012). The negative portrayal of political leaders may increase the salience of caricatured traits in the minds of viewers, resulting in more negative evaluations, particularly among low knowledge viewers and strong partisans rating candidates from the other political party (Esralew & Young, 2012; Young, 2004, 2006).

Empirical results do not support these predictions and have, instead, shown that political comedy has only a limited, trait and candidate specific influence on ratings, and that the direction and magnitude of effects are inconsistently related to political knowledge and partisanship. Young (2004, 2006) finds that exposure to comedy is related to ratings on only a select few of the traits most commonly featured in late-night caricatures, and only among viewers with low levels of political knowledge. Further, these effects are inconsistently related to partisan predispositions (Morris, 2009; Xenos et al., 2011; Young 2004, 2006). In fact, some studies have identified a paradoxical decrease in viewers’ ratings of politicians from their own political party, while leaders from the other party are evaluated more favorably (Young, 2004; Xenos et al., 2011). These inconsistent findings suggest that political comedy does not simply prime

negative considerations but has a far more complex relationship with political attitudes than previously recognized.

The limited influence of political comedy on attitudes may be due in part to the widely recognized traits reflected in comic caricatures. Indeed, content analyses show that the traits mocked by comedians are remarkably consistent across programs (Center for Media & Public Affairs, 2010; Niven et al., 2003; Young, 2004). In the 2008 campaign, the impersonation of Sarah Palin by comedian Tina Fey received a great deal of acclaim, leading researchers to investigate the effects of such parody on perceptions of the Vice Presidential candidate. Relative to debate coverage in other sources, seeing the SNL sketch satirizing Palin's debate performance significantly decreased approval of her selection and the likelihood of voting for McCain, particularly among Republicans and Independents (Baumgartner, Morris & Walth, 2012). Nonetheless, the words used to describe Palin by those exposed to Katie Couric's interview with the candidate were no different than the descriptions given by those watching the SNL parody of this interview (Ersalew & Young, 2012). No matter the source of coverage, questions arose about Palin's intelligence, competence and experience. Even her rural background, ridiculed by SNL, was no more important in the minds of comedy viewers than those exposed to the original CBS interview. Analysis of the Palin parody suggests that rather than directly affecting trait ratings or altering evaluative criteria, political comedy may reinforce pre-existing perceptions of political leaders.

In light of inconsistent findings, persuasion researchers contend that comedy is far more complex than recognized by those emphasizing the simplified caricatures and appealing nature of comedy to explain effects (Holbert, Hmielowski, Jain, Lather & Morey, 2011; Polk et al., 2009; Young, 2008). Editorials may be more persuasive when accompanied by a political cartoon than

when presented on their own (Brinkman, 1968). However, the challenges associated with interpreting comic messages, even for relatively sophisticated audiences, lessens their persuasive power. Carl (1968) asked respondents to interpret the meaning of political cartoons and found that neither small town residents nor a more sophisticated sample of respondents from a university city consistently offered interpretations matching the cartoonist's intent. Studies show that *The Colbert Report* is particularly prone to misinterpretation and viewers often mistake Colbert's satire for serious political commentary (Baumgartner & Morris, 2008; LaMarre et al., 2009). Because humorous messages are difficult to interpret, political comedy may have an inconsistent effect on attitudes.

The comprehension and appreciation of political comedy may depend on the breadth of political content, the complexity of humor and the demographic, attitudinal and behavioral characteristics of audiences (Delli Carpini, 2012; Holbert et al., 2011; Polk et al., 2009). Satirical comedy shows like *The Daily Show* appeal to audiences that are political interested, knowledgeable and heavy news consumers, but more traditional late-night comedy is unrelated to these forms of political engagement (Hoffman & Young, 2011; Moy, 2008; Young & Tisinger, 2006). Moreover, the ability of viewers to make sense of and enjoy comedy depends on the type of humor used and the cognitive engagement and the depth of thought it inspires (Holbert et al., 2011; Polk et al., 2009). Comedy varies in the amount of prior knowledge required for understanding; and the type of humor one finds most appealing is partially dependent on the amount of prior knowledge one has (Holbert et al., 2011). Efficacious viewers tend to prefer complex humor like irony, which they find intellectually engaging and thought provoking, to more simplistic sarcasm, preferred by those with less confidence in their abilities (Polk et al., 2009).

Though meaning is generally implicit and prone to misinterpretation, the challenge involved in humor comprehension may actually enhance the persuasive potential of comic messages. Young (2008) argues that understanding humor is a cognitively demanding activity and, “this condition of high cognitive load may subsequently reduce cognitive resources available to scrutinize message arguments” (p.122). Her *counterargument disruption* hypothesis predicts that comedy leaves audiences susceptible to influence by focusing cognitive energy and attention on message comprehension and disrupting critical processing of underlying arguments. While research does identify a significant reduction in argument scrutiny resulting from political humor, counterargument disruption does not subsequently promote persuasion (see also Polk, et al., 2009).

Comedy may decrease argument scrutiny not because cognitive resources are limited but because messages are discounted as ‘just a joke,’ intended to entertain rather than inform and not relevant to judgments about important political issues (Nabi, Moyer-Guse & Byrne, 2007). Though they recognize persuasive intent and acknowledge that the attitudes and beliefs of others may be affected, comedy viewers feel personally immune from influence and perceive comic messages to be weaker than more traditional editorial arguments (Becker, Xenos & Waisanen, 2010; Holbert et al., 2013). Nabi and colleagues (2007) find that experimental exposure to humorous social issue messages enhanced attention and decreased counterargument but also increased message discounting so that messages had little initial persuasive effect. However, humorous messages were highly memorable, encouraged deep, prolonged thought and, as a result, continued to influence attitudes over time. The researchers identified a persuasive “sleeper effect,” with humorous social issue messages strongly influencing attitudes measured one week after initial exposure.

Though studies of entertainment media have effectively expanded thinking about political information beyond traditional hard news, researchers have struggled to explain how political comedy might influence the way citizens learn and think about the political world. Certainly, political comedy programs provide an alternative forum in which important political information is available. However, one key question that remains unanswered is whether or not, “the civic skills necessary for consuming politically relevant entertainment media [are] different from those needed for watching the evening news” (Delli Carpini, 2012, p. 16). Persuasion research indicates that the audience demands associated with political comedy are quite different than those for more traditional sources of political information, but the ultimate impact of these differences remains unknown. Even if comedy does not directly affect political attitudes, the patterns of cognition involved in humor comprehension might still be consequential in shaping the way audiences engage, understand and utilize information.

Psychological Origins and Nature of Humor

To date, most research treats political comedy no differently than any other source of political information and offers little theoretical explanation of *how* exposure to comedy might affect knowledge and attitudes. Those who do recognize comedy as a distinct communication form make conflicting theoretical predictions and have, so far, been unsuccessful in identifying the effect that these differences may have (e.g. Polk et al., 2009; Young, 2006, 2008). The primary contention of this dissertation is that the effects of political comedy are directly related to the patterns of cognition involved in humor comprehension and the associated emotional experience of amusement. Comedy promotes attention and cognitive elaboration, encouraging viewers to play with ideas so that knowledge becomes more organized and information is more

easily recalled and utilized when forming political opinions. As a result, exposure to political comedy will enhance not only information retention but also attitude constraint.

The effect of information is determined, in part, by the emotional reactions produced. There is now widespread recognition that what we think about and how we respond to politics are guided not only by long-term, stable predispositions but also by short-term feelings about the political environment. Indeed, emotion is now seen as playing an important role in what people pay attention to, learn and believe about politics (Brader, 2005, 2006; Marcus & MacKuen, 1993; Marcus, Neuman & MacKuen, 2000; Rudolph, Gangl and Stevens, 2000).

A two-dimensional model of affect provides the framework for much existing research on the role of emotion in politics. Such models posit that basic positive and negative emotions play a preconscious role in decision-making by providing a general “gut-feeling” about new information. In their *Affective Intelligence Theory*, Marcus and colleagues (2000) identify two primary brain subsystems that guide political thought—the disposition system, which holds the predispositions, beliefs and habits that guide behavior, and the surveillance system, which constantly scans the environment for novelty and triggers anxiety in response to threats. Anxiety disrupts habitual patterns of behavior, focuses attention on threats, and encourages a reevaluation of political beliefs to incorporate new information. Positive emotion takes on a lesser role in this model and is generally seen as a response to evidence that things are going well and goals are being met (Brader, 2005, 2006; Marcus et al., 2000).

Though some recent scholarship discriminates between different negative emotions, particularly anger and anxiety (Huddy, Feldman, & Cassese, 2007; Isbell, Ottati, & Burns, 2006; Valentino, Gregorowicz & Groenendyk, 2009; Valentino et al., 2008, 2011), positive emotions, such as pride, hope, excitement and happiness, are grouped into a single measure of enthusiasm,

and the political consequences of positive emotions have received much less attention. Theories often downplay the importance of specific positive emotions because action tendencies are more general than those associated with negative emotions (Fredrickson, 2004). The immediacy of a threat necessitates that responses to negative emotion be specific, automatic, and goal directed. The action tendencies associated with positive emotion tend to be less focused and, thus, difficult to incorporate into general theories of emotion (Fredrickson & Levenson, 1998).

Nonetheless, positive emotion has far reaching consequences for cognitions and behavior. According to Fredrickson's (1998, 2001, 2004) "broaden-and-build" theory of positive emotions, "positive emotions *broaden* an individual's momentary thought-action repertoire...[and] promote discovery of novel and creative action, ideas and social bonds, which in turn *build* that individual's personal resources; ranging from physical and intellectual resources, to social and psychological resources" (2004, p. 1367 emphasis in original). While negative emotions tend to focus attention and energy on immediate threats, positive emotion can broaden the repertoire of cognition, encouraging more global assessment of situations (Derryberry & Tucker, 1994) and integration of diverse information (Isen, 2000). The gratifications associated with the experience of positive emotions can motivate attention to information and may expand rather than constrain thought.

One particular emotion associated with enhanced attention to information is amusement. The nature of amusement and its consequences are not well understood because of the complexity of the emotional experience and its close linkages with comedic stimuli and the outward expression of laughter (Martin, 2007). However, amusement should be recognized as a discrete emotion because it is associated with particular antecedent conditions, processes of cognition and action tendencies, all of which have evolutionary origins. Broadly speaking,

amusement is an emotion experienced in response to humor or comedy. Comedy promotes attention to and elaboration about information in order to achieve the emotional gratification of amusement.

Its evolutionary origins suggest that amusement may have an important function within the emotional systems that structure cognition. These origins were documented by Darwin (1872), himself, who noted the laughter-like vocalizations of primate species. The open-mouthed “play panting,” which facilitates playful interaction among chimpanzees, is recognized as a precursor to human laughter (Gervais & Wilson, 2005). Though norms of expression differ, humor and laughter are observed in all human cultures and societies (Apte, 1985; Darwin, 1872; Polimeni & Reiss, 2006; Weisfeld, 1993). Laughter is the second vocalization that a child learns, shortly after crying (Deacon, 1997; Gervais & Wilson, 2005; Weisfeld, 1993). In fact, “every normal human being is strongly genetically predisposed to develop the ability to produce and perceive laughter” (Gervais & Wilson, 2005, p. 398). Even deaf and blind children, with limited ability to perceive or learn laughter from others, laugh in response to humorous stimuli (Provine, 2000). Additionally, amusement engages the same neural pathways, including the hypothalamus and limbic structures, as other evolved emotions (Weisfeld, 1993). This suggests that amusement is a fundamental emotion with a more important role in human cognition than often recognized.

With evolutionary origins in rough and tumble play, the primary benefit of amusement is learning (Alexander, 1986; Gervais & Wilson, 2005; Polimeni & Reiss, 2006; Weisfeld, 1993). “Humor provides the recipient with information or stimulation that later enhances fitness” (Weisfeld, 1993, p147). At its most basic level, play provides children the opportunity to practice survival skills such as fighting, predator avoidance, and hunting (Weisfeld, 1993). The

most prominent example of this is tickle-play. Because the places on the human body most vulnerable in an attack are also the most ticklish, tickling is not just a fun game but also teaches a child, in a non-threatening manner, to protect those susceptible areas (Gervais & Wilson, 2005). The universal pleasure children derive from mocking adults also evidences the importance of comedy in learning social roles (Weisfeld, 1993). The outward expression of laughter further encourages children to practice and learn these important skills because it signals that an interaction non-threatening and triggers the release of pain reducing opioids (Gervais & Wilson, 2005; Pankseep, 2000; Polimeni & Reiss, 2006; Weisfeld, 1993). Thus, laughter can transform a threatening physical attack into pleasant roughhousing or a game of chase.

Of course, the humor that older humans enjoy is significantly different and more complicated than the physical play resulting in amusement and laughter in very young children. Even among children, the things that produce amusement and laughter evolve in cognitive complexity, from simple tactile and auditory stimuli among infants to more complex visual and social stimuli as a child ages (Sroufe & Wunsch, 1972). Rather than physical play, the more complex forms of humor enjoyed by adults involve playing with ideas.

Learning from comedy stems from the way that information is cognitively processed. There is a general consensus that incongruity or unexpectedness is a critical part of what makes things funny (Gervais & Wilson, 2005; Martin, 2007). Incongruity theories of humor propose that amusement is created when a surprising discrepancy exists between two mental representations (Nerhardt, 1976; Raskin, 1985; Suls, 1972, 1983), and two normally disparate planes of thought or meaning are simultaneously applied to the same piece of information (Koestler, 1964). More specifically, humor follows when some expectation (derived from the joke setup) is incongruent with some other construct or expectation (revealed in the punch line).

Raskin (1985) provides the following example: “Is the doctor home?” the patient asked in his bronchial whisper. “No,” the doctor’s young and pretty wife whispered in reply. “Come right in.” Here, the first part of the joke creates an expectation of a medical script, whereas the punch line brings to mind a sexual script, and the juxtaposition of these two incongruent elements makes the joke funny. Apter (1992) discusses humor in terms of synergy, where the observer playfully manipulates ideas by concurrently holding contradictory images or simultaneously perceiving some object in different ways, as is the case in the previous joke when the idea of a “house call” is viewed from two different perspectives.

Further elaborating the cognitive processes involved in humor appreciation, theories of incongruity resolution propose that amusement requires both the recognition and resolution of incongruity (Koestler, 1964; Shultz, 1972; Suls, 1972, 1983). The perception of information that is incompatible with initial understandings prompts the observer to search for alternative ways of interpreting a situation so that the punch line makes sense (Shultz, 1972). Suls (1972, 1983) proposes a two stage model of humor appreciation. The setup of a joke establishes general expectations about the type of information to follow. The punch line of a joke deviates from these expectations, providing new information incongruent with initial understandings. The second stage of humor appreciation involves the search for a cognitive rule allowing new information to be understood in the context of the old. This two stage model likens comedy to an intellectual puzzle solving game where the observer must figure out how incongruent elements fit together.

Expanding on this notion of humorous puzzle solving, Wyer and Collins (1992) incorporate theories of schematic processing into their *comprehension-elaboration model* of humor appreciation. Generally speaking, knowledge is structured by associative networks

consisting of interconnected concepts and schema representing the characteristics and exemplary cases which define a particular domain of knowledge (Anderson, 1983; Conover & Feldman, 1984). According to Wyer and Collins (1992), a joke is initially understood based on the constructs and schema most immediately accessible in memory. Humor disrupts schematic processing because new, incongruent information cannot be interpreted using concepts and schema contained in the domain of knowledge initially activated. Humorous reinterpretation involves the simultaneous activation of contradictory concepts and schema, often from seemingly disconnected domains of knowledge, which create new meaning and allow a situation to be understood as a whole.

Further, amusement is enhanced by cognitive elaboration about the implications of a humorous reinterpretation and the generation of inferences beyond those involved in initial humor comprehension (Wyer & Collins, 1992). For example, amusement is initially experienced when Colbert's praise of President Bush for "believing the same thing on Wednesday that he believed on Monday, no matter what happened Tuesday," is reinterpreted as criticism. Pleasure is then heightened by subsequent elaboration regarding what the joke means about the administration's leadership and ideologically driven policy making. Amusement is a function of not only the recognition and resolution of incongruity required for humor comprehension, but also the cognitive elaboration that a humorous reinterpretation inspires.

Because comedy is a puzzle solving game, humor comprehension and enjoyment necessitates individual skills and resources. Understanding comedy requires sufficient prior information to not only recognize that expectations have been violated, but also identify a rule to resolve the incongruity. A joke will be perceived as funny only if such a rule can be found. Take the following joke: Three statisticians go deer hunting together. A large buck approaches.

The first statistician fires a shot 2 feet to the left. The second fires a shot 2 feet to the right. The third statistician exclaims, “We got him!” Though the third statistician’s excitement is clearly inconsistent with information about the first two statisticians’ aim, the joke is unlikely to amuse those lacking the basic statistical knowledge necessary to resolve this incongruity. The challenge involved in comprehending a joke may enhance or reduce amusement, “as comprehension difficulty increases up to a point, recipients feel more challenged, and their success in comprehending the information is rewarding. Beyond this optimal level, however, recipients might begin to feel stupid or incompetent, so their enjoyment decreases” (Wyer & Collins, 1992, p. 674). Jokes are unamusing if they are too challenging or if incongruity is too easily resolved (Suls, 1983), hence the limited appeal of silly puns, knock-knock jokes and other low-complexity humor.

Further, research on brain-damaged patients shows that multiple, integrated brain systems are required for humor comprehension (for review see McGhee, 1983). Left hemispheric damage hinders recognition of incongruity, while those with damage to the right hemisphere are able to recognize incongruity but cannot differentiate between jokes and non-sequiturs. More recent fMRI studies show that both the right frontal lobe (involved in processing negative emotion) and left frontal lobe (important in positive emotional processing) are utilized in comprehending and appreciating humor (Bartolo et al., 2006). Comedy presents an intellectual puzzle demanding high level cognitive skills and resources to solve.

In addition, the challenges associated with understanding comedy influence the extent and nature of elaboration and the amount of amusement experienced. The time and effort devoted to humor comprehension trade off with that devoted to subsequent cognitive elaboration (Wyer & Collins, 1992). Certainly, inability to understand a joke prevents elaboration about the

implications of a humorous reinterpretation. Humor that is difficult to comprehend may stimulate humor-irrelevant elaborations about one's own competence and abilities (Wyer & Collins, 1992), and such distractions from entertainment goals decrease amusement (Apter, 1982). Some jokes, especially those that are easily understood, may produce little amusement because humorous reinterpretations have low elaborative potential.

Elaborative potential refers to the implications humor holds for the persons or objects directly involved as well as the events surrounding them. Amusement is maximized by humor with low to moderate comprehension difficulty but high elaborative potential (Wyer & Collins, 1992). Take the classic childrens' joke: What's black and white and red all over? A newspaper. Amusement is created when the color 'red' is reinterpreted as the verb 'read' so that the initial statement can be understood in reference to a newspaper. The elaborative potential of this joke is low, however, because the reinterpretation holds little meaning outside the immediate context; it does not speak to the changing role of newspapers, nature of journalism or broader issues in news media that more complicated humor may address. Conversely, though it involved relatively simple word-play, Steven Colbert's now famous "truthiness" sketch had far reaching implications and lead to extensive elaboration about the nature of truth in modern political discourse.² Amusement was less a function of the joke itself than the subsequent elaboration it inspired.

The Effect of Political Comedy on Knowledge and Attitudes

In examining the effects of political comedy it is important to recognize not only the presence of political information but also the form that political information takes. Concern

² Following the sketch, truthiness was discussed extensively by political commentators and inspired numerous stories in *The New York Times* and other news outlets. Cementing its cultural significance, the term was eventually included in *The Oxford English Dictionary*.

about the capacity of ordinary citizens to fulfill their civic obligations, resist manipulation and protect the public good led democratic theorists and political communication researchers to distinguish between entertainment and news. Public affairs were the exclusive domain of civic-oriented, news media, solely responsible for providing the factual, public affairs information necessary for effective political engagement. Conversely, entertainment media were seen as a distraction from the serious business of citizenship (Delli Carpini & Williams, 2001; Jones, 2006; Schudson, 1998; Williams & Delli Carpini, 2011).

More recently, changes in the media environment have eroded this distinction, and many have called for greater recognition of the political relevance of entertainment media (Baum, 2003b; Delli Carpini & Williams, 2001; Jones, 2006). As Jones (2006) puts it, “engaging politics through media need not be the proverbial equivalent of eating one’s vegetables” (p.377). In fact, information acquisition is but one of many potential reasons for consuming political media, and entertainment offers meaningful opportunities for political engagement.

A strictly utilitarian, information oriented conceptualization of the democratic role of media limits our understanding of how citizens come to learn about and understand politics. Citizens are best served when media present information in a way that is both informative and engaging. Indeed, socio-psychological theories of humor suggests that it is precisely by stimulating emotional arousal and cognitive involvement that political comedy may influence knowledge and attitudes.

Learning from traditional, hard news requires a general curiosity or interest in politics (Delli Carpini & Keeter, 1996; Fiorina, 1990; Verba & Nie, 1972), an expectation of information utility in decision making (Lupia & McCubins, 1998), the perception of personal relevance (Green & Citrin, 1990; Sears & Funk, 1990, 1991), a sense of civic duty (Almond & Verba,

1963; Delli Carpini & Keeter, 1996; McGraw & Scholz, 1991; Tetlock, 1983; Verba et al., 1995) or some other external source of motivation. The emotional gratifications derived from comedy provide intrinsic motivation to pay attention (Apter, 1992; Martin, 2007). Moreover, emotional rewards are achieved only through recognition and resolution of incongruity (Koestler, 1964; Shultz, 1972; Suls, 1972, 1983) and elaboration about the meaning and implications of humorous messages (Wyer & Collins, 1992). Experimental studies show that the patterns of cognitive engagement involved in comprehending and appreciating humor enhance recall of humorous images and statements (Schmidt, 1994, 2001). By motivating attention, encouraging cognitive engagement and increasing the depth and complexity of thought, political comedy should boost learning.

Further, humor comprehension requires the integration of ideas and elaboration about how seemingly disparate pieces of information relate (Koestler, 1964; Suls, 1972, 1983; Wyer & Collins, 1992). These patterns of cognitive processing can influence the way information is encoded and organized in long term memory. The simultaneous activation and subsequent salience of concepts and schema from otherwise disconnected domains of knowledge (Koestler, 1964; Wyer & Collins, 1992) may help build associated networks and enhance political understanding. As a result, political comedy may boost knowledge because information is more readily recalled when it is incorporated into well organized knowledge structures.

By shaping the way information is encoded and structured in memory, political comedy might also influence political attitudes. Most attitude studies focus on the persuasive power of political comedy, but its potential influence on how politics is understood more broadly has yet to be investigated. It is in shaping how viewers think about politics that comedy has the most potential to influence attitudes and beliefs. Comedy calls attention to situations that are well

known and extensively covered in traditional media and, rather than contributing to new knowledge, humorous re-presentation of widely available information may refresh memory and generate new insights that enhance and deepen knowledge and understanding (Graber, 2008). Indeed, emotionally engaging and often repeated, comedy can influence how the public collectively understands and remembers political events.

The processes of cognition associated with comedy should not only increase the volume of information one has, but may also influence the way knowledge is structured in memory, thereby enhancing political sophistication and attitude constraint. Sophistication is a function of both the total amount information available and the way this information is organized (Luskin, 1987, 1990), and highly organized knowledge is associated with more reliable, internally consistent attitudes (Converse, 1964; Luskin, 1987; Zaller, 1992). By simultaneously eliciting contradictory schema, highlighting interconnections, promoting deep and sustained thought about political relationships and the implications of information across domains of knowledge, comedy should encourage more sophisticated political thought and greater attitude constraint.

Additionally, political jokes come in standard forms, are largely consistent in focus and are frequently repeated with only minor revisions over time and across platforms (Center for Media & Public Affairs, 2010; Niven et al., 2003; Young, 2004). This repetition may enhance the influence of comedy by promoting further elaboration about the meaning and implications of a political joke. “If a joke has high-elaboration potential, all potential elaborations of it are unlikely to be considered at the time the joke is first encountered. To this extent, repeating the joke may stimulate a different subset of implications than it did the first time, and these new implications may elicit humor” (Wyer & Collins, 1992, p. 678). Though specific attitudes may

be unchanged, attitudes should be more interconnected as a result of cognitive elaboration about the implications of humorous messages across a wide variety of domains.

The effects of comedy on knowledge and comprehension depend on the skills and resources of individual viewers. Though they may derive great pleasure from the puzzle solving exercise, political comedy is unlikely to benefit sophisticated citizens given their well-developed schema, understanding of abstract political concepts and frequent engagement with non-humorous sources of political information. While political comedy may provide some information to which those lacking political interest might not otherwise be exposed, limited prior political knowledge makes comprehending humor particularly challenging. Even if humor is understood, the time and energy expended on comprehension diminish these viewers' ability to engage in the cognitive elaboration that maximizes informational benefits. Standing to gain the most from political comedy are those with sufficient knowledge and ability to comprehend jokes and elaborate on implications, but who are unlikely to think deeply about politics absent the emotional gratifications that comedy provides for doing so. For these moderately sophisticated citizens, political comedy should boost learning and attitude constraint by promoting attention to and cognitive elaboration about information beyond that inspired by more traditional hard news sources.

These expectations about humor triggered cognition will be further developed in subsequent chapters. Both experimental and survey methods are employed to test specific hypotheses about the effects of political comedy on knowledge and attitudes. Comedy is not only an alternative source of information but a distinct communication form which presents information in a way that is fundamentally different than hard news. Because they are thought to stem directly from the unique way information is presented and subsequently processed by

audiences, the effects of political comedy must be evaluated relative to those associated with exposure to information in more traditional news outlets. The following chapter describes the development of experimental stimuli allowing the influence of comedy to be isolated and the experimental methodology used to examine effects.

Chapter 3. Experimental Pretest and Methods

Media effects can best be measured through controlled experiments. This chapter describes the development and pretesting of stimuli and the experimental methodology used to test predictions derived from the model of humor-triggered cognition. Because effects are thought to result from the patterns of cognitive processing and engagement associated with comprehending and enjoying humor, the effects of comedy on political sophistication can only be assessed by comparing changes in knowledge and attitudes following exposure to comedy to those resulting from exposure to identical information presented in hard news form. Content analyses have shown that, in the aggregate, political comedy and traditional television news programs are quite similar in substantive issue content (Brewer & Marquardt, 2007; Fox et al., 2007; Jones, 2005, 2010; PEJ, 2008; Zukas, 2012). However, to isolate the effect of humor from the influence of exposure to information, itself, it was necessary to create video stimuli that manipulated the presence of humor but otherwise held information constant. Comedy and news videos were edited to achieve content equivalence, holding factual information, political perspectives, imagery, sound-bites, subjective assessments of issues and overall issue frames constant so that the news and comedy versions of stories varied only on humor.

The stimuli were developed from segments aired on *The Daily Show*, *Colbert Report*, and nightly network news between November 2009 and January 2010. It was critical to identify news and comedy segments that, 1. focused on politically pertinent topics and issues; 2. covered these issues in similar ways; and, 3. would remain relevant throughout the course of the study.

Though most news is event-oriented (Iyengar, 1991), episodically framed coverage tends not to have a comedic counterpart (PEJ, 2008) and the information is quickly rendered obsolete. Instead, it was necessary to identify clips containing thematically framed discussions of persistent, contemporary political controversies. In both news and comedy television programs, the primary topics receiving such treatment during this time period were issues related to the economic recovery and healthcare reform.

To create stimuli for the experiment, all comedy and news programs airing between November 2009 and January 2010 were recorded. From this sample, I identified comedic and news stories that provided thematic coverage of economic and healthcare issues and contained information likely to remain pertinent through the course of the study. Microsoft Movie Maker media editing software was used to edit content into and out of individual segments to create content identical news and comedy versions of five stories.

The editing of comedy videos involved manipulation of the news clips and quotes used within comedy segments to set up jokes or identify the object of disparagement. Whenever possible, I identified the complete, original version of the news story from which clips were drawn. When complete source stories were available, the brief clips featured in comedy segments were replaced with longer, content rich versions of the original. In other instances, news montages from the original comedy segments were supplemented or replaced by news clips used in the non-comedic versions of the story.

The news stimuli were edited in a similar fashion, with clips from several different news stories and sources intermixed as necessary. To maintain realism and minimize the impact of edits, the race and gender of the reporter were held constant throughout each video and changes in journalist or network were masked using sound-bites or images as transitions. I also removed

time-sensitive information and other cues that could potentially affect perceptions and confound results. The final stimuli included identical news stories supplemented with jokes and humor in the comedy versions.

I was ultimately able to develop five complementary pairs of content identical news and comedy videos that were considered for use as experimental stimuli. Efforts were made to match the length of each version; however, making videos of identical length would require variation in the amounts of substantive information presented. Because they contain jokes and humor *in addition to* the content-matched information, the comedy videos are slightly longer than their news counterparts.

The first pair of stories addresses the issue of banking industry reform. The comedy version of this story is based on two *The Daily Show*³ segments originally aired January 12 and 26, 2010, and a January 18, 2010 piece from *The Colbert Report*.⁴ The news version was created from two stories that aired January 21, 2010 on *NBC Nightly News*.⁵ Both the comedy and news versions frame the debate over banking reforms as a conflict between the interests of Wall St. versus Main St. and accuse wealthy bankers of holding taxpayers hostage. Investment banking institutions are blamed for causing the economic crisis and accused of exploiting taxpayers by leveraging federal bailout funds into record profits and large employee bonuses while doing little to alleviate the economic suffering of the average citizen. These clips also outline President Obama's banking reform plan and note strong resistance to the plan from financial institutions. The comedy and news videos run 6 minutes and 5 minutes, respectively. Again, it is the

³ *The Daily Show* Episode #15006, "Clusterf#@k to the Poor House--Wall Street Bonuses" and Episode #15014, "Obama Takes on Bankers"

⁴ *The Colbert Report* Episode #06009, "Own a Piece of Histor-Me—Original Interview Table"

⁵ *NBC Nightly News*, Thursday, January 21, 2010, "President Obama ready to fight banks over status quo" reported by Chuck Todd and "Goldman Sachs to give out bonuses" reported by Anne Thompson

presence of comedy in addition to factual information, which is held constant across conditions, that accounts for this difference in length.

The second complementary pair of news and comedy clips discusses a December 14, 2009 meeting between CEO's and the President. An ABC *World News*⁶ story broadcast the evening of the meeting and a segment from *The Daily Show*⁷ that aired the following day form the basis of the news and comedy videos. These stories emphasize the incongruity between Obama's public vitriol toward big business and his tendency to capitulate to their demands. The failure of several CEO's to attend the meeting is interpreted as evidence of both the ineffectuality of the President and the arrogance of the wealthy business elite. Total runtime is 3 minutes, 40 seconds for the comedy video and 2 minutes, 30 seconds for the news video.

The third pair of stories focuses on healthcare reform. The comedy version of this story was developed from a piece originally shown on *The Daily Show*⁸ on December 16, 2009. The news version was based on two CBS *Evening News*⁹ stories from December 15, 2009. Emphasis is on conflict within the Democratic Party as leaders worked to sure up support for a healthcare reform bill. Both versions of the video cast Senator Joe Lieberman as a problematic obstructionist—a crucial swing voter with undue influence who undermines negotiations by capriciously withholding support for a Medicare buy-in option which he once supported. Also hindering progress is the intensity of Republican opposition, evident in vitriolic speeches and impassioned anti-reform protests. The comedy healthcare video runs 5 minutes, 15 seconds, the news version, 4 minutes, 40 seconds.

⁶ ABC *World News*, Monday, December 14, 2009, "Payback Time; Tough Talk" reported by Jake Tapper

⁷ *The Daily Show* Episode #14160, "Clusterf#@k to the Poor House--Flight Delay"

⁸ *The Daily Show* Episode #14161, "The D. C."

⁹ CBS *Evening News*, December 15, 2009, "Health Care Reform" reported by Chip and "Lieberman Compromises Senate Compromise Bill" reported by Nancy Cordes

For reasons explained in the subsequent discussion of pretest results, two additional story pairs, one describing informational errors on Recovery.gov, a website designed to track stimulus funded projects, and another detailing proposals for the use of TARP surplus funds, were pretested but not included as part of final experimental stimuli. Problems with the stimulus website were the focus of a November 16, 2009 story on *ABC World News*.¹⁰ This story was satirized on the *Colbert Report*¹¹ in a piece that aired December 1, 2009. The comedy version of the Recovery.org story runs 2 minutes, 25 seconds, the news version, 2 minutes, 10 seconds. Surplus TARP funds were discussed on *The Daily Show*¹² and *ABC World News*¹³ on December 7, 2009. The edited comedy and news TARP surplus videos run 2 minutes, 35 seconds and 2 minutes, 15 seconds, respectively.

Pretest Methods

Though carefully edited to establish content equivalence, the videos were also pretested to ensure that viewers perceived news and comedy versions to be equivalent but for humorous content. Ideally, evaluations of the news and comedy versions of each video would differ only in the degree to which respondent found them funny but not on perceptions of information or other patterns of emotional arousal. The manipulation check was conducted in February 2010, immediately prior to the start of experimental data collection. A total of 51 pretest respondents were recruited from the Communication Studies Participant Pool at the University of Michigan. Respondents were randomly assigned to view either the news or comedy version of each of the 5 stories, and all were given a mix of story formats over the course of the pretest. Respondents

¹⁰ *ABC World News*, Monday, November 16, 2009, “Stimulus Money; Stimulus Glitch” reported by Jonathan Karl

¹¹ *The Colbert Report* Episode #05152, “Better Know a Made-Up District—Connecticut’s 42nd”

¹² *The Daily Show* Episode #14155, “American Idle”

¹³ *ABC World News*, Monday, December 7, 2009, “Bailout Money; Money Back” reported by Jake Tapper

ranged from 18 to 20 years of age, with an average age of 18.6 years. Seventy-three percent were women. The majority (87%) were white, with 4% black, 4% Hispanic and 6% Asian. The sample skewed wealthy, with 37% estimating their family income to be 125K or greater, only 10% estimating a family income of less than 50K, 34% estimating a family income between 50K and 125K, and 19% reporting that their family income was unknown. Respondents were generally engaged in politics, reporting reading news on the Internet on average 4.1 days per week, watching TV news 1.78 days per week, and watching political comedy programs 1.78 days per week on average. Asked to assess their knowledge of politics, the majority (51%) put themselves at the midpoint of a 5 point political knowledge scale. Similarly, respondents reported moderate levels of political interest, with 44% placing themselves at the midpoint of a 5 point political interest scale. The sample was mixed in terms of political identification, with 44% reporting identification with the Democratic Party, 20% identifying with the Republican Party, and 19% identifying as independent.

To ensure that each clip was watched in its entirety, respondents were not able to fast-forward or rewind the video. Additionally, the final frame of each clip included a numeric code that had to be correctly entered in order to move ahead to follow-up questions. Immediately following each video, respondents were asked several questions about their reactions to and perceptions of the video that they had just watched. Using a 7-point scale, respondents were asked to rate how well several words—entertaining, informative, funny, interesting, and confusing—described each video, and how intensely they felt 6 emotions—angry, sad, afraid, amused, excited, and happy—while they were watching. They were also asked how much they agreed or disagreed with several statements: The video I just watched contained a lot of important political information; The video contained facts and statistics about the issue; I know

more about the issue discussed in the video now than I did before I watched; All the claims made in the video were backed up by evidence; and, The video contained information about what both sides of the issue think. Response options ranged from 1 (strongly disagree) to 5 (strongly agree). Two additional questions were used to measure perceptions of the political perspective presented in the videos. Respondents were asked to rate the ideological perspective of the video on a 7-point scale where 1 meant that the video was Conservative, 7 meant the video was Liberal, and 4 meant that the video was not closer to one side or the other. Finally, an open-ended question asked respondents asked to indicate the percentage of the video dedicated to the Democratic side and the Republican side of the issue. Complete question wording can be found in Appendix 3A.

Pretest Results

Based on pretest responses, three stories—banking reform, healthcare reform, and the CEO meeting—were deemed appropriate for use in the experimental stimuli. Only on humor related questions did the videos receive significantly distinct ratings across conditions. Table 3.1 shows ratings of the three clips included in the final experimental stimuli on measures of funny, amused and entertaining. The largest differences are seen in descriptions of the videos as funny, with comedic versions rated 10 to 25 times funnier than the news versions of each story. Respondents also experienced significantly more amusement while viewing the comedy as compared to news version of these stories. Though many did find news to be entertaining, these ratings are significantly lower than those for the comedy versions. Comedy versions scored much higher on all humor related measures.

For the experimental manipulation to be valid, stimuli also needed to be equivalent on all dimensions except humor. The pretest affirms the content equivalence of the news and comedy videos, identifying only small differences in the perceived quantity and quality of information presented across versions of each story. Table 3.2 shows ratings of the news and comedy versions of the three stories included in the final experimental stimuli on measures related to perceptions on the informational content. Overall, the comedic versions were somewhat more interesting than the news versions of stories, but the videos were generally perceived to be equivalent in informational content. Whether they viewed the comedic or news version of a story, respondents reported little confusion and felt that they knew more about an issue after watching the videos. Respondents strongly agreed that all videos contained important information, presented facts and statistics about the issue, and provided evidence to support claims. Though there are some statistically significant differences in evaluations of the informational content, these differences are substantively small. The comedic healthcare story is rated only about 20% lower than the news version on informational content questions, and differences for the CEO meeting and banking reform stories are even smaller. These small differences are of little concern because the informational content of the stimuli were tightly controlled through the editing process. More importantly, if news does contain more substantive information than comedy, then the experiment will underestimate the comedic learning effect. That is, the stimuli are biased in favor of producing false negative as opposed to false positive results in favor of the stated hypotheses.

More problematic would be differences in total emotional arousal or perceived partisan bias that might affect information processing and retention. Overall, the pretest results reduce concern that overall emotional arousal confound experimental results. Table 3.3 shows emotional

reactions to the news and comedy versions of the CEO meeting, healthcare and banking reform stories. Negative arousal was similar across versions. There are no significant differences in the extent to which the news and comedy videos make people feel angry. Only in the banking reform story is there a marginally significant difference in reactions of sadness or fear; and these differences are substantively quite small, with news producing only about 10% more sadness and fear than comedy. Additionally, pretest results show that the news and comedy versions differ on humor but not general positive emotional arousal. Respondents exposed to comedy did report feeling somewhat more excited and happy than those exposed to news; however, comedy elicited these emotions at half the strength of amusement, and, across all stories, only low levels of excitement and happiness were stimulated by either the comedy or hard news versions. The comedic version of the banking reform story produced the highest overall positive arousal, yet even this video was rated less than 2 points higher than the news version on measures of excitement and happiness. Pretest analysis affirms that any differences in knowledge and attitudes found in the experiment are the result of humor and not general patterns of overall emotional arousal.

The partisan perspectives presented were also judged to be comparable across versions of each story. As shown in Table 3.4, there is little difference between news and comedy videos in levels of agreement that both sides of an issue are presented, estimates of time dedicated to the Democratic versus Republican side, or perceived ideological perspectives. Further, concern is not about perceptions of equivalence, per se, but that the political perspectives in the comedy and news versions are actually identical. Given that most citizens have a limited understanding ideological relationships, and that only those with high levels of political sophistication can consistently recognize ideological cues (Converse, 1964; Zaller, 1992), highly sophisticated

respondents should provide more valid and reliable assessments of the political perspective in the clips. Highly sophisticated respondents were identified using a measure of prior political knowledge—knowledge of basic civics facts¹⁴—which has been shown to be a good indicator of underlying political sophistication (Delli Carpini & Keeter, 1991, 1996; Zaller, 1992).

Table 3.5 shows answers to the political perspective questions for respondents with the highest levels of political knowledge.¹⁵ Ideological parity is perceived even by these sophisticated respondents whom theory suggests should be best able to evaluate political perspective. The news version of the healthcare reform story is rated as slightly more balanced than the comedy version, which, according to the estimates of sophisticated respondents, dedicates a slightly larger percentage of time to the Democratic perspective. However, no differences are detected in the amount of time spent discussing Republican views or the overall ideological perspective of the news versus comedy version of this story. The pretest provides strong evidence that any attitudinal effects found in the experiment are a function not of the information being presented but rather *how* the information was presented, either in political comedy or hard news form.

Also pretested but not included in the final experimental stimuli were story pairs about plans for TARP surplus funds and problems with the stimulus website. These stories were rejected based on pretest results, shown in Table 3.6, as well as the author's subjective assessment of quality and substance of these videos. Though certainly speaking to broader conflicts over economic policy and the role of government, these story pairs represented rather minor sub-dramas of fleeting political importance. The TARP surplus stories explore a variety

¹⁴ Prior knowledge was measured using questions about the number of Senators from each state, the process for overriding a Presidential veto, the leadership position held by Nancy Pelosi, and the term limits for Supreme Court justices. The complete question wording can be found in Appendix 3A.

¹⁵ Respondents were considered highly sophisticated if they correctly answered at least 3 of the 4 prior knowledge questions. Based on this criteria, 29 respondents (57%) were considered highly sophisticated.

of suggestions for the use of unspent TARP funds, but focus on abstract goals such as job creation, deficit reduction and economic stabilization rather than specific policy proposals. Ultimately, this story was rejected because particular proposals and the identities of those making suggestions could not be adequately matched across versions.

Likewise, despite vague connections to weighty issues like government competence and the wisdom and efficacy of the economic stimulus package, errors on Recovery.gov were isolated issues attributable to human error. There is comic incongruity built in to this story as the gravity of the economic crisis, magnitude of controversial stimulus spending, and urgency of efforts to restore confidence and public trust are contrasted with the absurdity of an \$18 million, “high tech” website designed to promote government accountability and transparency being riddled with erroneous information about spending and job creation in non-existent districts. Even the news version framed errors as comical given the costs involved and was perceived to be more than twice as funny and produced over three times more amusement than any other news story. The news version of the stimulus website story also produced significantly more anger than comedic version. For these reasons, the Recovery.org story was not ultimately included as part of the final experimental stimuli.

In addition to the meticulous editing process, the pretest provides compelling evidence of content-equivalence for the banking reform, healthcare reform, and CEO story pairs. Differences between the comedy and news videos are statistically and substantively significant only on measures of humor. The final experimental stimuli were created by merging the versions of these three stories into one comedy and one news video. Utilizing an assemblage of stories about several important contemporary political controversies helps capture the dynamic interplay of political predispositions and prior knowledge with new information, and also reduces concern

that findings are specific to any particular issue or story. The final comedy stimulus runs 14 minutes, 51 seconds. The final news stimulus runs 11 minutes, 54 seconds. Though it seems large, the difference in length is a function of including humor and jokes in addition to the factual information presented in the news videos, and careful editing as well as the pretest results show that the videos differ only in the presence of comedy.

Experimental Procedure

The experiment was conducted in the Marsh Lab for Journalistic Performance from February 26, 2010 through June 4, 2010. A total of 184 respondents, recruited from the Communication Studies Participant Pool, completed the study. Trained lab assistants greeted respondents in the lobby of the Marsh Lab and then escorted them to a private computer terminal. All programs and menu bars on the computers were hidden so that only study materials could be accessed while in the lab. Headphones were provided so that video sound could be heard. Respondents were randomly assigned to one of three experimental conditions: comedy, news or control. The control group did not view a video or receive any new information. A total of 62 respondents were assigned to the comedy condition, and the news and control groups each included 61 respondents.

The study began with a short pretest questionnaire including basic demographic, media use, and party identification questions. The sample was 60% female and had an average age of 19 years old. The vast majority (71%) were white, with 10% of respondents identifying as black and 14% as Asian. The sample also skews wealthy, with 37% estimating their family household income to be greater than \$125K, 22% between \$100K and \$124,999, 17% less than \$75K, and 8% unable to estimate their household income.

A basic measure of party identification was also included as part of the pretest questionnaire. Respondents were asked, Generally speaking, do you usually think of yourself as a Democrat, a Republican, an Independent, or what? Follow-up strength of partisanship and party lean questions were asked in the post-test. Overall, the sample skewed slightly democratic, with 42% percent of respondents identifying as Democrats, 20% as Republicans, 17% as Independents, and 17% did not know.

Respondents were also asked about their media use habits, including how many days in a typical week they watched, read or listened to news on the Internet; watched national or local network news on TV; watched cable news programs on TV; read news in a printed newspaper; listened to news on the radio; watched late-night political comedy programs; and talked to friends or family about politics. Respondents reported that the Internet was their primary source of news, used 4 days per week on average. Cable news and network news were used an average of 2 days per week. Respondents were also somewhat familiar with late-night comedy programs, reporting that they watched these programs 1.6 days per week on average. Interpersonal discussion about politics was reported an average of 2 days per week.

Though the sample is not nationally representative, the random assignment procedure eliminated all significant differences in the demographic make-up, partisan predispositions and media use habits across experimental conditions, ensuring that any observed differences are attributable to the experimental manipulation and not pre-existing factors. Additionally, there may be some benefits to having a sample characterized by economic and social privilege, Democratic party bias and strong engagement with political media. These characteristics closely match those of real world audiences for political comedy (Moy et al., 2005a; Young & Tisinger, 2006; Morris, 2009). Using a sample that is representative of typical comedy viewers reduces

concern that findings are an artifact of artificial exposure to information that subjects are unlikely to encounter outside the experimental setting and, because results reflect how characteristic audiences respond to political comedy, may increase the external validity of the study.

Further, any bias created by the relatively privilege and sophistication of the sample is likely to make estimates of the effects of political comedy relative to news more conservative than might be obtained using a more nationally representative sample. Political knowledge is a function of individual differences in opportunity, ability and motivation to acquire political information (Delli Carpini & Keeter, 1996; Luskin, 1990). These factors are strongly associated with the variables on which experimental subject differ from the average citizen. University attendance is indicative of pre-adult factors which predict political knowledge and engagement (Highton, 2009; Kam & Palmer, 2008). These elite undergraduate students have the demonstrated intellectual ability and cognitive skills necessary to understand and learn complex information presented in traditional news formats, and high levels of self-reported news media use show that they are practiced in utilizing this type of political information. Given the characteristics of the sample, the extent to which comedy facilitates information acquisition and utilization is measured against a relatively high baseline, and differences between the comedy and news conditions should be smaller than with a less sophisticated sample that might struggle with the information in traditional news.

After answering demographic, media use and party identification questions, those in the comedy and news condition viewed the one of the video stimuli described above. To ensure that the videos were watched in their entirety, fast-forward and rewind functions were disabled and the last frame of the video clips presented a number which respondents were required to enter correctly in order to move to the next part of the study. Immediately following the experimental

stimuli, those in the comedy and news conditions were taken to a stimulus check that measured perceptions of and reactions to the videos with items similar to those used in the pretest.¹⁶ The control group did not watch a video or receive any additional information and was taken directly to the post-test survey.

To test predictions about the effects of comedy on political sophistication, the post-test questionnaire included measures of political attitudes, orientations toward politics and political knowledge. These measures will be described in detail in the following chapters. Overall, by manipulating humor but holding information constant, the experiment isolates the effect of humor from the influence of exposure to information and permits political comedy to be evaluated relative to traditional hard news. Chapters 4 and 5 describe experimental findings about the effect of exposure to political comedy on knowledge and attitudes.

¹⁶ Information about stimulus check measures can be found in Appendix 4A.

Table 3.1 Humor Ratings of Clips Included in the Experimental Stimuli

	Comedy	News	Difference
CEO Meeting			
Funny	4.42 (1.45)	.20 (.41)	4.22***
Amused	3.58 (1.81)	.32 (.85)	3.26***
Entertaining	4.58 (1.36)	1.56 (1.26)	3.01***
Health Care Reform			
Funny	3.96 (1.40)	.38 (.85)	3.57***
Amused	2.92 (2.04)	.54 (.90)	2.38***
Entertaining	4.08 (1.68)	1.46 (1.17)	2.62***
Banking Reform			
Funny	4.68 (1.07)	.19 (.49)	4.49***
Amused	4.24 (1.42)	.42 (.86)	3.82***
Entertaining	4.84 (1.43)	1.58 (1.14)	3.26***
N	26	25	

*** $p < .001$, ** $p < .01$, * $p < .05$. Entries are mean variable score with standard errors in parentheses. The significance of the difference is determined with a two-tailed t-test. Total N=51.

Table 3.2 Perceptions of Information in Clips Included in the Experimental Stimuli

	Comedy	News	Difference
CEO Meeting			
Informative	4.00 (1.47)	4.52 (1.36)	-.52
Interesting	4.35 (1.32)	2.44 (1.61)	1.91***
Confusing	.96 (1.25)	.84 (1.18)	.12
Important Information	3.50 (.87)	3.88 (.60)	-.38
Facts & Statistics	3.27 (.87)	3.68 (.80)	-.41
Know More Now	3.69 (.84)	3.64 (.86)	.05
Evidence	3.11 (.86)	3.40 (.82)	-.28
Health Care Reform			
Informative	3.56 (1.61)	4.61 (1.10)	-1.05**
Interesting	3.52 (1.61)	3.04 (1.51)	.48
Confusing	1.00 (1.08)	1.54 (1.14)	.54
Important Information	3.44 (.71)	4.28 (.57)	-.94****
Facts & Statistics	3.08 (.76)	4.11 (.52)	-1.03***
Know More Now	3.56 (.77)	4.00 (.63)	-.44*
Evidence	2.88 (.73)	3.42 (.86)	-.54*
Banking Reform			
Informative	4.12 (1.33)	4.61 (1.44)	-.49
Interesting	4.24 (1.48)	3.15 (1.78)	1.09*
Confusing	1.36 (1.50)	1.58 (1.27)	-.22
Important Information	4.00 (.50)	3.92 (.63)	.08
Facts & Statistics	3.52 (.59)	4.04 (.72)	-.52**
Know More Now	3.80 (.82)	3.96 (.66)	-.16

Evidence	2.80	3.58	-.78**
	(.82)	(.86)	
N	26	25	

***p<.001, **p<.01, *p<.05. Entries are mean variable score with standard errors in parentheses. The significance of the difference is determined with a two-tailed t-test. Total N=51.

Table 3.3 Emotional Reactions to Clips Included in the Experimental Stimuli

	Comedy	News	Difference
CEO Meeting			
Angry	1.35 (1.44)	.92 (1.22)	.43
Sad	.54 (.99)	.40 (.87)	.14
Afraid	.54 (.95)	.52 (1.00)	.02
Excited	1.19 (1.57)	.32 (.69)	.87*
Happy	1.54 (1.65)	.28 (.61)	1.26***
Health Care Reform			
Angry	.96 (1.24)	1.46 (1.48)	-.50
Sad	.52 (.87)	.96 (1.48)	-.44
Afraid	.52 (.77)	1.00 (1.55)	-.48
Excited	.92 (1.44)	.31 (.73)	.61
Happy	1.20 (1.68)	.27 (.72)	.93**
Banking Reform			
Angry	1.72 (1.69)	2.11 (1.75)	-.39
Sad	.64 (1.07)	1.46 (1.55)	-.82*
Afraid	.52 (.82)	1.27 (1.46)	-.75*
Excited	1.68 (1.67)	.19 (.49)	1.49***
Happy	2.28 (1.51)	.35 (.89)	1.93***
N	26	25	

***p<.001, **p<.01, *p<.05. Entries are mean variable score with standard errors in parentheses. The significance of the difference is determined with a two-tailed t-test. Total N=51.

Table 3.4 Assessments of Political Perspective by All Respondents

	Comedy	News	Difference
CEO Meeting			
Both Sides	2.77 (.91)	2.88 (.83)	-.11
Democratic (%)	.51 (.26)	.53 (.35)	-.02
Republican (%)	.31 (.22)	.35 (.23)	-.04
Ideology	4.27 (1.40)	4.36 (.86)	-.09
Health Care Reform			
Both Sides	2.92 (.86)	3.73 (.92)	-.81**
Democratic (%)	.53 (.27)	.42 (.24)	.11
Republican (%)	.36 (.24)	.46 (.26)	-.10
Ideology	4.88 (1.48)	4.27 (1.37)	.61
Banking Reform			
Both Sides	2.76 (.83)	3.00 (.75)	-.24
Democratic (%)	.60 (.27)	.47 (.29)	.13
Republican (%)	.25 (.21)	.43 (.26)	-.18*
Ideology	5.20 (1.12)	4.35 (1.35)	.85*
N	26	25	

***p<.001, **p<.01, *p<.05. Entries are mean variable score with standard errors in parentheses. The significance of the difference is determined with a two-tailed t-test. Total N=51.

Table 3.5 Assessments of Political Perspective by High Political Knowledge Respondents

	Comedy	News	Difference
CEO Meeting			
Both Sides	2.80 (.26)	2.79 .21	.01
Democratic (%)	.53 (.07)	.51 (.07)	.02
Republican (%)	.26 (.05)	.27 (.05)	-.01
Ideology	4.33 (.36)	4.50 (.20)	-.17
Health Care Reform			
Both Sides	2.79 (.24)	3.92 (.21)	-1.15*
Democratic (%)	.61 (.07)	.38 (.06)	.23*
Republican (%)	.32 (.06)	.38 (.07)	-.06
Ideology	5.07 (.41)	4.46 (.33)	.60
Banking Reform			
Both Sides	2.80 (.22)	3.07 (.19)	-.27
Democratic (%)	.62 (.07)	.48 (.09)	.13
Republican (%)	.26 (.05)	.32 (.07)	-.06
Ideology	5.20 (.22)	5.14 (.23)	.06
N	15	14	

***p<.001, **p<.01, *p<.05. Entries are mean variable score with standard errors in parentheses. The significance of the difference is determined with a two-tailed t-test. High knowledge respondents include those who correctly answered at least 3 (75%) of prior knowledge questions. Total N=29.

Table 3.6 Responses to Videos Not Included in the Experimental Stimuli

	TARP Surplus			Stimulus Website		
	Comedy	News	Difference	Comedy	News	Difference
Description						
Entertaining	4.50 (1.42)	1.60 (1.26)	2.90***	4.60 (1.32)	2.34 (1.06)	2.25***
Informative	3.31 (1.67)	4.56 (1.19)	-1.25**	3.76 (1.20)	4.46 (1.21)	-.70*
Funny	4.27 (1.54)	.32 (.80)	3.95***	4.60 (.96)	.88 (1.24)	3.71***
Interesting	4.00 (1.47)	3.04 (1.46)	.96*	4.24 (1.33)	4.15 (1.56)	.09
Confusing	1.46 (1.53)	1.36 (1.22)	.10	1.00 (1.15)	1.50 (1.30)	-.50
Emotions						
Angry	1.46 (1.53)	1.44 (1.39)	-.55	.44 (.82)	2.35 (1.35)	-1.91***
Sad	.19 (.49)	.60 (1.15)	-.41	.48 (1.08)	1.08 (1.23)	-.60
Afraid	.27 (.60)	.60 (.87)	-.33	.28 (.61)	1.15 (1.56)	-.87**
Amused	3.61 (1.77)	.68 (1.11)	2.93***	3.92 (1.47)	1.81 (1.74)	2.11***
Excited	1.35 (1.72)	.88 (.26)	.47	1.80 (1.91)	.38 (.70)	1.41***
Happy	1.77 (1.88)	1.12 (1.45)	.65	2.12 (1.90)	.42 (.86)	1.70***
Agree or Disagree						
Important Information	3.08 (.93)	4.04 (.84)	-.96***	3.28 (.89)	3.27 (1.00)	.01
Facts & Statistics	2.96 (.92)	3.84 (.85)	-.88***	3.40 (.87)	3.69 (1.05)	-.29
Know More Now	3.11 (.95)	3.96 (.84)	-.84**	3.68 (.85)	3.77 (.99)	-.09
Evidence	2.61 (.80)	3.40 (1.00)	-.78**	3.28 (.84)	3.38 (.94)	-.10
Both Sides	2.46 (.86)	3.88 (.97)	-1.42***	2.52 (1.08)	2.58 (1.06)	-.06
Political Perspective						
Democratic (%)	.52 (.31)	.54 (.23)	-.01	.41 (.26)	.33 (.20)	.08
Republican (%)	.32 (.23)	.38 (.22)	-.06	.41 (.32)	.53 (.22)	-.12
Ideology	4.73 (1.48)	4.44 (.87)	.29	4.04 (1.54)	3.31 (1.01)	.73*

N	26	25	25	26
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***p<.001, **p<.01, *p<.05. Entries are mean variable score with standard errors in parentheses. The significance of the difference is determined with a two-tailed t-test. Total N=51.

Chapter 4. An Experimental Test of the Effect of Political Comedy on Learning

It is widely recognized that political comedy contains important information, and many previous studies have demonstrated the correlation between exposure to political comedy and knowledge (Brewer & Cao, 2008; Cao, 2008; Feldman & Young, 2008; Graber, 2008; Hollander, 2005; Parkin, 2010; Xenos & Becker, 2009; Young & Hoffman, 2009). Regular comedy viewers are better informed than audiences of almost any other political media (NAES, 2004; Pew, 2007, 2012). Previous investigations have identified two pathways by which political comedy might promote learning. Viewers might acquire information as an incidental by-product of consuming political comedy for entertainment purposes (Baum, 2002, 2003a, 2003b; Brewer & Cao, 2008). Alternatively, political comedy may serve as a gateway to political knowledge by promoting awareness and interest so that viewers are more likely to seek out and are better able to learn from more traditional sources of information (Baum, 2003b; Cao, 2010; Feldman & Young, 2008; Xenos & Becker, 2009).

Still, skeptics continue to question whether the relationship between political comedy and knowledge is evidence of a learning effect or merely reflects differential patterns of consumption among already sophisticated citizens (Baek & Wojcieszak, 2009; Cao, 2008; Prior 2003, 2005, 2007). In fact, audience analysis shows that political comedy attracts highly engaged and politically aware viewers who tend use comedy as a supplement to rather than replacement for other, more traditional sources of information (Feldman & Young, 2008; Hmielowski, Holbert & Lee, 2011; Young & Tisinger, 2006). Because both suggest that learning effects are the result of

exposure to political information among otherwise disinterested audiences, neither the *incidental exposure* nor *gateway* hypotheses are sufficient to explain how political comedy might promote learning.

Political comedy is more than just a novel delivery system for widely available information. What is important is not the *presence* of political information in comedy, but the unique way that comedy *presents* political information. In fact, political comedy is unlike other political media, and cognitive requirements associated with this mode of communication are fundamentally different than those of more traditional political communication formats. Comprehending and appreciating humor is a cognitively complex activity requiring the recognition of incongruity between constructs and discovery of a cognitive rule that connects seemingly unrelated ideas (Suls, 1972; 1983; Wyer & Collins, 1992). The model of humor-triggered cognition presented in Chapter 2 contends that patterns of cognitive processing and engagement associated with comprehending and enjoying humor will boost learning. Further, this model predicts that rather than promoting learning among apathetic citizens, the strongest learning effect will be among moderately sophisticated citizens who have the prior knowledge and understanding necessary to comprehend humor but are generally unmotivated to think deeply about politics absent the external incentives provided by political comedy. In this chapter, I explore the link between political comedy and learning by examining the unique patterns of information processing associated with humorous messages.

Hypotheses: Learning from Political Comedy

The *incidental exposure* and *gateway* models share an expectation that learning from political comedy is a function of incidental exposure to information that might not otherwise be

encountered (e.g. Baum, 2002, 2003a, 2003b; Xenos & Becker, 2009). From this perspective, political comedy reduces motivational and resource barriers to learning by presenting information in an entertaining and accessible way that appeals to apathetic audiences. While perhaps reasonable in regard to soft news, it is not clear that these expectations are appropriate when thinking about the effects of political comedy. The model of humor-triggered cognition suggests that rather than a softer, more accessible variant on widely available political information, comedy is a complex form of communication that demands effortful processing and thoughtful cognitive engagement to comprehend and appreciate. Comedy does not decrease the motivational or resource barriers to learning but increases motivation to process information and elaborate on the meaning and implications of messages. Relative to traditional hard news, comedy creates the intellectual conditions that should encourage learning.

H1: All else equal, those exposed to political comedy should recall more information than those exposed to identical information in a hard news format.

Further, the benefits of political humor are not expected to be uniform, but should vary based on individual differences in knowledge and abilities. Most previous research has positioned comedy as a supplement to or replacement for traditional hard news and predict that exposure to comedy will be most beneficial to those with limited political knowledge and experience (Baek & Wojcieszak, 2009; Baum 2002, 2003a, 2003b; Cao, 2010; Feldman et al., 2011; Feldman & Young, 2008; Xenos & Becker, 2009). However, for information to have an impact, one must not only be exposed to information but must also comprehend or receive the message (Zaller, 1992). Those who know and think a lot about politics are better able to understand new information, incorporate it with prior knowledge and utilize it when making political decisions (Delli Carpini & Keeter, 1996; Price & Zaller, 1993; Zaller, 1992).

While political comedy may result in some incidental learning of political information among relatively apathetic viewers, the features of these programs make them difficult for the least sophisticated viewers to comprehend and fully enjoy. Understanding political humor requires at least some prior knowledge about politics. As *Tonight Show* host Jay Leno notes, “The audience has to know what you’re talking about or else you’ll be sunk.... And we’ve found that once you get past the Secretary of State—and even that’s a stretch—no one knows what you’re talking about” (in Niven et al., 2003, p. 121). The time and effort expended on humor comprehension trades off with elaboration about the implications of humorous messages that maximizes enjoyment (Wyer & Collins, 1992). Sophisticated, not inattentive citizens, should be best able to comprehend and fully appreciate political comedy.

While they have the cognitive resources necessary to understand and enjoy political comedy, highly sophisticated citizens also have large stores of pre-existing knowledge which allows them to make sense of information presented in more traditional formats. Thus, particularly when information is readily available in the information environment, politically sophisticated citizens are unlikely to be influenced by any particular piece of new information (Zaller, 1992), no matter the context. Those with the least prior political knowledge lack the skills and resources necessary to make optimal use of comedy, and those with a great deal of prior knowledge are familiar enough with politics that comedy should have little net benefit over other modes of political communication. The model of humor-triggered cognition predicts that the largest learning effect should be seen among those with sufficient prior knowledge and political understanding to comprehend jokes and elaborate on their meaning, but lacking the motivation to think deeply or learn about politics absent the emotional gratifications that comedy provides for doing so.

H2: Comedy will be most powerfully associated with learning among those with moderate levels of prior political information.

Both the *incidental exposure* and *gateway* models of learning suggest that interest drives learning effects. That is, political comedy makes politics more interesting and promotes learning among apathetic citizens who might not otherwise be exposed to or have the opportunity to acquire political information. The model of humor-triggered cognition identifies an alternative mechanism to explain how political comedy promotes learning. Rather than an indirect effect of altering dispositions toward political information, learning is directly related to the cognitive processes associated with humor comprehension and amusement. Effortful information processing and thoughtful elaboration are necessary in order derive gratifications from comedy in the form of the emotional experience of amusement. By facilitating the encoding of information in long-term memory, these patterns of cognition also promote learning. Failure to process, comprehend or meaningfully elaborate on the implications of humorous messages will decrease amusement and make it unlikely that comedy has a net learning benefit beyond a hard news presentation of information.

H3: Amusement will mediate the effect of political comedy on learning.

These predictions are in contrast with previous explanations of the learning effect of political comedy which suggest that disinterested audiences learn about politics as an incidental by-product of exposure to information presented in a more interesting and accessible form. The model of humor-triggered cognition contends that exposure to information through political comedy will enhance learning beyond that associated with exposure to identical information presented in traditional hard news form. Relative to straight news, political comedy will be most beneficial for those at moderate levels of political sophistication. Because it stems from the

patterns of cognitive engagement associated with comprehending and enjoying humor, the learning effect will be mediated by the emotional experience of amusement and not perceptions that information is interesting. Data from the experiment described in Chapter 3 is used to test these predictions about the effect of political comedy on learning derived from the model of humor-triggered cognition.

Measurement

Learning was measured using 6 questions, 5 open-ended and 1 multiple-choice, tapping recall of information provided in the news and comedy videos comprising the experimental conditions. The open-ended questions create the most conservative possible measurement strategy as prior research has shown comedy to be associated with easy, recognition based, multiple choice questions rather than more difficult, open ended recall questions (Hollander, 2005; Kim & Vishak, 2008; Baek & Wojcieszak, 2009). Additionally, by reducing blind guessing, these measures produce less measurement error than multiple-choice items (Mondak, 2001). Respondents in all three experimental conditions were asked: 1. What state does Senator Joe Lieberman represent? (Connecticut); 2. Who were the recipients of TARP money? (Banks/ Financial Firms); 3. What type of business is Goldman Sachs? (Investment Bank); 4. Who did President Obama recently refer to as “fat cats”? (Wall St. bankers); 5. In their health care bill, what government program did Democrats want people to be allowed to buy into? (Medicare); and, 6. Which of the following is NOT included in the President’s plan to regulate banks? (Limiting the interest rates that banks can charge (correct); Increasing the amount of cash banks must maintain; Banning banks from speculating on stocks with deposits; Capping the total size of banks). Responses to open-ended items were coded for correctness. Answers were coded as

‘don’t know’ as opposed to incorrect when no response was given or “don’t know” was entered into the response box. Fifty percent of responses were double coded by a trained undergraduate research assistant for reliability analysis, and all questions were reliable at the 95% level or greater. An additive index of the 6 information recall questions was used to measure learning.

To test whether the strength of the learning effect differs across levels of prior knowledge, 6 general political knowledge questions were also included in the post-test knowledge inventory. Information about the items used to measure prior political knowledge is available in Appendix 4A¹. Measuring prior knowledge in the post-test reduces the risk that respondents would be primed for a test of political knowledge as they viewed the experimental stimulus. The introduction of information acquisition goals would be particularly problematic because they might alter the cognitive processes that are hypothesized to drive effects. That is, respondents might watch the comedy video with the goal of remembering as much information as possible as opposed to comprehending and enjoying the jokes and humor. The post-test placement of prior knowledge items avoids this bias but creates endogeneity in the prior knowledge measure because scores are somewhat affected by experimental condition.

Though none of the answers to prior knowledge questions were mentioned in the news or comedy stimuli, respondents the control group answered significantly fewer of these questions correctly than those in either the comedy or news condition, and respondents in the comedy

¹ Questions were similar to those typically utilized in public opinion surveys and produced results comparable to those obtained from a nationally representative sample in the 2008 National Annenberg Election Survey (NAES). The largest difference was found in a question about the political party controlling Congress, which was correctly answered by 75% of experimental respondents versus 63% of NAES respondents. Experimental respondents were only slightly more successful than those from the NAES in identifying the procedure for overriding a presidential veto, with 43% answering correctly versus 38% in the NAES. The nationally representative sample was slightly more successful on a question about the branch of government responsible for determining the constitutionality of laws, with 71% answering correctly versus 66% if experimental respondents. Overall, the distribution of prior political knowledge in the experimental sample does not appear to be dissimilar to that obtained in the nationally representative survey. This reduces concern that findings are an artificial by-product of the sophisticated experimental sample and suggests that the division of respondents into knowledge groups was appropriate to produce valid tests of non-linear predictions.

condition scored slightly higher than those in the news condition. Because there are no other variables where respondents significantly differ across conditions, this imbalance is likely the result of differences in how respondents answered questions. Any measure of political knowledge captures both information and irrelevant factors such as individual differences in motivation to search memory for answers and the propensity to guess (Mondak, 2001). Further, variance in motivation can significantly affect the likelihood of correctly answering questions (Prior & Lupia, 2008). Exposure to information, particularly political comedy, may inflate prior knowledge scores by increasing cognitive engagement, activating stored political knowledge or motivating more thoughtful responses.

Following the logic of Bayesian Item Response Theory (IRT), prior political knowledge scores were corrected by weighting items by difficulty. Because they were not exposed to any new political information, scores in the control group are a relatively unbiased reflection of information stored in memory, and the probability that control group respondents correctly answered a question was taken as an indicator of item difficulty. Items were assigned a point value equivalent to the percentage of the control group answering a question incorrectly so that difficult items were given greater weight than easier items that control group answered more successfully. The total score from the 6 weighted items was then converted into a 3-category index of prior political knowledge, with the bottom 1/3 of scores rated as low in prior knowledge, the middle 1/3 placed in the medium knowledge category, and the those with the highest 1/3 of scores ranked high in prior political knowledge. The resulting prior knowledge variable is balanced across experimental conditions. That is, there is no significant difference in the percentage of respondents ranked high, medium or low in political knowledge across conditions.

The mediating variable—amusement—was measured using 3, comedy related, stimulus check questions: entertaining, funny and amused. Entertaining was included to reduce concern that the amusement measure is simply a proxy for the comedy condition, and that the reduction in the coefficient on comedy when this variable is included in learning models is the result of multicollinearity rather than evidence of mediation by the experience of amusement. The entertaining measure is highly correlated with both funny ($r=.78$) and amused ($r=.77$). Though the mean score was higher in the comedy condition ($M=4.75$), many respondents found news entertaining ($M=2.02$). Including these 3 measures—entertaining, funny and amused—in the mediating amusement variable insures that this is a valid indicator of the experience of amusement stemming from comedy exposure, and that results of the mediation analysis reflect the impact of that emotional experience.

This mediating variable was measured in non-linear form. The amusement initially experienced by comprehending jokes is enhanced through cognitive elaboration about the meaning and implications of a humorous reinterpretation (Wyer & Collins, 1992). Subsequent elaboration is likely to result in only a small increase in learning beyond that stemming from the cognitive processes associated with humor comprehension. To account for the non-linear relationship between amusement and learning, the amusement variable was created by taking the square root of the mean of entertaining, funny and amused.² The square root of amusement is used because the marginal effect of additional amusement is expected to be smaller than the initial boost in learning that results from the amusement initially experienced when a joke is understood. This non-linear transformation results in an amusement variable that ranges from 0 to 2.45.

² The models were also tested using only funny and amused and with the amusement variable specified in linear form. The results are substantively the same.

Finally, the alternative mediating variable—interest—was measured using the stimulus check question gauging how interesting respondents found the video that they just saw. This variable runs from 0, meaning not interesting at all, to 6, meaning the video was extremely interesting.³ To mirror the analysis of amusement, the square root of this variable was taken.⁴

Results

Hypothesis 1 predicts that information will be better recalled when presented in comedic form than when presented as hard news. Table 4.1 shows models predicting the total number of correct answers, the total number of incorrect answers and the number of don't know responses. Taken together, these 3 models show that while both conditions increase overall opinionation, i.e. the number of questions attempted, comedy maximizes the number of questions answered correctly.

Column 1 of Table 4.1 shows the number of correctly answered questions regressed on dummy variables for the experimental conditions. Following exposure to the experimental stimuli, those in both the comedy and news conditions are able to answer more questions correctly. However, this effect is larger in the comedy condition than in the news condition. Those in the comedy condition answer on average 2.74 questions correctly as compared to 1.97 in the news condition. A t-test shows the .77 difference between the coefficient on comedy and the coefficient on news is statistically significant ($t=2.04$, $p<.05$). Additionally, restricting the model so that the coefficients on these conditions are equal significantly reduces model fit ($F=10.43$, $p<.01$).

³ Mediation was also tested using a more global measure of political interest, “Generally speaking, how interested are you in information about what's going on in / government and politics? Extremely interested, moderately interested, slightly interested, or not interested at all?” Results were the same. These models can be found in Appendix 4B.

⁴ The models were also tested using a linear form of the interest variable. The results were substantively the same.

It is possible, however, that respondents are more motivated to answer questions following exposure to information, and that the observed relationship between comedy and learning is attributable to greater overall opinionation rather than information recall. To test this alternative explanation, Column 2 of Table 4.1 shows the model predicting non-response, including questions answered “don’t know” or left blank. Indeed, rates of non-response are lower in both the comedy and news conditions. However, the non-response rate in the comedy condition is only a statistically insignificant .19 points less than in the news condition. Thus, the comedic learning effect is not merely a by-product of differential rates of response.

Increased guessing could also produce the observed relationship between comedy and learning. If this is the case, then comedy should be associated with a larger number of both correct and incorrect responses. Column 3 of Table 4.1 shows the model for valid but incorrect responses, excluding questions answered “don’t know” or left blank. Exposure to news, but not comedy, increases the number of incorrect responses. On average, those in the news condition answer 2.07 questions incorrectly, a statistically significant increase relative to both the control group and comedy condition. While the relationship between news and learning may be attributable to increased guessing, comedy increases only the number of correct responses. In line with Hypothesis 1, this overall pattern of results suggests that political comedy does not simply promote greater overall opinionation or guessing, but enhances information acquisition.

The model of humor-triggered cognition also predicts that the amount of information retained in response to news versus comedy will depend on levels of prior political knowledge. Neither news nor comedy is expected to promote learning among those low in prior political knowledge. Highly sophisticated subjects should demonstrate good recall in both the news and comedy conditions. For those with moderate levels of political knowledge, learning should be

maximized by comedic presentation of political information. Table 4.2 contains models of learning run separately for high, medium and low prior political knowledge groups.⁵ Only at moderate levels of political knowledge is there a significant difference in learning between the comedy and news conditions. At low levels of prior knowledge, political comedy produces only a marginally significant .54 point increase in learning relative to news. For those with high levels of political knowledge, exposure to political comedy results in only .25 more correct answers than exposure to news. At moderate levels of prior knowledge, those in the comedy condition answer 1.36 more questions correctly than those in the news condition. A t-test of the difference between the coefficients on comedy and news coefficients shows that this is a statistically significant increase in learning ($t=2.78, p<.01$). These results strongly support Hypothesis 2, indicating that comedy promotes learning primarily among those with moderate prior political knowledge.

Figure 4.1 shows how experimental condition affects the gap in knowledge across levels of prior political knowledge. In the control condition, where no new political information is given, those with moderate prior political knowledge behave much like those low in prior knowledge, with both groups answering about .3 questions correctly. In the control condition, those with high prior knowledge answer about .8 more questions correctly than those with low and medium levels of prior political knowledge. The learning gap between the medium and high knowledge groups is maximized in the news condition. After exposure to news, the medium knowledge group answers 1.38 fewer questions correctly than the high knowledge group and only .45 more than the low knowledge group. Political comedy has the opposite effect, shrinking the gap in learning so that those with medium prior knowledge perform almost as well as those

⁵ A fully interacted model can be found in Appendix 4B. The results are consistent with those obtained when the models are run separately for each prior knowledge group.

with high prior knowledge in the test of information recall. In the comedy condition, the gap between the high and medium prior knowledge group falls to .27, but grows to 1.24 between the medium and low knowledge groups. Exposure to political comedy equalizes knowledge between those with moderate and high prior political knowledge.

Others have suggested that learning from political comedy is a result of attention or interest; however, the model of humor-triggered cognition explains that it is the way comedy is cognitively processed that catalyzes learning. Comedy has high cognitive processing requirements, and motivation to expend cognitive energy processing comedic political information is provided by the emotional payoff that comes from ‘getting’ a joke and elaborating on the meaning of humorous reinterpretations. The learning effect of political comedy is attributable to the cognitive processes associated with comprehending humor and experiencing amusement. Hypothesis 3 predicts that amusement mediates the relationship between comedy and learning. The models in Table 4.3 test this prediction. Because amusement was only measured in the news and comedy conditions as part of the manipulation check, this analysis excludes the control group, and in these models, the constant represents learning in the news condition. So that the dependent variable reflects information acquisition as opposed to knowledge, baseline knowledge observed in the control group was removed from scores by taking the residual values from the overall learning model.

To show mediation, four criteria must be met: 1. the independent variable must affect the mediator; 2. the independent variable must affect the dependent variable in the absence of the mediator; 3. the mediator must have a significant independent effect on the dependent variable; and, 4. the effect of the independent variable on the dependent variable must shrink when the mediator is included in the model. The models in Table 4.3 show that amusement meets all the

criteria for mediating the relationship between comedy and learning. Comedy increases the net knowledge gain from information (Column 1) by .77 above that resulting from exposure to news. Comedy is also strongly associated with the experience of amusement (Column 2). The level of amusement reported increases from .93 in the news condition to 2.08 in the comedy condition, near the top of the amusement scale. The final column shows learning regressed on comedy and the mediating variable—amusement. The square root of amusement has a strong, statistically significant effect on learning. However, when amusement is included in the model, the coefficient on comedy becomes negative, dropping from .77 to -.53, a statistically significant 1.30 point decrease ($t=2.55$, $p<.01$). Additionally, the statistical significance of the mediation by amusement is established by a Sobel test (3.63, $p<.01$).⁶ Substantively, these results show that moving from no amusement to maximum amusement results in a 2.77 point increase in the number of questions answered correctly; conversely, a respondent in the comedy condition who reports no amusement performs no better on the test of information recall than does a respondent in the control group who received no information intervention. These results support Hypothesis 3, that the effect of comedy on learning is mediated by amusement.

The alternative hypothesis suggested by the *incidental exposure* and *gateway* models is that comedy promotes learning by making information more interesting. Experimental findings do not support this alternative explanation. Table 4.4 shows a test of mediation by how interesting the video presentation was perceived to be. While both news and comedy are associated with increased levels of interest, the inclusion of interest in the learning model does not significantly reduce the effect of comedy. When interest is included in the learning model the coefficient on comedy drops from .77 to .39, a statistically insignificant .38 point reduction in the relationship between comedy and learning. Finding the presentation interesting does not

⁶ Interactive mediation test <http://quantpsy.org/sobel/sobel.htm>

seem to have a differential effect on the news and comedy conditions. Instead, when interest is included in the learning model the constant drops 1.82 points ($t=3.34$, $p<.01$), indicating that finding receiving information interesting boosts learning, regardless of presentation format. While comedy was slightly more interesting than news, this increase in interest does not mediate learning.

Additionally, if comedy encouraged learning by stimulating interest, than those who benefit most from comedy should also show the greatest boost in interest following exposure to political comedy. Table 4.5 shows the relationship between rating information as interesting divided by levels of prior political knowledge. Comedy increases interest primarily among those who are least likely to learn about politics. Among those with the lowest levels of prior knowledge, the comedic presentation of information boosts interest ratings by 1.72 points, more than double the increase seen among those at moderate or high levels of political knowledge. However, as previous models show, this increase in interest does not translate into greater knowledge gain. Among the moderately knowledgeable, who have been shown to benefit the most from comedy relative to news, the increase in interest is only .62 in the comedy condition, a marginally significant boost relative to the news condition. There is no evidence, then, that interest mediates the relationship between comedy and political learning.

Conclusion

Previous studies investigating the relationship between political comedy and knowledge suggest that learning is a happy accident that occurs when disinterested citizens are exposed to information as they pursue other goals. The model of humor-triggered cognition offers a very different explanation of how political comedy promotes learning. Comedy presents an

intellectual puzzle requiring effortful processing and thoughtful engagement to discover how seemingly unrelated pieces of information are connected. For those with the skills and resources necessary to engage in this exercise, political comedy enhances learning.

Using a controlled experiment that manipulated humor while holding information constant, this study demonstrates the learning effect of political comedy. Because audiences are pursuing the rewarding experience of amusement, comedy encourages active and effortful information processing and thoughtful cognitive elaboration. Exposure to information was more strongly associated with recall in the comedy condition than the news condition, suggesting that learning was not the result of simple incidental exposure to information but was related to differences in how information was presented. Information was acquired not in spite of the pursuit of entertainment but because of the patterns of cognitive processing and engagement associated with comprehending and enjoying humor.

Rather than benefiting the least informed group, comedy lifted up the middle so that moderately sophisticated citizens behaved more like those with advanced political knowledge. Previous research has focused on the effects of political comedy on apathetic citizens who were expected to benefit most from the entertaining presentation of political information. Though they may be exposed to some information that might not otherwise be encountered, those with the lowest levels of prior political knowledge are the least capable of comprehending political comedy. Some pre-requisite knowledge and skills are required to identify and make sense of humorous incongruity and elaborate about the meaning of humorous messages. Findings demonstrate that, relative to traditional news, comedy is most beneficial to those with moderate levels of political sophistication.

Further, learning effects come not from increasing attention and interest but are mediated by the complex cognitive processes associated with humor comprehension and the experience of amusement. Exposure, by itself, is not enough. Understanding and enjoying comedy requires effortful processing and cognitive elaboration. The mediation analysis shows that comedy is associated with learning only when a subject ‘gets’ the joke and experiences amusement. Findings did not support the alternative hypothesis that political comedy promotes learning by stimulating interest. Consistent with the model of humor-triggered cognition, amusement mediated learning from political comedy.

To understand the effects of political comedy it is necessary to recognize that comedy is not simply an alternative source of news and information but a unique form of political communication that enhances learning by promoting effortful information processing and thoughtful engagement so that information is incorporated into memory and available for use when making decisions. The next chapter looks more directly at how the cognitive processes associated with humor comprehension and amusement impact the structure of information in memory and the nature of political attitudes derived from these considerations.

Table 4.1 Effects of Comedy and News on Learning and Patterns of Response to Information Recall Questions

	Correct	Don't Know	Incorrect
Comedy	2.22*** (.29)	-2.51*** (.29)	.29 (.22)
News	1.45*** (.24)	-2.32*** (.29)	.87*** (.22)
Constant	.52*** (.17)	4.28*** (.20)	1.20*** (.15)
R ²	.33	.35	.08
N	182	182	182
$\beta_{\text{comedy}} - \beta_{\text{news}}$	.77	.19	-.58
t	2.04***	.46	-1.86***
F	10.43***	.48	7.00***

***p<.01, **p<.05, *p<.10, ^p<.15 Entries are OLS regression coefficients with standard errors in parentheses. The t-value tests the difference between the coefficients on comedy and news using the formula $t = (b_{\text{comedy}} - b_{\text{news}}) / \sqrt{se_{\text{comedy}}^2 + se_{\text{news}}^2}$. The F statistic is the result of a Wald test where $H_0: \beta_{\text{comedy}} = \beta_{\text{news}}$.

Table 4.2 Learning Effect across Levels of Prior Political Knowledge

	Low	Medium	High
Comedy	1.40*** (.30)	2.60*** (.36)	2.07*** (.45)
News	.83*** (.29)	1.24*** (.33)	1.82*** (.47)
Constant	.29 [#] (.20)	.33 [^] (.23)	1.13*** (.36)
R ²	.31	.48	.26
N	54	61	67
$\beta_{\text{comedy}} - \beta_{\text{news}}$	.57	1.36	.25
t	1.37 [^]	2.78***	.38
F	3.29*	13.76***	.40

***p<.01, **p<.05, *p<.10, [^]p<.15, [#]p<.20 Entries are OLS regression coefficients with standard errors in parentheses. The t-value tests the difference between the coefficients on comedy and news using the formula $t = (\beta_{\text{comedy}} - \beta_{\text{news}}) / \sqrt{se_{\text{comedy}}^2 + se_{\text{news}}^2}$. The F statistic is the result of a Wald test where $H_0: \beta_{\text{comedy}} = \beta_{\text{news}}$.

Figure 4.1 Knowledge Gap across Experimental Conditions

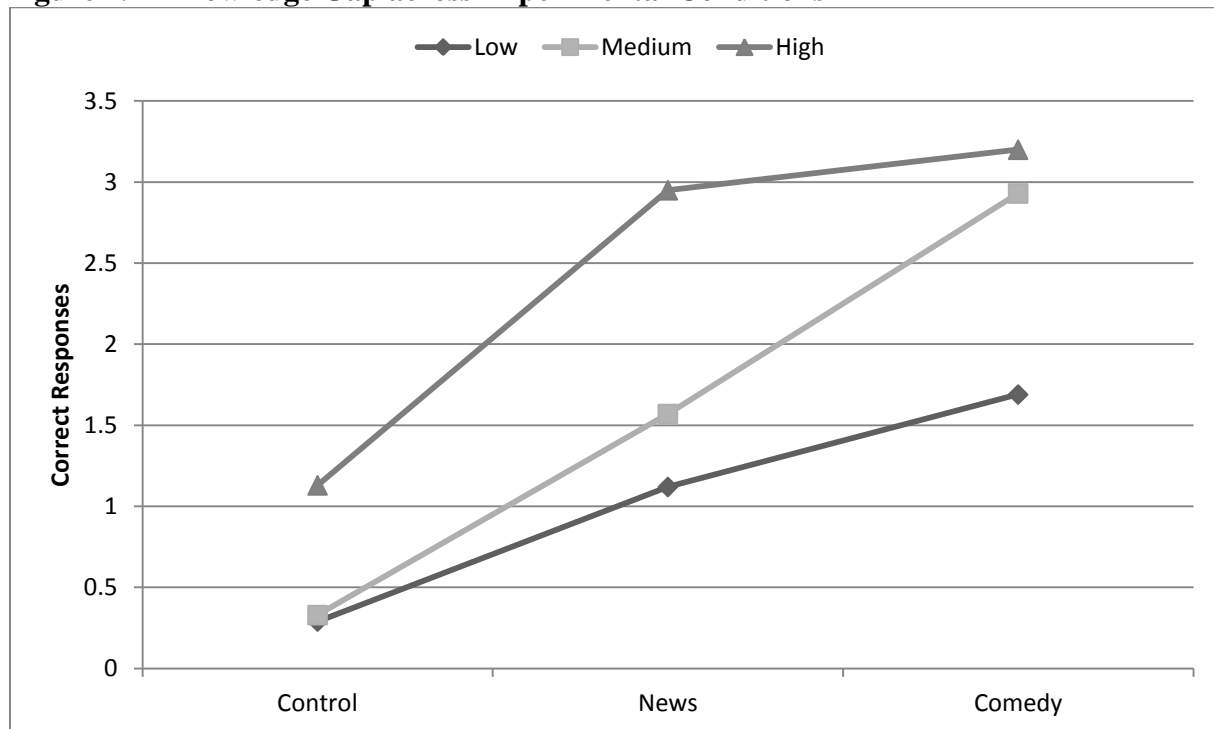


Table 4.3 Mediation of Comedic Learning Effect by Amusement

	Learning	$\sqrt{\text{Amusement}}$	Learning
Comedy	.77*** (.27)	1.15*** (.08)	-.53 (.43)
$\sqrt{\text{Amusement}}$			1.13*** (.30)
Constant	1.45*** (.19)	.93*** (.05)	.39 (.33)
R ²	.06	.65	.16
N	122	123	122
$\Delta\beta_{\text{comedy}}$			-1.30
t			2.55***
Sobel-Goodman mediation test			3.63*** (.36)

***p<.01, **p<.05, *p<.10, ^p<.15 Entries are OLS regression coefficients with standard errors in parentheses. The t-value tests the difference between the coefficients on comedy and news using the formula $t=(b_{\text{comedy}}-b_{\text{news}})/\sqrt{(se_{\text{comedy}}^2+se_{\text{news}}^2)}$.

Table 4.4 Mediation of Comedic Learning Effect by Interesting Ratings

	Learning	$\sqrt{\text{Interesting}}$	Learning
Comedy	.77*** (.27)	.36*** (.08)	.39 [#] (.27)
$\sqrt{\text{Interesting}}$			1.06*** (.27)
Constant	1.44*** (.19)	1.73*** (.06)	-.38 (.51)
R ²	.06	.15	.16
N	122	123	122
$\Delta\beta_{\text{comedy}}$			.38
t			.98

***p<.01, **p<.05, *p<.10, ^p<.15 [#]p<.20 Entries are OLS regression coefficients with standard errors in parentheses. The t-value tests the difference between the coefficients on comedy and news using the formula $t=(b_{\text{comedy}}-b_{\text{news}})/\sqrt{(se_{\text{comedy}}^2+se_{\text{news}}^2)}$.

Table 4.5 Interesting Ratings for Comedy vs. News across Levels of Prior Political Knowledge

	Overall	Low	Medium	High
Comedy	1.11*** (.24)	1.72*** (.52)	.62 [#] (.47)	.85*** (.29)
Constant	3.36 (.17)***	2.59*** (.36)	3.38*** (.31)	3.91*** (.22)
R ²	.15	.26	.05	.14
N	123	33	37	52

***p<.01, **p<.05, *p<.10, ^p<.15, #p<.20 Entries are OLS regression coefficients with standard errors in parentheses.

Chapter 5. An Experimental Test of the Effect of Political Comedy on Ideological Constraint

The patterns of cognition associated with enjoying political comedy facilitate learning. Comedy encourages attention to and elaboration about political messages such that information is more likely to be encoded in memory and is more easily recalled later. But political comedy may do more to enhance understanding of politics than simply provide information. The comic format, involving incongruity and violation of expectations, encourages viewers to think about the interrelationships among seemingly disparate political issues and helps them put information together to build a stronger understanding of how policy discourse is organized and ‘what goes with what’ in party platforms. Because of this, exposure to political comedy should not just improve accurate recall of factually correct information but should also boost ideological constraint.

Political Sophistication and Ideological Constraint

The political knowledge gap is concerning not because factual knowledge is inherently important, but because of the relationship between information and citizens’ ability to understand politics, effectively recognize and promote personal interests, and hold leaders accountable for their actions. Beyond low levels of factual knowledge, there has long been concern among public opinion scholars that citizens are unable to form and articulate coherent political attitudes, that they have a limited grasp of the important political debates, and that most fail to achieve a basic level of attitude consistency (Converse, 1964; Lippmann, 1922; Schumpeter, 1942). That

the average citizen lacks ideological sophistication is troubling from the perspective of democratic theory because it implies that a large portion of the public is unable to form meaningful opinions; instead expressing relatively meaningless, unstable, top-of-the-head positions about important issues and policies (Converse, 1964; Zaller, 1992). Though citizens can use a variety of cognitive heuristics to compensate for their lack of specific information, these shortcuts are more meaningful and reliable decision-making guides when they are closely connected to a large volume of highly structured political information (Delli Carpini & Keeter, 1996; Lau & Redlawsk, 2001; Zaller, 1992). If citizens are unable to understand and structure preferences using the ideological framework that organizes elite policy debate and activity, then their capacity to resist manipulation and effectively represent themselves in democratic politics is greatly compromised.

Concern about ideological naiveté led to an interest in factors that might increase attitude consistency and promote ideological thinking. While the average citizen makes little use of abstract ideological principles, a small subset of the population, those with high levels of political sophistication, hold stable, ideologically-structured attitudes and have a well developed ideological framework through which they evaluate the political world (Delli Carpini & Keeter, 1996; Kinder & Sears, 1985; Luskin, 1987; Zaller, 1992). Across many indices—factual political knowledge, interest in politics, involvement in political affairs, cognitive ability, etc.—political sophistication is associated with a tendency to think about politics in ideological terms (Campbell et al., 1960; Federico, 2007; Luskin, 1990), greater attitude consistency and stability (Delli Carpini & Keeter, 1996; Jacoby, 1991; Kinder & Sears, 1985; Zaller, 1992), and stronger inter-correlations among issue attitudes, ideological self-placement, and partisanship

(Abramowitz, 2010; Abramowitz & Saunders, 2008; Delli Carpini & Keeter, 1996; Federico, 2007; Federico & Hunt, 2013).

The close relationship between political knowledge and ideological constraint stems from the way information is cognitively processed. Luskin (1987, 1990) contends that sophistication is a function of the number, diversity, and organization of political cognitions in memory; that is, a political belief system is characterized by its size—how much is known—range—the amount of the universe covered—and constraint—the extent of interconnectivity among discrete considerations and ideas. These dimensions are related because systems with large amounts of diverse information necessitate an organization system that makes retention and recall of information easier.

The most effective and efficient way to organize information is through hierarchical categorization with increasing levels of abstraction. As such, sophistication and abstraction are irrevocably connected. As noted in *The American Voter*, “any cognitive structure that subsumes content of wide scope and high diversity must be capped by concepts of a higher order of abstractness” (Campbell et al., 1960, p. 163). Converse (1964) echoes this idea when he describes the “companion concepts” of economy and constraint (p. 214). Ideological constraint implies centrality of abstract ideological constructs within a belief system such that ideology is a frequently used consideration that is closely connected with numerous elements (Luskin, 1987). Perhaps now more than ever, ideology structures elite discourse and, thus, is the organizing principle most useful in thinking about the political world.

Sophisticated citizens hold ideologically constrained attitudes because they possess an understanding of the abstract principles that structure contemporary democratic politics and have the ability to apply them when evaluating information and making political judgments. Zaller

(1992) explains that the relationship between sophistication and constraint is a function of the distribution of considerations available when an evaluation is made. Attitude instability stems from conflicting considerations used to form an opinion. To the extent that responses to survey questions are based on the considerations most immediately accessible in memory, the directional thrust of those considerations determines response. In a balanced information environment, response instability stems from variance in the accessibility of considerations. So, for example, the attitude expressed about immigration reform may depend on whether one most recently heard about a violent crime committed by an illegal immigrant or a sympathetic story about the plight of undocumented young people brought to the country when they were very young. Were a representative sample of considerations available, conflicting considerations would offset each other to produce ambivalent or neutral responses. Sophisticated citizens are better able to recognize the ideological implications of new information and reject messages inconsistent with values. As a result, sophistication increases the homogeneity of considerations used to form opinions and increases attitude constraint.

Ideological understanding can be developed through sustained attention to and thought about politics and the structure of political controversies (Bennett, 2006; Converse, 2000, 2006; Kuklinski, Quirk, Jerit & Rich, 2001; Lau & Redlawsk, 2001; Lupia, McCubbins & Popkin, 2000). Encoding factual information into memory is only one element of learning. Learning also involves the development of categories and organizational models necessary to make sense of new information, and the refinement and expansion of categories with new details and information about how prior knowledge and organizational models apply in new situations (Denzau & North, 2000). New experiences and information provide, “feedback that may strengthen and confirm our initial categories and models or that may lead to modifications” (p.

33). For example, learning about Ron Paul's seemingly contradictory positions may lead one to reevaluate their mental model of the Republican party to incorporate a more sophisticated and nuanced understanding of the economic, social and foreign policy dimensions of ideology. Thus, ideological constraint can be developed through sustained attention to politics and continued development and refinement of increasingly abstract categories to organize thinking about the political world.

Politically sophisticated citizens rely on organizational models that are more abstract and universally applicable than those utilized by citizens who are less politically engaged. Hamil, Lodge and Blake (1985) found that ideology and partisanship structured sophisticated citizens' beliefs about spend-save type issues, while those less interested, attentive and involved relied on more limited "rich-poor" categories when thinking about these issues. Similarly, utilizing a thought experiment, Judd and Downing (1990) found that repeated evaluation of policy issues triggered broadly applicable, abstract ideological constructs among political experts, but only situation specific rules among those low in political expertise. Experimental respondents were given information about a hypothetical person's position on an issue and were then asked to identify that person's position on a different, unrelated issue. This process was repeated 120 times. With repeated exposure to the same pairs of issues, all respondents improved the speed and reliability of their ratings, indicating that those at all levels of expertise developed rules defining the relationships among issues. However, when respondents were later asked to evaluate the positions of candidates on those same issues, the practice of rating the issue pairs only improved the reliability of candidate issue placement among those high in political expertise. While less sophisticated respondents were able to develop rules governing issue

evaluations, those rules were not universal and did not improve performance when the evaluative task was changed.

Though an understanding of ideological relationships can be learned, this knowledge is necessary but insufficient to produce ideological constraint. Ideological thinking requires both the ability to use abstract ideological concepts and the motivation to apply those concepts when making political judgments (Federico & Hunt, 2013). Motivation comes from the gratifications associated with paying attention to, thinking seriously about, and evaluating politics (Claassen & Highton, 2009; Federico, 2007; Federico & Hunt, 2013). Ideological constraint is most strongly associated with political sophistication among those with a high trait need to evaluate (Federico, 2007), a strong sense of personal involvement in politics, extreme partisan attachments (Federico & Hunt, 2013) and intense political interest (Claassen & Highton, 2009).

Citizens motivated to receive, process and utilize information about the ideological implications of issues are those highly engaged, sophisticated citizens possessing relatively well-developed ideological understanding that can be utilized when evaluating new information (Hamill et al., 1985; Luskin, 1990; Zaller, 1992). The well-documented increase in elite polarization (Fiorina, Samuel & Pope, 2005, 2008; Jacobson, 2000; Poole & Rosenthal, 1997) has increased the availability and clarity of elite cues about policy issues. Rather than diminish the importance of political awareness in linking abstract ideological or partisan constructs to specific policy issues, Claassen and Highton (2009) find that the polarized choice context exacerbates political differences because motivational factors condition responsiveness to more readily available ideological cues. “People who are less aware about politics derive few intrinsic and expressive benefits from following, knowing, and talking about politics. As a result, they have little incentive to attend to the signals emanating from political elites” (Claassen &

Highton, 2009, p. 540). Elite polarization has made ideological cues more easily available but has not increased the motivation to pay attention. Ideological constraint necessitates both awareness of ideology and motivation to apply abstract ideological constructs when making political judgments.

Hypotheses: Political Comedy and Ideological Constraint

Given a basic understanding of ideological principles and the motivation to utilize those principles when making political judgments, attitudes about specific political issues will be constrained by ideology such that positions are more consistently located on the ideological spectrum and attitudes toward any given issue more strongly predict attitudes about other issues. Certainly, much of the ability and motivation to utilize abstract ideological concepts when evaluating information is determined by the individual characteristics and predispositions associated with general political engagement (Delli Carpini & Keeter, 1996; Zaller, 1992). However, the ability to recognize ideological relationships and motivation to do so might also be affected by the context in which information is presented. In particular, political comedy is not just an alternative source of information but a communicative form with features that highlight political relationships and motivate elaboration about how the political environment is structured.

As previously discussed in detail, humor stems from the simultaneous elicitation of contradictory schema. The setup of a joke prompts a listener to search memory for a relevant schema that provides context and creates expectations about future information and how it should be interpreted (Suls, 1983; Wyer & Collins, 1992). In comedy, subsequent information violates expectations and requires a situation to be reinterpreted using an alternative set of concepts in order to resolve incongruity and understand the seemingly contradictory information

as a whole. Motivation to engage in this process of complex cognitive elaboration is generated by a desire for the emotional gratification that comes in the form of amusement experienced when a joke is understood.

The cognitive processes underlying the appreciation of political comedy necessitate broad thinking about politics and how political information fits together. The surprise generated when expectations are violated shifts focus from the concrete to more abstract political concepts applicable to new situations. For example, Jon Stewart's coupling of a story about the Iraq war with the headline "Mess-o-potamia" shifts attention from the particular event being discussed to broader foreign policy concerns and how new information should be understood in the context of previous knowledge about U.S. involvement in the Middle East. Political comedy is an intellectual game which encourages audiences to play with political ideas and recognize connections between what previously seemed unrelated. It is exactly this type of thought that fosters ideological constraint.

H4: All else equal, exposure to political comedy will trigger ideologically constrained issue positions, even compared to exposure to traditional news.

Of course, the effects of political humor will vary as a function of the individual characteristics of audiences. First, in order to understand a joke one must have the cognitive resources necessary to recognize and resolve incongruity. While those with large amounts of political information have the knowledge necessary to understand jokes, they are also motivated and practiced at utilizing abstract ideological concepts to interpret information even when presented in traditional news contexts. Because of this, it is unlikely that new information, regardless of comic format, will enhance ideological constraint among those with the highest levels of pre-existing knowledge. Those with low political knowledge are also unlikely to

benefit from political comedy. Even if these unsophisticated viewers are able to recognize and resolve incongruity, the time and energy expended on humor comprehension trades off with subsequent elaboration about the implications of a humorous reinterpretation (Wyer & Collins, 1992), and the rule identified to resolve incongruity is likely to be context dependent rather than abstract and of limited utility in understanding politics more broadly. Political comedy should boost ideological constraint most strongly among those with adequate political knowledge to understand jokes and a basic understanding of abstract ideological principles, but who lack the intrinsic motivation necessary for ideological thinking and effortful cognitive elaboration absent the expected gratifications derived from the comic context.

H5: Comedy will be most strongly associated with ideological constraint among those at moderate levels of prior political knowledge.

Comprehending and appreciating comedy requires effortful processing and cognitive engagement. As viewers work to resolve humorous incongruity, they discover new connections among seemingly unrelated pieces of information and develop a more sophisticated understanding of political relationships. The model of humor-triggered cognition predicts that exposure to political comedy will increase ideological constraint, particularly among those with moderate levels of political sophistication. These predictions are tested using data from the experiment described in Chapter 3. The relationship between exposure to information and the consistency of political attitudes is examined with several alternative measures of ideological constraint.

Measures

To measure ideological constraint, respondents were asked in the post-test to rate their level of support or opposition to 10 policy issues representing a range of policy domains. Respondents in all conditions were asked to indicate how much they support or oppose: 1. Government funding for the development of green products and technology; 2. Using the death penalty in cases of murder; 3. Regulations on the number and types of guns that people can purchase; 4. Removing criminal penalties associated with being caught with illegal drugs; 5. Comprehensive sex education that covers topics like safe sex and birth control; 6. Regulating the types of investments banks are allowed to make; 7. Funding medical care for those who do not have or cannot afford health insurance; 8. Placing strict limits on the amount of pollution that companies are allowed to emit; 9. Giving minority applicants some preference in university admissions; and, 10. Raising taxes on those who make more than \$250K a year.¹ Respondents were asked whether they strongly oppose, oppose, somewhat oppose, neither support nor oppose, somewhat support, support, or strongly support each policy. If they were not sure of their position or had not thought much about the issue they could also select a ‘not sure’ option. On average, less than 3 percent of respondents selected ‘not sure’ on any given question. Eighty percent answered all 10 questions, 94% answered at least 9, 99% answered at least 8, and only 2 respondents answered ‘not sure’ on 3 of the 10 policy issue questions. When possible, rather than excluding those who selected ‘not sure’, constraint measures were based on all available information from questions that were answered by a respondent.

¹ Respondents were also asked two additional issue items: Allowing security personnel to select people of Middle Eastern descent for additional screening at airports; and, Taking welfare benefits away from those who do not seek employment or education. However, an examination of the reliability of the issues scale showed small, negative item-test and item-rest (corrected item-total) correlations for both these items, indicating that they did not capture the same underlying construct as the other 10 items. Because they lacked clear ideological implications, these items were not included in measures of ideological constraint.

Each policy issue question was recoded to run from -3 to 3, with -3 indicating a strong liberal response and 3 indicating a strong conservative response. For the green technology, gun control, drugs, sex education, bank regulation, health care, taxation, pollution and affirmative action questions, opposition was considered conservative and support liberal. For the death penalty question, opposition was considered liberal and support conservative. The alpha reliability is .74 for the overall 10 issue item scale.

Using the 10 policy issue items, several measures of ideological constraint were built. Measuring ideological constraint in multiple yet complimentary ways reduces concern that measurement error is driving the result in any particular case. First, Chronbach's alpha was calculated as an internal consistency estimate of the reliability of the policy issue scale. A higher Chronbach's alpha indicates greater intercorrelation among policy items and, thus, greater ideological constraint. Because alpha is not robust against missing data, 'not sure' responses are excluded from this analysis.

Scale reliability estimates of ideological constraint can produce misleading conclusions because results are reliant on the correlational structure of the aggregate population or subpopulation that forms the unit of analysis (Barton & Parsons, 1977). Attitude homogeneity will result in low reliability coefficient estimates even if individuals hold highly consistent attitudes. Similarly, groups including individuals with extremist tendencies will artificially appear more consistent than groups with attitudes that are equally consistent but more moderate. In response to these limitations, Barton and Parsons (1977) suggest an alternative approach allowing attitude consistency to be analyzed at the individual level rather than relying on relationships within aggregate populations or subpopulations. Here, ideological constraint is measured using the variance in attitudes expressed by an individual. For each respondent, the

standard deviation of all answered issue items was calculated. Ideologically constrained respondents should place themselves at similar left-right locations across issues and, thus, scores on this measure should be lower; unconstrained attitudes have greater variability and will have a higher standard deviation.

The third measure of ideological constraint is the average inter-item issue distance for each of the 10 policy items (Levendusky, 2009). While this measure is quite similar to the standard deviation measure described above, it does not rely on the mean issue position and is therefore less susceptible to the biasing influence of outlying attitudes. Here, the absolute value of the difference between each of the possible 36 pairs of items was calculated, and then the average issue distance was taken. Because the large number of possible pairs creates a robust measure even where information is missing on individual issue items, respondents who answered 'not sure' on any policy issue were still included, and scores were based on all the item pairs with valid responses. Policy opinions that are more closely located on the 7-point scales are more ideologically consistent; so lower average inter-item distance indicates greater ideological constraint.

An additional measure of constraint examines the bi-polarity of issue positions using a measure of consistency of left-right placement (Frederico & Hunt, 2012; Jacoby, 1991). The standard deviation and average inter-item issue distance measures depend on the strength of issue positions. Because the consistency measure disregards attitude strength and looks only at the direction of attitudes, it is less of a concern that attitude moderation is creating the illusion of consistency in this measure. To create this bi-polarity measure of ideological consistency, the percentage of issues where respondents placed themselves on the conservative side and the percentage on the liberal side of the scale, regardless of strength, were calculated. Then the

absolute value of the difference between the percent conservative and percent liberal placement was taken. Constrained attitudes should be more consistently located on a single side of the scale; thus, higher scores indicate greater ideological constraint.

The previous measures tap what might be thought of as horizontal constraint, that is, consistency among discrete issue positions. Vertical constraint is the relationship between these issue positions and general ideological identification. Ideologically constrained policy opinions should be more correlated with ideological self-placement (Delli Carpini & Keeter, 1996; Fredrico & Hunt, 2012). To test this, the average of all answered issue position questions was taken. The average issue position measure was then regressed on ideological self-placement, and constraint is indicated by the coefficient on the self-placement variable. Among more ideologically constrained citizens, the measure of ideological self-placement should be a strong predictor of average placement of issue items.

Ideological self-placement was measured using three, branching, post-test questions. First, respondents were asked whether they considered themselves liberal, conservative, moderate or they were not sure. Those answering liberal or conservative were then asked whether, generally speaking, they were extremely, somewhat or only slightly liberal/conservative. Moderates were asked whether they leaned liberal, conservative or not more toward one side or the other. From these questions a 9 point ideological scale was constructed. The ideology measure runs from -4, meaning extremely liberal, to 4, meaning extremely conservative. Those answering don't know, 27 respondents total, were excluded from analysis. Of the 27 excluded respondents, 19 were from the control group, 3 were from the comedy condition, and 5 were from the news condition. Over half of those excluded were at the lowest level of prior political knowledge. This creates a more conservative estimate of the

impact of comedy and news because those conditions are being compared against a relatively sophisticated subset of the control group.

Prior knowledge was calculated as described in the previous chapter. Again, based on correct responses to prior knowledge items of varying difficulty, respondents are divided into three groups: low, moderate and high prior political knowledge. These categories are balanced across experimental conditions.

Results

It is predicted that exposure to political comedy should be associated with greater ideological constraint (Hypothesis 4), and that this relationship should be strongest among those at moderate levels of prior political knowledge (Hypothesis 5). The first test of these hypotheses examines the reliability of policy positions. Table 5.1 shows the Chronbach's alpha reliability coefficients for the 10 policy issue items, divided by condition and levels of prior political knowledge. Overall, exposure to both news and comedy increases the reliability of the issue scale relative to the control group. However, in contrast to Hypothesis 4, there is only a small difference in reliability between the news and comedy conditions; reliability in the comedy condition is .80, versus .76 in the news condition. While there is no available test of the significance of the difference between Chronbach's alpha reliability coefficients, the .04 difference between comedy and news appears substantively quite small.

Nonetheless, when the sample is divided by levels of prior political knowledge, patterns of reliability fall in line with expectations. Hypothesis 5 predicts that the relationship between comedy and ideological constraint should be most evident among the moderately political knowledgeable who possess a base level political awareness necessary to make sense of comedy,

but are less practiced at using ideological constructs than those with higher levels of knowledge. Among those low in prior knowledge, both news and comedy are associated with a small boost in reliability relative to the control group, but there is little difference between the two conditions, with reliability in the comedy condition .03 less than in the news condition. Among those high in prior knowledge, comedy and news do little to boost the already high reliability of the issue scale. Here, Chronbach's alpha is .85 in the control group as well as the comedy condition, and increases by only .04 in the news condition. Comedy has a dramatic effect on the issue scale reliability of those with moderate political knowledge. Among those at the moderate level of prior knowledge, reliability is a low .39 in the control group. Exposure to traditional news has no substantive effect on ideological constraint, decreasing the reliability of the issue scale by .02 relative to the control group. However, comedy is strongly associated with constraint among those with moderate prior knowledge. The reliability coefficient for the moderately knowledgeable in the comedy condition is .76, fully .37 points greater than the control group and .39 points greater than those in the news condition. This provides strong support for Hypothesis 5, that the relationship between comedy and constraint will be greatest for those at moderate levels of prior knowledge. Indeed, it is only among the moderately knowledgeable that exposure to comedy seems to trigger the expression of highly reliable attitudes.

The second test of the effect of comedy on ideological constraint allows for a test of the statistical significance of this relationship. Table 5.2 shows models where ideological constraint is measured as the standard deviation of the 10 policy issue items. Overall, information condition has no impact on the standard deviation of policy attitudes. However, when the sample is divided by levels of prior political knowledge, results support the prediction that

comedy is associated with constraint for those with moderate levels of prior knowledge. For those with low or high prior knowledge, there is no relationship between exposure to information and the standard deviation of issue positions, and neither news nor comedy significantly increases constraint. However, among the moderately knowledgeable, exposure to political comedy is associated with a statistically significant .24 point drop in the standard deviation of issue positions, indicating greater constraint among this group. Additionally, this is a statistically significant decline of .40 points relative to the news condition. Substantively, moderately knowledgeable respondents in the comedy condition show a level of ideological constraint greater than that estimated for highly knowledgeable respondents, while the moderately knowledgeable control group is roughly equivalent to the low knowledge control. The estimated standard deviation for those in the comedy condition with moderate knowledge is 1.31, the same as the highly knowledgeable control group. Conversely, the estimated standard deviation of the moderately knowledgeable control group is 1.55, a mere .01 points less than the low knowledge control. Again, while no main effect of information format is identified, comedy is associated with greater ideological constraint for those at moderate levels of political knowledge.

Table 5.3 shows models of the average inter-item issue distance overall and across levels of prior knowledge. Because more constrained attitudes should be placed in more consistent positions across policy issues, negative coefficients indicate greater constraint. In the pooled model there is little evidence that exposure to information, regardless of format, has any impact on constraint. Neither comedy nor news emerges as a significant predictor of average inter-item distance. However, in line with predictions, comedy does improve constraint among those at moderate levels but not those at low or high levels of prior knowledge. Information condition has no effect on the average inter-item distance for those at low levels of prior knowledge.

Surprisingly, in the high knowledge group, comedy actually hinders constraint, increasing average inter-item distance by a marginally significant .28 points relative to the control group; however, this coefficient is not statistically distinguishable from that on news. In the moderate knowledge model, the coefficient on comedy is a marginally significant -.22, a significant .38 points smaller than the effect of news. Constraint among the moderately knowledgeable exposed to political comedy is roughly equivalent to that of the highly knowledgeable in the control group; the average inter-item issue distance for the highly knowledgeable control group is 1.43, versus 1.5 among the moderately knowledgeable in the comedy condition. Generally speaking, the analysis of the average inter-item distance measure of ideological constraint fails to support Hypothesis 4, but provides some support for Hypothesis 5. Political comedy promotes ideological constraint, but only among those at moderate levels of political knowledge.

This pattern is replicated again when the consistency of left-right placement is used as the indicator of ideological constraint. The dependent variable in Table 5.4 is the absolute value of the difference between the percentage conservative and percentage liberal policy placements. Higher values indicate more consistent placement of policy attitudes on either the liberal or conservative side of the scale and, thus, greater attitude constraint. Again, comedy is associated with attitude consistency, but only among those with moderate prior knowledge. The results of the pooled model show no main effect for condition. In the moderate knowledge model, comedy is associated with a .14 point increase in consistency. A t-test fails to distinguish this coefficient from that on news, but a Wald test restricting the coefficients to be equivalent is marginally significant. Surprisingly, among those high in prior knowledge, both the comedy and news conditions are associated with decreased consistency, but only the coefficient on comedy is significant and the effect is indistinguishable across conditions. There is no effect for

information condition among those low in prior knowledge. Again, comedy is associated with ideological consistency only among those with moderate prior political knowledge.

Rather than the relationship among issue items, the final piece of analysis is concerned with the connection between ideological self-placement and issue attitudes. More constrained attitudes should be more highly correlated with ideological identification, with strong liberals placing themselves farther to the left and strong conservatives farther to the right on policy issue items. If comedy increases ideological constraint among moderately sophisticated viewers, then the correlation between ideology and average issue position should be stronger for those in the comedy condition, particularly among those at moderate levels of political knowledge, than the correlation for those in the news condition or control group. In Table 5.5, the average issue position on the 10 policy issue items is regressed on dummy variables for condition, self-placement on the 9-point ideology scale, and the interactions between condition and ideological self-placement. In the model for all respondents, shown in Column 1, ideology has a strong positive relationship with average issue position. Overall, a one-point shift on the ideology scale is associated with a .20 point change in average issue position in the same direction. More importantly, the interaction between comedy and ideology is positive and statistically significant, indicating that exposure to political comedy strengthens the relationship between ideological self-placement and average issue position. In the comedy condition, a one-point change in self-placement is associated with a .33 point shift in average issue position, a substantial 65% increase in the relationship between ideology and average issue placement. There is no such increase in the impact of ideology in the news condition.

Broken down by level of prior political knowledge, the effect of comedy is again located primarily among those with moderate prior knowledge. For those low in prior knowledge, there

is no relationship between ideological self-placement and issue positions, no matter the experimental condition. Among the highly knowledgeable, the coefficient on ideology is a statistically significant .33, but this relationship does not significantly vary as a function of condition. In the moderate knowledge model, a one-point shift in ideology is associated with a .16 point change in average issue position in the direction of that shift. This change is half the size of that seen among those at high levels of prior knowledge. However, the magnitude of the shift increases by .17 points in the comedy condition so that a one-point shift in ideology is associated with a .33 point shift in average issue position, a change identical to that estimated for those high in prior-knowledge.

Substantively, exposure to political comedy strengthens the relationship between ideology and average issue placement such that those at moderate levels of prior knowledge are indistinguishable from those at the highest levels of political knowledge. Figure 5.1 graphically demonstrates the impact of experimental condition on the relationship between ideological self-placement and average issue position for those with low, moderate and high prior knowledge. The bars show the size of the shift in average issue position attributable to a one-point change in ideology. In the control and news groups, the impact of ideology is much stronger for those high in knowledge than those at lower levels. In the comedy condition, the moderate and high knowledge groups converge such that the influence of ideology among the moderately knowledgeable is quite similar to that among the high knowledge group.

In addition to its effect on the magnitude of the relationship between ideology and attitudes, exposure to political comedy leads those with moderate levels of political knowledge to express attitudes similar to those held by the most knowledgeable respondents. Based on the models in Table 5.5, Figure 5.2 shows estimates of average issue position by condition for self-

reported strong liberals and strong conservatives at various levels of political knowledge. Holding ideological self-placement constant, while experimental condition has little influence on the average issue position held by those at high or low levels of knowledge, there is a substantial difference in the attitudes expressed by those with moderate knowledge across experimental conditions. In the news condition, there is a large gap between the estimated average issue position of those high in prior knowledge and those with lower levels of knowledge. In the comedy condition, the high and moderate knowledge groups converge, and the attitudes expressed are roughly equivalent for those with moderate and high levels of prior political knowledge who place themselves at the same position on the ideology scale

Conclusion

To date, the effect of political comedy on attitudes is not well understood. Some evidence suggests that the negative portrayal of the political system, leaders and media can lead to cynicism and mistrust (Baumgartner & Morris, 2006; Guggenheim et al., 2011; Morris & Baumgartner, 2008), but empirical studies have found only limited effects on more specific attitudes (Morris, 2009; Xenos et al., 2011; Young, 2004, 2006), leading researchers to conclude that political comedy has limited persuasive power (Holbert et al., 2011; Polk et al., 2009; Nabi et al., 2007). The findings from this study suggest that comedy may have a much stronger effect on political attitudes than previously recognized. Not only does political comedy provide important political information, it does so in a manner that helps viewers contextualize and understand information, resulting in the expression of more consistent, ideologically constrained attitudes. In fact, the humorous presentation of information influences attitudes more powerfully than exposure to information in more traditional news form.

Consistent with expectations from the model of humor-triggered cognition, the experiment demonstrates that exposure to political comedy encourages those with adequate prior political knowledge to utilize abstract ideological principles when thinking about political issues, resulting in greater consistency in attitudes toward concrete policy issues across various political domains. Across several measures of ideological constraint, political comedy was associated with greater attitude consistency, but only for those at moderate levels of prior political knowledge. The attitudes of moderately knowledgeable respondents exposed to political comedy were more reliable, less variable, closer together, more consistently located on one side of the ideological scale and more strongly related to ideological self-placement.

One unexpected finding was a decrease in ideological constraint observed among moderately knowledgeable respondents in the news condition. A speculative explanation consistent with the model of humor-triggered cognition is that these largely left-leaning respondents reacted automatically to messages critical of the Obama administration and, unlike similar participants in the comedy condition, did not invest much cognitive effort evaluating information or incorporating it into political belief systems. Though it is observed in all four of the alternative constraint models, the magnitude of the effect is rather small and never reaches conventional levels of statistical significance. Additionally, these tests are based on the same set of attitude measures, so this unexpected result does not indicate a pattern but only a small, one-time decrease in attitude consistency among moderately knowledgeable participants in the news condition. Most importantly, this anomalous finding does not affect conclusions about the effect of political comedy on ideological constraint. All moderate prior knowledge models show a significant increase in ideological constraint in the comedy condition relative to the control

group, so claims about the effect of comedy are not contingent on the behavior of those in the news condition.

Despite this minor deviation from predictions, results are generally consistent with the model of humor-triggered cognition. The overall pattern of results is particularly remarkable given that respondents were only exposed to 15 minutes of political comedy covering a select few political topics, and only 2 of the 10 issue items included in the measures of ideological constraint were discussed in the experimental stimuli. Certainly, it is difficult to argue that this brief exposure was sufficient to produce real, lasting changes in the structure of political belief systems. Still, results indicate that political comedy promotes the expression of more thoughtfully considered, ideologically consistent political attitudes. Exposure to political comedy encourages effortful information processing and motivates the use of abstract ideological principles to organize thinking. Over time, these patterns of cognitive engagement should boost ideological constraint, even if experimental results merely reflect more thoughtful responses rather than fundamental, long-term changes in underlying structure of political knowledge and attitudes. To examine the relationship between real-world patterns of exposure to political comedy and ideological constraint, the next chapter replicates experimental analysis of the effect of political comedy on attitudes using secondary survey data from the 2008 National Annenberg Election Survey.

Table 5.1 Chronbach's Alpha Reliability of 10-Item Issue Scale by Condition and across Levels of Prior Political Knowledge

	Overall	Low	Medium	High	N
Comedy	.80	.65	.76	.85	62
News	.76	.68	.37	.89	61
Control	.65	.59	.39	.85	61
N	183	54	61	67	

Table 5.2 Effect on The Standard Deviation of Policy Issue Positions across Levels of Prior Political Knowledge

	Overall	Low	Medium	High
Comedy	-.01 (.09)	.02 (.17)	-.24* (.14)	.18 (.15)
News	-.01 (.09)	-.15 (.16)	.16 (.13)	.02 (.16)
Constant	1.49*** (.06)	1.56*** (.11)	1.55*** (.09)	1.31*** (.12)
R ²	.01	.02	.11	.04
N	184	54	61	67
$\beta_c - \beta_n$	.00	.17	.40	.16
t	.00	.73	2.06**	.74
F	.00	.94	7.50***	1.57

***p<.01, **p<.05, *p<.10, ^p<.15, #p<.20. Entries are OLS regression coefficients with standard errors in parentheses. The t-value tests the difference between the coefficients on comedy and news using the formula $t = (b_{comedy} - b_{news}) / \sqrt{se_{comedy}^2 + se_{news}^2}$. The F statistic is the result of a Wald test where $H_0: \beta_{comedy} = \beta_{news}$.

Table 5.3 Effect on The Average Inter-Item Issue Distance across Levels of Prior Political Knowledge

	Overall	Low	Medium	High
Comedy	.03 (.10)	.03 (.20)	-.22 [#] (.17)	.28 [^] (.18)
News	-.01 (.10)	-.13 (.20)	.16 (.16)	.04 (.19)
Constant	1.65*** (.07)	1.74*** (.13)	1.72*** (.11)	1.43*** (.15)
R ²	.01	.01	.08	.05
N	184	54	61	67
$\beta_c - \beta_n$	.04	.16	.38	.24
t	.23	.55	1.66**	.91
F	.11	.55	4.83**	2.27 [^]

***p<.01, **p<.05, *p<.10, [^]p<.15, [#]p<.20. Entries are OLS regression coefficients with standard errors in parentheses. The t-value tests the difference between the coefficients on comedy and news using the formula $t=(b_{comedy}-b_{news})/\sqrt{se_{comedy}^2+se_{news}^2}$. The F statistic is the result of a Wald test where $H_0: \beta_{comedy} = \beta_{news}$.

Table 5.4 Effect on The Ideological Bi-Polarity of Policy Issue Position across Levels of Prior Political Knowledge

	Overall	Low	Medium	High
Comedy	-.02 (.05)	-.07 (.10)	.14 [^] (.09)	-.17* (.10)
News	.01 (.05)	.05 (.10)	.02 (.08)	-.11 (.10)
Constant	.54*** (.04)	.52*** (.06)	.49*** (.06)	.67*** (.08)
R ²	.01	.02	.05	.05
N	184	54	61	67
$\beta_c - \beta_n$	.03	.12	.12	.06
t	.40	.84	1.00	.48
F	.24	1.25	1.75 [#]	.63

***p<.01, **p<.05, *p<.10, [^]p<.15, [#]p<.20. Entries are OLS regression coefficients with standard errors in parentheses. The t-value tests the difference between the coefficients on comedy and news using the formula $t=(b_{comedy}-b_{news})/\sqrt{se_{comedy}^2+se_{news}^2}$. The F statistic is the result of a Wald test where $H_0: \beta_{comedy} = \beta_{news}$.

Table 5.5 Effect on Vertical Constraint, The Relationship between Self-Reported Ideology and Average Issue Position across Levels of Prior Political Knowledge

	Overall	Low	Medium	High
Comedy	-.14 (.15)	-.09 (.27)	-.28 (.24)	-.11 (.23)
News	-.10 (.15)	-.19 (.28)	-.33 [^] (.22)	.03 (.24)
Ideology	.20 ^{***} (.05)	.08 (.08)	.16 ^{**} (.07)	.33 ^{***} (.07)
Ideology X Comedy	.13 ^{**} (.06)	.10 (.11)	.17 [^] (.11)	.06 (.08)
Ideology X News	.07 (.06)	.15 (.11)	-.08 (.09)	.09 (.09)
Constant	-.73 ^{***} (.12)	-.92 ^{***} (.22)	-.67 ^{***} (.17)	-.68 ^{***} (.21)
R ²	.52	.35	.34	.76
N	157	38	55	63

***p<.01, **p<.05, *p<.10, [^]p<.15, [#]p<.20. Entries are OLS regression coefficients with standard errors in parentheses. The t-value tests the difference between the coefficients on comedy and news using the formula $t=(b_{comedy}-b_{news})/\sqrt{se_{comedy}^2+se_{news}^2}$. The F statistic is the result of a Wald test where $H_0: \beta_{comedy} = \beta_{news}$.

Figure 5.1 The Relationship between Ideology and Average Issue Position by Condition across Levels of Prior Political Knowledge

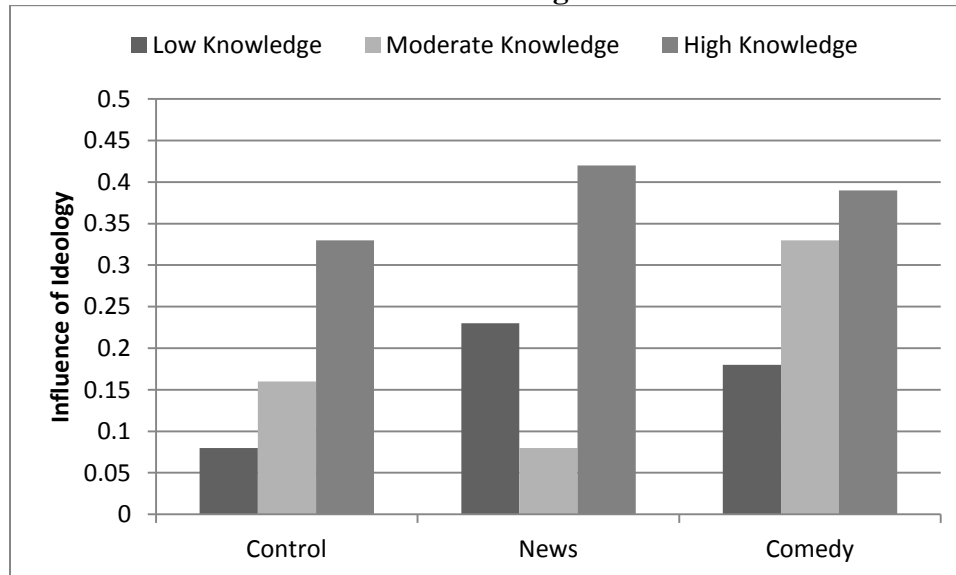
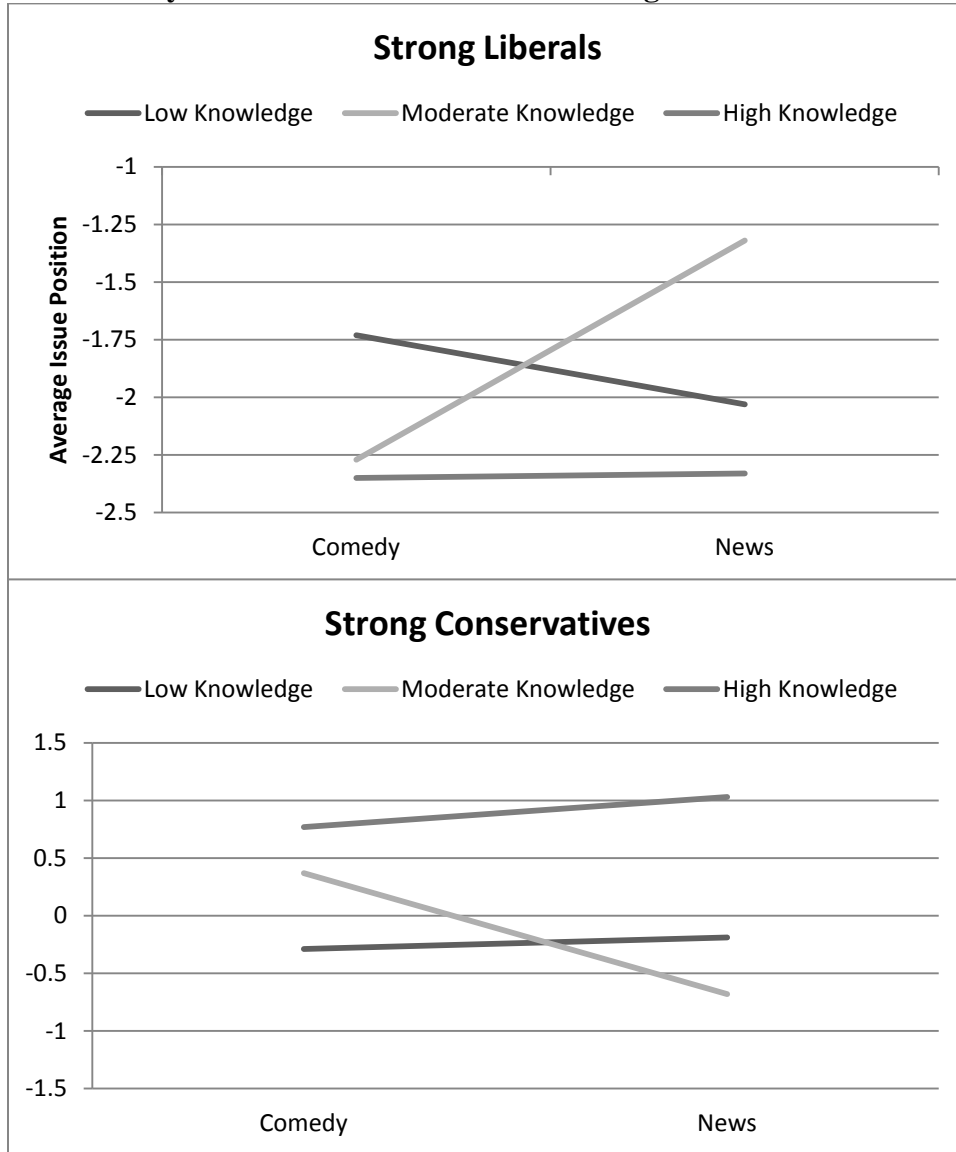


Figure 5.2 Average Issue Position for Strong Liberals and Strong Conservatives across Condition by Levels of Prior Political Knowledge



Chapter 6. Leaving the Lab for the Living Room: A Survey-Based Demonstration of the Effect of Political Comedy on Ideological Constraint

According to the model of humor-triggered cognition, the patterns of cognitive processing and engagement associated with comprehending and enjoying humor affect the way information is encoded and structured in memory by encouraging the discovery of new and novel relationships between seemingly inconsistent ideas. As a result, exposure to political comedy should enhance ideological constraint (Hypothesis 4), and do so most strongly for those with moderate levels of prior political knowledge (Hypothesis 5). The experimental findings reported in the previous chapter strongly support both of these predictions.

The experiment demonstrates that exposure to political comedy boosts ideological constraint beyond exposure to identical information presented in traditional hard news. Participants were randomly assigned to view stimuli that varied on humor but were otherwise identical in factual content. This combination of rigorous control and random assignment provides confidence that observed differences in ideological constraint are attributable to the experimental manipulation and not irrelevant story content features or patterns of selective exposure. In short, the experiment provides strong evidence of the causal relationship between exposure to political comedy and ideological constraint.

However, there are several important limitations to the experimental design that make it difficult to generalize effects to the real-world. First, the experiment relies on a convenience sample drawn from the Communication Studies Participant Pool. This unrepresentative sample of mostly college sophomores may or may not be comparable to “real people” (Hovland, 1959).

In addition to their high cognitive skill, undergraduates are characterized by deference to authority, unstable peer relationships, and relatively weak, uncrystallized political and social attitudes that are not firmly based in personal experience or a strong sense of self, all of which make this population particularly susceptible to influence (Sears, 1986). While their characteristics closely mirror those of typical comedy viewers, the unrepresentative sample utilized in the experiment is insufficient to produce population effect estimates.

Second, these differences may be exacerbated by features of the artificial laboratory environment. While the intentions of the study were disguised, participants were aware of being monitored and may have behaved quite differently than they would have under more typical exposure conditions. Further, the experiment was conducted in an academic setting, and respondents received college credit for participation. This context may have introduced a cognitive set that encouraged greater attention and more thoughtful engagement (Sears, 1986). Given the peculiarities of the experimental setting, it is possible that findings are not an accurate reflection of how political comedy affects the general population in its natural habitat.

Finally, there is an inevitable trade-off between rigorous control and realism. The experiment assess effects based on brief exposure to a few messages strategically selected to represent the broader communication phenomenon of interest. To minimize the risk that results are specific to particular issues or stories, and to capture the dynamic interplay of prior knowledge and predispositions with new information, the experiment included an assemblage of stories pertaining to three important contemporary political issues. Stimuli were highly realistic, with actual political comedy and news coverage unobtrusively edited to achieve content equivalence. This design is a significant improvement over previous research where information content was less tightly controlled and fewer stories were included in experimental stimuli. Still,

real-world exposure to political comedy does not occur in isolation and effects are likely to be cumulative. No experiment can fully capture what Walter Lippmann (1922) called the “blooming, buzzing confusion” of the political communication environment (p. 54), and only tentative conclusions can be drawn from one-shot exposure to a potentially idiosyncratic set of political messages.

While the experimental design makes it possible to test causal relationships and demonstrate media effects, this methodology lacks external validity. It is difficult to make generalizations about real-world political communication effects based on the behavior of an unrepresentative, captive audience briefly exposed to a small set of strategically crafted messages in an artificial laboratory setting. Supplementing the experiment with data from a nationally representative survey strengthens confidence in conclusions and makes it possible to estimate the cumulative, population effects of exposure to a full range of humorous political messages

Certainly, survey research is not without shortcomings. This methodology can identify correlations that are suggestive of media effects but cannot establish causal relationships between variables of interest. Additionally, self-reported measures are notoriously unreliable proxies for media exposure, and measurement error tends to attenuate effects (Iyengar & Simon, 2000). Further, those who report exposure to particular political media tend to differ systematically from those who do not. To the extent that similar underlying factors influence both patterns of media exposure and outcome variables of interest, survey data analysis cannot disentangle the reciprocal effects of political messages and audience predispositions. For example, because it is difficult to distinguish between newly acquired and pre-existing political information, researchers disagree about whether the correlation between exposure to political comedy and

knowledge should be interpreted as evidence of learning or merely reflects high levels of sophistication among those who choose to consume this type of media. For all of these reasons, relative to rigorously controlled experiments, correlational survey studies tend to produce conservative estimates of mass media effects.

Methodological pluralism, employing multiple, complementary strategies to investigate political communication phenomenon, helps overcome the limitations inherent in any given approach (Hovland, 1959). In this chapter, secondary survey data is used to replicate experimental analysis and investigate the relationship between real-world patterns of exposure to political comedy and ideological constraint in a nationally representative sample. The advantage of the survey approach is the ability to capture the cumulative effects of exposure to multifaceted political messages which interact with information from multiple media sources and with citizens' prior knowledge and political predispositions. Combining both experimental and survey methodologies provides a more complete and nuanced understanding of how political comedy shapes citizens' political attitudes.

Data and Measures

Experimental analysis of the effects of political comedy on ideological constraint is replicated using secondary survey data from the telephone edition of the 2008 National Annenberg Election Survey (NAES) collected by the Annenberg Public Policy Center of the University of Pennsylvania. The large-scale telephone survey was designed to track the dynamics of public opinion during the 2008 Presidential election. Because the survey was designed to capture campaign dynamics, questions varied across the field period, with items added, removed or changed in response to unfolding campaign events. In total, 57,967

respondents participated in the survey between December 17, 2007 and November 3, 2008, with 3,737 post-election re-interviews conducted immediately following the November 4, 2008 general election. The NAES telephone survey was conducted as a rolling cross-section, with up to 300 interviews conducted on each day throughout the sampling period. For this analysis, data was aggregated across all time periods and treated like a single cross-section.

Dependent Variables

Several measures of ideological constraint were developed based on a variety of pre-election policy issue items. Because the 2008 NAES was a rolling cross-sectional survey and relevant policy questions varied across time periods, traditional correlational, scale reliability estimates of constraint are not feasible due to missing data. Several alternative measures of ideological constraint similar to those used in the experimental chapter were utilized. These include variance in issue positions, average inter-item issue distance, consistency of left-right placement, and vertical constraint, or the relationship between issue attitudes and ideological self-placement.

To measure ideological constraint, policy issue items with response options reflecting clear differences in ideological position were identified. Several issue items asked respondents to rate whether they were strongly in favor, somewhat in favor, neither in favor nor opposed, somewhat opposed, or strongly opposed to a given policy. Of the issue attitudes measured in this way, 7 items had response options with clear ideological implications. The items included in this analysis measured attitudes about school vouchers, negotiating with enemy nations, a U.S.-Mexico border fence, drivers licenses for illegal immigrants, funding stem cell research, a

Constitutional amendment banning gay marriage, and lifting the ban on off shore drilling.¹

Information about specific question wording can be found in Appendix 6A. Each question was coded to run from -2, indicating a strong liberal response, to 2, indicating a strong conservative response. Neutral and ‘don’t know’ responses were coded as 0.

The first indicator of ideological constraint is the standard deviation of responses given to the 7 policy issue questions (Barton & Parsons, 1977; Wyckoff, 1980; Hamill et al., 1985). A more constrained respondent should offer more consistent opinions and, therefore, their responses to the 7 policy questions should have a smaller standard deviation. The individual-level standard deviation of the issues scales was developed using the technique described by Barton and Parsons (1977) and refined by Wyckoff (1980) and Hamill et al. (1985). First, responses to the 7 issue items were standardized for the sample so that respondent attitude scores are expressed in terms of socially defined liberal and conservative positions. Next, the mean standardized scores and standard deviations from the mean were computed for each individual. Because the items included in the survey varied over time, the maximum number of questions asked of any respondent was 4 out of the 7 possible issue items. Due to concern that consistency is more likely when a smaller number of items are being compared, two strategies were employed to correct for the number of items on which an individual offers an opinion. First,

¹ Not included in analysis were items measuring strength of support or opposition to 3 additional issues where ideological implications were not readily apparent. The first item asked, Do you favor or oppose the federal government in Washington negotiating for more free trade agreements like NAFTA? This item was excluded because the debate about free trade agreements, and NAFTA in particular, is not structured by traditional ideological divisions. Opposition comes from unions, environmentalists, and others on the left, while conservatives express concern about immigration, loss of comparative advantage in agriculture and industry and government interference in markets. Also excluded were a set of items from a question wording experiment examining support or opposition for a path to citizenship for ‘illegal aliens’, ‘illegal immigrants’, or ‘undocumented immigrants’. Response instability attributable to wording changes makes these items unsuitable to examine ideological constraint. Additionally, these items were double barreled, conditioning amnesty on return to home countries and substantial fines. Opposition could indicate a conservative position against a path to citizenship or a liberal position opposing onerous conditions on amnesty. Finally, a small subset of respondents was asked about support or opposition to suspending the federal gas tax for the summer months. Because the Democratic Presidential candidates, Clinton and Obama, were divided on this issue, support or opposition reflects divisions in the highly contested primary campaign rather than ideological principles.

those answering fewer than 2 of the 7 issue items were excluded from analysis. Then, a weighting factor was created by dividing the maximum number of items by the number of items on which a valid response was available. This weight is closer to one the more items a respondent answered and becomes larger than 1 as fewer items are available. The final score is equal to the standard deviation of each individual's responses to the standardized issue items, multiplied by the calculated weight.²

A second measure of attitude constraint is the average inter-item issue distance for each of the 7 policy position questions described above (Levendusky, 2009). Because it does not rely on the mean issue position, this measure is less likely to be biased by outlying attitudes than the standard deviation measure of constraint. The average inter-item distance was calculated by taking the absolute value of the difference between self-placement on each possible pair of items. Then, the average of these values was computed for each individual. Because the highest number of items available was 4, there were 6 potential item pairs available. Those answering fewer than 2 of the 4 questions were excluded from analysis.³ Attitudes are constrained insofar as positions are located at similar points on the scale across issues; thus, lower inter-item issue distance indicates greater ideological constraint.

Vertical constraint, the relationship between issue positions and the higher-order construct of ideology itself, was examined using the 7 issue items described above as well as an ideological self-placement measure. Ideology and strength of ideology were derived from a pre-election measure asking: Generally speaking, would you describe your political views as very

² Models using simplified versions of this measure were also tested with results substantively identical to the measure described. Alternative measures examined included the unweighted standard deviation of unstandardized and standardized issue items, and the weighted standard deviation of unstandardized issue items. The pattern of results is identical across these alternative measures of variance.

³ Because average inter-item issue distance may also be biased by the number of items answered, a version of this variable weighted using the same method as the standard deviation measure was also tested. The pattern of results was substantively identical to that obtained using the unweighted version of this variable.

conservative, somewhat conservative, moderate, somewhat liberal or very liberal? Just as the policy issue items, the ideology measure was coded to run from -2 to 2, with moderates centered at 0 and smaller values indicating more liberal self-identification. Twenty-six percent of respondents self-identified as liberal, 39% as conservative, and 35% considered themselves to be moderate. The absolute value of the ideology scale was taken to create a strength of ideology measure. Overall, 22% of respondents were strong ideologues and 43% identified themselves as only somewhat ideological. When included in the models, ideology and strength of ideology measures were rescaled to run from 0 to 1 to make comparisons across variables easier.

The vertical constraint measure was constructed using a method described by Federico and Schneider (2007). The 7 issue items and self-reported ideology were all scaled to run from -2 to 2, with lower values indicating more liberal responses. The mean absolute value of the difference between ideological self-placement and each issue item was taken. Because it is dependent on ideological self-placement, there is risk that basic political predispositions will confound the relationship between this measure and other variables. To eliminate variance attributable to individual differences in predispositions, the raw score was regressed on strength of ideology, and the residual was taken as the final measure of vertical constraint.⁴ Lower scores indicate greater correspondence between self-reported ideology and policy issue positions.

An additional test of the relationship between political comedy and vertical constraint involved an examination of how well self-reported ideology predicted issue positions. The average issue position was calculated for all items for which a valid response was available. This measure runs from -2 to 2, with lower values indicating more liberal responses. Vertical

⁴ Results for models using unpurged vertical constraint scores as well as scores purged by regressing the raw scores on ideology and partisanship yielded the same pattern of results.

ideological constraint was examined by regressing the average issue position measure on self-reported ideology.

Finally, ideological constraint was indicated by the consistency with which respondents placed themselves on a single side of the issue scales. This measure gauges tendency toward bipolar thinking about the political world (Federico, 2007). In addition to the 7 policy placement questions described above, several additional policy items were included in this measure of ideological consistency. The 6 additional issue items measured attitudes toward were taxes (increase, decrease, keep the same), abortion (available to anyone, stricter limits, only rape/incest/life of mother exceptions, never permitted), gay marriage (allow marriage, domestic partnerships, no legal recognition), the environment versus jobs (environment priority, economy priority), as well as two health care items (single government program, current private insurance system; increase regulation, increase market competition). See the variables Appendix 6A for information about specific question wording. Because these items did not conform to the five-point, strongly support to strongly oppose scale, they could not be included in the previously described measures of constraint. However, response options reflected clear liberal or conservative positions, and because it is concerned with the direction of opinion rather than the strength or relative placement of positions across issues, these additional questions were suitable for inclusion in the ideological consistency measure.

For each of the 13 policy questions, responses were classified as either liberal or conservative. Because not all respondents were asked about all issues, the percentage of issues where a respondent placed themselves on the conservative side or on the liberal side, regardless of strength, was calculated. Then, the absolute value of the difference between the conservative

and liberal percentages was taken. A higher score indicates more ideologically consistent issue positions.

Independent Variables

Comedy was measured as a binary variable indicating self-reported use of several comedy programs based on 4 survey items. Respondents in the pre-election survey were asked 2 open-ended questions about political television consumption: 1. During the past week, from what television program did you get most of your information about the 2008 Presidential campaign? and, 2. In the past week, did you watch any other television programs that contained information about the 2008 Presidential Campaign? If so, which ones? Two trained coders, including the researcher and a trained undergraduate research assistant, identified mentions of Comedy Central and the programs *The Daily Show*, *The Colbert Report*, or their hosts Jon Stewart and Steven Colbert; Late-night Comedy programs such as *The Tonight Show* with Jay Leno, *The Late Show* with David Letterman, etc.; *Saturday Night Live*; or *Real Time* with Bill Maher. Inter-coder agreement was .98 and the coded comedy measure was reliable at the .95 alpha level. Excluding those with insufficient information to be included in analysis, 2.27% of respondents mentioned at least one comedy program, and 1.66% mentioned *The Daily Show* or *Colbert Report*, specifically.

The post-election survey included 2 general measures of self-reported exposure to political comedy that were not focused on sources of campaign information. Post-election respondents were asked: 1. Which of the following shows do you regularly watch—*The Daily Show* with Jon Stewart, *Saturday Night Live*, both or neither? and, 2. In the past week, how many days did you watch late-night comedy programs like *The Late Show* with David Letterman, *The*

Tonight Show with Jay Leno, or *Late Night* with Conan O'Brien? Excluding those with insufficient information to be included in analysis, 14.3% of post-election survey respondents reported regularly watching *The Daily Show*, about 20% regularly watched *SNL*, and approximately 25% reported watching late-night comedy at least once in the past week.

The 4 items were combined into an overall comedy exposure measure and a separate variable indicating exposure to *The Daily Show* or *Colbert Report*. The overall comedy measure has a value of 1 if a respondent mentioned any comedy program in either of the open-ended, pre-election items or, in the post-election survey items, reported watching any political comedy program at least once in the previous week. In the combined measure, 3.75% of respondents were counted as political comedy consumers. A separate measure of comedy exposure includes only *The Daily Show* and *Colbert Report* viewership. This measure has a value of 1 if a respondent mentioned these programs, specifically, in the open-ended items or reported regularly watching *The Daily Show* in the post-test item. Overall, 2.12% of respondents reported using *The Daily Show* or *Colbert Report* in at least 1 of the 3 self-reported exposure measures. Information about patterns of exposure across demographic and political groups can be found in Appendix 6B. Overall, these measures reflect rates and patterns of exposure to political comedy quite similar to those found in other surveys (e.g. Pew, 2012).

Control Variables

Media Use

To rule out the possibility that the comedy exposure variables are simply picking up the influence of overall exposure to media rather than variance attributable to political comedy, several additional media consumption measures were also included as control variables. The

pre-election survey included 4 items gauging use of television news, talk radio, print and electronic newspapers, and the Internet for information about the 2008 Presidential election. Respondents were asked how many days in the past week they saw information about the campaign on broadcast or cable television; heard information on radio shows that invite speakers to call in and discuss current events, public issues, or politics; read information in a newspaper, including a paper copy, online copy, or on an application downloaded to a mobile device; and saw or heard information on the Internet, including on a computer or a mobile device. So that measures of television, radio, newspaper and Internet use were comparable to the comedy measures, items were recoded into binary variables with a value of 1 indicating that a particular media source was used at least once in the past week.⁵ Overall, 89% of respondents reported watching television news, 40% reported listening to talk radio, 60% read a print or electronic newspaper, and 57% reported using the Internet for information about the 2008 Presidential Election in the past week.

Orientation toward Politics

Measures of political engagement were included as control variables in models to rule out the possibility that those who watch political comedy are simply more knowledgeable and engaged to begin with, and this is what leads to greater ideological constraint. General political interest was measured using the pre-election item: How closely are you following the 2008 Presidential campaign—very closely, somewhat closely, not too closely, or not closely at all. The interest measure was recoded to run from 0 to 1, with 0 meaning not closely at all and 1 meaning very closely. Overall, 43% of respondents reported following the campaign very closely, 42% somewhat closely, 11% not too closely, and only 4% not closely at all.

⁵ Models were also run with alternative media measures including the full 0-7 range, binary measures cut at the mean, and 3 point measures cut at the 25 and 75 percentile marks. There was no substantive difference in results when these alternative media consumption measures were used.

Political knowledge was measured using 3 pre-election general political knowledge questions: 1. Who has the final responsibility to determine if a law is constitutional or not? Is it the president, the Congress, or the Supreme Court? 2. How much of a majority is required for the US Senate and House to override a presidential veto? and, 3. Do you happen to know which party has the most members in the United States House of Representatives?⁶ The general political knowledge measure was constructed from a simple additive index indicating the total number of questions answered correctly. Overall, 27% of respondents answered all 3 questions correctly, 33% answered 2 correctly, 25% answered 1 correctly, and 14% were unable to correctly answer any question. To facilitate comparison of citizens at low, moderate and high levels of political knowledge, the additive index was cut at the 25 and 75 percentiles to create a 3 point index of general political knowledge. Those answering no questions correctly were ranked at 0 and formed the low knowledge group. The high knowledge group was scored at 2 and included those answering all 3 questions correctly. The moderate knowledge group was ranked at 1 and included the 72% of respondents who answered 1 or 2 questions correctly. The 3 point knowledge measure was then rescaled to run from 0 to 1 for ease of comparison.

Party identification was measured using a standard 7 point scale based on 3 branching pre-election questions: 1. Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or something else? 2. Do you consider yourself a strong or not a very strong [Democrat/Republican]? 3. Do you think of yourself as closer to the Republican or Democratic Party? Party Identification was coded to run from 0, indicating Strong Democrat, to

⁶ A fourth item was asked to less than half of respondents: To the best of your knowledge, do you happen to know how Supreme Court justices are chosen? Are they nominated by a nonpartisan congressional committee, elected by the American people, nominated by the President and the confirmed by the Senate, or appointed if they receive a two-thirds majority vote of the justices already on the court? This item was excluded from the general knowledge measure because relative political knowledge could be better gauged using a scale constructed only from questions asked of all respondents.

1, indicating Strong Republican, with true independents centered at the midpoint. In the initial PID question, 36% of respondents identified as Democrats, 30% as Republicans, and 34% as Independents or third-party identifiers. The PID scale was then collapsed into a measure of strength of partisanship, running from 0 for true Independents to 1 for strong partisans. Overall, true independents comprised 12% of the sample, 27% were party leaners, 22% were weak partisans, and 39% strongly identified with one of major political parties.

Demographic Controls

To remove variance in ideological constraint attributable to ‘the usual suspects’ and ensure that any relationship found between political comedy and ideological constraint is indicative of the effect of viewership rather than a function of audience characteristics, a number of standard demographic measures were also included as control variables. These included gender, age, education, income, employment status, race/ethnicity, and religiosity. Gender is a binary variable with 1 meaning male. The sample was 43% male. Age ranges from 18 to 97, with a median age of 53 years old. Education is a categorical variable with 5 values indicating the highest level of education completed. About 40% of the sample reported having a 4-year college degree or greater, and about 6% reported less than a high school education. The income measure includes 9 categories of self-reported, total pre-tax household income. About 40% reported a household income of greater than \$75K, about 20% reported an income between \$50K and \$75K, and about 40% reported less than \$50K annual household income. An indicator of employment has a value of 1 if a respondent is employed full or part-time. Sixty-one percent of respondents were considered employed based on this measure. Race and ethnicity are included in the models using indicators for self-reported Hispanic or Latino origin and white racial identification. The sample was about 6% Hispanic and 85% white. A religiosity variable was

based on a 5-point, categorical measure of self-reported frequency of church attendance. All demographic variables were rescaled to run from 0 to 1 for ease of comparison. Details about the specific questions utilized in demographic and other measures can be found in Appendix 6A.

Results

To test whether or not political comedy use is associated with greater ideological constraint, the several measures of constraint described above were regressed on comedy viewership as well as demographic controls, political engagement variables and media use measures. All variables have been scaled to run from 0 to 1 for ease of comparison. The models discussed here are estimated using OLS regression. Models estimated using hierarchical regression, with variables entered as blocks, can be found in Appendix 6C. The hierarchical models show the same pattern of results as those obtained using OLS, but also show that the addition of media use and comedy exposure variables makes a significant contribution to the variance explained.

Table 6.1 shows models of ideological constraint measured by the standard deviation of issue positions. Constrained attitudes should exhibit lower variance in issue positions; thus, negative coefficients indicate greater ideological constraint. The first column shows the model for all comedy exposure. As expected, the coefficient on comedy is negative. According to this model, exposure to comedy is associated with a .09 point decrease in the weighted standard deviation of issue positions. This decrease is statistically significant at the .10 level and is substantively large compared to other variables in the model. Among media use variables, comedy is the most strongly associated with ideological constraint. Television news and newspaper are associated with greater variance in issue positions. Though the coefficient on talk

radio is significant and negative, it is less than half the size of that on comedy. The third column of Table 6.1 shows the model of the standard deviation of issue positions with the comedy variable including *Daily Show/Colbert Report* viewership only. Here, the coefficient on comedy is a statistically significant -.13, much larger than any other media use variable. Viewing *The Daily Show* or *Colbert Report* is associated with a decrease in issue attitude variance slightly greater than the .11 point decrease associated with the highest level of general political knowledge. Similarly, strong partisanship is associated with an estimated .09 point decrease in attitude variance, .04 points less than the decrease associated with *Daily Show/Colbert* exposure. In line with the prediction made in Hypothesis 4, these models show that viewing political comedy is statistically and substantively related to greater ideological constraint.

To test the non-linear prediction that the effect of political comedy will be greatest among moderately sophisticated viewers, models were also estimated using indicator variables for low and moderate general political knowledge and the interactions between these indicators and self-reported comedy exposure.⁷ In these models, the coefficient on comedy represents the relationship between comedy and constraint among those high in political knowledge, and the interactions between comedy and the low and moderate knowledge indicators allow a comparison of the impact of comedy across knowledge levels. In the overall comedy model shown in the second column of Table 6.1, and the *Daily Show/Colbert* model in Column 4, only the low knowledge interaction is statistically significant. For those low in political knowledge, viewing comedy actually decreases ideological constraint, increasing the standard deviation of issue positions by .26 points in the overall comedy model and .31 points in the *Daily*

⁷ To test the non-linear relationship between comedy and prior knowledge, models were also run using the square root of the prior knowledge variable. For all models, the coefficient on the interaction between comedy and the square root of prior knowledge is significant and in the appropriate direction. For ease of interpretation, I discuss the models including binary indicators prior knowledge level instead of the non-linear specification.

Show/Colbert model. The interactions between comedy and moderate political knowledge are positive, but statistically indistinguishable from 0, indicating that those at moderate levels of political knowledge see a boost in constraint resulting from political comedy exposure equivalent to that seen among high political knowledge viewers. These results provide some support for Hypothesis 5. Though there is no statistically identifiable boost at moderate levels of political knowledge, the interactive models do show that comedy improves ideological constraint only for those with a baseline level of knowledge necessary to get the jokes.

A second test of the hypothesis that comedy increases ideological constraint comes from examining the relative distance of attitude placements across the several policy issue items.

Table 6.2 shows the models of average inter-item issue distance regressed on demographic controls, political engagement variables, media use and comedy exposure. Both the overall comedy and *Daily Show/Colbert* models provide support for Hypothesis 4. The first column of Table 6.2 shows the model for overall comedy exposure. Here, political comedy is associated with a statistically significant .12 point decrease in average inter-item issue distance.

Substantively, this decrease is larger than that associated with any other form of media use, and roughly equivalent to the shift expected among strong partisans and those with the highest levels of political knowledge. The model of *Daily Show/Colbert* viewership, shown in the third column of Table 6.2, provides even stronger evidence that political comedy is associated with ideological constraint. Viewing *The Daily Show* or *Colbert Report* is associated with a .16 point reduction in the average distance between issue items. This is roughly equivalent to the reduction of inter-item distance associated with strong campaign interest and greater than the .12 point decrease estimated for those at the highest levels of knowledge as well as the .13 point reduction in average inter-item issue distance among strong partisans.

Models were also estimated with indicators for low and moderate knowledge and the interactions between knowledge level and comedy. Again, these models provide some support for Hypothesis 5. Though there is no statistically identifiable increase in constraint among moderately knowledgeable viewers relative to those high in political knowledge, results do show that comedy only boosts constraint among those with prior knowledge sufficient to understand humor. The significant negative coefficient on comedy shows that comedy improves constraint among the highly knowledgeable. For those with low political knowledge, the net effect of comedy is a decrease in ideological constraint. Average inter-item issue distance increases by .26 points for all comedy and .42 points for *Daily Show/Colbert* viewers low in political knowledge. The coefficients on the interactions between comedy and moderate political knowledge are positive, but statistically insignificant. These models show that the boost in constraint resulting from comedy among moderately knowledgeable viewers is statistically equivalent to that among highly knowledgeable viewers.

An ideological understanding of politics is associated with a more bi-polar view of the political world, and attitudes constrained by ideology should be more consistently located on one side of the ideological spectrum of the other (Federico, 2007). The relationship between political comedy consumption and the tendency toward ideological bi-polarity is examined in Table 6.3, which shows models of consistency as measured by the absolute difference between the percentage of issues on which one holds a conservative position and the percentage where the position is liberal. In both the overall comedy and *Daily Show/Colbert* models, political comedy is more strongly associated with ideological consistency than any other media use variable. The statistically significant .10 point increase in consistency associated with overall comedy, shown in the first column of Table 6.3, is 5 times larger than the boost from talk radio, the second

strongest media predictor of consistency, and double that associated with maximum political interest. Use of *The Daily Show* and *Colbert Report* shows an even stronger relationship with ideological consistency. The statistically significant .12 point increase in consistency associated with viewing these programs is twice as large as the increase associated with strong partisanship. Additionally, the difference in consistency between those with the highest and lowest levels of general political knowledge is .06, half the magnitude of the boost associated with comedy viewership. Much of this benefit is a function of a greater percentage of liberal issue attitudes among comedy viewers. Models estimating the percentage liberal and percentage conservative positions can be found in Appendix 6D. The models of ideological consistency show that comedy viewership is associated with a more bi-polar, ideological view of the political world, providing additional support for Hypothesis 4.

The models utilizing indicators for low and moderate knowledge and the interactions with comedy do not show the pattern of results predicted in Hypothesis 5. The significant positive coefficients on comedy show that ideological consistency increases among highly knowledgeable comedy viewers. The significant negative coefficients on the interactions between knowledge level and comedy show that the boost in consistency resulting from comedy is smaller for those with low or moderate knowledge. The net effect of comedy for low knowledge viewers approaches 0 in both the overall comedy and *Daily Show/Colbert* models. For moderately knowledgeable viewers, attitude consistency improves by .07 points from overall comedy, and .09 points from exposure *Daily Show/Colbert*. Though the shift is in the correct direction, the magnitude is smaller than the .15 point increase in consistency predicted for high knowledge viewers. Rather than lifting up the middle, these models show that comedy most strongly benefits those at high levels of political knowledge.

An additional indicator of ideological constraint is the extent to which the abstract construct of ideology is related to positions held on concrete political issues. For those who rely on ideology to organize their political thinking, self-placement on the scale of ideology should be strongly related to positions on specific policy issues. Table 6.4 shows the models with the average distance between ideological self-placement and placement on each issue item regressed on the demographic controls, engagement variables, media use and comedy exposure. Column 1 of Table 6.4 shows that overall comedy use is associated with a statistically significant .11 point decrease in the average distance between ideology and specific issue attitudes. This decrease is larger than that associated with any other media use measure and equivalent to the effect of strong partisanship. The impact of *Daily Show/Colbert* use is shown in the second column of Table 6.4. These programs are associated with an estimated .15 point reduction in average ideology-issue distance. This decrease is both statistically and substantively significant, greater than the .12 point reduction associated with graduate level education and the .10 point decrease in average distance found for strong partisans. These models show that for viewers of political comedy, the abstract construct of ideology constrains attitudes about specific policy issues.

The interactive models show that this effect does not vary significantly across levels of political knowledge. The negative coefficients on comedy show that viewership increases constraint among those high in political knowledge. The insignificant, positive coefficients on the interactions between comedy and low knowledge show no net benefit to comedy for those at low levels of political knowledge. For those low in political knowledge, the average distance between issue positions and ideological self-placement decreases by only .02 points as a result of overall comedy or *Daily Show/Colbert* viewership. The coefficients on the interactions between

comedy and moderate political knowledge are in the expected direction, but statistically indistinguishable from 0. For moderately knowledgeable viewers, vertical constraint scores improve by .12 points as a result any comedy exposure. In the *Daily Show/Colbert* model, the net effect of comedy among those with moderate prior political knowledge is a .18 point reduction in the average distance between ideology and issue positions. While larger than the .13 point decrease among highly knowledgeable viewers, the difference is not statistically significant. These models provide some support for Hypothesis 4. Comedy viewership is associated with greater ideological constraint only among those with adequate prior political knowledge to comprehend and appreciate humor.

Table 6.5 examines how general political knowledge and comedy viewership condition the relationship between ideology and average issue position. Of interest is whether or not comedy encourages viewers to make more sophisticated connections between abstract ideological principles and concrete political attitudes. More specifically, it is expected that comedy improves the ability of those with moderate levels of political knowledge to make use of abstract ideological constructs in a manner similar to more sophisticated citizens. In this analysis, the average issue position, coded from extremely liberal to extremely conservative, is regressed on comedy use, general political knowledge, ideology, and the interactions of these three variables. For ease of interpretation, ideology is coded using the same -2 to 2 scale as the dependent variable—average issue position. Models were run using the full 0 to 2 range of general political knowledge. In order to test the non-linear prediction that comedy improves constraint most strongly among those at moderate levels of political knowledge, separate models were run using indicator variables for low and moderate political knowledge.

Looking first at the models estimated using the full, 3-point general knowledge scale, shown in Columns 1 and 3 of Table 6.5, the significant positive coefficients on the interactions between comedy viewership and ideology show that the relationship between self-reported ideology and average issue position is stronger for comedy viewers than for those not exposed to comedy. All else equal, a one-point change ideology is associated with a .51 point shift in average issue among all comedy viewers, and a .53 point shift for *Daily Show/Colbert* viewers, as compared to a change in average issue position of only .15 points among those who do not consume any political comedy. Moreover, the significant negative coefficients on the three-way interaction between ideology, knowledge and comedy viewership show that comedy diminishes the importance of knowledge in conditioning the relationship between ideology and average issue position. To show this, the difference in predicted average issue position resulting from a one-point change in ideology was calculated for comedy viewers and non-viewers at low and high levels of political knowledge. For non-viewers, the change in average issue position associated with a one-point shift in ideology is .54 points greater among those at the highest level of political knowledge than that predicted for those low in political knowledge. For all comedy viewers, the difference in the magnitude of the shift is only .20 points greater for those at high levels of knowledge. Among *Daily Show/Colbert* viewers, there is virtually no difference in the impact of ideology for those at low and high levels of knowledge. A one-point shift in ideology changes the average issue position of those at low knowledge by .51 points, versus .56 points at high levels of knowledge.

To test whether or not the effects are strongest for comedy viewers at moderate levels of political knowledge, models were also estimated with dummy variables indicating low and moderate political knowledge. These models are shown in the second and fourth columns of

Table 6.5. Again, in line with predictions in Hypothesis 4, comedy strengthens the relationship between ideology and issue positions. Among non-viewers, a one-point shift in ideological self-placement changes average issue position by .43 points, versus .55 points for all comedy viewers and .59 points for those who watch *The Daily Show/Colbert Report*. More importantly, these models show that comedy improves constraint most among those at moderate levels of political knowledge. For those at low levels of political knowledge, the relationship between ideology and average issue position is not strengthened much by political comedy. The change in issue positions associated with a one-point shift in ideology is only .06 points more for all low-knowledge comedy viewers and .04 points more for low-knowledge *Daily Show/Colbert* viewers than for low-knowledge non-viewers. Among those high in political knowledge, the relationship between ideology and issue positions is actually weaker among comedy viewers than among non-viewers. Exposure to political comedy decreases the change in issue positions associated with a one-point shift in ideology by .12 points for all high-knowledge comedy viewers and by .16 points for high-knowledge *Daily Show/Colbert* viewers. For those at moderate levels of political knowledge, comedy dramatically improves the connection between ideology and issue positions. For these viewers, exposure to political comedy increases the change in issue positions associated with a one-point shift in ideology by .12 points for all comedy and by .16 points for *Daily Show/Colbert* relative to the change observed among moderately knowledgeable non-viewers.

Figure 6.1 shows how political knowledge conditions the relationship between ideology and average issue position for comedy viewers versus non-viewers. Bars show the shift in average issue position expected from a one-point change ideological self-placement for viewers and non-viewers at low, medium and high levels of political knowledge. Among those who do

not watch political comedy programs, a one-point change ideological self placement has almost no impact on the positions of those at low levels of political knowledge, a modest impact at moderate knowledge levels, and a strong impact on the positions of those high in political knowledge. For comedy viewers with low knowledge, there is still little change in average issue position associated with shifting ideology. However, the moderate and high knowledge groups converge with exposure to political comedy. In fact, the magnitude of the shift in average issue position associated with a one-point change in ideology is slightly greater for *Daily Show/Colbert Report* viewers with moderate knowledge than viewers with high knowledge. Not only does comedy improve ideological constraint, the benefit is most pronounced for those with moderate political knowledge.

This analysis shows that exposure to political comedy is associated with opinions that more closely resemble the constrained opinions expressed by sophisticated citizens. Figure 6.2 shows estimates of the average issue position for a strong liberal comedy viewer or non-viewer across levels of general political knowledge. For non-viewers, there is a linear relationship between political knowledge and average issue position. As political knowledge increases, the average issue position of a self-reported strong liberal becomes more liberal. Exposure to political comedy, however, changes the relationship between knowledge and ideology. Among comedy viewers, attitudes of those at moderate and high levels of political knowledge converge, and the gap in attitudes expressed by these groups decreases dramatically. Moderately knowledgeable comedy viewers hold attitudes that closely resemble those of highly knowledgeable citizens with the same ideological predispositions. In effect, political comedy viewers hold more sophisticated attitudes, with higher level abstractions like ideology

constraining their attitudes to a greater extent than among non-viewers. This effect is particularly pronounced for moderately knowledgeable comedy viewers.

Conclusion

Analysis of the 2008 NAES presented in this chapter is generally consistent with predictions from the model of humor-triggered cognition. Despite the relatively weak self-reported exposure measure, political comedy emerged as a strong predictor of ideological constraint. Comedy viewers expressed political attitudes that were more consistent and ideologically coherent in structure. In fact, political comedy was more strongly associated with ideological constraint than any other form of media consumption. This relationship holds across several alternative measures of attitude consistency and even with extensive controls for individual characteristics and predispositions associated with motivation and ability for ideological thinking.

The non-linear prediction that comedy boosts constraint most strongly for those with moderate prior political knowledge received only limited support. As expected, among those with the lowest levels of political knowledge, self-reported exposure to political comedy was not associated with ideological constraint. However, alternative models produced mixed results about the strength of the relationship between exposure to comedy and attitude consistency among more sophisticated viewers. In one model, those with moderate prior political knowledge appeared to benefit most from political comedy—exposure strengthened the connection between ideological identification and concrete policy issue positions so that the attitudes expressed by moderately knowledgeable viewers were quite similar to those of more sophisticated viewers with similar ideological identifications. However, two models showed the relationship between

comedy and ideological constraint to be roughly equivalent at moderate and high levels of prior political knowledge, and one model showed the strongest relationship for highly knowledgeable viewers.

Some of this inconsistency is likely a function of endogeneity in the measures of self-reported political comedy use and political knowledge. Survey data captures the cumulative effects of long-term exposure to political comedy, which should, over time, enhance political knowledge by promoting learning and activating stored political information and concepts, particularly for those with moderate pre-existing levels of political sophistication. Among frequent comedy viewers, this knowledge equalizing effect will produce a distribution of political knowledge with a higher mean and lesser variance, making it difficult to detect differences in effects across levels of prior knowledge or political sophistication. Though non-linear predictions could not be adequately tested, the findings in this chapter are still generally consistent with the model of humor-triggered cognition. A relationship between exposure to political comedy and ideological constraint is found only for those with sufficient pre-existing political knowledge to comprehend and enjoy political humor and jokes.

Coupled with findings from the experiment, the results presented in this chapter provide strong evidence that the patterns of cognitive processing and engagement associated with comprehending and enjoying political comedy affect the way information is encoded and structured in memory and promote ideological constraint. Even if experimental findings reflect the expression of more thoughtfully considered attitudes rather than fundamental changes in the structure of political belief systems, survey replications supports the argument that, over time, exposure to political comedy enhances ideological constraint. Whether forced in an artificial laboratory setting or freely chosen in the real-world, those exposed to political comedy were

better able to connect abstract ideological principles to discrete policy issues and expressed more ideologically coherent political attitudes. In short, political comedy promotes the development of a more sophisticated understanding of politics and may, thereby, enhance citizens' capacity for effective democratic engagement.

Table 6.1 The Relationship between Self-Reported Exposure to Political Comedy and The Standard Deviation of Policy Issue Positions

	All Comedy		Daily Show/Colbert Report	
Comedy	-.09*	-.15**	-.13**	-.16**
	(.04)	(.07)	(.05)	(.07)
General Knowledge				
Low		.11***		.11***
		(.03)		(.03)
Moderate		.06***		.06***
		(.02)		(.02)
Interactions				
Comedy x Low		.41**		.47*
		(.14)		(.26)
Comedy x Moderate		.07		.02
		(.09)		(.10)
Engagement				
Interest	-.05^	-.05^	-.05^	-.05^
	(.03)	(.03)	(.03)	(.03)
PID Strength	-.09***	-.09***	-.09***	-.09***
	(.02)	(.02)	(.02)	(.02)
Ideology Strength	-.23***	-.23***	-.23***	-.23***
	(.02)	(.02)	(.02)	(.02)
General Knowledge	-.12***		-.11***	
	(.02)		(.02)	
Media Use				
TV News	.08***	.08***	.08***	.08***
	(.02)	(.02)	(.02)	(.02)
Talk Radio	-.04***	-.04***	-.04***	-.04***
	(.01)	(.01)	(.01)	(.01)
Newspaper	.02*	.02*	.02*	.02*
	(.01)	(.01)	(.01)	(.01)
Internet News	-.02	-.02	-.02	-.02
	(.01)	(.01)	(.01)	(.01)
Demographics				
Gender (male)	.01	.01	.01	.01
	(.01)	(.01)	(.01)	(.01)
Age	-.19***	-.19***	-.19***	-.19***
	(.04)	(.04)	(.04)	(.04)
Education	-.06**	-.06**	-.06**	-.06**
	(.03)	(.03)	(.03)	(.03)
Income	-.06**	-.06**	-.06*	-.06*
	(.03)	(.03)	(.03)	(.03)
Employed	-.03*	-.03*	-.03*	-.03*
	(.02)	(.02)	(.02)	(.02)
Hispanic	.14***	.14***	.14***	.14***

	(.03)	(.03)	(.03)	(.03)
White	-.11***	-.11***	-.11***	-.11***
	(.02)	(.02)	(.02)	(.02)
Church Attendance	.02	.02	.02	.02
	(.01)	(.01)	(.01)	(.01)
Constant	1.51***	1.40***	1.51***	1.40***
	(.04)	(.05)	(.04)	(.05)
R ² (%)	1.96	1.98	1.97	1.99
N	23138	23138	23138	23138

***p<.01, **p<.05, *p<.10, ^p<.15, #p<.20 Entries are OLS regression coefficients with standard errors in parentheses.

Table 6.2 The Relationship between Self-Reported Exposure to Political Comedy and Average Inter-Item Issue Distance

	All Comedy		Daily Show/Colbert Report	
Comedy	-.12** (.06)	-.20** (.09)	-.16** (.07)	-.21** (.10)
General Knowledge				
Low		.10*** (.03)		.11*** (.03)
Moderate		.06*** (.02)		.07*** (.02)
Interactions				
Comedy x Low		.46* (.26)		.63* (.34)
Comedy x Moderate		.09 (.12)		.04 (.14)
Engagement				
Interest	-.17*** (.04)	-.17*** (.04)	-.17*** (.04)	-.17*** (.04)
PID Strength	-.13*** (.03)	-.13*** (.03)	-.13*** (.03)	-.13*** (.03)
Ideology Strength	-.38*** (.02)	-.38*** (.02)	-.38*** (.02)	-.38*** (.02)
General Knowledge	-.12*** (.03)		-.12*** (.03)	
Media Use				
TV News	.09*** (.03)	.09*** (.03)	.09*** (.03)	.09*** (.03)
Talk Radio	-.08*** (.01)	-.08*** (.01)	-.09*** (.01)	-.09*** (.01)
Newspaper	.03^ (.02)	.03^ (.02)	.03^ (.02)	.03^ (.02)
Internet News	-.03* (.02)	-.03* (.02)	-.03* (.02)	-.03* (.02)
Demographics				
Gender (male)	.01 (.01)	.01 (.01)	.01 (.01)	.01 (.01)
Age	-.16*** (.06)	-.16*** (.06)	-.16*** (.06)	-.16*** (.06)
Education	-.06^ (.04)	-.06^ (.04)	-.06^ (.04)	-.06^ (.04)
Income	-.07* (.04)	-.07* (.04)	-.07* (.04)	-.07* (.04)
Employed	-.03^ (.02)	-.03^ (.02)	-.03^ (.02)	-.03^ (.02)
Hispanic	.14***	.14***	.14***	.14***

	(.04)	(.04)	(.04)	(.04)
White	-.15***	-.15***	-.15***	-.15***
	(.03)	(.03)	(.03)	(.03)
Church Attendance	.02	.02	.02	.02
	(.03)	(.03)	(.03)	(.03)
Constant	2.13***	2.10***	2.14***	2.02***
	(.06)	(.06)	(.06)	(.06)
R ² (%)	2.44	2.46	2.45	2.47
N	23138	23138	23138	23138

***p<.01, **p<.05, *p<.10, ^p<.15, #p<.20 Entries are OLS regression coefficients with standard errors in parentheses.

Table 6.3 The Relationship between Self-Reported Exposure to Political Comedy and The Ideological Bi-Polarity of Policy Issue Position

	All Comedy		Daily Show/Colbert Report	
Comedy	.10*** (.01)	.15*** (.02)	.12*** (.01)	.15*** (.02)
General Knowledge				
Low		-.05*** (.01)		-.05*** (.01)
Moderate		-.03*** (.01)		-.03*** (.01)
Interactions				
Comedy x Low		-.12** (.05)		-.11* (.07)
Comedy x Moderate		-.08*** (.02)		-.06** (.03)
Engagement				
Interest	.05*** (.01)	.05*** (.01)	.05*** (.01)	.05*** (.01)
PID Strength	.06*** (.01)	.06*** (.01)	.06*** (.01)	.06*** (.01)
Ideology Strength	.18*** (.01)	.18*** (.01)	.18*** (.01)	.18*** (.01)
General Knowledge	.06*** (.01)		.06*** (.01)	
Media Use				
TV News	-.02*** (.01)	-.02*** (.01)	-.02*** (.01)	-.02*** (.01)
Talk Radio	.02*** (.01)	.02*** (.01)	.02*** (.01)	.02*** (.01)
Newspaper	-.01 (.01)	-.01 (.01)	.01 (.01)	.01 (.01)
Internet News	.01 (.01)	.01 (.01)	.01 (.01)	.01 (.01)
Demographics				
Gender (male)	.01* (.01)	.01* (.01)	.01* (.01)	.01* (.01)
Age	.04*** (.01)	.04*** (.01)	.04*** (.01)	.04*** (.01)
Education	.05*** (.01)	.05*** (.01)	.05*** (.01)	.05*** (.01)
Income	.01 (.01)	.01 (.01)	.01 (.01)	.01 (.01)
Employed	.01** (.01)	.01** (.01)	.01** (.01)	.01** (.01)
Hispanic	-.04***	-.04***	-.04***	-.04***

	(.01)	(.01)	(.01)	(.01)
White	.06***	.06***	.06***	.06***
	(.01)	(.01)	(.01)	(.01)
Church Attendance	.01*	.01*	.01*	.01*
	(.01)	(.01)	(.01)	(.01)
Constant	.14***	.20***	.14***	.20***
	(.01)	(.01)	(.01)	(.01)
R ² (%)	10.74	10.80	10.76	10.80
N	37965	37965	37965	37965

***p<.01, **p<.05, *p<.10, ^p<.15, #p<.20 Entries are OLS regression coefficients with standard errors in parentheses.

Table 6.4 The Relationship between Self-Reported Exposure to Political Comedy and Vertical Constraint, Self-Reported Ideology and Average Issue Position

	All Comedy		Daily Show/Colbert Report	
Comedy	-.11*** (.03)	-.11** (.05)	-.15*** (.04)	-.13** (.05)
General Knowledge				
Low		.21*** (.02)		.21*** (.02)
Moderate		.09*** (.01)		.09*** (.01)
Interactions				
Comedy x Low		.09 (.14)		.11 (.18)
Comedy x Moderate		-.01 (.06)		-.05 (.07)
Engagement				
Interest	-.04** (.02)	-.04** (.02)	-.04** (.02)	-.04** (.02)
PID Strength	-.10*** (.01)	-.10*** (.01)	-.10*** (.01)	-.10*** (.01)
Ideology Strength	-.09*** (.01)	-.09*** (.01)	-.09*** (.01)	-.09*** (.01)
General Knowledge	-.20*** (.02)		-.20*** (.02)	
Media Use				
TV News	.06*** (.02)	.06*** (.02)	.06*** (.02)	.06*** (.02)
Talk Radio	-.06*** (.01)	-.06*** (.01)	-.06*** (.01)	-.06*** (.01)
Newspaper	.02** (.01)	.02** (.01)	.02** (.01)	.02** (.01)
Internet News	-.03*** (.01)	-.03*** (.01)	-.03*** (.01)	-.03*** (.01)
Demographics				
Gender (male)	.03*** (.01)	.03*** (.01)	.03*** (.01)	.03*** (.01)
Age	-.06** (.03)	-.06** (.03)	-.06** (.03)	-.06** (.03)
Education	-.13*** (.02)	-.13*** (.02)	-.12*** (.02)	-.12*** (.02)
Income	-.07*** (.02)	-.07*** (.02)	-.07*** (.02)	-.07*** (.02)
Employed	-.01 (.01)	-.01 (.01)	-.01 (.01)	-.01 (.01)

Hispanic	.05** (.02)	.05** (.02)	.05** (.02)	.05** (.02)
White	-.18*** (.01)	-.18*** (.01)	-.18*** (.01)	-.18*** (.01)
Church Attendance	-.09*** (.01)	-.09*** (.01)	-.09*** (.01)	-.09*** (.01)
Constant	.56*** (.03)	.36*** (.03)	.56*** (.03)	.36*** (.03)
R ² (%)	4.01	4.02	4.03	4.04
N	23255	23255	23255	23255

***p<.01, **p<.05, *p<.10, ^p<.15, #p<.20 Entries are OLS regression coefficients with standard errors in parentheses.

Table 6.5 The Relationship between Ideology and Average Issue Position by Self-Reported Exposure to Political Comedy across Levels of General Political Knowledge

	All Comedy		Daily Show/Colbert	
Comedy	-.52*** (.13)	-.60*** (.09)	-.65*** (.16)	-.67*** (.10)
Ideology (5-pt)	.15*** (.01)	.69*** (.01)	.15*** (.01)	.69*** (.01)
General Knowledge	-.26*** (.01)		-.26*** (.01)	
Low		.51*** (.02)		.51*** (.02)
Moderate		.31*** (.01)		.31*** (.01)
Ideology Interactions				
x General Knowledge	.27*** (.01)		.27*** (.01)	.51*** (.02)
x Low Knowledge		-.55*** (.02)		-.55*** (.02)
x Moderate Knowledge		-.26*** (.01)		-.26*** (.01)
Comedy Interactions				
x Ideology	.25** (.11)	-.11 [#] (.08)	.35** (.14)	-.16* (.09)
x General Knowledge	-.05 (.09)		-.01 (.11)	
x Low Knowledge		.18 (.21)		.09 (.27)
x Moderate Knowledge		-.01 (.11)		.01 (.14)
3-Way Interactions				
Comedy x Ideology x General Knowledge	-.17** (.08)		-.24** (.10)	
Comedy x Ideology x Low Knowledge		.17 (.19)		.21 (.26)
Comedy x Ideology x Moderate Knowledge		.24** (.10)		.33*** (.01)
Constant	.52*** (.01)	-.03** (.01)	.52*** (.01)	-.03*** (.01)
R ² (%)	20.21	20.27	20.20	20.26
N	35286	35286	35286	35286

***p<.01, **p<.05, *p<.10, ^p<.15, #p<.20 Entries are OLS regression coefficients with standard errors in parentheses.

Figure 6.1 Predicted Change in Average Policy Issue Position from a One-Point Shift in Self-Reported Ideology

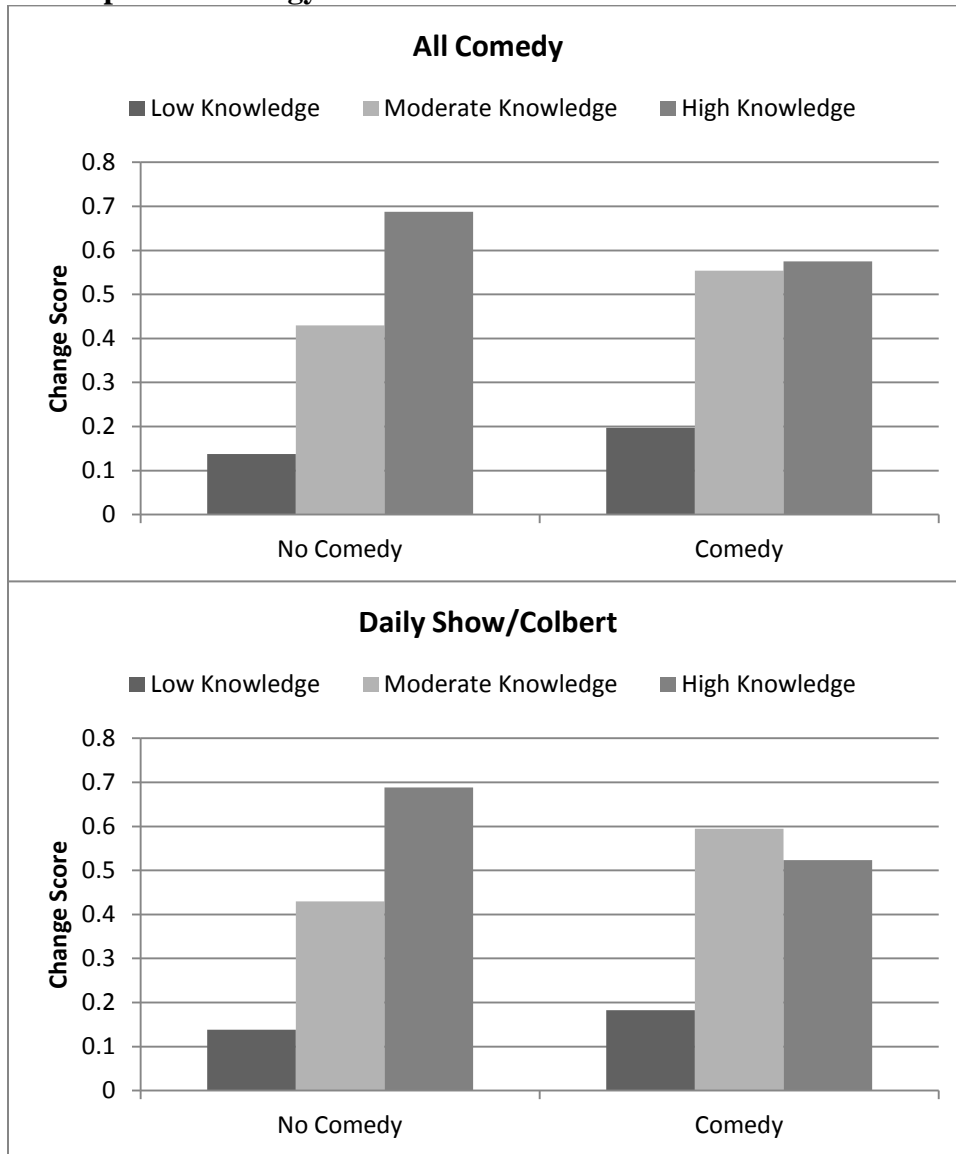
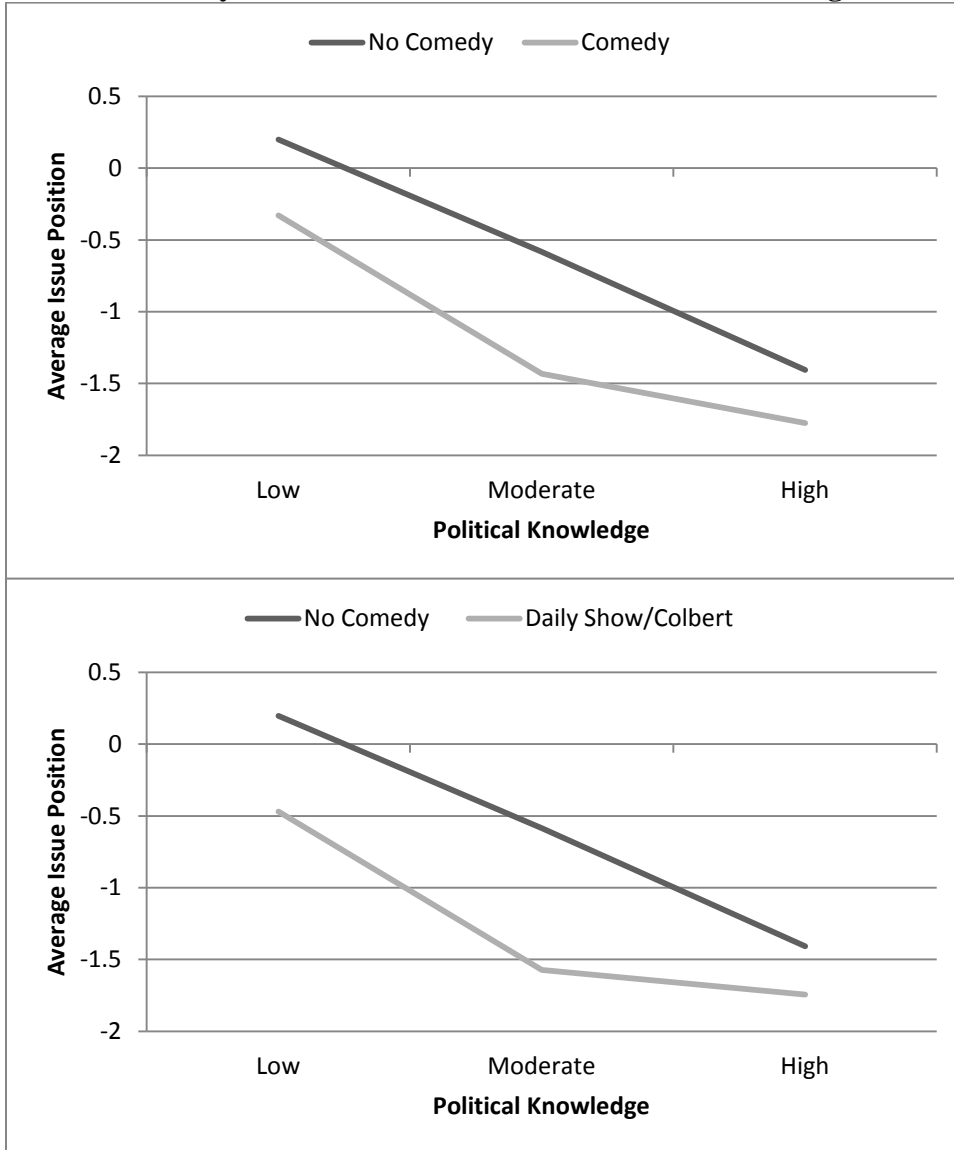


Figure 6.2 Average Issue Position for Strong Liberals by Self-Reported Exposure to Political Comedy across Levels of General Political Knowledge



Chapter 7. Conclusion

This dissertation investigates the effects of political comedy on knowledge and attitudes. Information is a valuable resource which facilitates effective political engagement, and citizens with higher levels of political knowledge hold attitudes that are both quantitatively and qualitatively different than those expressed by less informed citizens. The social distribution of political knowledge is shaped by three broad factors—opportunity, motivation and ability. Mass media play an important role in determining the opportunities for learning and the mix of information about politics and public affairs available to citizens. However, because chronic differences in motivation and ability determine how much attention is paid to political messages, what is learned and how information is ultimately interpreted and utilized, it is often argued that media have “minimal effects” on patterns of knowledge, attitudes and engagement. Nonetheless, changes in the information environment, especially the availability of entertaining alternatives to traditional hard news, may have a profound effect on democratic citizenship by altering the opportunities available for learning and the relative importance of chronic differences in motivation and ability. The central claim in this dissertation, one which some evidence supports, is that the context in which information is presented—humor versus hard news—shapes the way it is processed, encoded in memory, recalled and applied in political judgment.

This dissertation concentrates on one particular non-traditional form of political media—political comedy—which has emerged as an increasingly popular and important source of political information, especially for young citizens. Questions linger about whether comedy is a

democratically healthy alternative to traditional news that enhances knowledge and competence and, if so, what type of citizen is most likely to benefit. Previous research on this topic has been guided by competing perspectives. One argument is that political comedy is an entertaining and accessible alternative source of political information that can promote knowledge, awareness and interest among otherwise apathetic audiences (Baum, 2003b; Rottinghaus et al., 2008; Xenos & Becker, 2009). Others are less optimistic, arguing that political comedy has limited potential to enhance knowledge and sophistication because it reaches only relatively engaged citizens who maintain an extensive political media diet to begin with (Moy et al., 2005b; Prior, 2007; Cao, 2008; Young, 2008; Landreville et al., 2010). More pessimistically, the comedic portrayal of politics may cause cynicism and decreased political trust (Baumgartner & Morris, 2006; Morris & Baumgartner, 2008; Guggenheim et al., 2011), or prime negative considerations that lead to less favorable evaluations of political leaders (Young, 2004; 2006; Esralew & Young, 2012). However, empirical research to date has been unable to make sense of these contradictory predictions and has revealed small or mixed effects. As a result, the impact of political comedy on attitudes and knowledge remains unclear.

To better understand the democratic consequences of political comedy, the current study shifts attention from political content to the comedic format itself. Drawing on socio-psychological theories of humor, Chapter 2 outlined a model of humor-triggered cognition. This model produced expectations about how the patterns of cognitive processing and engagement associated with comprehending and enjoying comedy promote learning and attitude constraint. Political comedy is not merely a *source* of new information but a complex communication *form*. Comedy presents an intellectual puzzle requiring the identification and resolution of incongruity to comprehend and enjoy. The desire for amusement motivates attention and encourages

thoughtful cognitive engagement, the integration of ideas, elaboration about how seemingly disparate pieces of information relate and consideration of the implications of humorous reinterpretations across domains of knowledge. The patterns of cognitive processing and engagement associated with comprehending and enjoying political comedy promote learning and shape how information is encoded and organized memory, enhancing and deepening understanding and encouraging ideological constraint.

Additionally, the model of humor-triggered cognition offers an alternative account of who should be most affected by exposure to political comedy. As a puzzle-solving exercise, sufficient prior knowledge and understanding is necessary to comprehend jokes, meaningfully elaborate about humorous reinterpretations and derive pleasure from humor. Rather than the least knowledgeable citizens, who might not be motivated or able to comprehend and learn from comedy, or highly sophisticated audiences, who already know and think a lot about politics and are highly motivated and able to understand and interpret information from traditional news sources, the model of humor-triggered cognition predicts that political comedy will have the strongest effect on those with moderate prior political knowledge. Among these moderately sophisticated viewers, political comedy should promote learning and ideological constraint beyond exposure to information presented in traditional news form.

Because the effects on knowledge and attitudes are thought to stem not from exposure to information but from the patterns of cognitive processing and engagement associated with humor comprehension and the experience of amusement, the influence of political comedy must be evaluated relative to exposure to identical information presented in a non-humorous context. Chapter 3 describes the development of experimental stimuli manipulating the presence of humor but holding information constant, thereby allowing a direct comparison of the effects of

political comedy versus traditional hard news. Analysis of pretest respondents' perceptions of the informational content and emotional reactions to the videos suggest the news and comedy stimuli are quite comparable, reducing concern that confounding factors may be driving results. Three pairs of stories discussing economic recovery, healthcare reform and banking regulations were included as part of the final stimuli for an experiment evaluating the effects of political comedy on knowledge and attitudes.

Chapter 4 describes experimental findings about the effect of political comedy on information acquisition. Results show that learning is not an incidental by-product of exposure to information but that political comedy enhances recall beyond that resulting from exposure to identical information in a traditional hard news format. Further, learning does not stem from a simplification of politics because those with the lowest levels of political awareness do not acquire much information regardless of its source. Rather, the greatest benefit is seen among moderately knowledgeable viewers with adequate pre-existing information to comprehend humor but generally lacking motivation to think deeply about politics absent the emotional rewards that political comedy provides for doing so. Further, political comedy boosts learning not by making politics more interesting, as the gateway hypothesis would suggest, but by encouraging effortful processing and thoughtful cognitive engagement to achieve the emotional gratification of amusement. Amusement, not interest, mediates learning effects. The pattern of results observed is inconsistent with the *incidental exposure* or *gateway* hypotheses and can best be explained by the model of humor-triggered cognition.

By promoting cognitive engagement and elaboration about political relationships and the meaning of information across domains of knowledge, political comedy not only promotes learning but also encourages the expression of thoughtfully considered, consistent attitudes. In

Chapter 5, data from the experiment is used to investigate the effect of political comedy on ideological constraint. Results show that exposure to political comedy produced greater attitude consistency than exposure to identical information in traditional hard news form. Once again, effects are strongest for those with moderate levels of prior political knowledge. Comedy enhances ideological thinking primarily among moderately sophisticated viewers who possess a basic understanding of ideological principles but are not generally motivated to apply such abstract thinking when forming and expressing political opinions.

Chapter 6 replicates analysis of the effects of political comedy on ideological constraint using data from the 2008 National Annenberg Election Survey. Here again, political comedy was strongly associated with ideological constraint in political attitudes. Across several measures, attitude consistency was greater among those reporting exposure to political comedy. This relationship is both substantively and statistically significant—greater than that associated with any other form of media exposure and on par with the influence of general political knowledge, partisanship, and political interest. The survey replication shows that the effect of political comedy on ideological constraint is not an artifact of artificial experimental exposure but is evidence of the real world influence of comedy on political understanding and attitude consistency.

Overall, results suggest that the impact of political information depends on both chronic differences in motivation and ability as well as the context in which information is presented. Rather than an alternative source for widely available political information, political comedy is a unique communicative form which presents information in a way that promotes attention, effortful processing and thoughtful engagement. These patterns of cognition not only boost learning, but also affect how information is encoded and organized in memory, thereby

enhancing political understanding and facilitating the expression of more sophisticated, ideologically consistent attitudes.

Limitations

Certainly, there are several important limitations to the current study. First, while factual information is an important indicator of “good citizenship,” it is always a challenge to develop measures of political knowledge that are reliable and valid indicators of citizen competence. Both the content and format of questions used to measure knowledge affect the ability of scales to discriminate between those with more or less information and predict theoretically related abilities, predispositions and behaviors. It is difficult to determine precisely what citizens should know in order to understand and effectively engage in contemporary democratic politics. Measures of political knowledge can tap only a selective sample of pertinent factual information from relevant domains of knowledge (Delli Carpini & Keeter, 1993). In this study, learning was measured with 6 factual questions reflecting the information available in experimental stimuli. Items tested recall of key facts from multiple knowledge domains, including the individuals, institutions and policies involved in the stories. Still, these specific facts may or may not represent the type of information that can help improve political decision-making, and it is possible that respondents acquired other important political information and that different questions might produce different results.

Further, question format choices, including the use of multiple-choice versus open-ended items and the availability of ‘don’t know’ options, affect the reliability and validity of measures and the extent to which scores reflect political knowledge versus the propensity to guess or other irrelevant factors (Mondak, 2001). Five of the 6 knowledge items used to gauge learning were

open-ended. This choice was made, in part, because open-ended questions could more adequately address criticism that comedy promotes awareness and recognition of political information rather than learning and recall. Further, multiple-choice questions facilitate blind guessing, resulting in greater measurement error and making the detection of small differences in learning difficult. However, open-ended questions are more susceptible to contamination by differential propensity to guess (Mondak, 2001), and the knowledge measure might reflect different underlying constructs for experimental and control groups. Because they were not given any new political information, control group respondents could only answer questions using information stored in long-term memory, and scores may reflect both pre-existing knowledge as well as individual differences in motivation to search memory and the propensity to guess. For those in the news and comedy conditions, experimental exposure to information provides the opportunity to learn but might also make pre-existing knowledge more accessible by activating stored information or motivating a more exhaustive search of long-term memory. Consequently, results may reflect not only learning effects but also differences in how respondents answered questions.

There are also several important limitations to measures of attitude consistency. Some may be skeptical that ideological constraint could be significantly influenced by brief exposure to a small number of comedy stories. Even if brief exposure was insufficient to produce permanent change in underlying belief systems, the pattern of results obtained at least reflects an increase in motivation and ability to utilize abstract ideological principles and the expression of more thoughtfully considered attitudes among those exposed to political comedy. The cumulative impact of exposure to political comedy may be real, long-term changes in the structure of political knowledge. Survey replication shows that self-reported exposure to

political comedy is associated with more ideologically consistent political attitudes, suggesting that prolonged, repeated exposure to humorous political messages does indeed promote ideological constraint. Whether greater attitude consistency indicates a more ideologically coherent structure of knowledge in memory or merely more thoughtful attitude expression, both experimental and survey findings demonstrate that political comedy enhances viewers' capacity to recognize and understand the ideological relationships that organize democratic discourse.

However, it cannot be taken for granted that ideological constraint is indicative of "good citizenship," and greater attitude consistency among those exposed to comedy may or may not be a democratically desirable outcome. Converse's (1964) notion of ideological constraint has been the standard yardstick against which citizens are judged. Critics note that an individual may be quite well informed and politically sophisticated even without faithful adherence to liberal or conservative beliefs, and, as Kam (2006) astutely points out, there is conflict between constraint and open-mindedness. That is, from the perspective of ideological constraint, enlightened views are internally consistent in their ideological perspective; but enlightenment could, and perhaps should, include a willingness to recognize alternative perspectives and integrate and multiple, competing relevant considerations. If political comedy boosts ideological constraint by promoting ideological extremism and rigidity rather than open-minded, thoughtful engagement, then it might contribute to general patterns of ideological and partisan polarization in politics. Ideological constraint is only one of many politically relevant outcome variables that should be considered in order to more fully assess the democratic consequences of political comedy.

On face, the observed increase in ideological constraint might seem to contradict previous research showing that some forms of political comedy, particularly candidate appearances on late-night comedy programs, can lead to more favorable evaluations of out-party

leaders (Moy et al., 2005b; Xenos et al., 2009) and increase switch party voting (Baum, 2005; Taniguchi, 2011). However, measures of ideological constraint do not capture the same underlying constructs as favorability ratings or vote choice, and results of the current study are not necessarily incompatible with previous research. Reliance on cognitive heuristics like party identification can often lead to judgment errors (Bartels, 1996; Delli Carpini & Keeter, 1996; Lau & Redlawsk, 2001), and it is certainly possible that out-party candidate evaluations and switch party votes are more consistent with political attitudes and beliefs than decisions made based on partisanship alone. Additionally, given the strength and stability of the relationship between partisan identification and vote choice (Campbell et al., 1960), the small number of switch party voters identified in these studies likely comes from the least politically aware segment of the audience. For such viewers, the model of humor-triggered cognition does not predict and experimental findings do not show that political comedy increases ideological constraint. Nonetheless, future research should investigate the effects of other forms of political humor, such as candidate appearances on-late night comedy programs, and consider the implications of enhanced cognitive processing and engagement for variables like candidate favorability ratings and vote choice.

There are also limitations to the measurement strategy used to evaluate the theorized causal mechanism driving effects. According to the model of humor-triggered cognition, learning and ideological constraint are consequences of the processes of cognitive engagement associated with comprehending and enjoying humor. While mediation analysis strongly supports predictions, the amusement measure provides only an indirect test of this causal explanation. Previous studies have included self-reported cognitive effort scales to examine humorous message processing (e.g. Feldman, 2013; Matthes, 2013; Nabi et al., 2007). However, these self-

reported measures make unrealistic assumptions about conscious awareness of cognitive processes and are potentially biased by unrelated factors. For example, the tendency to discount humorous messages (LaMarre & Walther, 2013; Nabi et al., 2007; Young, 2008) might also lead viewers to underestimate the amount of cognitive effort invested processing information. Conversely, those who struggle to comprehend jokes may report high levels of cognitive effort even if they are not ultimately able to interpret messages and are, therefore, unlikely to benefit much from comedy relative to more traditional hard news. Still, there is a strong correlation between self-reported cognitive processing effort and the level of amusement experienced (Nabi et al., 2007), and combining these measures might provide additional leverage on the role played by cognitive engagement in shaping the effects of political comedy.

Because the model of humor-triggered cognition implies that effects will be stronger when more cognitive effort is invested in humor comprehension, manipulating the complexity of humor might provide an alternative way to test causal explanations. Previous research indicates that patterns of cognitive processing depend on the complexity of humorous messages. Studies examining this moderating factor find that complexity and audience ability have an interactive effect on enjoyment, perceived argument strength and argument scrutiny, but are inconsistently related to learning, persuasion and other outcome variable of interest (Holbert et al., 2011, 2013; Polk et al., 2009). Modeling the relationship between audience ability and effects in non-linear form would likely produce more a more consistent pattern of results. A two-by-two experimental design, with stimuli varying on both humor and message complexity, could be used to test whether, as predicted, patterns of cognitive processing and engagement mediate the effects of political comedy on learning and ideological constraint. If effects are strongest in the

high complexity humor condition than this would provide further evidence supporting the theoretical account offered by the model of humor-triggered cognition.

A third alternative strategy that might be employed to test causal predictions involves disrupting cognitive processing with a distraction task. For example, respondents could be asked to complete simple math problems that popped up on the screen periodically while they viewed the video stimuli. If the causal explanation is correct, and comedy enhances sophistication by encouraging effortful processing and thoughtful engagement, then disrupting these cognitive processes should attenuate effects.

In addition to these measurement issues, there are also several important limitations to the experimental methodology used to examine effects and test causal predictions. In designing the experiment, precautions were taken to ensure that results would not be biased by irrelevant aspects of the experimental setting. The stimuli were designed to isolate the effects of comedy from the influence of exposure to information by presenting otherwise identical content in comedic and hard news form. Careful editing and pretesting establish the content equivalence of the experimental stimuli and help rule out potentially confounding factors. However, it is impossible to completely eliminate potential biases.

The experimental stimuli included only a small subset of stories discussing political controversies important during the period of time the study was conducted. However, some issues and political contexts may be more or less suitable for political humor. For example, some predicted that the serious public mood following the 911 terrorist attacks would make political comedy unappealing. Indeed, some political comedy programs, such as *Politically Incorrect* and the animated series *My Lil' Bush*, offended sensitive audiences and were quickly canceled. Nonetheless, political comedy thrived during the Bush administration. With the

election of Barack Obama, some wondered whether or not the hip, young, left-leaning, black President would inspire the type of critical commentary from humorists that had made political comedy so popular. It is certainly possible that effects are an artifact of the particular issues selected or the political context in which the experiment was conducted.

Further, while the model of humor-triggered cognition makes general predictions about the effects of humorous presentations of political information, the experiment focuses exclusively on comedy from *The Daily Show* and *Colbert Report*. This complex, politically oriented satire may influence knowledge and attitudes more powerfully than traditional late-night or sketch comedy, which some correlational studies show to be only weakly associated with politically relevant outcome variables (Feldman & Young, 2008; Guggenheim et al., 2011; Hoffman & Young, 2011; Morris & Baumgartner, 2008; Young & Tisinger, 2006). It is important to recognize that political comedy is not monolithic, and predictions should be tested with a different set of stories, in a different political context and with different forms of comedy varying in complexity and treatment of politics.

The experimental stimuli were realistic representations of the treatment of key political issues in news and comedy during the experimental period; and results demonstrate the potential power of political comedy to enhance knowledge and sophistication. However, the possibility that content manipulations resulted in stimuli unrepresentative of the actual information available in political comedy programs represents a significant threat to external validity. To establish the validity of the experimental stimuli, it is necessary to more carefully assess the informational content found in various forms of political comedy versus traditional hard news. This would require a multi-level content analysis examining both the types of political issues receiving attention and the treatment of particular stories in various political comedy and hard news

platforms. Such analysis should evaluate not only *The Daily Show* and *Colbert Report*, but also the political content available in traditional late-night comedy such as *The Tonight Show*, sketch comedy programs like *SNL*, and possibly Internet humor sites such as *The Onion* or user-generated political comedy on BuzzFeed and Youtube. The content of political comedy should be compared to more traditional information sources, including network news, cable news and key newspapers, as well as opinion based programs such as *The O'Reilly Factor* and *Rachel Maddow Show*.

Comparison of these various sources should begin with an assessment the amount of attention paid to broad categories of politically relevant information, for example the economy, foreign policy, social issues and election campaigns. Next, the nature of political coverage and specific information available should be evaluated. This would involve measurement of the precise factual and contextual content included in stories about a select subset of political topics. For example, all discussion of the healthcare reform bill might be coded for the specific facts and statistics reported, political leaders or groups mentioned and story frames utilized. Alternatively, coverage of the Presidential primary campaign could be compared in terms of the amount of information related to policy positions, campaign events, candidate biographies, poll numbers, endorsements, party affiliation, and campaign strategy. This type of in-depth content analysis would help establish the validity of experimental manipulations and provide context necessary to better understand how political comedy fits in to the broader political media landscape.

In addition to external validity issues stemming from the artificial manipulation of information, the experiment relies on a biased sample of respondents drawn from the Communication Studies Participant Pool. Undergraduates tend to have relatively weak and inconsistent political and social attitudes that are particularly unstable and susceptible to

influence (Sears, 1986). As a result, the observed effects may be stronger than those that would be obtained with an older, more politically diverse sample. Still, there are several potential advantages to the experimental sample utilized in this study. Though not nationally representative, the relative youth, Democratic party leanings, political sophistication and cognitive abilities of participants reflect the characteristics observed in real-world audiences for political comedy. Using a sample representative of comedy viewers rather than the general population might actually enhance external validity to the extent that results may be more indicative of the actual influence of political comedy on characteristic audiences. Also, because it creates a relatively sophisticated baseline with advanced abilities to learn and comprehend information, sampling bias may produce conservative estimates of effects. Though results demonstrate that political comedy boosts knowledge and attitude constraint among typical viewers, it is nonetheless difficult to determine how a more representative sample of diverse citizens might be affected.

Findings indicate that exposure to political comedy has the greatest potential to enhance knowledge and understanding among moderately sophisticated viewers, but it is unclear how generalizable this effect is outside the experimental setting. Given the peculiarities of the experimental sample, some might be concerned that the subset of respondents considered moderately knowledgeable is actually highly knowledgeable by population standards. However, comparison of the experimental prior knowledge measures with those from the nationally representative 2008 NAES shows that the distribution of knowledge in the experimental sample is quite similar to that found in the general population. While the experiment demonstrates that moderately knowledgeable viewers are the most likely to be affected, it is nonetheless necessary to consider real-world patterns of consumption to determine the ultimate impact of political

comedy. After all, political comedy may be used by moderately sophisticated former hard news consumers who find their preferred mix of entertainment and information, by sophisticated and engaged audiences who utilize it as yet another source of political information, or by disinterested citizens who are incidentally exposed to information as they pursue entertainment.

Though suggestive, survey replication using self-reported measures of exposure to comedy cannot completely address these concerns. Political comedy promotes information acquisition, and endogeneity in measures of exposure and political knowledge makes it difficult to detect differences in the effects of political comedy across knowledge groups using large-scale, cross-sectional survey data. Further, self-reported measures of media exposure are notoriously unreliable. Rather than reflect real world viewership, these indicators may simply measure awareness, partisan predispositions or other factors. To the extent that these factors influence both the tendency to report exposure to political comedy the consistency of attitudes expressed, the relationship between comedy and ideological constraint observed in survey analysis may be spurious. Alternative strategies for measuring exposure and prior knowledge are necessary to more fully evaluate the effects of political comedy on knowledge and attitudes.

Replication of results in a field-experimental setting with natural stimuli would be beneficial. Such an approach might involve randomly assigning a representative sample of participants to view political comedy and tracking knowledge and attitudes over time. If greater changes in knowledge and attitudes are observed among those assigned to view political comedy than others, then this would provide compelling evidence of the effect of exposure.

Additionally, comparing those who independently chose to view comedy to those randomly assigned to do so would allow selection effects to be distinguished from media effects. Such a

natural, time-series design would help overcome issues with self-reported exposure and endogeneity in measures of prior political knowledge and produce more generalizable findings.

Additionally, the small number of self-reported comedy viewers in the survey sample makes detection of subtle differences in attitudes difficult. Instead of randomly selecting a nationally representative sample, future survey work investigating the effects of niche media such as political comedy might be improved by oversampling audiences of interest. Strategies to oversample comedy viewers might include using social-network data about user media preferences and habits to recruit participants with an expressed interest in political comedy programs. Including a larger number of actual political comedy viewers would create greater statistical leverage when assessing the relationship between media use habits and attitudes or other variables of interest. The utility of this recruitment method in media effects surveys should be evaluated.

Despite methodological limitations, results strongly support the conclusion that political comedy promotes learning and enhances ideological constraint by encouraging effortful processing and thoughtful engagement with political information. Further, the model of humor-triggered cognition provides a theoretical framework that can be used to assess the effects of political comedy on other politically important variables of interest. Future research should build on findings from the current study to further advance our understanding of the consequences of political comedy and its role in contemporary democratic discourse.

Future research

Findings presented in this dissertation demonstrate the short-term influence of comedy on knowledge and attitudes, but real-world effects are likely to be cumulative. The current study

cannot speak to these cumulative effects of comedy nor how increased knowledge and ideological thinking translate into real-world judgments and behavior. Political comedy attracts young audiences and may play a role in the political socialization process, promoting the development of skills, predispositions and habits of thought that shape lifetime political engagement. Future work should investigate the long-term, cumulative effects of exposure to political comedy and include measures of political engagement and participation in addition to the knowledge and attitude measures used here.

By many accounts, comedy tends to have liberal leanings, and results of the current study indicate a persuasive effect, with increased ideological constraint stemming from more liberal tendencies among comedy viewers. Previous persuasion research has focused almost exclusively on discrete policy issue attitudes and assessed effects on the basis of researchers' own, possibly incorrect, interpretations of humorous messages and assumptions about how specific attitudes should be affected (e.g. Holbert et al., 2011, 2013; Nabi et al., 2007; Polk et al., 2009). However, pre-existing attitudes about the high profile political issues examined in these studies (e.g. healthcare reform, the Iraq war and gun control) are likely to be relatively strong and resistant to change. Further, the reliability of measures, upper and lower bounds of scales and regression toward the mean all tend to attenuate effects, making it difficult to detect small changes between pre- and post-test measures of individual issue attitudes. The current findings suggest that, failing to identify changes in specific policy issue attitudes, researchers may have been too quick to discount the persuasive power of political comedy. While attitudes toward particular political issues may be unaffected, political comedy powerfully influences viewers' general political world view and shapes how political information is understood and interpreted. Future research should conceptualize persuasion more broadly and consider the effects of

political comedy not only on individual policy attitudes but also on the categories that viewers use to understand the political environment and their attitudes toward interrelated packages of issues from various policy domains.

Further, political comedy is typically incorporated into one's broader media diet, used in conjunction with other, more traditional sources of information. How the patterns of cognitive engagement and thought that give rise to learning and attitude effects might influence the processing and interpretation of subsequent information remains to be seen. Current findings show that political comedy affects the way information is encoded and structured in memory and promotes more sophisticated, ideological coherent thought. As a result, comedy may enhance viewers' ability to comprehend and respond appropriately to new political information encountered in more traditional sources. Similarly, previous research has shown that comedy decreases argument scrutiny (Nabi et al., 2007; Young, 2008; Polk et al., 2009), but how this might affect perceptions of subsequent messages has not been investigated. Though humorous messages, themselves, may receive decreased scrutiny, comedy may actually enhance scrutiny and critical thought about subsequent information. Rather than uncritical acceptance, decreased argument scrutiny may lead to uncritical application of humorous interpretations when evaluating new information involving related situations, controversies and political actors. By enhancing cognitive elaboration but decreasing argument scrutiny, political comedy may promote both sophistication and cynicism. Further research is needed to more fully evaluate the implications of political comedy on information processing and judgment in the context of the broader political information environment.

In the polarized landscape of political media, political comedy may be a liberal counterpart to conservative punditry on cable news and talk radio. The lack of conservative

humor is intriguing. Psychologists recognize that political orientations are strongly associated with many non-political preferences. In part, social and psychological dispositions and cognitive styles may make liberals more receptive to comedy as a mode of political communication. Conservatives value tradition, conformity and order and tend to prefer simple solutions and straight-forward, unambiguous messages that serve their needs for certainty and closure (for review of psychological perspectives on ideology see Jost, Federico & Napier, 2009). Political comedy may be more appealing to liberals, whose characteristic sensation-seeking tendencies, openness to novelty and new experiences, and tolerance for uncertainty and complexity make them less averse to incongruity and ambiguity in humorous messages. Off-color humor is also more likely to offend conservatives who exhibit a heightened sensitivity to disgust. Further, it may be socially acceptable for liberal comedians to “speak truth to power” and mock authority to promote progress and social change. Conversely, conservative comedy reflecting anxiety and hostility toward low-status and stigmatized groups perceived to threaten the established order is likely to be interpreted as mean-spirited bullying. Indeed, conservative Rush Limbaugh faced significant public backlash for broadcasting a “humorous” jingle entitled “Barack the Magic Negro” and for ridiculing women seeking insurance coverage for birth control, whom he “jokingly” referred to as sluts. Greater consideration should be given to the psychological and ideological orientations associated with the consumption and enjoyment of comedy as a mode of political communication.

In addition to shaping how individuals understand politics, political comedy may have far reaching consequences for democratic discourse. In many ways, political comedians have become part of the media elite and taken on a journalistic role as information gate-keepers. Beyond simply providing a humorous take on widely available information, political comedy

may help set the public and news agenda by drawing attention to issues ignored by mainstream media and policy makers. Further, “fake” journalists like Jon Stewart and Steven Colbert, unconstrained by norms of objectivity and balance in reporting, enjoy greater leeway to engage in critical analysis of contemporary politics and are well positioned to serve as opinion leaders.

There are several instances where “advocacy satire” on *The Daily Show* and *Colbert Report* has successfully brought attention to issues and influenced public opinion and policy. By highlighting the hypocrisy of Republican opposition and criticizing the lack of coverage in network news, Jon Stewart is widely credited with ensuring the passage of a 911 first responders healthcare bill that had stalled in Congress. With his Colbert Super PAC, a brilliant piece of performance art illustrating complex and technical FEC rules, Steven Colbert drew widespread attention to issues in the campaign finance system. More recently, Jon Stewart has taken up a new crusade to reform the VA benefits system. Such anecdotes highlight the need to more fully explore the agenda setting function of political comedy and the strategic utility of humor in political advocacy.

The current study focuses primarily on highly visible, professional political comedy; however, new media is characterized by opportunities for user-generated content. While vitriol and incivility in online political discourse have received much attention, the popularity of humorous political memes suggests that greater consideration should be given to the discursive role of comedy in online communication. The Internet and social media seem to promote the use of wit and humor to convey sophistication and articulate opinions about controversial issues. While direct attempts at persuasion may be ineffective because heavy-handed political messages are easily ignored, humor may draw attention to concerns, promote thoughtful consideration of political perspectives and, by encouraging viral dissemination, increase the reach of messages.

Additionally, because they are easily discounted as “just a joke,” intended to amuse rather than inform or persuade (Nabi et al., 2007), funny messages may be perceived as less offensive and avoid unwanted hostility or debate. While comedy may increase the visibility and appeal of political messages, it might also have the unintended consequence of making arguments seem less serious or significant. If they are given less weight by citizens and political leaders, then the impact of humorous messages may be limited in spite of their increased reach. The effectiveness of humor in political communication and the role of comedy in democratic discourse should be more fully evaluated.

Final Thoughts

Mass media play an important role in democratic society. News and other political media are responsible for providing citizens with the information necessary for effective political engagement. However, media not only affect what citizens know but also how they understand and interpret political information. Models should not assume passive audiences responding simply and automatically to messages, nor that media effects can be fully explained by chronic differences in motivation and ability associated with the usual, socio-economic suspects; rather, it is important to recognize that the way information is presented affects the patterns of processing and engagement that ultimately determine the influence of political messages. As results of the current study show, citizens are best served when media is both informative and engaging.

Political comedy not only conveys important political information, it does so in a manner which enhances competence and helps prepare audiences to make sense of the abundance of information available in the broader media environment. Humor encourages

attention and thoughtful elaboration, which boost learning, enhance sophistication and promote ideological constraint. These factors, the total volume of information in memory and the organizational structure of political belief systems, are critical components of good democratic citizenship. Further, because the strongest effects are observed among moderately sophisticated viewers who, in the new, high choice media context, are generally at greatest risk for dropping out of the political information environment, comedy may help attenuate the expansion of gaps in political knowledge and engagement.

From the earliest days of Democracy in ancient Greece, humor has been used to convey political messages. Until recently, this important mode of political communication has been largely overlooked. Though empirical research has significantly advanced our understanding, there is still much about political comedy and its democratic consequences that remains unknown. As the findings presented in this dissertation show, the effects of political comedy and its role in contemporary political discourse are worthy of continued consideration.

Appendix 3A: Pretest Variables

Stimulus Check Measures

General Perceptions:

How well does each of the following words describe the video that you just saw? Please rate the video on the following scale where 0 means that a word describes the video NOT AT ALL and 6 means that it describes the video VERY WELL. Entertaining, Informative, Boring, Funny, Interesting, Confusing

Emotional Reactions:

Now I would like to know how the video made you feel. I am going to give you a list of emotions and would like you to tell me how much of each emotion you felt while you were watching the video. For each emotion, please place yourself on the following scale where 0 means that you felt the emotion NOT AT ALL and 6 means that you felt the emotion A LOT. Angry, Sad, Afraid, Amused, Excited, Happy

Informational Content:

How much do you agree or disagree with the following statements? Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree.

- The video I just watched contained a lot of important political information.
- The video contained facts and statistics about the issue.
- I know more about the issue discussed in the video now than I did before I watched.
- All the claims in the video were backed up by evidence.

- The video contained information about what both sides of the issue think.

Political Perspective:

How liberal or conservative do you think the video was? Place the video on the following 7 point ideology scale where 1 means conservative, 7 means liberal and 4 means that the video is not closer to one side or the other.

Please indicate the percentage of the video that you think contained the following: Democratic side, Republican side.

Media Use

During a typical week, how many days per week do you do each of the following:

Internet: Watch, read or listen to news on the Internet?

Network News: Watch national or local network news on TV?

Cable News: Watch cable news programs on TV?

Newspaper: Read news in a printed newspaper?

Political Comedy: Watch late-night political comedy programs?

Interpersonal Discussion: Talk to friends or family about politics?

Political Orientations

Political Interest: Generally speaking, how interested are you in information about what is going on in government and politics? Extremely interested, very interested, moderately interest, slightly interest, or not interest at all

Party Identification: Generally speaking, do you usually think of yourself as a Democrat, a Republican, an Independent, or what? Democrat, Republican, Independent, Don't Know

Political Knowledge

Perceived Knowledge: Generally speaking, how much do you know about government and politics? Place your knowledge of the following scale where 0 means that you are not very knowledgeable about government and politics, 3 means you are moderately knowledgeable, and 6 means you are extremely knowledgeable about government and politics.

General Civics Knowledge: Now I am going to ask you a few more questions about politics. Please type your answer to the following questions in the space provided. Many people do not know the answer to all of these questions and it is OK if you do not. If you are not sure of the answer you can type Don't Know or just leave the space blank.

- How many United States Senators are there from each state? (2)
- Which best describes the procedure for overriding a presidential veto? 3/4 of the US House of Representatives must vote to override the veto; The Supreme Court must decide that it is unconstitutional; 2/3 of the House of Representatives and Senate must vote to override the veto; 3/4 of State Houses of Representatives must vote to override the veto; 2/3 of the US Senate must vote to override the veto (correct); None of the Above.
- What leadership position does Nancy Pelosi hold? (Speaker of the House)
- What is the maximum number of years that a Supreme Court Justice can serve on the court? (lifetime appointment/unlimited)

Demographics

Age: What is your age in years?

Gender: What is your gender? Male, Female

Race: What race would you classify yourself as belonging to? White, Black, Hispanic, Asian, Other, I'd rather not say

Income: If you had to guess, what would you say is the combined annual household income of your family? Less than \$25K, \$25K-\$49,999; \$50K-\$74,999, \$75K-\$99,999; \$100K-\$124,999; \$125K or more, Don't Know

Appendix 4A: Experimental Learning Variables

Stimulus Check Measures

General Perceptions:

How well does each of the following words describe the video that you just saw? Please rate the video on the following scale where 0 means that a word describes the video NOT AT ALL and 6 means that it describes the video VERY WELL. Entertaining, Informative, Boring, Funny, Interesting, Confusing

Emotional Reactions:

Now I would like to know how the video made you feel. I am going to give you a list of emotions and would like you to tell me how much of each emotion you felt while you were watching the video. For each emotion, please place yourself on the following scale where 0 means that you felt the emotion NOT AT ALL and 6 means that you felt the emotion A LOT. Angry, Sad, Afraid, Amused, Excited, Happy

Informational Content:

How much do you agree or disagree with the following statements? Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree.

- The video I just watched contained a lot of important political information.
- The video contained facts and statistics about the issue.
- I know more about the issue discussed in the video now than I did before I watched.
- The video contained information about what both sides of the issue think.

General Political Interest

Generally speaking, how interested are you in information about what is going on in government and politics? Extremely interested, very interested, moderately interest, slightly interest, or not interest at all

Political Knowledge

Now I am going to ask you a few more questions about politics. Please type your answer to the following questions in the space provided. Many people do not know the answer to all of these questions and it is OK if you do not. Please do not use any outside sources to find the answers to the questions. If you are not sure of the answer you can type Don't Know or just leave the space blank.

Learning:

- What state does Senator Joe Lieberman represent? (Connecticut)
- Who were the recipients of TARP money? (Banks/ Financial Firms)
- What type of business is Goldman Sachs? (Investment Bank)
- Who did President Obama recently refer to as “fat cats”? (Wall St. bankers)
- In their health care bill, what government program did Democrats want people to be allowed to buy into? (Medicare)
- Which of the following is NOT included in the President's plan to regulate banks?

Limiting the interest rates that banks can charge (correct); Increasing the amount of cash banks must maintain; Banning banks from speculating on stocks with deposits; Capping the total size of banks).

Prior Political Knowledge:

- How many United States Senators are there from each state? (2)
- Which best describes the procedure for overriding a presidential veto? 3/4 of the US House of Representatives must vote to override the veto; The Supreme Court must decide that it is unconstitutional; 2/3 of the House of Representatives and Senate must vote to override the veto; 3/4 of State Houses of Representatives must vote to override the veto; 2/3 of the US Senate must vote to override the veto (correct); None of the Above.
- What leadership position does Nancy Pelosi hold? (Speaker of the House)
- What is the maximum number of years that a Supreme Court Justice can serve on the court? (lifetime appointment/unlimited)
- Which branch of government decides whether or not a law is constitutional? (Judicial/Supreme Court)
- Which party controls Congress? Democrats; Republicans (correct); Neither

Appendix 4B: Alternative Learning Models

Table 4.4b: Mediation of Comedic Learning Effect by General Interest in Politics

	Learning	Interest	Learning
Comedy	2.22*** (.24)	.59*** (.18)	1.96*** (.23)
News	1.45*** (.24)	.51*** (.18)	1.23*** (.23)
Interest			.45*** (.10)
Constant	.52*** (.17)	1.62*** (.12)	-.22 (.23)
R ²	.33	.07	.40
N	182	184	182
$\Delta\beta_{\text{comedy}}$			-.26
t			.78

***p<.01, **p<.05, *p<.10, ^p<.15 Entries are OLS regression coefficients with standard errors in parentheses. The t-value tests the difference between the coefficients on comedy and news using the formula $t=(b_{\text{comedy}}-b_{\text{news}})/\sqrt{(se_{\text{comedy}}^2+se_{\text{news}}^2)}$.

Table 4.5b: Effect of Comedy vs. News on General Interest in Politics across Levels of Prior Political Knowledge

	Overall	Low	Medium	High
Comedy	.59*** (.18)	.89*** (.26)	.04 (.30)	.42 [#] (.30)
News	.51*** (.18)	.47* (.25)	.05 (.28)	.65** (.32)
Constant	1.62*** (.12)	1.24*** (.17)	1.71*** (.19)	2.13 (.25)***
R ²	.07	.19	.01	.06
N	184	54	61	61
$\beta_{\text{comedy}}-\beta_{\text{news}}$	.08	.42	-.01	-.23
t	.31	1.16	.02	.52
F	.20	2.38 [^]	.00	.74

***p<.01, **p<.05, *p<.10, ^p<.15, [#]p<.20 Entries are OLS regression coefficients with standard errors in parentheses. The t-value tests the difference between the coefficients on comedy and news using the formula $t=(b_{\text{comedy}}-b_{\text{news}})/\sqrt{(se_{\text{comedy}}^2+se_{\text{news}}^2)}$. The F statistic is the result of a Wald test where $H_0: \beta_{\text{comedy}}=\beta_{\text{news}}$.

An Interactive Model of The Moderation of The Learning Effect by Prior Political Knowledge

	Learning
Comedy	1.40*** (.39)
News	.83** (.38)
Prior Political Knowledge	
Moderate	.05 (.35)
High	.85** (.40)
Condition x Prior Knowledge Interactions	
Comedy x Moderate	1.20** (.55)
Comedy x High	.41 (.52)
News x Moderate	.67 (.54)
News x High	.99* (.55)
Constant	.26 (.26)
R ²	.48
N	182

***p<.01, **p<.05, *p<.10 Entries are OLS regression coefficients with standard errors in parentheses.

An Interactive Model of The Moderation of The Learning Effect by Party Identification

	Learning
Comedy	2.20*** (.42)
News	1.77*** (.43)
Party Identification	
Democrat	.39 (.39)
Republican	-.16 (.54)
Condition x Party Identification Interactions	
Comedy x Democrat	-.26 (.56)
Comedy x Republican	.40 (.72)
News x Democrat	1.07* (.56)
News x Republican	.58 (.72)
Constant	.41^ (.28)
R ²	.35
N	172

***p<.01, **p<.05, *p<.10, ^p<.15 Entries are OLS regression coefficients with standard errors in parentheses.

Learning Models Controlling for Late-Night Usage (Average Number of Days per Week) across Levels of Prior Political Knowledge

	Overall	Low	Medium	High	
Comedy	2.22*** (.24)	1.92*** (.32)	1.44*** (.30)	2.62*** (.36)	2.14*** (.45)
News	1.44*** (.24)	1.38*** (.31)	.83** (.30)	1.22*** (.33)	1.84*** (.47)
Late Night	.07 (.05)	-.01 (.09)	-.06 (.07)	.07 (.07)	.09 (.10)
Comedy x Late-Night Comedy		.19^ (.13)			
News x Late-Night Comedy		.04 (.13)			
Constant	.41 (.19)	.52** (.22)	.36** (.22)	.23 (.25)	.93** (.43)
R ²	.34	.35	.32	.49	.27
N	182	182	54	61	67
$\beta_{\text{comedy}} - \beta_{\text{news}}$	.78	.54	.61	1.40	.30
t	2.30**	1.20	1.45	2.87***	.46
F	10.71***	2.87*	3.66*	14.39***	.56

***p<.01, **p<.05, *p<.10, ^p<.15 Entries are OLS regression coefficients with standard errors in parentheses. The t-value tests the difference between the coefficients on comedy and news using the formula $t = (\beta_{\text{comedy}} - \beta_{\text{news}}) / \sqrt{se_{\text{comedy}}^2 + se_{\text{news}}^2}$. The F statistic is the result of a Wald test where $H_0: \beta_{\text{comedy}} = \beta_{\text{news}}$.

Appendix 6A: NAES 2008 Telephone Edition Variables

Comedy Exposure

Open-Ended Pre-Election Items: Open-ended television exposure items coded for mentions of Comedy Central, *The Daily Show*, *The Colbert Report*, Jon Stewart, or Steven Colbert; Late-Night talk including the *Tonight Show* with Jay Leno, *The Late Show* with David Letterman, *Late Night* with Conan O'Brien, etc.; *Saturday Night Live*; *Real Time* with Bill Maher (Inter-coder agreement .99; Alpha reliability >.95).

- [EB03] During the past week, from what television program did you get most of your information about the 2008 presidential campaign? (Open Ended)
- [EB06] In the past week, did you watch any other television programs that contained information about the 2008 presidential campaign? [If yes:] Which ones? (Open Ended)

Post-Election Items:

- [EB07] Which of the following shows do you regularly watch: The Daily Show with Jon Stewart, Saturday Night Live, both, or neither?
- [EE08] In the past week, how many days did you watch late night comedy programs like the Late Show with David Letterman, The Tonight Show with Jay Leno, or Late Night with Conan O'Brien? [0-7]

Policy Issue Attitudes

School Vouchers [CCc01] Do you favor or oppose vouchers which would help parents pay the cost of charter or private elementary or secondary schools for their children? [If favor:] Do you

strongly favor or somewhat favor this? (Conservative) [If oppose:] Do you strongly oppose or somewhat oppose this? (Liberal)

Negotiate with enemies [CDa05] Do you favor or oppose the president of the United States negotiating with nations the United States considers as enemies? [If favor:] Do you strongly favor or somewhat favor this?(liberal) [If oppose:] Do you strongly oppose or somewhat oppose this? (conservative)

Border Fence [CDd04] I'm going to read you a proposal some have made regarding immigration. Please tell me whether you strongly favor, somewhat favor (conservative), somewhat oppose, or strongly oppose it (liberal): increase border security by building a fence along part of the US border with Mexico.

Drivers License for Illegal Immigrants [CDd09] Do you favor or oppose allowing driver's licenses to undocumented or illegal immigrants? [If favor:] Do you strongly favor or somewhat favor this? (liberal) [If oppose:] Do you strongly oppose or somewhat oppose this? (conservative)

Stem Cell Research [CEb01] Do you favor or oppose federal funding of embryonic stem cell research? [If favor:] Do you strongly favor or somewhat favor this?(liberal) [If oppose:] Do you strongly oppose or somewhat oppose this? (conservative)

Gay Marriage [CEc02] Would you favor or oppose an amendment to the US Constitution that would allow marriage only between a man and a woman? [If favor:] Would you strongly favor or somewhat favor the amendment? (conservative) [If oppose:] Would you strongly oppose or somewhat oppose the amendment? (liberal)

Off Shore Drilling [CFa09] Do you favor or oppose lifting the federal ban on oil drilling in waters off the coast of the United States? [If favor:] Do you strongly favor or somewhat favor this?(conservative) [If oppose:] Do you strongly oppose or somewhat oppose this? (liberal)

Additional Items for Liberal/Conservative Placement Measure:

Taxes [CBb01] I'm going to read you some options about federal income taxes. Please tell me which one comes closest to your view on what we should be doing about federal income taxes: Taxes should be cut (Conservative), Taxes should be kept pretty much as they are, Taxes should be raised if necessary in order to maintain current federal programs and services (Liberal).

Health Care [CCa01] Which do you think would be better for the country: having one health insurance program covering all Americans that would be administered by the government and paid for by taxpayers (Liberal), or keeping the current system where many people get their insurance from private employers and some have no insurance (Conservative)?

Health Care [CCa02] Which comes closer to your view when it comes to increasing access to affordable health care in the United States: the country should increase competition in the health insurance market (Conservative) or increase regulation of the insurance industry (Liberal)?

Abortion [CEa01] Please tell me which of the following statements about abortion comes closest to your own view: Abortion should be available to anyone who wants it. (Liberal) Abortion should be available, but with stricter limits than it is now. (Conservative) Abortion should not be permitted except in cases of rape, incest, or when the life of the woman is at risk. (Conservative) Abortion should not be permitted under any circumstances. (Conservative)

Gay Marriage [CEc01] There has been much talk recently about whether gays and lesbians should have the legal right to marry someone of the same sex. Which of the following options comes closest to your position on this issue? I support full marriage rights for gay and lesbian

couples. (Liberal) I support civil unions or domestic partnerships, but not gay marriage (liberal).
I do not support any form of legal recognition of the relationships of gay and lesbian couples.

(Conservative)

Environment vs. Jobs [CFb01] I am going to read you a pair of statements. Please tell me which of the two statements comes closest to your opinion: Protecting the environment should be a top priority, even if that means higher consumer prices (liberal). Protecting the environment is important, but it is more important to keep the economy growing (conservative).

Engagement & Orientation toward Politics

Interest: [KA01] How closely are you following the 2008 presidential campaign: very closely, somewhat closely, not too closely, or not closely at all?

Party ID & Party ID Strength:

- [MA01] Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or something else?
- [MA02] Do you consider yourself a strong or not a very strong ([party named in MA01:] Republican / Democrat / Independent)?
- [MA03] Do you think of yourself as closer to the Republican or Democratic Party?

Ideology & Ideology Strength: [MA04] Generally speaking, would you describe your political views as very conservative, somewhat conservative, moderate, somewhat liberal, or very liberal?

General Knowledge:

- [MC01] Who has the final responsibility to determine if a law is constitutional or not? Is it the president, the Congress, or the Supreme Court?

- [MC02] How much of a majority is required for the US Senate and House to override a presidential veto?
- [MC03] Do you happen to know which party has the most members in the United States House of Representatives?

Other Media Use

TV News: [EB02] Thinking about the past week, how many days did you see information on broadcast or cable television about the 2008 presidential campaign? 0-7

Talk Radio: [EC01] Thinking about the past week, how many days did you hear information about the 2008 presidential campaign on radio shows that invite listeners to call in to discuss current events, public issues, or politics? 0-7

Newspaper: [ED01] Thinking about the past week, how many days did you read a newspaper for information about the 2008 presidential campaign? 0-7

Internet News: [EE02] How many days in the past week did you see or hear information about the 2008 presidential campaign on the Internet? 0-7

Demographics

Gender: [WA01] male

Age: [WA02] Age in years, 18-97.

Education: [WA03] What is the last grade or class you completed in school? Less than HS diploma, HS diploma or equivalent, Some College or post-HS training but less than 4-year degree, 4-year College Degree, Some Graduate School or More

Income: [WA04, WA05] Last year, what was the total income before taxes of all the people living in your house or apartment? Just stop me when I get to the right category: Less than \$10K, \$10K to less than \$15K, \$15K to less than \$25K, \$25K to less than \$35K, \$35K to less than \$50K, \$50K to less than \$75K, \$75K to less than \$100K, \$100K to less than \$150K, \$150K or more

Employment: [WB01] Are you working full time or part time?

Hispanic: [WC01] Are you of Hispanic or Latino origin or descent?

White: [WC03] What is your race? Are you white, black or African American, Asian, American Indian, or some other race? [If Hispanic:] Are you white Hispanic, black Hispanic, or some other race?

Church Attendance: [WD01] How often do you attend religious services, apart from special events like weddings and funerals: more than once a week, once a week, once or twice a month, a few times a year, or never?

Appendix 6B: Patterns of Self-Reported Exposure to Comedy across Demographic and Political Groups

	All Comedy	Daily Show/Colbert Report
Men	3.91	2.52
Women	3.61	1.79
Under 30	6.88	4.92
Over 30	3.47	1.86
College Graduates	4.58	2.86
High School or Less	2.43	1.09
Democrats	5.19	3.16
Republicans	1.88	.63
Independents	3.15	1.98
Liberals	6.61	4.37
Conservatives	1.93	.71
Moderates	3.43	1.84
High Political Interest	4.96	2.82
Low Political Interest	1.49	.66
High TV News	4.26	2.31
Low TV News	1.22	.71
High Newspaper	4.53	2.72
Low Newspaper	2.99	1.53

Entries show the percentage of respondents in each group that report exposure to political comedy on any of the 3 self-reported measures. Respondents not included in models due to insufficient information are excluded in this analysis. Overall N=23138.

Appendix 6C: Hierarchical Regression Models

Each model has been re-estimated using hierarchical regression. Instead of entering all variables simultaneously, logically related blocks of variables are entered in an iterative process. The coefficients on variables in each block control only for the variables entered in previous blocks. The improvement of the model resulting from the entry of new blocks can be determined by examining the incremental R^2 value and F-change. For each model, the first block includes only demographic variables. The second block entered consists of variables related to political engagement, including interest, strength of partisanship, strength of ideology, and general political knowledge. The third block entered includes the media use variables for television news, talk radio, newspaper, and Internet. Comedy variables are entered in the final block. Models using all comedy viewership and *Daily Show/Colbert Report* viewership were estimated separately; however, because these variables were entered in the final block, the coefficients on all previously entered variables are identical for each model. For ease of presentation, coefficients on the first 3 blocks are only presented once. Though they are presented together, the coefficients on all comedy and *Daily Show/Colbert* were obtained in separate models that include only one of these comedy use measures.

Table 6.1b Relationship between Self-Reported Exposure to Political Comedy and The Standard Deviation of Policy Issue Positions

		Incremental R ² (%)	F Change
Block 1: Demographics			
Gender (male)	-.01 (.01)		
Age	-.01*** (.01)		
Education	-.03*** (.01)		
Income	-.01*** (.01)		
Employed	-.03* (.02)		
Hispanic	.15*** (.03)		
White	-.12*** (.02)		
Church Attendance	-.01 (.01)	.74	
Block 2: Engagement			
Interest	-.01 (.01)		
PID Strength	-.03*** (.01)		
Ideology Strength	-.12*** (.01)		
General Knowledge	-.04*** (.01)	1.85***	65.38
Block 3: Media Use			
TV News	.07*** (.02)		
Talk Radio	-.04*** (.02)		
Newspaper	.02 (.01)		
Internet News	-.02 (.01)	1.95***	5.77
Block 4: Comedy			
All Comedy	-.09* (.04)	1.96*	3.76
Daily Show/Colbert Report	-.13** (.05)	1.97**	6.12
N	23138		

*** $p < .01$, ** $p < .05$, * $p < .10$ Entries are OLS regression coefficients prior to previous block entry with standard errors in parentheses. Observations with a missing value for any variable in the models are excluded from analysis. The All Comedy and Daily Show/Colbert Report coefficients are based on separate models, one entering all comedy as an independent block and the other entering Daily Show/Colbert as an independent block.

Table 6.2b: Relationship between Self-Reported Exposure to Political Comedy and Average Inter-Item Issue Distance

		Incremental R ² (%)	F Change
Block 1: Demographics			
Gender (male)	-.02 (.02)		
Age	-.01*** (.01)		
Education	-.03*** (.01)		
Income	-.01*** (.01)		
Employed	-.03 (.02)		
Hispanic	.16*** (.04)		
White	-.16*** (.03)		
Church Attendance	-.01 (.01)	.60	
Block 2: Engagement			
Interest	-.06*** (.01)		
PID Strength	-.04*** (.01)		
Ideology Strength	-.20*** (.01)		
General Knowledge	-.04*** (.01)	2.28***	99.18
Block 3: Media Use			
TV News	.09*** (.03)		
Talk Radio	-.08*** (.02)		
Newspaper	.03 (.02)		
Internet News	-.03* (.02)	2.43***	8.66
Block 4: Comedy			
All Comedy	-.12** (.06)	2.45**	4.45
Daily Show/Colbert Report	-.16** (.07)	2.45**	5.75
N	23138		

*** $p < .01$, ** $p < .05$, * $p < .10$ Entries are OLS regression coefficients prior to previous block entry with standard errors in parentheses. Observations with a missing value for any variable in the models are excluded from analysis. The All Comedy and Daily Show/Colbert Report coefficients are based on separate models, one entering all comedy as an independent block and the other entering Daily Show/Colbert as an independent block.

Table 6.3b: Relationship between Self-Reported Exposure to Political Comedy and The Ideological Bi-Polarity of Policy Issue Position

		Incremental R ² (%)	F Change
Block 1: Demographics			
Gender (male)	.01*** (.01)		
Age	.01*** (.01)		
Education	.03*** (.01)		
Income	.01*** (.01)		
Employed	.01* (.01)		
Hispanic	-.04*** (.01)		
White	.05*** (.01)		
Church Attendance	.01** (.01)	2.26	
Block 2: Engagement			
Interest	.01*** (.01)		
PID Strength	.02*** (.01)		
Ideology Strength	.09*** (.01)		
General Knowledge	.03*** (.01)	10.20***	838.49
Block 3: Media Use			
TV News	-.02*** (.01)		
Talk Radio	.02*** (.01)		
Newspaper	-.01 (.01)		
Internet News	.01* (.01)	10.41***	22.56
Block 4: Comedy			
All Comedy	.06*** (.01)	10.54***	55.94
Daily Show/Colbert Report	.09*** (.01)	10.63***	92.93
N	37965		

*** $p < .01$, ** $p < .05$, * $p < .10$ Entries are OLS regression coefficients prior to previous block entry with standard errors in parentheses. Observations with a missing value for any variable in the models are excluded from analysis. The All Comedy and Daily Show/Colbert Report coefficients are based on separate models, one entering all comedy as an independent block and the other entering Daily Show/Colbert as an independent block.

Table 6.4b: Relationship between Self-Reported Exposure to Political Comedy and Vertical Constraint, The Relationship between Self-Reported Ideology and Average Issue Position

		Incremental R ² (%)	F Change
Block 1: Demographics			
Gender (male)	-.01 (.01)		
Age	-.01** (.01)		
Education	-.05*** (.01)		
Income	-.01*** (.01)		
Employed	-.01 (.01)		
Hispanic	.06*** (.02)		
White	-.19*** (.01)		
Church Attendance	-.02*** (.01)	2.33	
Block 2: Engagement			
Interest	-.01* (.01)		
PID Strength	.03*** (.01)		
Ideology Strength	-.05*** (.06)		
General Knowledge	-.08*** (.01)	3.97***	98.81
Block 3: Media Use			
TV News	.05*** (.02)		
Talk Radio	-.06*** (.01)		
Newspaper	.02** (.01)		
Internet News	-.03*** (.01)	4.22***	15.38
Block 4: Comedy			
All Comedy	-.10*** (.03)	3.26***	10.95
Daily Show/Colbert Report	-.14*** (.04)	4.28***	15.79
N	23255		

*** $p < .01$, ** $p < .05$, * $p < .10$ Entries are OLS regression coefficients prior to previous block entry with standard errors in parentheses. Observations with a missing value for any variable in the models are excluded from analysis. The All Comedy and Daily Show/Colbert Report coefficients are based on separate models, one entering all comedy as an independent block and the other entering Daily Show/Colbert as an independent block.

Table 6.5b: The Relationship between Ideology and Average Issue Position by Self-Reported Exposure to Political Comedy across Levels of General Political Knowledge

	All Comedy		Daily Show/Colbert			
	Incr. R ² (%)	F Change	Incr. R ² (%)	F Change		
Block 1: Ideology & Knowledge						
Ideology (5-pt)	.12*** (.01)		.12*** (.01)			
General Knowledge	-.17*** (.01)		-.17*** (.01)			
Ideology x Knowledge	.20*** (.01)	16.22	.20*** (.01)	16.22		
Block 2: Comedy						
Comedy	-.74*** (.03)	16.98***	506.32	-.71*** (.05)	16.58***	239.17
Block 3: Comedy Interactions						
Ideology x Comedy	.24*** (.07)			.33*** (.12)		
Knowledge x Comedy	.07* (.04)			.01 (.06)		
Ideology x Knowledge x Comedy	-.12*** (.03)	17.02***	7.37	-.19*** (.05)	16.61***	6.85
Constant	.41*** (.01)			.40*** (.01)		
N	55045					

***p<.01, **p<.05, *p<.10 Entries are OLS regression coefficients prior to previous block entry with standard errors in parentheses. Observations with a missing value for any variable in the models are excluded from analysis.

Appendix 6D: Percentage Liberal and Conservative Policy Issue Positions

	All Comedy		Daily Show/Colbert	
	Liberal (%)	Conservative (%)	Liberal (%)	Conservative (%)
Comedy	.09*** (.01)	-.09*** (.01)	.10*** (.01)	-.10*** (.01)
Engagement				
Interest	.04*** (.01)	-.01 (.01)	.04*** (.01)	-.01 (.01)
PID (7-pt)	-.19*** (.01)	.18*** (.01)	-.19*** (.01)	.18*** (.01)
Ideology (5-pt)	-.31*** (.01)	.31*** (.01)	-.31*** (.01)	.31*** (.01)
General Knowledge	.06*** (.01)	-.06*** (.01)	.06*** (.01)	-.06*** (.01)
Media Use				
TV News	-.02*** (.01)	.03*** (.01)	-.02*** (.01)	.03*** (.01)
Talk Radio	.01 (.01)	.01*** (.01)	.01 (.01)	.01*** (.01)
Newspaper	.02*** (.01)	-.02*** (.01)	.02*** (.01)	-.02*** (.01)
Internet News	.01*** (.01)	-.01 (.01)	.01*** (.01)	-.01 (.01)
Demographics				
Gender (male)	-.03*** (.01)	.03*** (.01)	-.03*** (.01)	.03*** (.01)
Age	-.04*** (.01)	.01 (.01)	-.04*** (.01)	.01 (.01)
Education	.13*** (.01)	-.14*** (.01)	.13*** (.01)	-.14*** (.01)
Income	.03*** (.01)	-.02*** (.01)	.03*** (.01)	-.02*** (.01)
Employed	-.01 (.01)	.01 (.01)	-.01 (.01)	.01 (.01)
Hispanic	.04*** (.01)	-.04*** (.01)	.04*** (.01)	-.04*** (.01)
White	.03*** (.01)	-.04*** (.01)	.03*** (.01)	-.04*** (.01)

Church	-.15***	.15***	-.15***	.15***
Attendance	(.01)	(.01)	(.01)	(.01)
Constant	.57***	.27***	.57***	.27***
	(.01)	(.01)	(.01)	(.01)
R ² (%)	45.19	42.98	45.20	42.98
N	23261	23261	23261	23261

***p<.01, **p<.05, *p<.10 Entries are OLS regression coefficients with standard errors in parentheses.

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