

THREE WAY INFORMATION FLOW  
BETWEEN THE PRESIDENT, NEWS MEDIA, AND THE PUBLIC

A Dissertation

by

HAN SOO LEE

Submitted to the Office of Graduate Studies of  
Texas A&M University  
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

December 2009

Major Subject: Political Science

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## ABSTRACT

Three Way Information Flow Between the President, News Media, and the Public.

(December 2009)

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Chair of Advisory Committee: Dr. B. Dan Wood

Regarding presidential responsiveness and leadership, this study addresses two questions: Does the president respond to the public? Does the president lead the public? Unlike prior research, this study tries to answer these questions by focusing on the news media intervening in the relationship between the president and the public. Rather than positing a direct relationship between them, this study points out that information flows between the president and the public through the news media, which affect the president and the public. The public receives daily political information including presidential messages from the news media. Also, presidents recognize public sentiments from news stories. Accordingly, this study examines the potentially multidirectional relationships between the three actors from 1958 to 2004 in the United States. This study estimates the reciprocal relationships between the three actors by using Vector Autoregression (VAR) and Moving Average Response (MAR) simulations. Analyzing the three actors' issue stances, this study reveals that the news media significantly influence the public and the president. However, the direct relationship between the president and the public is negligible. Furthermore, the empirical findings demonstrate that presidential responsiveness is more likely to be observed when the news media report news stories consonant with past public opinion changes.

To My Father and Mother.

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## CHAPTER I

## INTRODUCTION

Do elites respond to the public? Do elites lead the public? These questions are classic for political scientists. Political scientists have delved into the questions but have not found concrete answers to the questions. This study aims at answering the questions. The questions are important because they are related to democratic representation and leadership. If we are to understand the political process in democracy, it is necessary to investigate the relationship between elites and the public. One part of the relationship is the public's influence on elites, which is related to democratic representation. In modern democracies, citizens elect their representatives and expect them to represent their interests. According to Pitkin (1967, 209), "representing here means acting in the interest of the represented, in a manner responsive to them." Thus, democratic representation depends on whether or not representatives respond to the public.

Democratic representation, on the one hand, is a normative argument. That is, representatives should respond to the public because they are elected by the public. On the other hand, representation is empirical. As long as representatives are concerned about reelection, and citizens punish and/or reward their representatives in elections according to their evaluations of their representatives' activities, the elected have incentives to respond to their constituents' interests. In fact, since Miller and Stokes (1963), political scientists (e.g., Kuklinski and Elling 1977; Erikson 1978; Wright, Erikson, and McIver 1987; Stimson, Mackuen, and Erikson 1995; Hurley and Hill 2003) have shown empirical evidence that constituents' policy preferences

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The journal model is *The American Political Science Review*.

(public opinion) significantly influence representatives' behaviors (policy stances).<sup>1</sup>

The other part of the relationship between elites and the public is elites' influence on the public, which is related to elites' leadership. Even though elected officials are supposed to represent public interests, this does not exclude the possibility that they can lead the public. Scholars (Fenno 1973; Mayhew 1974; Kingdon 1989) point out that politicians, including representatives, pursue two goals in general. First, they want to secure their electoral fortunes. Politicians want to be elected or reelected in general. Second, they want to enact policies consistent with their ideology. These two goals are closely related to each other. Politicians may want to be elected or reelected in order to enact policies they prefer, not just to make a living. On the other hand, being elected/reelected is the best way of influencing legislation.

In order to achieve the goals, politicians try to earn public support. Politicians need public support to be elected and/or enact their most desired policies (Neustadt 1990; Kernell 1993). Elites' responsiveness to and leadership of the public are associated with earning public support. By responding to the public's interests, politicians may earn public support as long as the public rewards their responsiveness. Also, politicians may lead or persuade the public to earn the public's support and enact their ideal policies because successful leadership implies that the public supports their policies.

Representatives' leadership and responsiveness have been interesting subjects since Burke's speech to the Electors of Bristol. Do representatives act like "delegates" who respond to the public or "trustees" who lead the public? Some focus on representatives' responsiveness (e.g., Miller and Stokes 1963; Stimson, Mackuen, and Erikson 1995). Others delve into politicians' leadership (e.g., Geer 1996; Sigelman

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<sup>1</sup>For review of the influence of public opinion on public policy, see Burstein (2003).

1980; Jones ed. 1989).

Politicians' leadership and responsiveness, however, are not mutually exclusive in reality. In other words, the relationship between elites and the public may be reciprocal. Political elites can lead and follow the public. Hence, elites' leadership and responsiveness should be simultaneously examined (Jacobs and Shapiro 2000; Canes-Wrone 2006; Wood 2009). Focusing on the relationship between the president and public, this study offers a comprehensive understanding of elites' leadership and responsiveness.

## 1. The President and the Public

As a representative, this study focuses on the president. Arguably, the president is the most important and visible political actor in the United States. The president is the only representative who is elected by the entire nation in the U.S. Presidents are elected by the people and are supposed to represent the people. In contrast, people expect the president to lead the nation and guide the public with better knowledge and judgment about issues and policies. That is, people's expectations of the president, a leader and representative, are somewhat contradictory, which is "the core of the modern presidency" (Cohen 1999, 1). Without considering presidential responsiveness and leadership simultaneously, we cannot grasp the modern presidency comprehensively. To understand the relationship between the president and the public, this study addresses the following questions: Do presidents respond to the public? Do presidents lead the public? Many scholars have tried to answer these questions. Yet the answers are inconsistent and inconclusive.

### 1.1. Presidential Responsiveness

Political scientists have been interested in presidential responsiveness. However, their empirical results are mixed and even contradictory. In relation to presidential responsiveness to the public, scholars assume that presidents need to respond to changing public opinion to earn public support and be reelected. Theoretically, presidents can be reelected or earn public support by satisfying the median voter's preferences (Downs 1957). In addition, improvements of polling techniques offer presidents better environment to understand public opinion changes (Geer 1996). In fact, some studies (Stimson, Mackuen, and Erikson 1995; Erikson, MacKuen, and Stimson 2002) found empirical evidence of presidential responsiveness to the public.

Stimson, Mackuen, and Erikson (1995), examining “presidential policy liberalism” and public opinion, show that public opinion significantly drives the presidential policy liberalism. Presidential policy liberalism is measured as presidents' policy stances based on presidential interactions with the Court and Congress. Mass policy preferences are measured by using Stimson's (1991) measure of public policy mood. According to their results, presidents instantaneously respond to changes in public opinion, and current presidential policy stances reflect past public opinion changes. Stimson, Mackuen, and Erikson (1995, 559) conclude that “when the public asks for a more activist or a more conservative government, politicians oblige.”

Other scholars (Jacobs and Shapiro 2000; Canes-Wrone, Herron, and Shotts 2001; Canes-Wrone and Shotts 2004; Canes-Wrone 2006; Rottinghaus 2006) also argue that presidents respond to the public but *conditionally*. According to Canes-Wrone and Shotts (2004), presidents respond to the public depending on their popularity and the electoral cycle. Analyzing the congruence between presidential budgetary proposals and public opinion, Canes-Wrone and Shotts (2004, 702) conclude that “reelection-

seeking presidents are more likely to endorse popular policies in the second half of the term.” In addition, “when the next election is approaching the probability of policy congruence increases as the president’s popularity shifts from low to average, but decreases as popularity shifts from average to high” (Canes-Wrone and Shotts 2004, 702).<sup>2</sup>

A group of political scientists (Jacobs and Shapiro 2000; Cohen 1999; Wood and Lee 2009; Wood 2009), however, maintains that presidents do not pander to the mass public regardless of presidential popularity and the electoral cycle. Jacobs and Shapiro (2000) argue that development of public polls give presidents more chances to manipulate public opinion rather than to follow it. Furthermore, Wood (2009) argues that presidents have sufficient potential supporters in general. The potential supporters include their partisans, Independents, and opponents’ weak partisans (e.g., Independent Republicans or Democrats).<sup>3</sup> Hence, presidents tend to pursue their partisan preferences and persuade the public to achieve their political goals rather than follow the public. Analyzing the relationship between presidential rhetoric and public opinion, Wood and Lee (2009) and Wood (2009) empirically show that presidents do not respond to public opinion changes regardless of presidential popularity and the electoral cycle.<sup>4</sup>

These studies on presidential responsiveness have enhanced our understanding of democratic representation in the U.S. Nevertheless, we cannot assert whether or not the president responds to the public since the empirical results in the studies

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<sup>2</sup>However, according to Rottinghaus (2006), presidents are not responsive during the second half of their first term. Rather, presidential responsiveness is observed during the first half of their first term, first half of their second term, and second half of their second term.

<sup>3</sup>For more detail, see Table 2.1 in Wood (2009).

<sup>4</sup>See also Cohen (1999).



on presidential responsiveness to the public are mixed and often contradictory. Why are these empirical results discordant? Why do some find presidential responsiveness while others do not? This research seeks to solve this puzzle by considering the role of the news media in interactions between the president and public, which is omitted in the previous empirical studies.

## 1.2. Presidential Leadership

One part of the relationship between the president and public, as mentioned earlier, is presidential responsiveness to the public. The other part of the relationship is presidential leadership of the public. Presidential responsiveness to the public does not necessarily exclude presidential leadership of the public. Presidents can earn public support by leading the public, not only by satisfying the public.

Scholars (Wayne 1982; Edwards and Wayne 1985; Cohen and Hamman 2003) argue that the public expects presidential leadership. People want to see strong presidents, strong leadership. Satisfying this expectation may result in high presidential popularity. If presidents understand this, they try to lead the public to earn public support. On the other hand, if the president successfully persuades the public, presidential policy positions will be congruent with public opinion because successful persuasion means that public opinion moves to presidential policy positions. Thus, leading the public is a way of achieving the politicians' goals, such as reelection and enacting preferred policies. "Politicians' attempt to change public sentiment toward their favored position convinces them that they can pursue their policy objectives while minimizing the risks of electoral punishment" (Jacobs and Shapiro 2000, 7). Then, do presidents lead the public? Do presidents move public opinion?

Like the previous studies on presidential responsiveness, studies on presidential leadership of the public have found mixed answers to the questions. Some

(Sigelman 1980; Ragsdale 1984; Cohen 1995; Meernik and Ault 2001; Cook, Barabas, and Page 2002; Jacobs and Shapiro 1994; Druckman and Holmes 2004) argue that presidents influence the public. Cohen (1995), examining presidents' State of the Union Addresses and public opinion, discovers that increases in presidential attention to particular issues influence public attention to the issues. Unlike conventional wisdom, presidential popularity does not condition presidential leadership of the public according to Cohen (1995). Also, Wood, Owens, and Durham (2005) reveal that presidential rhetoric significantly influences the public's economic perceptions. Even they (Wood, Owens, and Durham 2005) show that presidential remarks on the economy can indirectly affect national economic growth and unemployment by affecting people's perceptions of the economic conditions and consumer sentiments. Both Jacobs and Shapiro (1994) and Druckman and Holmes (2004) show that presidents can influence their popularity by priming certain images and issues. These studies support the argument that presidents affect the public.

Other scholars (Mondak 1993; Page, Shapiro, and Dempsey 1987; Simon and Ostrom 1989; Ostrom and Simon 1989; Cohen and Hamman 2003; Canes-Wrone 2006) also maintain that presidents lead the public but *conditionally*. For instance, Page, Shapiro, and Dempsey (1987), examining public opinion and presidential messages in the content of network television news, reveal that presidential messages have some impacts on public opinion in general. However, presidential influence on the public is conditioned by presidential popularity. When presidents are popular, their messages tend to move public opinion in the way they intend. But when presidents are unpopular, their messages do not affect public opinion. Mondak (1993) and Cohen and Hamman (2003) also find that presidents are more persuasive when they are popular. Mondak (1993) shows that people positively react to presidents' positions only if presidential popularity is high, and other information is scarce. Similarly,

Cohen and Hamman (2003) find that presidential popularity conditions the impacts of presidential foreign policy speeches on public expectations of the economy. These studies support the argument of the conditional nature in presidential leadership of the public.

However, some political scientists (Sigelman and Sigelman 1981; Glaros and Miroff 1983; Edwards 2003) argue that presidents do not effectively move public opinion. Edwards (2003, 74), analyzing aggregate data of national polls, concludes that “even able communicators like Ronald Reagan and Bill Clinton could not move the public much on their own.” Glaros and Miroff (1983) also show that Reagan’s address did not affect viewers’ predispositions. Sigelman and Sigelman (1981), examining Carter’s policy positions and public attitudes toward welfare policy and foreign aid, reveal that people negatively reacted to Carter’s policy positions. Wood (2009), examining the reciprocal relationship between presidential rhetoric and public opinion with time-series data, show that presidential rhetoric does not Granger cause public opinion changes, which is measured by utilizing Stimson’s Public Mood data. Also, simulation results in his study do not support the argument that presidential rhetoric influences public opinion.

Prior research on presidential leadership of the public shows mixed results. Some show empirical evidence of presidential leadership, and others argue that presidential leadership is a myth. That is, we do not know clearly whether or not the president leads the public. The empirical evidence in the previous studies on presidential leadership of the public is inconsistent and contradictory. Why are these empirical results discordant? Why do some find presidential leadership while others do not? This research addresses these questions. Prior research does not consider the possible impacts of the news media on the relationship between the president and the public. This study focuses on the omission of the news media in the interaction between the

president and the public.

## 2. Omitted Variable: News Media

Prior research on presidential leadership and responsiveness has focused on two players, the president and the public, rather than including the news media in the interaction between the president and the public. The news media are critical actors in order to understand the relationship between the president and the public. Citizens receive most of their political information, including presidential messages, through the news media. According to Grossman and Kumar (1981, 3), “the president of the United States ordinarily is brought to you by the news media.” The president also receives information regarding the public through the news media since the news media often report citizens’ views on issues. That is, the news media are information channels between the president and the public, which implies that the news media can affect both the president and the public. If the news media have potential to affect the president and the public simultaneously, omitting this variable in the interaction between the president and the public may produce biased results. In other words, the discordant, contradictory results from the previous studies on presidential responsiveness to and leadership of the public might be caused by omitting this critical variable, the news media.

This study pays attention to the fact that the news media independently interpret and investigate the world (Graber 2006). The news media do not just carry objective information from the president to the public, or vice versa. Also, the news media select which information they carry. If the news media only carry objective information, the influence of the news media on the president and the public are negligible and dependent on the president and the public. The news media, however, can select

events and interpret reality and transmit the selected, interpreted information to the public and the president. Rarely does information flow from the president to the public and from the public to the president without the news media. Hence, the manner in which the news media interpret reality is critical to understanding presidential responsiveness and leadership. This study considers the news media as information selectors and interpreters as well as information transmitters.

Another important fact that previous studies generally overlooked is the reciprocity between the president and the public. The president can lead and respond to the public. Presidential responsiveness and leadership are not mutually exclusive. That is, both variables (the president and the public) are endogenous in their relationship. Nevertheless, most of the previous studies on presidential responsiveness and leadership do not control the reciprocity between the president and the public.<sup>5</sup> This unidirectional assumption in prior research on presidential responsiveness and leadership might result in the mixed, contradictory results. This study understands the possible reciprocal relationship between the president and the public.

This study, furthermore, argues that the relationships between the president, the news media, and the public are potentially multidirectional. That is, even though the news media can independently affect the president and the public, this study does not exclude the possible influence of the president and the public on the news media. Certainly, the president is one of the most important information sources for the news media, and the White House is one of the traditional “beats” in the United States (Grossman and Kumar 1981; Graber 2006). This means that the president can manipulate information and send it to the news media (Cook 1998; Bennett 2008). As long as the president is an important news source, the possibility that the president

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<sup>5</sup>As representative exceptions, see Wood (2009), Jacobs and Shapiro (2000), and Canes-Wrone (2006).

can influence the news media should not be ignored.

On the other hand, the news media also have some incentives to respond to the public. As Graber (2006, 36) points out, “the overarching feature of media ownership in the United States is that it is predominantly in private hands.” The private news media, considering profits, seek to expand their readership and pursue higher ratings. This means that the news media may need to satisfy the public by sending harmonious messages with public sentiments on issues. Klapper (1960) argues that citizens tend to expose themselves to the news media that are harmonious with their predispositions. If the news media can increase their readership and ratings through carrying information accordant with public sentiments, the news media will respond to the public. This study considers the possible influence of the public on the news media to examine the multidirectional relationship between the president, the news media, and the public.

### 3. Questions

Unlike prior research, this study simultaneously examines the dynamic relationships between the president, the news media, and the public. This research investigates the possible multidirectional relationships between these three actors at the aggregate level from 1958 through 2004. Specifically, in order to examine the direction of the relationship between the president, the news media, and the public, this study addresses the following questions: What are the relationships among presidential liberalism, public liberalism, and media liberalism? Who affects whom? Do the news media condition presidential leadership of and responsiveness to the public?

Another interest of this study is what factors, beyond themselves, affect the president, the news media, and the public. Specifically, this study focuses on political

and economic conditions. Previous studies (e.g., Durr 1993; Wlezien 1995; Erikson, MacKuen, and Stimson 2002; Wood 2009; Page and Shapiro 1992) have found that political and economic factors significantly affect the president and/or the public. However, these studies generally do not consider that the news media can simultaneously affect the president and the public. Regarding the news media as a critical variable, this study addresses the question: Whether and how do the actors respond to political and economic conditions?

These questions are important if we are to understand presidential behavior, media bias, and public opinion changes in the U.S. But past research has provided no comprehensive answer to these questions. Virtually no study simultaneously examines the multidirectional relationship between the president, the news media, and the public at the aggregate level. Also, no empirical study directly investigates how the news media intervene in the relationship between the president and the public. Examining the three actors' issue stances from 1958 to 2004 in the United States, this study answers the questions.

#### 4. Chapter Outline

This first chapter introduces the research questions and discusses the importance of the questions. Also, the limitations of prior research addressing the questions are discussed in this chapter. This study points out that previous studies on presidential leadership of and responsiveness to the public generally ignore the reciprocity between the president and the public and the importance of the news media intervening in the interaction between the president and the public. The main purpose of this study is to analyze the multidirectional relationships between the president, the news media, and the public.

In order to address the research questions, this study theorizes the mutidirectional relationships between the president, the news media, and the public in Chapter II. This “Theory” chapter introduces theoretical answers to the following questions: who affects whom? What factors determine the three actors’ behavior? Do the news media affect the relationship between the president and the public? The basic answers to the questions are the news media directly affect the president and the public. And the direct relationship between the president and the public is weak and limited. Furthermore, this study argues that the news media positively condition the impact of the president on the public (presidential leadership of the public) and the impact of the public on the president (presidential responsiveness to the public). Chapter II theoretically addresses the research questions.

This study tests the theories in Chapter II with empirical data. Chapter III introduces the data this study utilizes by focusing on the measurement of the three actors’ issue stances. The public’s issue preferences are measured by using Stimson’s (1991) Public Mood, which is constructed based on public opinion survey results. Presidential issue stances are measured by using Wood and Lee’s (2009) Presidential Liberalism, which is constructed based on presidential rhetoric. Finally, this study measures media biases based on news stories. This “Study Design” chapter also introduces political and economic variables that may simultaneously affect the three actors. To analyze the potentially multidirectional relationships between the three actors, this study utilizes statistical methods such as the Vector Autoregression (VAR), Granger causality test, and Moving Average Response (MAR) methods. They are introduced in Chapter III.

Using the variables and the methods introduced in Chapter III, this study empirically tests the theories presented in Chapter II. The test results are reported in Chapter IV. First, this “Results” chapter reports whether and how the three ac-



tors respond to political and economic conditions. Second, this chapter shows who Granger causes whom. Third, the MAR results are reported and show how the three actors interact with each other. These results generally support the theory that the news media significantly and directly affect the president and the public. Also, the test results show that the president and the public do not directly affect each other. Finally, the conditional effects of the news media on the presidential leadership and responsiveness are examined in this chapter. According to the results in this chapter, presidents tend to respond to the public when the news media report news stories consistent with past public opinion changes.

Chapter V concludes this study. This “Conclusion” chapter summarizes the research questions, theory, methods, and test results of this study. This chapter considers the implications of the empirical findings regarding democratic representation and leadership. Finally, this chapter discusses further questions based on the test results and suggest future research agendas.

## CHAPTER II

### THEORY

This study argued in the previous chapter that the mixed, contradictory results in the prior research on presidential leadership and responsiveness might be caused by omitting a critical variable: the news media. In addition, most of the previous studies on presidential leadership and responsiveness did not systematically test the potential reciprocity between the president and the public. This might be another source of the contradictory evidence in the previous studies.

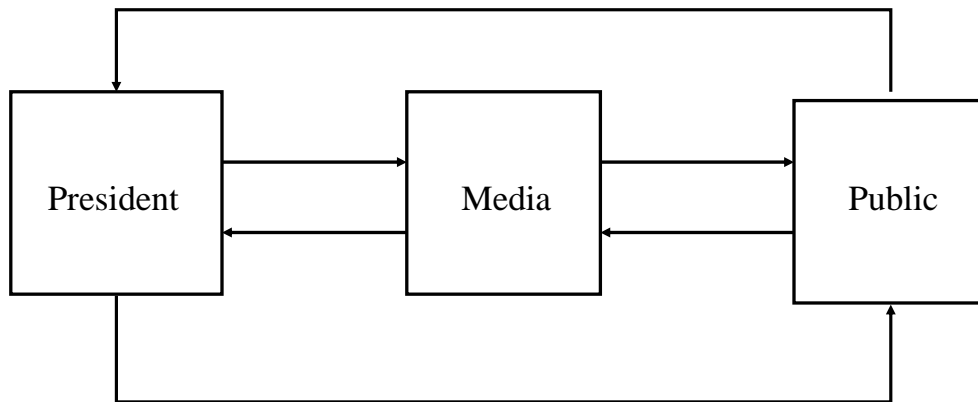
Unlike the prior research, this study argues a possible three-way information flow between the president, the news media, and the public. Figure 1 illustrates the theoretical framework of this study. As suggested by this figure, the news media connect the president and the public, and information flows between the president and the public through the news media. This figure also suggests that the relationships between the president, the news media, and the public may be reciprocal.

#### 1. Why Do the News Media Matter?

The news media play a role of transmitting information from the president to the public and from the public to the president. Presidents send messages, and the public receives them mostly through the news media. Presidents also sense public opinion changes through the news media. However, as Figure 1 illustrates, this study does not exclude the possible direct connection between the president and the public. Rather, this study stresses that the public and the president receive daily information directly from the news media.

Some news stories contain factual information without a modification, explanation, or evaluation. For instance, the news media carry presidents' State of the

Figure 1. Information Flow between the President, the News Media, and the Public



Union Addresses, successes and failures in Congress, public opinion poll results, and descriptions of the world. If the news media carry only factual information without a modification, explanation, and evaluation, the president and the public are likely to consume only the factual information. Then, the president can directly influence the public, and vice versa. The direct influence between the president and the public implies that the news media may not have an independent impact on the president and the public.

The news media, however, transmit more than factual information (Bennett 2008; Graber 2006; Barnhurst and Mutz 1997; Hallin 1985). The news media autonomously generate information. The media select which events they will report (gate-keeping) and interpret issues in news stories (White 1964; Tuchman 1978; Iyengar 1991; Graber 2006; Bennett 2008). In addition, the news media enforce their opinions through independent reporting and editorializing. According to Graber (2006, 9), the “media not only survey the events of the day and bring them to public and private attention, they also interpret the events’ meanings, put them into context, and speculate about their consequences.” The news media “make news” even though they do not “make up news” (Berkowitz 1997, 3).

The news media select and interpret information while they transmit it from the president to the public, and vice versa. The news media can choose which presidential messages they will report and interpret selected presidential messages (Edwards 2003). The news media sometimes evaluate the president (Grossman and Kumar 1981). For instance, presidents’ issue stances or policy agendas can be praised or criticized by other politicians, experts, or journalists in news stories. The news media decide whose voices they will publicize. From the news media, the public receives the interpreted and evaluated information about policies and issues, including presidential messages and issue stances.

Grossman and Kumar (1981) and Dalton, Beck, and Huckfeldt (1998), for example, empirically show that most news stories about the president are evaluative. According to Grossman and Kumar (1981), less than a quarter of all news stories about the White House were neutral in the *New York Times*, *Time*, and CBS news from 1954 through 1977. That is, more than 75 percent of the news stories portrayed the White House either negatively or positively. Dalton, Beck, and Huckfeldt (1998), studying media effects on vote choice, also uncover that press coverage of the 1992 presidential campaign was evaluative overall. According to their content analysis results (Dalton, Beck, and Huckfeldt 1998), only about one tenth of all news stories contained no evaluative content, and about two thirds of the news stories negatively or positively evaluated the presidential candidates, Bush, Clinton, and Perot, in the 1992 presidential election.

The public is another news source for the news media. As the news media are interested in elites, the “media have always demonstrated a strong interest in portraying public opinion” (Mutz 1998, 37). The news media often carry out their own public opinion polls and announce the results. For instance, opinion poll results in election campaigns are disproportionately carried by the news media, which is so called “horse race coverage.” Journalists often refer to poll results while they discuss social issues. Also, news stories contain interviews with ordinary citizens and coverage of demonstrations, riots, and so on. According to Bennett (2008), the news media tend to focus on stories of ordinary citizens rather than institutional, social, and political context while they report social problems.

The news media report the public every day but selectively. Not all citizens’ voices become news. As the news media select politicians’ opinions, the news media determine which stories about the public will be publicized and whose voices will be introduced in news stories. Furthermore, as the news media interpret and evaluate

presidential messages, public opinion changes are also interpreted and evaluated by the news media. The news media sometimes announce only poll results but usually report them with some comments. Thus, the news media can amplify or understate public opinion changes in news stories.

The news media have independent influence on the president and the public and should be considered as significant actors explaining presidential responsiveness and leadership. This is because the news media select and interpret presidential messages and public opinion changes, and the public and the president consume the selected and interpreted information from the news media. The manner in which the news media report news affects the president and the public. As long as the public and the president perceive presidential messages, public opinion changes, issues, policies, and events through the news media, the public and the president cannot be free from the influence of the news media.

## 2. Who Affects the Public?

Political scientists have been interested in explaining public opinion changes and tried to answer the question: what moves public opinion? Page and Shapiro (1992) argue that general social changes, events, and elites play a key role of moving public opinion. Because the public is “rational” in a collective sense, according to Page and Shapiro (1992), the public responds to changing circumstances and events. The public has incentives to respond to social changes and events in the world because the changes and events can affect the public’s welfare.

General social changes are related to modernization including industrialization, secularization, and urbanization. Page and Shapiro (1992) speculate that gradual social and economic changes lead to demographic and socioeconomic changes, and

the demographic and socioeconomic changes finally cause public opinion changes. McClosky and Zaller (1984) also stress that urbanization affects the evolution of the American ethos, which affects public opinion changes. In this perspective, public opinion change is like a long term trend.

Public opinion changes, however, are not linear. Rather, they are, at times, “abrupt” and “fluctuated” (Page and Shapiro 1992, 53). The abrupt public opinion changes are likely to be associated with events such as domestic/international upheavals. The public reacts to these changes in the world because they can potentially affect the public’s life.

Events affect the public. However, without interpretation, events are unlikely to affect public opinion. As Page and Shapiro (1992, 340) state, this is because “events seldom speak for themselves.” Bartels (1994), in fact, finds that citizens’ preferences toward defense spending were not significantly influenced by the event of “the end of the Cold War” even though this event was supposed to influence the public in theory. Bartels’s study indirectly shows elites’ influence on the public because elites, such as the president and the news media, interpret social, political, and economic changes.

The public also responds to changes in economic conditions because economic conditions can influence the public’s welfare. The public tends to express conservative attitudes toward social issues when the public perceives that economic conditions are bad (Durr 1993). According to Durr (1993), this is because the public is likely to focus on their own economic security rather than others’ welfare during an economic downturn.

In an economic recession, on the other hand, elites are more likely to focus on reinvigorating the national economy rather than spending more resources for the needy in general, which may also affect public opinion. Generally speaking, as national economic conditions become worse, the public tends to become a miser regarding

government social spending.

Durr (1993), analyzing changes in public opinion measured as Stimson's (1991) Public Mood and consumer sentiment measured as the University of Michigan Index of Consumer Sentiment (Expectation Index) at the aggregate level, shows that the public's business expectations significantly influence the public's domestic policy sentiment. If the public expects that national economic conditions will be better (worse), the public tends to support liberal (conservative) policies. Erikson, MacKuen, and Stimson (2002), furthermore, show that the public differently responds to different economic conditions. According to their statistical results,<sup>1</sup> the public tends to express liberal preferences when unemployment rate increases and conservative preferences when inflation rate increases. Erikson, MacKuen, and Stimson's and Durr's study illustrate whether and how economic conditions influence the public.

Another political factor influencing public opinion is public policy. As long as public policy affects the public's welfare, the public has incentives to listen to policy information and respond to the information. Wlezien (1995) argues that the public thermostatically reacts to government spending. Wlezien (1995), analyzing annual government spending and public opinion changes, reveals that people negatively respond to increases in government spending. If government increases (decreases) social spending, the public expresses conservative (liberal) attitudes toward the social spending. "Conservative (liberal) attitudes" toward social spending here mean decreases (increases) in social spending. Wlezien's study (1995) illustrates that the public is not apathetic about public policy.

Wlezien (1995) and Durr (1993) shed light on the possible causes of public opinion changes. These studies, however, do not seriously consider where the public

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<sup>1</sup>See also Wood (2009).



receives the information about government spending and national economic situations. As events rarely speak for themselves, information about policies and national economic conditions can be interpreted. The public is likely to receive information about national economic conditions and government spending from elites. The news media and the president can interpret, explain, and/or evaluate government spending (policies) and changes in national economic conditions.

The public reads, listens to, and/or watches the interpretations, explanations, and/or evaluations with regard to the national economy and public policies from the news media and elites. While the news media carry elites' opinions on government spending and changes in national economic conditions, the media select and evaluate the opinions. In sum, elites, specifically the news media, should be considered as significant actors influencing the public even though objective policy and economic information may directly affect the public. The public receives not only the objective policy and economic information but also elites' opinions on policies and economic conditions through the news media. Hence, this study argues that the effects of the objective political and economic conditions on the public may be indirect and vary depending on the manner in which the news media report the objective political and economic conditions.

### 2.1. Three Conditions for Elites' Influence on the Public

Unlike prior research, this study focuses on where and how the public receives policy information, which can explain public opinion changes. This study argues that the president and the news media send political information to the public and affect public opinion. The president and the news media can move public opinion because they have potential, incentives, and tools to influence the public.

Both the president and the news media have potential to influence the public.

Policy information is asymmetrically distributed among the president, the news media, and the public in reality. The president and the news media have more, better policy information than the public. The president and the news media play an active role related to policy. The president is engaged in producing policies, proposing budgets, and vetoing or signing bills. The news media describe, explain, and evaluate policies and distribute policy information. The public is an information receiver rather than an information sender regarding policy making. Zaller (1992) points out that the public receives policy information from elites, including the president and the news media. This information asymmetry between elites and the public is the president's and the news media's potential to move public opinion.

Elites, specifically presidents, have incentives to influence the public. Presidents need to persuade the public to earn the public's support. The public's support is one of the precious resources for presidents to achieve their goals, such as enacting policies consistent with their ideology and being reelected (Neustadt 1990; Edwards and Wayne 1985). If the public supports presidential policies, presidents are more likely to persuade Congress and receive more votes in elections. Presidents send their messages to the public (and to the other elites) to persuade them.

The news media do not have the incentives the president has. The news media, however, tend to act like a watchdog and perform a role of guiding society or "the fourth branch of government" (Protess 1987; Graber 2006; Patterson 2008; Carter 1959). The news media observe politics and influence policy making. Introducing "muckraking models," Graber (2006, 152) argues that the news media can affect policy making by influencing public opinion. According to her "simple muckraking model," the news media affect the public, and then politicians respond to the public. If the news media want to influence politicians, the primary means of the news media may be affecting public opinion. If the news media cannot influence public opinion,

politicians generally will ignore the news media.

### 2.1.1. Tools and Evidence of Elites' Influence on the Public

Elites affect the public by using a variety of tools. Elites can *frame* issues. Framing can be defined as “the process by which a communication source, such as a news organization, defines and constructs a political issue or public controversy” (Nelson, Clawson, and Oxley 1997, 567). Hence, “framing effects occur when different presentations of an issue generate different reactions among those who are exposed to that issue” (Jacoby 2000, 751). For instance, poverty can be framed either as a social problem, which implies that government should do something to solve it, or an individual problem, which implies that government does not have to do something to solve it.

Nelson, Clawson, and Oxley (1997) argue that the news media frame issues. On the contrary, Jacoby (2000, 751) stresses that “issue frames typically originate with political leaders; the mass media serve as the ‘conduits’ through which their messages flow.” However, as stated previously, the news media do not just transmit information from politicians to the public. The news media often produce their own frames (Bennett 2008). Kellstedt (2000), analyzing time-series data of public opinion on racial issues and news stories in *Newsweek*, shows that racial issues are framed with egalitarian or individualism cues in the news stories, and the framed news stories affect the public’s racial attitudes.<sup>2</sup>

The news media and the president can select which information they will send

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<sup>2</sup>There are many empirical framing studies, such as Tversky and Kahneman (1981), Jacoby (2000), Nelson and Oxley (1999), and Edy and Meirick (2007). Druckman and his colleague (Druckman 2001*b*; Druckman 2001*a*; Druckman 2004; Druckman and Nelson 2003) argue the limits of framing effects. However, all of these studies are conducted at the individual level.

out, which is called gate-keeping power. Presidents are unlikely to spread information that may negatively affect them. The news media can select news stories that they think are important and/or interesting. This gate-keeping power is associated with elites' agenda-setting power. Elites can attract public issue attention by frequently mentioning, reporting, or stressing one issue over the other. The president and the news media can set public agendas through rhetoric and news stories. Cohen (1963, 13), studying the role of the press in foreign policy making, argues that the press "may not be successful much of the time in telling people what to think, but it is stunningly successful in telling its readers what to think *about*." Agenda setting is related to the "what to think *about*."

Since McCombs and Shaw (1972), many studies (Erbring, Goldenberg, and Miller 1980; Behr and Iyengar 1985; Iyengar, Peters, and Kinder 1982; Sheafer 2007; Iyengar and Kinder 1987) have found that the mass media influence public agenda setting.<sup>3</sup> Iyengar and Kinder (1987), performing various experiments, show that the experiment participants who are exposed to television news about specific issues tend to perceive those issues as the most important problems the nation faces. Unlike McCombs and Shaw (1972) and Iyengar and Kinder (1987), Behr and Iyengar (1985) test agenda setting theory at the aggregate level. Examining the total number of news stories as well as the number of lead stories aired on the weekday CBS national news related to energy, unemployment, and inflation, Behr and Iyengar (1985) show that the number of lead stories significantly affects levels of public concern in the cases of energy and inflation.

As the news media set the public agenda, the president can also affect the public agenda by stressing one issue over the other. Behr and Iyengar (1985, 50) not only

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<sup>3</sup>See also Protesse, Leff, Brooks, and Gordon (1985) for the limits of agenda setting power.

show the impact of the news media on the public but also reveal that “for both energy and inflation, public concern is shaped directly by the president.” Like Behr and Iyengar (1985), Cohen (1995) finds that presidents can attract the public’s issue attention. After analyzing the aggregate responses to the Gallup Poll’s Most-Important Problem series and the State of the Union Addresses from 1953 to 1989, Cohen (1995, 102) concludes that “merely mentioning a problem to the public heightens public concern with the policy problem.” However, the presidential influence on the public does not last long. Thus, the prior research on agenda setting generally shows that both the president and the news media can significantly affect public issue attention.<sup>4</sup>

Agenda setting can be extended to the *priming* effect. Priming refers to “changes in the standards that people use to make political evaluations” (Iyengar and Kinder 1987, 63). For instance, when the news media disproportionately focus on foreign affairs, the public tends to rely on this issue to evaluate politicians, such as the president. Various studies (Iyengar, Peters, and Kinder 1982; Iyengar and Kinder 1987; Krosnick and Kinder 1990; Krosnick and Brannon 1993; Miller and Krosnick 2000; Valentino, Hutchings, and White 2002; Sheafer 2007) have revealed the priming effect and conditions for the effect.

Miller and Krosnick (2000), for example, show that their experiment participants rely on their evaluations of the issues primed by news stories when they evaluate

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<sup>4</sup>However, Hill (1998), examining public issue attention before and after the State of the Union Addresses, reveals that presidential issue attention is also influenced by public issue attention. According to Hill (1998, 1331), “for foreign policy and economic policy, presidents respond to prior public attention in the State of the Union addresses, and the public responds to the president’s emphasis in the speech.” Yates and Whitford (2005) also uncover that the public’s agenda attention and the news media’s agenda attention positively and significantly affect presidential agenda attention in the case of criminal justice issue. In sum, these studies (Hill 1998; Yates and Whitford 2005) show that the relationship between the president and the public may be reciprocal. This study considers this possible reciprocity, which is illustrated in Figure 1.

overall presidential performance. But priming effects are observed only among the participants who are politically knowledgeable and trust the media. However, Iyengar and Kinder (1987), conducting a series of experiments, show somewhat contradictory results that the politically knowledgeable are less likely to be primed by news stories. Even though controversies exist in relation to who are more likely to be the “victims of priming,” studies on priming effects generally show that media attention produces the priming effect.

### 2.1.2. Elites’ Persuasion

The previous findings related to agenda setting, priming, and framing are about which issues the public thinks about and how the public thinks about the issues. However, the evidence does not directly examine whether or not elites change the public’s issue sentiments. This study is interested in this direct effect: persuasion.

Elites can directly argue what governments should and should not do (Mutz, Sniderman, and Brody 1996). The president sends messages to the public and other elites to persuade them through news conferences, speeches, and so on. The news media send messages to the public through news selection, independent reporting, and editorializing. These efforts may affect public opinion. As long as information asymmetry exists between elites and the public, and the public consumes the information from elites, the president and the news media may persuade the public.

This study, however, does not ignore the possibility that the public directly reacts to objective policy information, such as government spending. Rather, note that objective policy information rarely reach the public without elites’ interpretation. Even the objective information is selectively delivered to the public by elites. This study argues that elites can interpret objective economic and political conditions and send their messages to the public. The public is likely to be influenced by the

interpreted information. As Page and Shapiro (1992, 340) state, “public opinion often responds not to events or social trends themselves but to reported events.” Likewise, the public responds to “reported” political and economic conditions.

Then, do or can the president and the news media alter the public’s issue attitudes or policy sentiments? How does the public respond to the president and the news media? Does the public negatively react to the president and the news media or positively respond to the president and the news media? As mentioned before, studies on presidential leadership have found some mixed, contradictory results. This study argues that the mixed and contradictory results might be caused by omitting the news media variable. Then, do the news media influence the public’s issue attitudes?

In the 1940s and 1950s, there was a strong belief that the mass media have a direct and powerful impact on the public, which is often labeled “hypodermic needle” or “magic bullet” theory. However, after Lazarsfeld, Berelson, and Gaudet (1948) and Berelson, Lazarsfeld, and McPhee (1954) found that people rarely change their vote choice across party lines during election campaigns, scholars reconsidered the “bullet” theory. Klapper (1960), based on the previous studies (e.g., Lazarsfeld, Berelson, and Gaudet 1948; Berelson, Lazarsfeld, and McPhee 1954), declared that the effects of the mass media on the public are “minimal.”<sup>5</sup>

The observed minimal effects of the mass media, however, might originate from inappropriate research designs and/or simple theoretical frameworks (Bartels 1993; Zaller 1996). That is, “the persuasive effects of the mass media may be more fugitive than minimal” (Bartels 1993, 267). In fact, later studies (Erikson 1976; Bartels 1993; Zaller 1996; Mutz and Soss 1997; Dalton, Beck, and Huckfeldt 1998; Kahn and Kenney 2002; Beck, Dalton, Greene, and Huckfeldt 2002; Gerber, Karlan, and

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<sup>5</sup>See also Patterson and McClure (1976).

Bergan 2009) with developed research designs and sophisticated theoretical frameworks found significant persuasive effects of the news media on the public. For instance, Bartels (1993), analyzing panel data from the 1980 American National Election Study, shows that the effects of the news media are generally underestimated because of measurement errors. Adjustment for the errors produces significant effects of television news exposure on people's candidate evaluations.

Erikson (1976, 222), examining the effects of newspaper endorsements on the 1964 presidential election results, concludes that "newspapers' endorsements do influence presidential voting in their local communities." Similarly, studying editorial endorsements in the local press and Senate races between 1988 and 1992, Kahn and Kenney (2002) show that the newspaper endorsement variable interacted with the amount of news coverage on candidates significantly influences voters' evaluations of candidates. That is, when newspapers endorse a candidate, the increase in the number of news stories about the endorsed candidate positively and significantly affects voters' evaluations of the endorsed candidate.

Dalton, Beck, and Huckfeldt (1998), furthermore, show that newspapers' editorial contents significantly affect voters' candidate evaluations and vote choice in the 1992 presidential election. They show that most of newspapers' contents are evaluative, which positively affect voters' candidate evaluations and vote choice. Likewise, Gerber, Karlan, and Bergan (2009), conducting a field experiment, found that people who are assigned to read (subscribe) a liberal newspaper (*Washington Post*) are more likely to vote for the Democrat candidate in the 2005 Virginia gubernatorial election. However, people who are assigned to read (subscribe) a conservative newspaper (*Washington Times*) do not show any different voting patterns from the people in the control group who do not subscribe any newspaper.

The later studies illustrate that the persuasive effects of the news media on the



public are present. These studies generally show that the news media positively influence the public. Rather than negatively react to news stories, the public tends to be persuaded by news stories, which is consistent with the theory this study proposes. These studies, however, heavily concentrate on vote choice (candidate evaluation) or vote share. Relatively few studies (e.g., Mutz and Soss 1997) directly investigate the persuasive effects of the news media on public opinion. This study focuses on the persuasive effects of the news media on public opinion and argues that the news media affect the public's issue attitudes. For instance, when the news media send more liberal (conservative) news stories, the public tends to express more liberal (conservative) issue attitudes.

## 2.2. Who Matters?

This study argues that the president and the news media have potential, incentives, and tools to influence the public. Prior research has shown some empirical evidence that the president and the news media affect the public through framing, gate keeping, and persuasion. However, few studies simultaneously examine the impact of the president and the news media on the public. Nor does prior research show if both actors equally influence the public. This study argues that the news media, compared to the president, directly and prominently affect the public. Furthermore, the news media can affect presidential leadership of the public. That is, when the news media report news stories consonant with presidential messages, presidents are likely to move public opinion.

### 2.2.1. Some Clues

No study systematically examines the possible reciprocal relationship between the president, the news media, and the public and show whether the news media or the

president influences the public in relation to each actor's issue preferences. However, there are several agenda-setting studies (Wood and Peake 1998; Edwards and Wood 1999; Bartels 1996; Peake 2001; Eshbaugh-Soha and Peake 2005) testing whether the news media affect the president, or vice versa. Even though these studies do not directly examine whether the news media or the president is more likely to move public opinion, they offer some clues to address the question: Who matters?

One of the common findings in the studies (Wood and Peake 1998; Edwards and Wood 1999; Bartels 1996; Peake 2001; Eshbaugh-Soha and Peake 2005) is the prominent influence of the news media on the president in relation to issue attention. Wood and Peake (1998) show media issue attention significantly affects presidential issue attention. They measure presidential issue attention as the number of sentences related to the issues of Soviet Union, Arab-Israeli Conflict, and Bosnian Conflict in *Public Papers of the President* and media issue attention as the number of the minutes devoted to the issues on the NBC, CBS, and ABC nightly news programs.

Edwards and Wood (1999), including congressional issue attention measured as the number of days of hearings, also show that media attention significantly influences presidential attention in foreign policy issues (U.S.-Soviet Relationship and Arab-Israeli Relationship). Furthermore, media issue attention on domestic issues (crime and health care) significantly leads presidential issue attention, but not vice versa. In the case of education, according to their test results (Edwards and Wood 1999), the relationship between the president and the news media is reciprocal.

Bartels (1996), including three different types of the news media (*New York Times*, local newspapers, and ABC news), also shows some reciprocal relationship between the president, Congress, and the news media depending on issues. However, the impact of the news media, specifically the *New York Times*, on the other actors is largest in general when the volume of messages is considered. Likewise, according

to Eshbaugh-Soha and Peake (2005), the relationship between the president and the news media is reciprocal in relation to their issue attention on economic issues: inflation/unemployment and international economic issues. However, Eshbaugh-Soha and Peake (2005) show that the news media significantly affect the president in the cases of spending issues and general economic issues, but not vice versa.

If both the president and the news media have power to set public agenda, but one actor significantly affects the other actor in more issues, this may imply that the actor influencing the other has more power to set public agenda. Even though some studies (Bartels 1996; Eshbaugh-Soha and Peake 2005; Edwards and Wood 1999) show a reciprocal relationship between the president and the news media depending on issues, these studies (Wood and Peake 1998; Edwards and Wood 1999; Bartels 1996; Peake 2001; Eshbaugh-Soha and Peake 2005) generally illustrate that media issue attention significantly leads presidential issue attention. Then, can the implication of these studies that the news media generally have more power to set public agenda than the president be extended to the case of studying public opinion changes? Are the news media more likely to influence public opinion than the president?

### 2.2.2. The News Media Matter

Even though both the president and the news media can move public opinion, it is important that citizens receive most of their political information from the news media. That is, people read, watch, and listen to the president through the news media. The president wants to send messages to the public intact. However, presidential messages are delivered to the public through the news media in general. Moreover, the news media not only transmit presidential messages to the public but also evaluate and interpret them, which means that the news media have a direct and prominent impact on the public. In contrast, presidential influence on the public is weak and

indirect.

Nadeau et al. (1999) empirically show that the news media often distort economic information from elites, and the public receives the distorted information from the media. Hetherington (1996), examining voters' economic evaluations and patterns of media consumption in 1992, reveals that distorted economic information by the news media significantly affected citizens' national economic evaluations, which might have affected people's vote choice in the 1992 presidential election. Likewise, the news media can evaluate presidential messages. The public receives the evaluated presidential messages from the news media and is likely to be affected by the evaluated presidential messages rather than by the original presidential messages. The news media, moreover, transmit policy information not only from the president but also from other politicians and experts. Of course, presidents are covered more frequently than any other actors by the news media. According to data from the *Policy Agenda Project*,<sup>6</sup> since Kennedy, presidents have been more frequently mentioned than Congress in the front-page news stories in the *New York Times*. However, this does not mean that the president is the only dominant news source for the news media. Graber (2006, 273), examining the top ten issues on network evening news from July 2003 to June 2004, finds that a significant number of news stories are devoted to Congress (426) even though the president is covered more (537).

The messages of the other elites can be either harmonious or discordant with presidential messages, and the news media decide whose opinion appears in news stories. If the news media carry more opinions discordant/harmonious with presidential messages, the influence of the president on the public will decrease/increase. In other words, the news media can condition the impact of the president on the public.

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<sup>6</sup>For more information, visit <http://www.policyagendas.org/>

The news media also express their own opinions through independent investigative reporting and editorializing. Often the editorials criticize presidents and their policies. Furthermore, while articulating their arguments, news reporters or commentators sometimes cut, weave, or reorder presidential remarks. That is, the public may read distorted presidential messages in news stories (Edwards 2003), which implies that presidential direct influence on the public may be limited by the news media.

Another reason the news media are more likely to influence the public than the president is that the public is influenced by their perceptions of themselves (Noelle-Neumann 1974; Mutz 1998; Gunther 1998). Noelle-Neumann (1974), suggesting a theory called “spiral of silence,” argues that people are unlikely to express their opinion when the majority’s opinion is different from their own opinion because people are afraid of being isolated from the majority. Similarly, people who do not have concrete preferences on issues tend to follow the majority’s opinions on issues. The “bandwagon effect” in voting is an example. The bandwagon effect is observed “if persons are more likely to vote for a candidate when they expect them to win than when they expect them to lose” (Simon 1954, 246). More broadly, the bandwagon effect refers to the idea that the information from majority opinion leads individuals to adopt the majority opinion. Political scientists (Straffin 1977; Marsh 1984; Goidel and Shields 1994; Nadeau, Cloutier, and Guay 1993; Wood and Doan 2003) have found empirical evidence of the bandwagon effect.

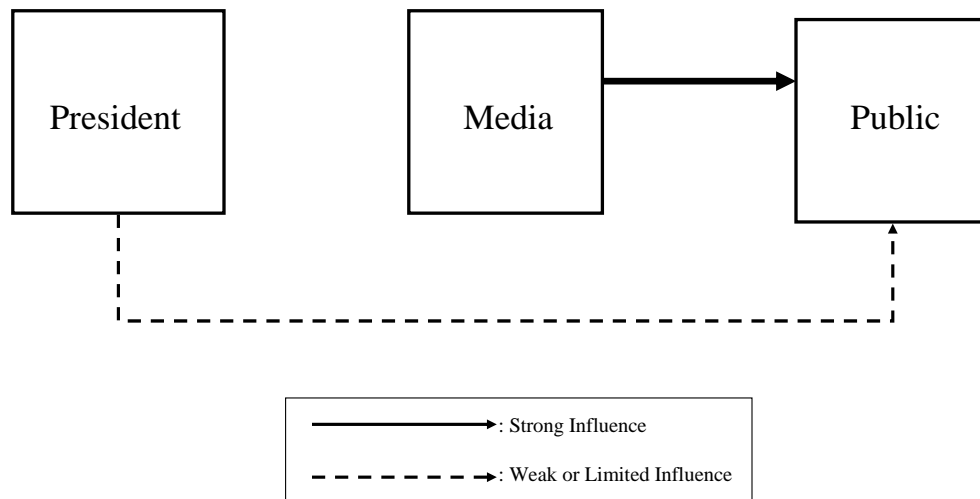
People perceive public opinion changes from the news media rather than from their personal experiences (Mutz 1998). Note that the public is one of the major news sources. The news media often report and refer to public opinion poll results. Since the 1970s, the number of stories mentioning “opinion poll” in the news media has increased consistently (Kohut 2008, 193). Furthermore, the news media tend to focus on individuals while they deal with social problems (Bennett 2008). If the

public perceives public opinion changes through the news media, and the public's perception of public opinion affects the public in turn, the news media will influence the public as long as the media deal with the public as news.

This study, in sum, argues that the news media compared to the president have a direct, prominent impact on the public. This is, first, because the public directly receives its political information mostly through the news media. Second, the news media, reporting presidential messages, can select, interpret, and evaluate the messages. That is, the influence of presidential messages on the public can be limited by the manner in which the news media deliver the presidential messages. Third, the news media selectively carry other elites' opinions including their own messages which may or may not be supportive of the president. Finally, the public perceives public opinion changes from the news media, and the public's perceptions of public opinion changes in turn influence the public.

This study explores how the president and the news media simultaneously affect the public. Citizens receive information from both the president and the news media. Hence, if only one information source is considered to examine who affects public opinion, the other critical information source influencing public opinion is missed. This study considers both the president and the news media as actors potentially influencing the public but argues that the influence of the news media on the public is more prominent than the influence of the president. Figure 2 shows this relationship. Illustrated in this figure, the influence of the news media is stronger than the influence of the president on the public. Also, this figure shows that the news media can affect the influence of the president on the public. The other causal arrows will be added and explained in the following sections.

Figure 2. The Influence of the President and the News Media on the Public



### 3. To Whom the President Responds?

Another question this study addresses is presidential responsiveness. Are presidents responsive to the public's issue sentiments? More broadly, who influences the president? In order to understand presidential responsiveness, it is necessary to consider what goals the president tries to achieve. This study regards the president as a goal-oriented actor. That is, the goals presidents pursue generally determine or explain their behavior. Because presidents are elected officials and are engaged in policy making, like congressmen, they want to secure their political advantages and enact policies consistent with their ideology (Fenno 1973; Mayhew 1974; Kingdon 1989). In addition, presidents want to be remembered as successful politicians with historical achievements (Light 1982). These goals are associated with presidential responsiveness.

#### 3.1. Responding to Political Context

As the public responds to changing political and economic conditions, presidents also respond to these political and economic changes to achieve their goals. Specifically, the president has to respond to Congress because the president shares legislative power with Congress. When Congress opposes presidential programs or reforms, presidents have to reshape their programs or let them die if they cannot persuade Congress. Also, the president responds to congressional bills by vetoing or signing them. Thus, through their rhetoric or behavior, presidents respond to Congress. The interactions between the president and Congress are inevitable as long as the president and Congress share the power of policy making.

How, then, does the president respond to Congress? Do presidents strongly push their partisan bills when they face a favorable Congress? Do presidents send more



partisan messages when Congress is hostile to the president? According to Kernell (1993), when they are unable to or are not interested in negotiating with Congress, presidents tend to go public, which means sending more messages to the public. If presidents successfully persuade the public and earn public support, they will be able to use this public support as their leverage to bargain with Congress (Neustadt 1990). In sum, presidents are likely to send more partisan messages when they expect that Congress is unlikely to pass their agendas.

Presidents, however, are rational actors considering the costs and benefits of their behavior. The president will not spend time and energy for the agendas that are unlikely to be approved by Congress. Scholars (Edwards 1980; Bond and Fleisher 1990) point out that presidential legislative success depends on congressional support. That is, when the majority party in Congress is the presidential party, presidents tend to be more active in legislation and send more messages because they anticipate enacting their bills. In contrast, if Congress is hostile to presidential agendas, presidents tend to be inactive in legislation and send fewer messages because they cannot anticipate enacting their bills.

Wood and Lee (2009), in fact, reveal that Democratic presidents speak more liberally when they face a Democratic Congress than when they face a Republican Congress. Wood and Lee (2009) also find that as Democratic presidents gain stronger support in Congress, they tend to speak more liberally. These results imply that presidential behavior or rhetoric is constrained by institutional and political contexts.<sup>7</sup> This study argues that when presidents face a Congress unfavorable to them, they tend to modify their rhetoric and reduce their messages.

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<sup>7</sup>See also Hager and Sullivan (1994) and Eshbaugh-Soha (2003). Even though they seem to argue different theories, both find that presidents tend to be inactive when they face divided governments.

### 3.2. Responding to Economic Conditions

Presidents also need to respond to changing economic conditions to achieve their goals. One of the general public expectations to the president is managing national economy. Economic voting and presidential approval studies (e.g., Kramer 1971; Fiorina 1981; Kinder and Kiewiet 1979; MacKuen, Erikson, and Stimson 1992; Kernell 1978; MacKuen 1983; Kinder 1981) generally find that the public rewards or punishes the president depending on national economic conditions, which implies that the president has incentives to respond to changing economic conditions in order to achieve public support. Also, no president wants to be remembered as a failed politician who mismanaged the national economy.

As the public tends to express conservative attitudes toward government social spending during an economic recession, the president is unlikely to pursue liberal policies when the national economy is in a downturn. The president recognizes that the public and other politicians are unlikely to support offering necessary resources for liberal agendas when the national economy is weak.

However, it is noteworthy that different economic problems may need different prescriptions. For instance, when the unemployment rate is skyrocketing, urgent prescriptions are creating jobs and financially helping the unemployed. When inflation is high, in contrast, one possible prescription is reducing the amount of money flowing from government to market, which means reducing government spending. That is, the president needs to respond to different economic problems in different manners. When unemployment is high, presidents need to initiate liberal agendas, such as welfare policies to help the unemployed and create new jobs. In contrast, when inflation is high, the president focuses on reducing government spending including liberal policies in order to reduce total amount of money circulation.

Wood (2009), in fact, shows that presidents respond to specific economic conditions in different manners. Presidents tend to speak more conservatively as inflation increases. In contrast, presidents tend to speak more liberally as the unemployment rate increases. These results illustrate that the president responds to objective economic conditions in different manners depending on the types of economic problems.

### 3.3. Presidential Responsiveness to the Public

Presidents, as mentioned in the previous sections, pursue public support, and presidential popularity is a critical resource to persuade the news media and other political elites (Neustadt 1990). One of the reasons presidents should manage the national economy successfully is that the public rewards or punishes presidents according to national economic conditions. Certainly, the public's support is valuable for presidents in order to secure their electoral promises and to bargain with Congress (Neustadt 1990; Edwards and Wayne 1985).

Then, how can presidents earn public support? As mentioned before, good policies and economic conditions increase presidential popularity. Besides these factors, one possible way of earning public support is persuading the public. As discussed in the previous section, presidents have incentives to persuade the public. If presidents successfully persuade the public, this implies that the public supports presidents.

Another way of earning public support is responding to the public. According to the "median voter theorem" introduced by Downs (1957), among candidates the one who satisfies the median voter's preference is most likely to be elected. This theorem implies that presidents can earn public support by satisfying the public, more correctly the median voter. For instance, when the public wants more liberal policies, presidents can demand more liberal policies from Congress or announce more liberal agendas. By doing so, according to the median voter theorem, presidents can

earn public support because they satisfy or support the public's demand.

In order to respond to the public, presidents should know what the public wants. One way of recognizing the public's interests is examining public opinion changes. Presidents are interested in public opinion and maintain an apparatus to monitor it (Heith 1998). That is, presidents have tools to read public opinion changes. One of them is public opinion polling. The public opinion apparatus in the White House has been in operation since Kennedy's 1960 presidential campaign (Jacobs and Shapiro 1995). Since then, presidents have directly read public opinion changes. In addition, due to the development of polling techniques, presidents can grasp public opinion changes more accurately (Geer 1996).

Presidents, in sum, have incentives to respond to the public and can grasp public opinion changes. Consistent with the argument of presidential responsiveness to the public, some studies show that presidential issue stances are affected by changing public opinion (Stimson, Mackuen, and Erikson 1995; Erikson, MacKuen, and Stimson 2002). Some (Jacobs and Shapiro 2000; Canes-Wrone, Herron, and Shotts 2001; Canes-Wrone and Shotts 2004; Canes-Wrone 2006; Rottinghaus 2006) reveal that presidents respond to the public depending on electoral cycle and their popularity.

However, as shown previously, others (Cohen 1999; Jacobs and Shapiro 2000; Wood and Lee 2009; Wood 2009) show that presidents do not respond to changing public opinion. Wood (2009) argues that presidents do not have to respond to the public to be reelected because the distribution of citizens' preferences is bimodal according to the two major parties: Democrat and Republican. If citizens are aligned with partisanship into two groups, presidents have less incentive to respond to the median voter because they can be reelected by satisfying their partisan median.

According to Wood (2009), presidents always have had sufficient "potential sup-

port” (more than 50 percent of citizens) since 1952. In the case of Democrat/Republican presidents, “potential support” means citizens who identify themselves as Strong Democrat/Republican, Democrat/Republican, Independent Democrat/Republican, Independent, or Independent Republican/Democrat. Even when presidents were from the majority party, presidents had sufficient “natural support” that includes citizens who identify themselves as Strong Democrat/Republican, Democrat/Republican, Independent Democrat/Republican, or Independent (half of them) in the case of Democratic/Republican presidents. This implies that presidents are likely to opt for pursuing their partisan interests and trying to persuade Independents to be reelected rather than satisfying the median voter.

Another reason that presidents respond to their partisans rather than the public is that they need to be first approved by their partisans to be (re)elected (Alesina and Rosenthal 1995). To become a presidential nominee of a party, candidates have to satisfy their partisan median during their primary campaign (even though being a presidential candidate is relatively easy for incumbent presidents). Also, it is important that presidential candidates receive most of their resources, such as finance and manpower for their election campaign, from their partisan supporters.

Once candidates promise or set their agendas to earn their partisan support in their primary campaign, changing their promises or agendas after they passed the first stage, a primary election, is difficult (Alesina and Rosenthal 1995). In other words, during their presidential campaign, presidential candidates rarely change their major policy agendas announced in their primary campaign in order to satisfy the median voter. According to Iyengar and McGrady (2007, 129), one of the strategies for managing the press during campaigns is “don’t waffle or ‘flip-flop’ on the issues.” If candidates change their promises during campaigns, the candidates may look unreliable and not be elected. Likewise, after they are elected, presidents need to fulfill

their promises to satisfy their partisans and be recognized as reliable leaders. Even though presidents sometimes need to break or give up their promises because of public, economic, and political pressures, presidents need to keep their promises as long as they can do so in order to be remembered as reliable leaders.

Jacobs and Shapiro (2000), on the other hand, indicate that the development of public opinion polls gave presidents a better chance to manipulate public opinion rather than respond to public opinion. That is, presidents use public opinion polling to lead the public, not to respond to the public. Both Wood (2009) and Jacobs and Shapiro (2000) insist that presidents tend to pursue their partisan interests and attempt to move public opinion. However, many scholars argue that the president needs to respond to the public in order to earn public support because public support is a precious resource for the president to be reelected and successful in legislation.

In sum, we do not know clearly whether or not the president responds to the public even though numerous studies have investigated presidential responsiveness to the public. Unlike the previous studies on presidential responsiveness to the public, this study maintains that the president responds to the news media rather than to the public. Hence, omitting the news media in the relationship between the president and the public might have produced the contradictory results in the prior studies on presidential responsiveness to the public.

### 3.4. Presidential Responsiveness to the News Media

This study argues that presidents have incentives to respond to the news media. However, this does not mean that the president does not have incentives to respond to the public. Presidents try to satisfy the public as long as responding to public opinion increases public support for the president. As Heith (1998) argues, presidents are interested in public opinion and examine public opinion changes through opinion

polls.

Opinion polling, however, is not the only way for presidents to read the public. Another approach is examining news stories, which is an older way of reading the public for presidents compared to opinion polling. The news media carry information about the public every day. For instance, the news media interview people and ask citizens about issues. While the news media make news of the public, the media select and interpret information regarding the public. These news stories about the public can affect the president's perceptions of the public. According to Graber (2006, 253), "media coverage is the very lifeblood of politics because it shapes the perceptions that form the reality on which political action is based." In sum, presidents perceive public opinion changes through the news media as well as opinion poll results (Cohen 1963).

Presidents' perceptions of public opinion changes may be more important than the actual public opinion changes in order to understand presidential responsiveness to the public. Miller and Stokes (1963) show that representatives respond to their perception of constituency opinion rather than the actual constituency opinion, and their perception of constituency opinion is often different from the actual constituency opinion. Similarly, presidents' perceptions of public opinion changes that may be different from the actual public opinion changes are critical to understand their responsiveness to the public.

If presidents' perceptions of public opinion changes are different from actual public opinion changes, their perceptions are likely to originate from the news media because the news media are the major sources for presidents to perceive public opinion changes besides public opinion polls. If presidents' perceptions of public opinion changes are influenced by the news media, presidential responsiveness to the public is likely to be based on news stories in the media. That is, even though presidents intend to respond to public opinion, their behavior and/or rhetoric in fact respond to news

stories about the public. Thus, presidential responsiveness to the news media may be a byproduct occurring during the process that the president intends to respond to the public. In this case, presidential responsiveness to the news media is unintentional.

Presidential responsiveness to the news media, on the other hand, is intentional. The president responds to the news media because of the influence of the news media on the public. As presented previously, the news media have the potential to move public opinion. If presidents recognize (or believe) that the news media can influence the public (Cohen 1963; Tipton 1992; Pritchard 1992; Cook 1998), they are likely to respond to news stories. By responding to news stories in advance, the president can earn public support or avoid losing it.

Introducing “leaping impact muckraking model,” Graber (2006) argues that politicians often respond to news stories before these stories influence the public. Investigative journalism, which is prevalent today, alerts policy makers and the public about some social issues/problems (Protess 1987). If the president does not respond in a timely manner to the problems raised by the news media, the news media are likely to blame the president as long as the president is responsible for the problems. And, the public consumes the news stories containing the problems and accusations. If the public is influenced by the news stories blaming the president, the president finally will lose public support. Hence, in order to prevent losing public support or enhance it, presidents need to respond to news stories in a timely manner before the public is influenced by the news stories that in turn negatively affects the president.

For instance, if the news media publicize problems of firearm accidents and advocate stricter gun control, the president has incentives to send messages responding to the news stories. Presidents may or may not send harmonious messages with the news stories. If presidents think that they can persuade the public despite the opposition of the news media, presidents will send messages discordant with the news



stories. However, if presidents are concerned about the influence of the news media on the public, they are likely to send harmonious messages with the news stories. If the president does not respond to the news stories, the public may perceive that the president is apathetic about resolving social problems. If the public perceives that the president is not willing to resolve social problems, the public is unlikely to support the president. It is important that the social problems and the solutions for them are likely to be brought to the public by the news media.

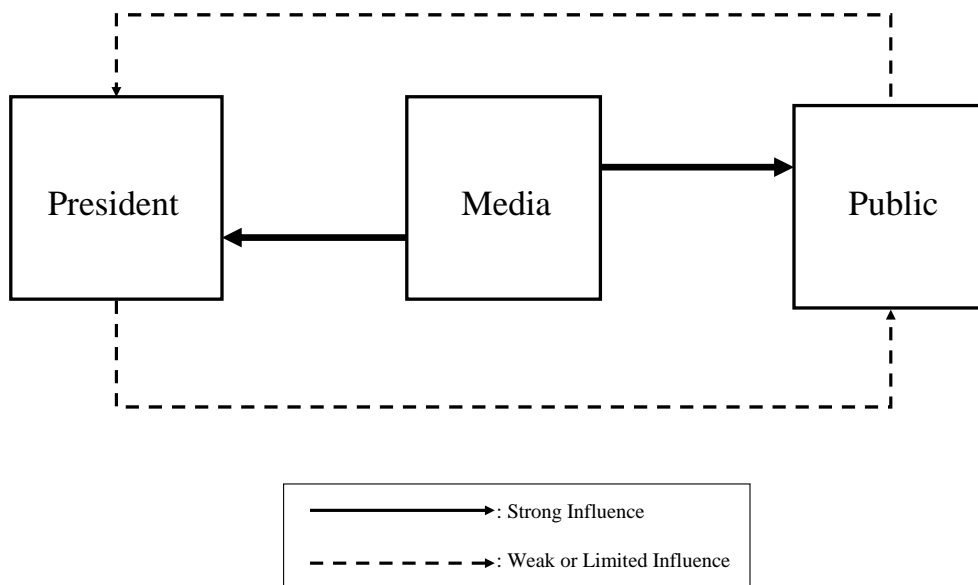
If presidents positively respond to news stories, presidential responsiveness to the public is more likely to be observed when the news media report news stories consistent with public opinion changes.<sup>8</sup> If the news media ignore public opinion changes and do not make news regarding the changes, presidents are also likely to ignore them as long as they recognize or believe that the public is significantly affected by the news media.

Figure 3 suggests who affects the president and the public. In the previous section, this study argues that the major actor influencing the public is the news media. This figure includes who influences the president and shows that presidential responsiveness to the news media is prominent compared to presidential responsiveness to the public. This figure suggests that the news media directly affect the president and the public while the direct relationship between the president and the public is weak. Furthermore, this figure shows that the news media intervene in the relationship between the president and the public. The following section discusses the relationship between the president and the news media and between the public and the news media.

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<sup>8</sup>Previous studies, such as Canes-Wrone (2006) and Wood (2009), have found that presidential responsiveness is conditional. For instance, presidents are responsive to public opinion changes when elections are imminent.

Figure 3. Who Affects the President and the Public?



#### 4. Who Affects the News Media?

Figure 1 suggests that the news media receive information from the president and the public, which implies that the president and the public can affect news coverage. However, before discussing the influence of the president and the public on the news media, it is worth addressing a more general question: what factors determine news stories?

One potential factor affecting news making is related to who produces news stories. Events become news stories through several steps. Simply speaking, reporters initially choose which events and voices they will write as news, and editors accept or reject the news stories submitted by reporters (Graber 2006).<sup>9</sup> Because journalists write news stories and determine newsworthiness, their social backgrounds, organizational environments, and role perceptions in society can affect their news selection and making (Fishman 1980; Gans 2004; Tuchman 1978; Graber 2006).

However, journalists' social backgrounds, working environments, and role perceptions have not changed much or changed linearly rather than abruptly. For instance, journalists in general are college graduated (94 percent), white (83 percent), and male (67 percent) according to the 2004 Pew research center survey (PEW 2004). These statistics have not changed notably even though the number of minorities and females has been steadily increasing (PEW 2004; Weaver and Wilhoit 1991). Likewise, organizational environments and journalists' perceptions of their role in society have not changed notably (Johnstone, Slawski, and Bowman 1976; Weaver and Wilhoit 1991).

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<sup>9</sup>Sometimes executives participate in news production. Also, depending on media outlets, more actors may be engaged in the news making process (Gans 2004).

#### 4.1. Economic and Political Conditions

Economic and political conditions, as well as who produces news stories, can affect news stories.<sup>10</sup> More correctly, the news media respond to changing economic and political conditions. As the president and the public tend to express conservative attitudes toward government social spending when the national economy is in a downturn (Durr 1993; Wood 2009), the news media are likely to carry more conservative messages when the nation is in an economic recession. This is, first, because the news media receive information from their sources, such as the public, politicians, and experts. If elites, such as the president, and the public express more conservative opinions in an economic recession, the news media are likely to receive more conservative information from their sources and make them as news stories.

Second, because of journalists' role perceptions, the news media respond to the national economy. Journalists generally accept the idea that the news media should perform a role of guiding society as well as informing unbiased news (Weaver and Wilhoit 1991). According to Tuchman (1978, 1), "the news aims to tell us what we want to know, need to know, and should know." In other words, journalists determine what we need to know and should know. The view of "civic journalism" enables journalists to give their prescriptions for social problems including economic problems.

The news media tend to focus on economic reinvigoration rather than redistribution of wealth during economic downturns. Furthermore, as presidents do, the news media respond to different economic problems with different prescriptions. For instance, the news media are likely to carry more liberal messages for high unem-

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<sup>10</sup>Behr and Iyengar (1985), testing the agenda-setting theory, uncover that current objective conditions affect public issue attention related to energy and unemployment issue.

ployment and conservative messages for high inflation because high unemployment implies that government needs to offer more resources to help the unemployed and create jobs. In contrast, high inflation implies that government needs to reduce the volume of money by decreasing government spending.

The news media respond to changing political situations, which is also related to journalists' role perceptions. According to Weaver and Wilhoit (1991) and Johnstone, Slawski, and Bowman (1976), more than 75 percent of journalists think that their roles are investigating government claims or serving as an adversary of government. If journalists consider themselves as participants in government, they try to check government. If government policies lean toward the liberal (conservative) side, the news media tend to send more conservative (liberal) messages to check government. In other words, the news media tend to act like a checker or balancer of policy making. For instance, when one party holds both the executive and legislative branch, the news media are likely to send more messages opposing the dominant party.

News stories, on the contrary, can be more harmonious with the party that holds both the presidency and Congress. Note that journalists receive information from news sources, such as the president and Congress, and make the received information as news. If both the president and Congress speak harmoniously, the news media receive the same information from the sources and produce news stories based on the information. For instance, when the Democratic (Republican) party holds both the presidency and Congress, the news media is more likely to carry liberal (conservative) messages because both of the sources speak liberally (conservatively).

Bennett (1990), in fact, found that the news media sent out more aggressive opinions to the president (measured as the number of news stories in editorial/co-op pages in the *New York Times* between January 1, 1983 and October 15, 1986) when Congress more frequently acted against the president (measured as the number of

congressional activities reported in the *Times* during the same period). Bennett's study (1990) implies that news sources matter for news making. If the president and Congress send similar messages, the news media tend to make the messages news rather than criticize them.

#### 4.2. A Tug of War between the President and the News Media

Bennett's study (1990) shows that news stories are inevitably influenced by the news sources as long as the news media receive information from news sources and make them news. Some news sources often try to manipulate information for their interests. Rather than the news media, biased sources are likely to produce biased news stories (Soley 1992; Manheim 2008). Journalists, however, recognize the possibility that their news sources can manipulate information (Patterson 2008). Journalists want more but uncontrolled information from their news sources while the sources want to send more, controlled information to the news media. Gans (2004) illustrates this tension between sources and journalists as a tug of war:

“The source-journalist relationship is therefore a tug of war: while sources attempt to ‘manage’ the news, putting the best light on themselves, journalists concurrently ‘manage’ the sources in order to extract the information they want” (Gans 2004, 117).

The president as a news source wants to manage news stories and can control the time and frequency of information dissemination. For instance, the president schedules when and how often press conferences will be held. Certainly, the president can control the content of information disseminated. Rarely does the president send out messages against the presidency. Rather, the president tries to control and manipu-

late information and benefit from the information. For instance, when the Vietnam war occurred, the White House controlled and manipulated information about the war and publicized the information in order to earn public support for the war.

The president is more likely to influence the news media when information asymmetry exists between the president and the news media. When the president monopolizes information, the news media have to rely on the presidential information. For instance, presidents enjoy the information asymmetry between the news media and themselves at the beginning of war. Also, presidents have more chances to influence the news media when they announce new programs, such as the honeymoon period. Behr and Iyengar (1985), studying the impact of the news media on public agenda, show that presidential issue attention in the State of Union Addresses significantly affects media's issue attention.

Journalists, however, “fear that self-serving officials will try to manipulate them” (Patterson 2008, 32). Journalists sometimes adopt the frames from their sources, such as the president, but they also exercise some independence in source use (Dunwoody and Shields 1986). In order to avoid possible information manipulation, journalists search various sources and try to balance their stories. That is, the news media alter the information asymmetry by contacting other experts or politicians. Even though presidents monopolize policy information from time to time, the presidential dominance of policy information does not last long in general. For instance, as the Vietnam war proceeded, the news media received more information about the war beyond government sources including the president, which finally reduced presidential influence on the news stories of the war.

Bennett (1990), testing the “indexing hypothesis”, reveals that opinion on the op-ed pages in *New York Times* criticizing the Reagan administration was positively associated with Congressional opposition to Reagan administration. Bennett's study

(1990) shows that the news media search information beyond the president. Zaller and Chiu (1996), extending Bennett's study (1990), reveal that news coverage on foreign policies depends on both Congressional opinion and presidential policy stances. These studies (Bennett 1990; Zaller and Chiu 1996) imply that presidential influence on the news media is limited and conditioned by other news sources, such as Congress and the public.

In sum, this study argues that the influence of the president on the news media is limited and conditional. The president has the potential to influence the news media as long as the president is an important news source for the news media. Presidents also have incentives to manipulate information for their benefit. Presidents can control time and methods of distributing their messages to the news media. However, journalists recognize the possible manipulation by the president and try to avoid the manipulation. In addition, the news media receive policy information not only from the president but also from other experts and politicians. Hence, it is difficult to assert that presidential influence on the news media is present in general. Rather, presidential influence on the news media varies across time and is conditioned by other news sources.

#### 4.3. Responsiveness to the Public

The public is another news source even though the public does not appear in news stories as often as government sources, such as the president. Brown, Bybee, Wear-den, and Straughan (1987, 48-49), analyzing front page news stories in the *New York Times*, the *Washington Post*, and four North Carolina newspapers during 1979 and 1980, found that "only one-quarter (of all news sources) were affiliated with non-governmental organizations and barely 4 percent (of all news sources) were non-affiliated U.S. citizens." Their study (Brown et al. 1987) shows that the news media



receive a relatively small amount of information from the public compared to government sources (about 43.6 percent). Furthermore, Behr and Iyengar (1985) show that public concern about the inflation issue does not significantly affect the volume of news coverage on this issue. However, this fact does not necessarily mean that the public does not influence the news media or is less influential than the president.

As long as the news media search various news sources, the public's voices are reflected in news stories. Furthermore, if the news media want to play a role of the "fourth branch of government" or a democratic institution, the news media should reflect public opinion changes in news stories. For instance, if the public demands more liberal policies, the news media should publicize the public's preference and urge the need of liberal policies for the public. If the news media never reflect public opinion, the news media will lose the cause of their arguments regarding policies/issues.

Beyond the normative concerns, the news media need to respond to the public because of economic concerns. The news media in the United States are generally in private hands. The commercial news media pursue economic profits, and most media enterprises earn their profits from subscriptions and advertisers. If a TV station or a newspaper increases its ratings or readership, the company will make more profits. In order to increase their audiences and finally earn more profits, the news media need to appeal to the public.

The profit pressures affect the patterns of news coverage and writing. According to a survey report of the Pew research center (PEW 2004), significant majorities of local and national journalists think that profit pressures affect news coverage. The news media try to appeal to the public in several ways. Bennett (2008) argues that the news media dramatize and personalize social problems rather than focus on complex political realities while making news. The dramatization and personalization are to attract audience attention. The efforts of appealing to the public have increased the

proportion of soft news. Graber (2006, 111) found that “between 1977 and 1997, soft news increased by an average of 25 percent in all news venues, at the expense of hard news.”

The news media can increase their ratings and readership by responding to public opinion. People selectively expose themselves to the news media (Klapper 1960). People do not always read all newspapers but regularly read a small number of newspapers. Furthermore, people tend to pay attention to news stories consistent with their ideologies. Conservative (liberal) citizens tend to consume conservative (liberal) newspapers.<sup>11</sup> If the public wants to read something consistent with its interests, the news media can satisfy this demand by producing news stories consistent with public opinion. If a newspaper consistently ignores public opinion changes, this paper will finally lose its readership. In sum, by responding to the public, the news media may be able to attract a larger audience.

Responding to the public, however, does not mean that all news stories in all news media outlets converge into the median voter’s view point. Rather, this study argues that the news media move to the direction that the public moves. The news media send relatively more liberal (conservative) news stories compared to their mean number of liberal (conservative) news stories when public opinion moves to the liberal (conservative) side. For instance, the *Wall Street Journal* increases liberal news stories when the public wants more liberal policies. However, still the *Journal* is conservative compared to the *New York Times* because the *Times* also increases liberal news stories by responding to the public.

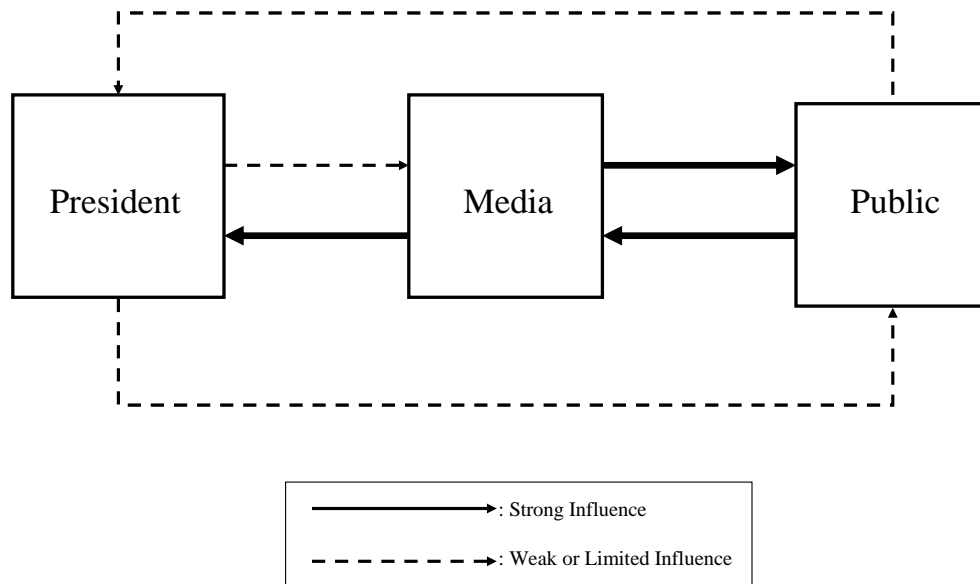
Figure 4 suggests that the public influences the news media. This study argues

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<sup>11</sup>Certainly, the opposite inference is possible. People who read conservative (liberal) newspapers are likely to express conservative (liberal) attitudes toward issues. This argument is discussed in the previous section. One of the purposes of this study is to examine this reciprocity.

that the news media are sensitive toward alienating the public because of the normative and economic concerns. In contrast, this study argues that presidential influence on the news media is limited and conditional because the news media understand presidential incentives of manipulating information and can alter the information asymmetry between the president and themselves.

Figure 4. Theoretical Framework: Who Affects Whom?



## 5. Conclusions

Figure 4 summarizes the theories used in this study. First, this study argues that the news media significantly explain presidential leadership of and responsiveness to

the public because information generally flows through the news media between the president and the public. In other words, the news media can condition presidential leadership of and responsive to the public. This study notes that the news media can select and interpret information while they make news regarding the president and the public. The news media intervene in the relationship between the president and the public.

Second, this study argues that the relationships between the president, the news media, and the public may be reciprocal. The news media can influence both the public and the president. However, the news media may also be influenced by the public and the president as long as the news media receive information from the public and the president. Specifically, the news media may need to respond to the public because of normative and economic concerns. In contrast, the influence of the president on the news media is conditioned by political environments and other news sources because the news media search/index various information sources.

Presidents try to influence the news media and the public for their own benefit. However, the president also needs to respond to the news media and the public to achieve their purposes, such as reelection and enacting their ideal policies. Furthermore, this study stresses that presidential responsiveness to the news media is more prominent than presidential responsiveness to the public primarily because the president recognizes or believes the influence of the news media on the public.

Receiving most political information from elites, such as the president and the news media, the public is likely to be influenced by the president and the news media. However, the influence of the news media on the public is stronger than the influence of the president on the public primarily because the public receives information directly from the news media rather than the president. In addition, the news media often interpret and evaluate presidential messages in news stories. In sum, this study argues

that the reciprocity between the president, the news media, and the public should be considered in order to explain the relationships between the three actors.

Even though this study considers the reciprocal relationships between the three actors, this study stresses that the news media have a stronger impact on the public than the president. Because the public receives most political information, such as presidential messages, experts' opinions, and public opinion changes, from the news media, the public is more likely to be influenced by the news media. This study also argues that the president is more directly and prominently respond to the news media than to the public. As long as the president recognizes the impact of the news media on the public, the president tends to respond to the news media in order to enhance public support or avoid losing it. Finally, the relationship between the president and the news media is like a tug of war. In contrast, the news media tend to respond to the public because the news media are concerned about their ratings and readership.

To examine the relationships between the president, the news media, and the public, this study measures each actor's issue stance based on rhetoric, news stories, and survey evidence. The following chapter introduces the data used this study uses.

## CHAPTER III

### STUDY DESIGN

The main theory of this study is that the president, the news media, and the public dynamically interact with one another in the democratic process. Specifically, this study theorizes that the news media directly affect both the president and the public. As the theoretical framework in Figure 1 shows, each actor may influence the other actors. The first hurdle to examine the potentially reciprocal relationships between the president, the news media, and the public is measuring each actor's general issue stances. The following sections introduce the methods and data used for measuring the three actors' issue stances and control variables. The second hurdle to examine the reciprocal relationships between the three actors is modeling and empirically testing the relationships. This chapter also includes econometric models and statistical methods to test the theory.

#### 1. Measuring Public Issue Stances

This study argues that the president and the news media may both affect and respond to the public. To examine these arguments, the public's issue stances should be measured. The public's issue stances are generally measured through public opinion surveys. For instance, the Gallup organization asks respondents, "Do you consider the amount of federal income tax which you have to pay as too high, about right, or too low?" Each respondent's answer can be aggregated as a percentage. For instance, what percentage of respondents think that the amount of federal income tax is too high, about right, and too low. The aggregated respondents' attitudes form mass public opinion.

Survey organizations ask citizens about their preferences on issues. Some issues

have been asked about consistently while other issues have been asked about temporarily. For instance, the Gallup organization has been asking citizens about their preferences on the amount of federal income tax since 1952. In contrast, the Gallup organization asked citizens about their preferences on the issue of having Alaska admitted as a state in the union in 1957 and 1958. Stimson (1991), analyzing various survey questions from eight survey organizations,<sup>1</sup> finds that nine domestic issues have been consistently asked by survey organizations. The nine issues are race, welfare, the environment, crime, education, urban problems, health care, military spending, and size of government.

If some issues have been asked regularly by survey organizations, we can track the public opinion changes through time. One way of examining public opinion changes is tracking public opinion changes issue by issue. Shapiro and Jacobs (2001) argue that the public develops issue preferences regarding specific issues. In other words, “public opinion toward specific proposals apparently has moved in different directions” (Shapiro and Jacobs 2001, 154). If the public’s preferences change depending on issues, presidential responsiveness to and leadership of the public should be studied depending on issues.

Stimson, Mackuen, and Erikson (1994), however, argue that the public tends to fail at developing preferences on specific issues. Rather, according to Stimson (1999, 20), “publics see every public issue through general dispositions.” That is, one who thinks that government is responsible for social issues (or problems) is likely to support more spending on social policies, such as welfare, education, race, health care, and urban problems. Stimson (1991) shows that public attitudes toward the

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<sup>1</sup>The eight survey organizations are Gallup, Harris, American National Election Studies, National Opinion Research Center, Opinion Research Corporation, Roper, Trendex, and Daniel Yankelovich (Stimson 1999, 143-149).

nine domestic issues share a common issue space and change through time in a parallel fashion. Based on his analysis, Stimson (1991) extracts a time series of the common movement in public opinion changes for the nine domestic issues and labels the series “Public Mood.”

Stimson’s global measure of public opinion changes reflects the relative liberalism-conservatism of mass issue preferences. Certainly, not all political issues can be categorized as liberal or conservative. However, the liberal-conservative categorization is widely used in order to simplify political phenomenon and behavior. For instance, parties can be categorized into the liberal (left) and conservative (right) party. The median ideology of the Supreme Court can be estimated as a liberal-conservative scale (e.g., Segal and Cover 1989; Martin and Quinn 2002). According to Poole and Rosenthal (1991), most roll call votes in the postwar period can be placed on the unidimensional liberal-conservative continuum. Also, legislators’ ideal positions can be placed on the unidimensional liberal-conservative continuum (Poole and Rosenthal 1991; Clinton, Jackman, and Rivers 2004).

Stimson (1991) considers more government spending (less spending in military and crime issues) and involvement in solving social problems as liberal preferences and less government spending (more spending in military and crime issues) and involvement in solving social problems as conservative preferences.<sup>2</sup> Stimson’s public issue liberalism measure captures the common movement in public opinion on the nine domestic issues.

Stimson’s Public Mood is a general measure of public opinion changes. Stimson’s quarterly Mood series runs from 1958 to 2008.<sup>3</sup> Figure 5 graphs the quarterly public

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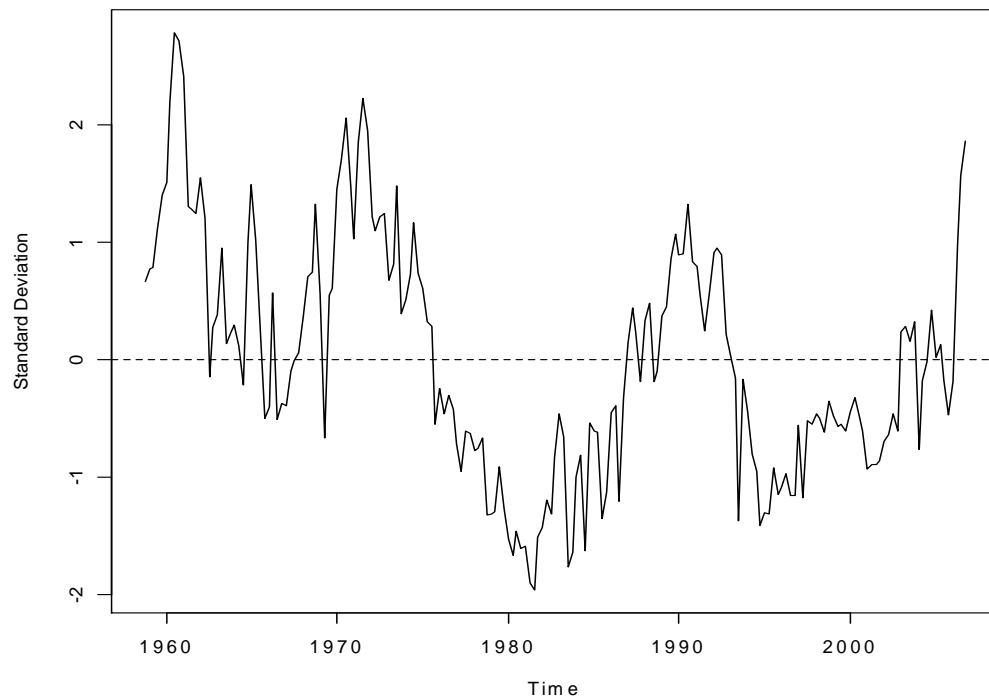
<sup>2</sup>Survey questions and the rules of classifying liberal-conservative preferences Stimson (1999) used are listed in the Appendix.

<sup>3</sup>Stimson offers updated public liberalism data on his website.



issue liberalism series (Public Mood). Even though Stimson (1991) uses a specific algorithm to create the Public Mood series,<sup>4</sup> it is based on the “Liberalism Index”, which is the ratio of liberal policy preferences. For example, if 30 percent of respondents prefer more welfare spending while 20 percent of respondents prefer less welfare spending, the Liberalism Index score for welfare policy is  $60 = [30 / (30 + 20)] * 100$ .<sup>5</sup> That is, basically, Public Mood reflects the public’s relative liberal preferences on the nine domestic issues.

Figure 5. Standardized Public Mood



<sup>4</sup>Stimson’s algorithm is presented in his book (Stimson 1999, 133-137).

<sup>5</sup>For more details about the Liberalism Index, see Stimson (1999, 40-44).

Public Mood is presented in Figure 5. Since the public's relative liberalism can be more clearly illustrated through standardization, the public liberalism series is standardized with its mean and standard deviation.<sup>6</sup> The vertical (Y) axis is the standard deviation from its mean. Zero on the Y axis means the mean of the public mood. Positive (negative) numbers on the Y axis mean the public's relative preference for liberal (conservative) policies. According to this figure, the public seems to prefer liberal policies to conservative policies in the early 1960s, the early 1970s, the late 1980s, and the early 1990s. In the late 1970s and the early 1980s, however, the public seems to prefer conservative policies to liberal policies.

Public Mood is widely used as a measure of general public issue preferences. Stimson, Mackuen, and Erikson (1995), for example, utilize Stimson's public liberalism series to examine democratic representation. Durr (1993) also utilizes this series to explain public opinion changes. Wood and Lee (2009) use the standardized Public Mood series to examine presidential responsiveness to the public.

As prior studies utilize Public Mood to examine public opinion changes, this study uses Stimson's quarterly Public Mood series as a measure of public issue stances. Stimson's measure fits for this study because one of the purposes of this study is to investigate presidential and media responsiveness to the public. Also, this study aims at explicating presidential and media leadership of the public. In addition, since this study is interested in the general aspects of the relationships between the president, the news media, and the public, the global measure of public issue stances is appropriate for this study.

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<sup>6</sup>Here standardization means that  $z = \frac{\mu - \hat{\mu}}{\sigma}$ .

## 2. Measuring Presidential Issue Stances

This study aims at explaining presidential leadership and responsiveness. More specifically, this study is interested in the questions: Do presidential issue stances affect the public and the news media? Are presidential issue stances influenced by the public and the news media? In order to address these questions, presidential issue stances should be measured.

Previous studies have measured presidential issue stances in various ways. For instance, Zupan (1992) utilizes presidential Americans for Democratic Action (ADA) scores. He applies the ADA scores to presidential position taking on ADA identified legislation. In his study (Zupan 1992, 356), presidential preferences are measured as the percentage of presidential support for selected ADA votes (“Pro-ADA percentage”). Zupan’s presidential ADA rating data runs annually from 1947 to 1989.

McCarty and Poole (1995) apply the NOMINATE method developed by Poole and Rosenthal (1985, 1991) to estimate presidential issue stances. Their measure is based on presidential position taking on all congressional roll call votes. McCarty and Poole (1995) treat presidents as if they were legislators and examine presidential position taking on roll call votes. Since their spacial models consider that presidential ideal position is fixed, each president’s issue stance is constant within the presidency.

Some studies investigating presidential responsiveness and leadership, such as Kiewiet and McCubbins (1988), Canes-Wrone and Shotts (2004), and Canes-Wrone (2006), utilize presidential budget proposals as a proxy for presidential issue stances. The basic idea of this approach is comparing presidential budget proposals with congressional proposals and public preferences on specific issues related to presidential budget proposals.

Others (Stimson, Mackuen, and Erikson 1995; Erikson, MacKuen, and Stimson

2002; Bailey 2007) use mixed measures. Stimson, Mackuen, and Erikson (1995) measure presidential issue stances through examining presidential interactions with the legislature and judiciary. To measure presidential issue stances, they (Stimson, Mackuen, and Erikson 1995) use three indicators: presidential position taking on the *Congressional Quarterly* key votes, the mean ADA rating of each party's support/opposition group, and presidential position taking on judicial issues through *amicus curiae* briefs filed by the Solicitor General. Similarly, Bailey (2007) measures presidential liberalism by combining presidents' positions on Supreme Court in *Public Papers of the Presidents* and Solicitors General *amicus* filings and presidential position taking on Senate and House roll call votes.<sup>7</sup> In Bailey's data, each presidency has a fixed policy stance except Reagan and Clinton.<sup>8</sup>

Unlike these measures, Wood and Lee (2009) measure presidential issue stances based on presidential rhetoric reported in *Public Papers of the Presidents*, which includes all official presidential remarks. They name this measure "Presidential Liberalism." Wood and Lee (2009) code every presidential remark related to the nine domestic issues from 1945 through 2005 into liberal and conservative, which is comparable with Stimson's classification of public issue liberalism.

Wood and Lee (2009) code presidential remarks by utilizing both electronic (Practical Extraction and Report Language: PERL) and human coding. Electronic coding is used to extract appropriate sentences related to the nine domestic issues by using keywords. Human coders then determine whether each sentence is liberal or conservative. Their coding rules are basically identical to Stimson's. That is, if

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<sup>7</sup>Bailey (2007) uses McCarty and Poole's data (1995) for presidential positions on congressional votes.

<sup>8</sup>Bailey (2007) does not explain why he assumes that Reagan's and Clinton's issue stances change unlike the other presidents'.

sentences are about “more government spending or involvement in solving social issues,” they are coded as liberal, and vice versa.<sup>9</sup> The nine issues are chosen for the comparability with Stimson’s Mood data.

Coding produces a count of liberal and conservative sentences in presidential remarks. Simply speaking, Presidential Liberalism is the difference between the number of liberal sentences and the number of conservative sentences in a given time interval. That is, Presidential Liberalism shows how frequently presidents mention their issue preferences. Wood and Lee (2009) standardize each series of the nine issues and sum the nine series to produce one general presidential issue liberalism series. Hence, each issue is naturally weighted in the general presidential issue liberalism series. Because Wood and Lee (2009) code day-to-day presidential rhetoric and record the date of each remark, the data can be flexibly managed as monthly, quarterly, and yearly data. Wood and Lee’s quarterly Presidential Liberalism is presented in Figure 6.

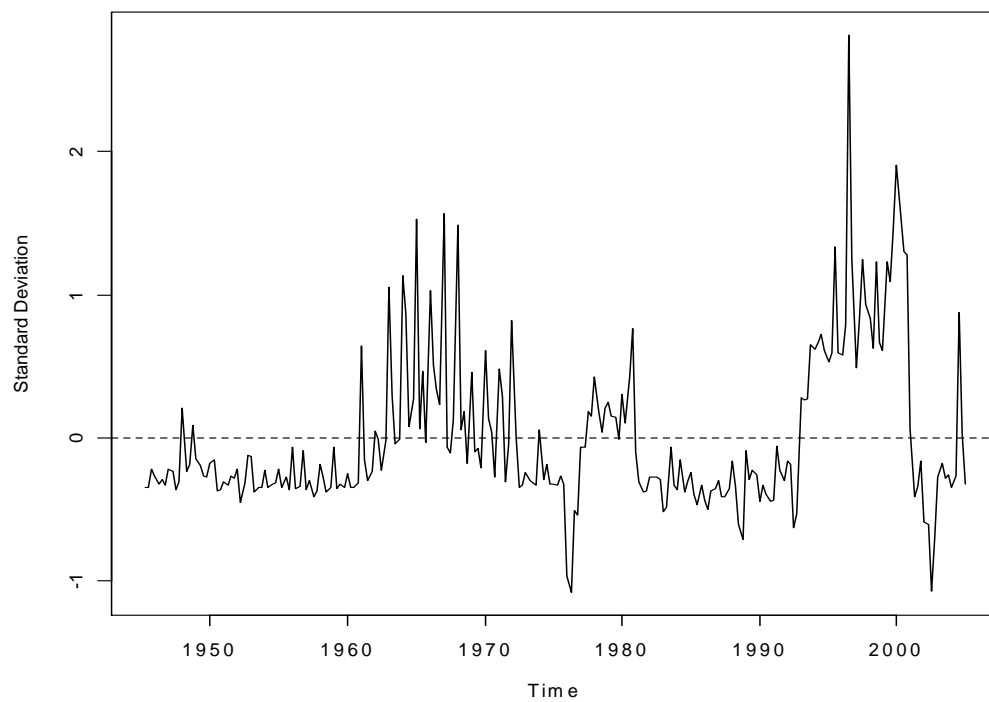
This figure clearly illustrates that presidents are ideological and partisan. Democratic presidents, Johnson, Carter, and Clinton, tend to speak liberally while Republican presidents, Eisenhower, Nixon, Reagan, and Bush, tend to speak conservatively in general. Since Wood and Lee’s Presidential Liberalism series is standardized with its mean and standard deviation, more liberal means more liberal relative to its mean. The X-axis represents time, and the Y-axis represents standard deviation. Positive (negative) deviation means presidents send more liberal (conservative) messages.

Wood and Lee’s measure is comparable with other presidential liberalism measures. Figure 7 includes four presidential liberalism measures: Wood and Lee (2009), Bailey (2007), McCarty and Poole (1995), and Zupan (1992). For the purpose of comparability, all of these measures are standardized, and Wood and Lee’s measure

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<sup>9</sup>The keywords and coding rules are presented in the Appendix

Figure 6. Standardized Presidential Liberalism (Wood and Lee 2009)



is transformed into annual data. Positive (negative) deviation means liberal (conservative) in the panels. Noticeably, all of the measures seem to track together in the figure. For instance, during the 1960s and the middle and late 1990s, all measures show that presidential issue stances were liberal. During the 1980s and the early 1990s, presidents spoke and behaved conservatively according to the measures. The most noticeable difference among the four measures is Eisenhower's issue stances. Wood and Lee's and McCarthy and Poole's measure show that Eisenhower was relatively conservative during his entire two terms. However, Bailey's measure suggests that Eisenhower's issue stances were relatively liberal and very close to the mean level. According to Zupan's measure, Eisenhower's issue stances did not stay liberal or conservative within his presidency.

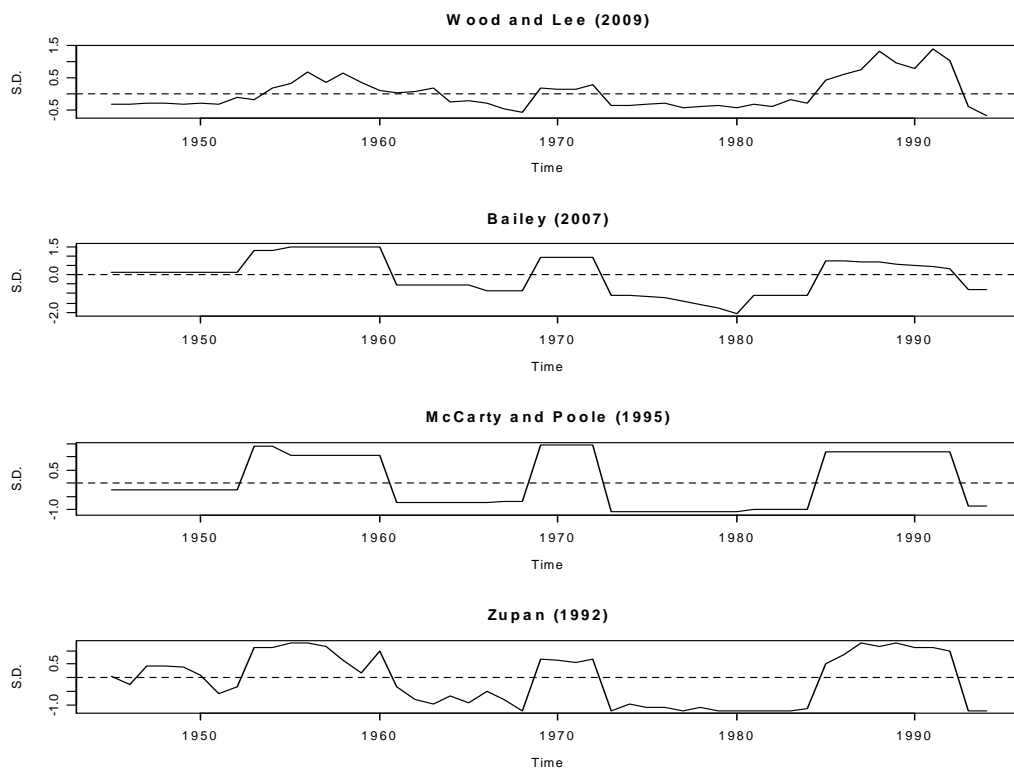
As expected from Figure 7, the four measures are highly correlated with each other. Table 1 lists the correlation coefficients between the presidential liberalism measures. The correlation coefficients between Wood and Lee's measure and the other three measures are around .64 (Bailey), .77 (McCarthy and Poole), and .77 (Zupan), which implies that Wood and Lee's presidential liberalism moves similarly with the other three measures.

The correlation coefficients between Bailey's, McCarthy and Poole's, and Zupan's measure are larger than .9 in Table 1. This may be because all of these measures basically use presidential position taking on congressional votes. Also, unlike Wood and Lee's measure, McCarthy and Poole's and Bailey's measure do not vary within presidencies.<sup>10</sup> Hence, the correlation coefficients between Wood and Lee's measure and the other measures are relatively small compared to the other correlation coefficients

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<sup>10</sup>Bailey (2007) allows within presidency variation exceptionally for Reagan and Clinton. As Figure 7 illustrates, both Reagan and Clinton became more conservative exponentially as time goes by (Bailey 2007, 441).

Figure 7. Standardized Four Presidential Liberalism Measures





in the table.

Table 1. Correlation between Presidential Issue Liberalism Measures

	Wood and Lee	Bailey	McCarthy and Poole	Zupan
Wood and Lee	1.00			
Bailey	0.64	1.00		
McCarthy and Poole	0.77	0.91	1.00	
Zupan	0.77	0.90	0.93	1.00

This study uses Wood and Lee’s Presidential Liberalism as the measure of presidential issue stances. Compared to the other measures, Wood and Lee’s measure has several advantages for this study. First, the most common tool presidents use to persuade and respond to the public is their day-to-day rhetoric (Tulis 1987; Hart 1987). “Since the presidencies of Theodore Roosevelt and Woodrow Wilson, popular or mass rhetoric has become a principal tool of presidential governance” (Tulis 1987, 4). In addition, Druckman and Holmes (2004) show that presidential rhetoric is an effective tool for priming and affects presidential popularity. Presidents converse with the public with their rhetoric.<sup>11</sup>

Second, unlike other measures (McCarty and Poole 1995; Bailey 2007), Wood and Lee’s Presidential Liberalism shows the variation in presidential issue liberalism within each presidency. This study assumes that presidential leadership and responsiveness can vary within each presidency, not only between presidencies. Note that public opinion changes within each presidency and even within years. If presidential issue stances are fixed for four or eight years, it means that presidential issue stances

<sup>11</sup>Cohen (1999) also measures presidential issue stances based on presidential rhetoric. However, Cohen’s measure is only based on presidents’ annual State of the Union messages for 35 years (from 1953 through 1987), which may not be comprehensive and enough for a rigorous time-series analysis.

do not affect public opinion changes during that time period, and vice versa. Some studies (Stimson, Mackuen, and Erikson 1995; Cohen 1999; Zupan 1992) and the budget measures (Kiewiet and McCubbins 1988; Canes-Wrone and Shotts 2004; Canes-Wrone 2006) allow the variation of presidential issue stances within each presidency (annual). Wood and Lee's measure, unlike any other measures, even tracks quarterly changes in presidential liberalism.

Third, Wood and Lee's Presidential Liberalism may be a comprehensive and general measure of presidential issue stances. Unlike other studies, Wood and Lee (2009) do not rely on interest group ratings (Zupan 1992) or budget proposals (Kiewiet and McCubbins 1988; Canes-Wrone and Shotts 2004; Canes-Wrone 2006) to measure presidential issue stances. According to Snyder (1992), interest group ratings, such as ADA scores, tend to exaggerate the degree of extremism. Also, since interest group ratings are based on a limited number of issues selected by interest groups at a given time, these measures may be biased (McCarty and Poole 1995). Similarly, the budget estimates do not cover most political issues (McCarty and Poole 1995). Furthermore, the budget estimates may not reflect true presidential issue preferences because presidents strategically propose their proposals depending on the political environment (Kiewiet and McCubbins 1988).

Finally, Wood and Lee's Presidential Liberalism is directly comparable with Stimson's public mood in terms of using the nine domestic issues to measure presidential issue stances. For these reasons, this study uses Wood and Lee's quarterly Presidential Liberalism to examine presidential leadership and responsiveness.

### 3. Measuring Media Biases

This study argues that the news media simultaneously affect the president and the public. In the previous chapter, this study argues that the manner in which the news media report social issues may affect presidential and public issue stances. Hence, this study needs to measure how the news media cover social issues.

While public and presidential issue stances are gauged by using measures from prior research, the relative liberalism of the news media is a product of this research. This study measures the media's ideological biases on the nine domestic issues used by Stimson (1991) and Wood and Lee (2009). This study labels this measure "Media Liberalism." Virtually, no study empirically measures the relative liberalism of the news media (media bias) through time.<sup>12</sup>

To investigate media influence on the public and the president, this study examines the relative liberalism and conservatism of media coverage regarding the nine domestic issues. As presidents lead or respond to the public through their rhetoric, the news media also influence presidential audiences using news stories. Thus, the news media also affect policy making through the news they report and its impact on public opinion and policymakers..

The manner in which the news media report issues and policies can be measured as a count of liberal and conservative news stories regarding the issues and policies. If the news media express liberal preferences, there will be more news stories favoring liberal policies than conservative policies. Since this study measures media biases regarding the nine domestic issues based on the liberal and conservative concept, this relative measure of media liberalism is comparable with the liberalism measure of the

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<sup>12</sup>Some studies (e.g., Groseclose and Milyo 2005; Gentzkow and Shapiro 2006; Ho and Quinn 2008) measure media bias (liberal-conservative) across media outlets.

public (Stimson 1991) and the president (Wood and Lee 2009).

This study codes news stories related to the nine domestic issues into liberal and conservative stories, just as Public Mood (Stimson 1991) and Presidential Liberalism (Wood and Lee 2009) are constructed. The criteria for coding news stories into liberal and conservative follow the same criteria that the previous studies (Stimson 1991; Wood and Lee 2009; Wood 2009) use. Basically, liberal news stories contain the messages that government should take more active roles in solving social problems. In contrast, conservative news stories contain the messages that government should take less active roles in solving social problems.<sup>13</sup>

### 3.1. News Source: *New York Times*

As a news source, the *New York Times* is chosen to retrieve news stories. First, this study chooses a newspaper rather than an electronic media outlet because print media generally carry quantitatively and qualitatively various information about social issues (Bartels 1996; Graber 2006). In addition, according to Graber (2006, 182), “most people view print media as sources of information, whereas people view electronic media as sources of entertainment.” Since this study measures media biases regarding social issues, this study chooses a print media source rather than an electronic media source.

Among various print media outlets, the *New York Times* is selected because this newspaper is arguably the most influential elite newspaper. Journalists often use peer sources to select news. According to Gans (2004, 126) who studies news selection of the news media, “the *New York Times* is a primary peer source inasmuch as the size and quality of its editorial and reporting staff are taken as guarantors of the

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<sup>13</sup>The details of the coding rules are listed in the Appendix.

best professional news judgment.” In other words, the *Times* affects other media’s news selection. Explaining “pack journalism,” Graber (2006, 40) also states that “for political news, the *New York Times* is the lion whom the jackals follow,” which means that the *Times* leads news stories in other news media outlets.

Bartels (1996), in fact, shows that the *New York Times* has a larger impact on agenda setting than other news media outlets and lead news stories. Certainly, due to the representativeness and the impact of the *Times* on the other news media outlets, this newspaper has been widely used in prior research (e.g., Sigal 1973; Brown et al. 1987). For instance, in political science, Blood and Phillips (1995) and De Boef and Kellstedt (2004) have utilized the *New York Times* to analyze news stories in the news media. In practice, unlike other newspapers, we can retrieve news stories (printed version) in the *New York Times* from 1851 to 2004, which includes the time span of the other data sets this study uses.

### 3.2. Sampling News Stories

To construct the media liberalism measure, both machine and human approaches are utilized. Machine searches are used to retrieve news stories related to the nine issues. Specifically, “Proquest” (<http://www.proquest.com/>) is used to retrieve news stories in the *New York Times* from 1958 through 2004, which matches with the time span of the other two data sets. Proquest offers keyword searches. Using the keyword searches, we can extract news stories related to each issue.<sup>14</sup>

Wood and Lee (2009) also use keywords to retrieve relevant presidential remarks from *Public Papers of the President*. However, their keywords are so general that the results often retrieve too many news stories. As a result, some stories are relevant,

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<sup>14</sup>The keywords are listed in the Appendix.

but others are irrelevant. To extract news stories more efficiently, this study modifies some of the keywords in Wood and Lee (2009).

Even though this study uses the modified keywords, still too many news stories contain the keywords. It is virtually impossible to code all of the news stories retrieved by using the keywords in the Appendix. Hence, first, this study extracts news stories including the modified keywords in their abstract (for the appropriateness of using keywords and abstract, see Althaus, Edy, and Phalen 2001).<sup>15</sup> Second, this study randomly selects 10% of the news stories from the retrieved news stories.<sup>16</sup> These two steps reduce the number of news stories and make it practical to code a manageable sample of news stories.

Even though this study uses modified keywords, not all extracted news stories on each issue are relevant to the target issue. The articles from the ten percent random sampling should be checked as to whether or not they deal with the target issue. Hence, first, the abstracts of selected news stories are read and judged for their relevance to the target issue. Second, after this relevance check, ten percent of the news stories are randomly selected and coded into liberal and conservative stories. In order to code news stories into liberal and conservative, the full texts of selected news stories are examined, not just the abstracts.

An example is helpful to explain the coding procedures. Assume that there are

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<sup>15</sup>However, Woolley (2000) criticizes this approach. Especially, he questions the appropriateness of using this approach to count the number of news stories related to specific issues without verifying the contents in abstracts.

<sup>16</sup>Ten percent sampling is determined based on sampling theory (Cochran 1977; Bartlett, Kotrlik, and Higgins 1994). According to Cochran's formula for calculating sample size, ten percent sampling produces enough samples for this study. The number of news stories about the Size of Government issue is over 4,000, which is the smallest number among the nine issues. In this case the sample size based on ten percent sampling is 400. When the size of population is 4,000, the appropriate sample size is 362 with  $\pm 5$  percent sampling error.

6,000 articles extracted by using keywords on an issue. First, randomly select ten percent from the 6,000 articles, which is 600. Second, check the 600 articles as to whether the stories are relevant to the target issue. If the number of relevant stories is 400, the proportion of relevant stories is  $2/3$  of the 6,000 stories. Because the proportion of relevant stories is  $2/3$ , it is possible to infer that 2 out of 3 stories are relevant in the 6,000 extracted articles. That is, 4,000 stories might be the right number of relevant stories among the 6,000 extracted stories. If 4,000 is the potentially right number of relevant stories, ten percent of 4,000 is 400. Accordingly, 400 stories are randomly sampled from the 6,000 extracted articles. These 400 stories are then coded. If the articles are not about the target issue, then replace them and re-sample them until all 400 articles are relevant to the target issue.

### 3.3. Coding News Stories

Sampled news stories are coded into liberal (1), neutral (0), and conservative (-1) based on the intentions of news stories. For efficient coding, this study first retrieves news stories issue by issue. However, since Proquest does not show a large number of news stories at one time, news stories are monthly searched. For instance, by using the keywords in the Appendix, 162 news stories regarding the race issue are retrieved in October 1958. According to the ten percent sampling, sixteen news stories are read. Among the sixteen stories, six stories are about racial issues. Finally, six news stories about racial issues are extracted and coded into the three categories according to the coding rules in the Appendix. In this instance, two stories are coded as neutral, and four are coded as liberal.

Common stories containing specific intentions regarding the nine issues are introducing politicians', experts', and/or journalists' opinions (including investigative news stories). Liberal news stories basically contain the arguments that government

is responsible for social problems and should take active roles to resolve them. In contrast, the conservatives generally argue that individuals are responsible for social problems, and they should be resolved by individuals, private organizations, and/or religious organizations rather than by government. These are general rules and cannot be applied to some issues, such as the crime issue. Depending on issues, more specific rules are needed.

Related to the issues of welfare, education, health care, race, and urban problems, liberal arguments generally mean that government should be more active and spend more money to resolve these issues. News stories are coded as conservative when they report the arguments that government should take less active roles and/or spend less money to resolve the issues. If news stories are about supporting/suggesting/praising liberal policies, such as medicaid, public housing, desegregation/integration, and affirmative action, they are coded as liberal. If news stories are about supporting/suggesting/praising conservative policies, they are coded as conservative. Sometimes, the news media report public opinion poll results regarding specific policies. If news stories report that the majority of survey respondents support/prefer liberal policies, they are basically coded as liberal, and vice versa, as long as the stories do not show any specific intention or interpretation related to the poll results.<sup>17</sup>

Regarding the environment issue, liberal news stories generally contain the arguments that we need more regulations (for industries) to protect the environment and spend more public money for the environment. In contrast, the conservatives prefer private measures to resolve the environmental issues. If news stories introduce the arguments that the environmental problems are overrated and support industrial development rather than environmental protection, they are coded as conservative.

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<sup>17</sup>More specific coding rules for the issues are listed in the Appendix.



Some news stories deal with global environmental problems. If news stories state that the U.S. should take active roles to solve global environmental problems, they are generally coded as liberal.<sup>18</sup>

Liberal news stories related to the crime issue generally report the arguments that crime problems can be solved by rehabilitation and/or prevention rather than by stronger punishment and/or stricter law enforcement, and government should spend more money for rehabilitation and prevention measures. Conservative news stories stress stronger punishment and/or stricter law enforcement to reduce crime problems and more government spending for punishment and law enforcement measures. The gun control issue is categorized as the crime issue. Supporting stricter gun control is basically coded as liberal, and vice versa. The crime issue also includes the issue of death penalty. Supporting death penalty is coded as conservative. Liberal stories generally oppose death penalty.<sup>19</sup>

In relation to the issue of military spending, liberal stories favor reducing expenditures for national defense, security, and the military. Conservative stories advocate increasing these expenditures. Generally speaking, conservative stories regarding the issue of size of government support the measures that would reduce government regulations, spending, or taxation. Some of the news stories regarding the issue of size of government are about taxation. Supporting a progressive tax is coded as liberal. If news stories contain the argument that the rich should be taxed more than the poor, they are coded as liberal. If news stories are about opposing progressive taxation and stress the principle of equal tax rate regardless of income level, they are coded as conservative. News stories supporting tax cut for the rich are coded as conservative.

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<sup>18</sup>More specific coding rules for the issue of the environment are listed in the Appendix.

<sup>19</sup>The Appendix lists more coding rules in detail about the crime issue.

News stories are coded as neutral if the arguments in news stories are not clearly expressed. Also, when news stories contain both liberal and conservative arguments, they are coded as neutral. However, if one argument is disproportionately more covered than the other argument in news stories, news stories are coded according to the more covered argument. Similarly, if one argument is supported in news stories, they are coded according to the supported argument. Some news stories contain only objective information, such as introducing objective policies and vote results in the House/Senate. The objective information is coded as neutral. Depending on issues, specific rules are applied to determine neutral stories. More coding rules about neutral news stories are introduced in detail in the Appendix.

### 3.4. Constructing Media Liberalism

Like Presidential Liberalism (Wood and Lee 2009), Media Liberalism is measured as the difference between the sum of liberal stories and the sum of conservative stories during each quarter. Note that news stories are extracted monthly and issue by issue.<sup>20</sup> Hence, nine time series according to the nine issues are produced after coding. Each monthly series is transformed into a quarterly series through aggregation. Then, each series is standardized with respect to its mean and standard deviation. Finally, the nine standardized quarterly series are summed up into one general series and divided by nine: Media Liberalism.

The standardization process reduces the possibility of overemphasizing the respective counts of news stories. For instance, if the nine series are summed without

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<sup>20</sup>In the cases of size of government and military spending, news stories are retrieved based on a multiple year term. Since the number of news stories regarding these issues is relatively small, the news stories are extracted based on a multiple year term to avoid dropping news stories due to the ten percent sampling. However, because each coded news story's year and month are recorded, this special extraction does not affect the aggregation and standardization process.

standardization, the most frequently dealt issue is likely to be overemphasized in the final series and dominantly affect the final series. However, if each series is standardized and summed into one series, the number of stories related to the most frequently dealt issue becomes normalized. On the other hand, the standardization and aggregation process gives natural weights on each issue. If one series varies more than other series in a given time period, this series is automatically weighted through the standardization and aggregation process.

The aggregation process also drops out possible coding errors as long as they are not systematic. For instance, a neutral story is mistakenly coded as liberal (1) in one issue, and another neutral story is mistakenly coded as conservative (-1) in another issue. Then, the aggregation process cancels out these two errors. Because this study codes news stories separately and sums them up quarterly, possible coding errors do not significantly affect the final media liberalism series as long as the coding rules are valid and consistent with the liberal-conservative concept.

The number of news stories this study utilizes to construct Media Liberalism is listed in Table 2. The “Race” issue is the largest (2,369) issue, and the smallest issue is the “Military Spending” issue (266). In total, 22,455 news stories are read, and 9,013 news stories are coded into the liberal (4,365), neutral (3,588), or conservative (1,060) category. Certainly, a lot of stories are neutral, but as illustrated in this table, the *Times* send more liberal stories in general (the total mean is .320).

Figure 8 illustrates quarterly Media Liberalism from the fourth quarter of 1958 through 2004, which is standardized with its mean and standard deviation. This media liberalism series shows the general dynamics of the news media’s issue stances. Generally speaking, during the 1960s, the news media seemed to produce more liberal news stories. However, during the 1970s and the early 1980s, the news media seemed to produce more conservative news stories. Since the mid 1980s, the series seems to

Table 2. Coding Summary: Media Liberalism

Issue	Extracted	Read	Coded	Lib.	Neu.	Con.	Mean
Education	13,252	1,325	871	431	299	141	.739
Health	14,687	1,469	869	441	266	162	.321
Crime	32,244	3,224	908	277	472	159	.129
Urban Problem	18,910	1,891	677	267	364	46	.326
Welfare	21,238	2,124	927	456	300	171	.307
Race	84,880	8,488	2,369	1,486	756	127	.573
The Environment	29,595	2,960	1,751	837	820	94	.424
Military Spending	5,710	571	266	76	147	43	.124
Size of Government	4,028	403	375	94	164	117	-.061
Total	224,544	22,455	9,013	4,365	3,588	1,060	.320

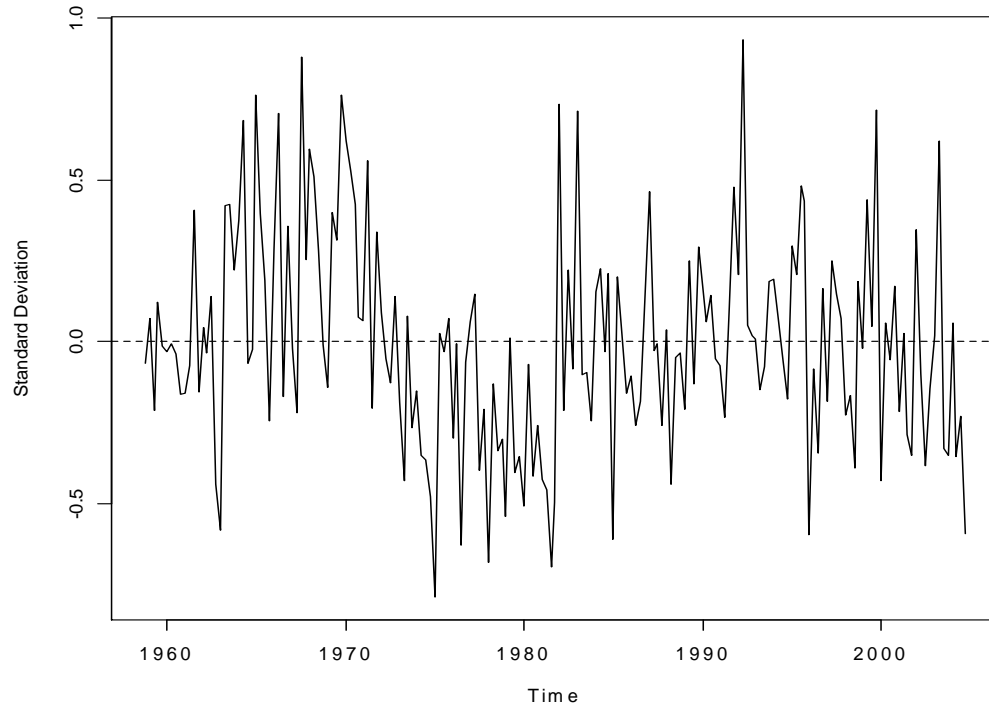
oscillate around the mean.

#### 4. Control Variables

Again, these three variables are potentially endogenous, mutually causing one another. However, this study also considers exogenous variables that can affect the endogenous variables. For example, economic and political conditions and events can affect the president, the news media, and the public. This section introduces the exogenous variables.

Durr (1993) argues that economic conditions significantly affect public issue liberalism. People who expect bad national economic conditions are less likely to support liberal social policies. People tend to support benevolent social policies when their economic expectations are rosy. This logic can be extended to the other actors. Pres-

Figure 8. Standardized Media Liberalism



idents are unlikely to support more social spending when economic conditions are declining as long as they consider public opinion. Economic conditions can affect news stories as they affect the public and the president. In addition, the economy itself may affect the number of news stories dealing with social issues. When the national economy is down, the news media may focus more on the national economy rather than social issues. In general, by extending Durr's arguments, we can theorize that the actors focus on reinvigorating the national economy rather than spending more money for the social problems when national economic situations are cloudy.

To control the effects of the economy on the actors' issue stances, this study

measures people's evaluations of national economic conditions and objective economic conditions. The Index of Consumer Sentiment (ICS) is used to measure people's evaluations of national economic conditions. The ICS is constructed based on survey questions on economic conditions. To measure the general state of the economy, the Conference Board's Composite Index of Coincident Indicators (CICI) is used. This index is constructed based on four time series chosen by the Conference Board.<sup>21</sup> The Composite Index comprehensively reflects current national economic conditions (Conference-Board 2001).

Previous studies (Erikson, MacKuen, and Stimson 2002; Wood 2009), however, show that the public and the president differently react to different economic problems. Both Erikson, MacKuen, and Stimson (2002) and Wood (2009) show that the president and the public tend to express more liberal preferences when unemployment is high but more conservative preferences when inflation is high. As stated in the previous chapter, this study also argues that the news media are likely to support liberal policies when the unemployment rate is high. In contrast, the news media are likely to support conservative policies when inflation rate is high. To control this possibility, this study considers unemployment and inflation rate as control variables.

Another exogenous variable is the political environment. Who controls the presidency and Congress may affect the presidential, public, and media liberalism. What types of Congress presidents face may be important for presidential issue liberalism. For instance, when presidents are not supported by Congress, they are likely to go public (send more partisan messages) to earn public support and attain power for negotiating with Congress (Neustadt 1990; Kernell 1993). On the contrary, presidents

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<sup>21</sup>The four time series comprising the Composite Index are payroll employment, personal income, industrial production, and manufacturing and trade sales (The last three are in 1996 dollars.). (Conference Board. 2001. *Business Cycle Indicators Handbook*. New York: The Conference Board.).

are likely to send fewer partisan messages when they expect that Congress is unlikely to support their agendas. Note that presidents are rational actors considering the costs and benefits of their behavior. In fact, Wood and Lee (2009) and (Wood 2009) reveal that presidents tend to send fewer partisan messages when they face a Congress unfavorable to them.

The political environment can also influence the news media and the public. The news media may try to check unified governments if they play a role of the fourth branch of government (Carter 1959). On the contrary, under unified governments, news stories may reflect the dominant party's arguments because the major news sources, the president and Congress, send similar messages to the news media (Bennett 1990). Similarly, the public may react or respond to the political environment. According to Wlezien (1995), the public tends to thermostatically react to changing policies to check government. By the same reasoning, the public may react to the government thermostatically. For instance, if the Democratic (Republican) party holds both the presidency and Congress, the public may express more conservative (liberal) issue attitudes. On the contrary, if the public receives most of their political information from the news media and political elites, the public may positively respond to government. Especially, when one party holds both the presidency and Congress, the dominant party is likely to affect the public because the public is likely to receive similar political messages from the dominant party and the news media.

To control for political conditions, this study measures possible government types, which is a mixture of who controls each branch and government type (e.g. Democrat President and Congress, Republican President and Democrat Congress, Republican President and Congress, and so on). In addition, to controlling for the possible influence of Congress on the three actors, this study includes the ideological

stances of the House and Senate by utilizing the DW-NOMINATE median score of Senate and the House (Poole and Rosenthal 1991). Poole and Rosenthal (1991) found that legislators' voting patterns and their ideal positions are two-dimensional. The first dimension is about social policies, such as welfare. This dimension is categorized as liberal and conservative. The second dimension is about civil rights (regional politics), supporting civil rights or not.<sup>22</sup>

Finally, political events are included as control variables. Political events can affect the president, the news media, and the public simultaneously. For instance, the September 11th attack might affect issue stances of the public, the news media, and the president. Based on Erikson, MacKuen, and Stimson (2002, 52), a critical events series is created, which includes updated events: the September 11th tragedy (September 2001) and the U.S. invasion of Iraq (April 2003). If an event is assumed to move actors to the liberal (conservative) side, it is coded as 1 (-1). For instance, the September 11th tragedy is coded as -1, and the Iran-Contra scandal is coded as 1.

## 5. Models and Methods

In order to consider the potential reciprocity between the three actors and address the question, "who affects whom?", each actor should be treated simultaneously as a dependent variable and the other variables as independent variables. This study measures presidential, media, and public issue stances as Public Mood, Presidential Liberalism, and Media Liberalism. Denote Presidential Liberalism, Media Liberalism, and Public Mood as  $x$ ,  $y$ , and  $z$ . Consider that current Presidential Liberalism ( $x_t$ ) is affected by its own past realization ( $x_{t-1}$ ), current Media Liberalism ( $y_t$ ), current

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<sup>22</sup>The DW scores are presented in the website: <http://voteview.com/default.htm>.



Public Mood ( $z_t$ ), and their past realizations ( $y_{t-1}$  and  $z_{t-1}$ ). If each actor is treated as a dependent variable and the other actors as independent variables, it can be expressed as the multivariate system:

$$x_t = b_{10} - b_{12}y_t - b_{13}z_t + \gamma_{11}x_{t-1} + \gamma_{12}y_{t-1} + \gamma_{13}z_{t-1} + \epsilon_{xt}$$

$$y_t = b_{20} - b_{21}x_t - b_{23}z_t + \gamma_{21}y_{t-1} + \gamma_{22}x_{t-1} + \gamma_{23}z_{t-1} + \epsilon_{yt}$$

$$z_t = b_{30} - b_{31}x_t - b_{32}y_t + \gamma_{31}z_{t-1} + \gamma_{32}x_{t-1} + \gamma_{33}y_{t-1} + \epsilon_{zt}$$

where it is assumed that the error terms ( $\epsilon_{xt}$ ,  $\epsilon_{yt}$ ,  $\epsilon_{zt}$ ) are white-noise disturbances and uncorrelated each other:  $E(\epsilon_i) = 0$ ,  $E(\epsilon_i \epsilon_i) = \sigma_i$ ,  $E(\epsilon_i \epsilon_j) = 0$  ( $i \neq j$ ). These multivariate equations include contemporaneous effects:  $b_{12}, b_{13}, b_{21}, b_{23}, b_{31}, b_{32}$ . Hence, a usable reduced form is required. The equations in the multivariate system can be transformed as:

$$BH_t = C_0 + \Gamma_1 H_{t-1} + U_t \quad (3.1)$$

$$\text{where } H_t = \begin{bmatrix} x_t \\ y_t \\ z_t \end{bmatrix}, B = \begin{bmatrix} 1 & b_{12} & b_{13} \\ b_{21} & 1 & b_{23} \\ b_{31} & b_{32} & 1 \end{bmatrix}, C_0 = \begin{bmatrix} c_{10} \\ c_{20} \\ c_{30} \end{bmatrix}, \Gamma_1 = \begin{bmatrix} \gamma_{11} & \gamma_{12} & \gamma_{13} \\ \gamma_{21} & \gamma_{22} & \gamma_{23} \\ \gamma_{31} & \gamma_{32} & \gamma_{33} \end{bmatrix},$$

$$H_{t-1} = \begin{bmatrix} x_{t-1} \\ y_{t-1} \\ z_{t-1} \end{bmatrix}, \text{ and } U_t = \begin{bmatrix} \epsilon_{xt} \\ \epsilon_{yt} \\ \epsilon_{zt} \end{bmatrix}.$$

Multiply  $B^{-1}$  to both sides. Then, an estimable equation is derived:

$$H_t = A_0 + A_1 H_{t-1} + E_t. \quad (3.2)$$

$$\text{where } A_0 = \begin{bmatrix} a_{10} \\ a_{20} \\ a_{30} \end{bmatrix}, A_1 = \begin{bmatrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \\ a_{31} & a_{32} & a_{33} \end{bmatrix}, \text{ and } E_t = \begin{bmatrix} e_{xt} \\ e_{yt} \\ e_{zt} \end{bmatrix}.$$

This study basically estimates the multivariate vector autoregression model: VAR(p), VAR model of order  $p$ . This Vector AutoRegression method is used to estimate the possible multidirectional relationships between variables (Sims 1980; Lütkepohl 2005). In order to provide comparability, this study standardizes each of the three liberalism measures with its mean and standard deviation.

This study tests stationarity of the series. If these series are cointegrated, any hypothesis test results based on the VAR may be incorrect Phillips (1986). Various stationary tests are used to test stationarity of the three series.<sup>23</sup> The test results are presented in the Appendix. The unit root test results generally show that Media Liberalism and Presidential Liberalism are stationary. However, Public Mood may be non-stationary according to the ADF and KPSS test results but stationary according to Bayesian Odds Ratio test results.

Even though the Public Mood series might be non-stationary, using VAR is appropriate without differencing the series. Sims and his colleagues (Sims 1980; Sims, Stock, and Watson 1990) argue that the major purpose of the VAR analysis is to

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<sup>23</sup>Augmented Dickey-Fuller (ADF) test (Dickey and Fuller 1979; Dickey and Fuller 1981), KPSS test (Kwiatkowski, Phillips, Schmidt, and Shin 1992), and Bayesian Odds Ratio test (Sims 1988) are used.

examine the direction of relationships between endogenous variables, not to examine the parameter estimates. Since differencing eliminates the information about the co-movements of endogenous variables, they do not recommend differencing for non-stationary series in a VAR system. In case of hypothesis testing, according to Phillips (1986), using non-stationary series is appropriate as long as endogenous variables are not cointegrated. Hence, the VAR approach is appropriate for this study. Note that only one of the variables might be integrated.<sup>24</sup>

The VAR approach is used to examine the direction of the relationships between the three variables. Using the VAR method, we can control the inertia of each variable by including multiple lags in the system (Sims 1980; Freeman, Williams, and Lin 1989). Based on the results of likelihood ratio test and information criteria, such as Akaike's Information Criterion (Akaike 1973), this study includes four lags of each variable in the VAR system. The Granger causality test (Granger 1969) treats the lags as a block and examines whether the lags collectively affect the endogenous variables in the system.

The Granger (1969) test is used to examine Granger causality between the three variables. As Lütkepohl (2005) shows, however, the absence of Granger causality does not necessarily mean no causal relationship between variables. Also, the Granger test does not show the magnitude and polarity of relationships. That is, from the Granger causality tests we cannot know whether the relationship is “strong and weak” and “negative or positive.”

As an approach to sorting out these concerns, this study uses the Moving Average Representation (MAR) method, which is a simulation based on the estimated VAR system (Sims 1980). Note that the equation (3.2) can be rewritten as “moving average

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<sup>24</sup>Note that prior studies using Stimson's Public Mood consider that the Public Mood series is stationary. Stimson also claims that the series is stationary.

representation” under the stability assumption:  $|a_{ij}| < 1$  in  $A_1$  matrix. That is, the process  $H_t$  has a representation,

$$H_t = \mu + \sum_{i=0}^{\infty} A^i E_{t-i} \quad (3.3)$$

where  $\mu$  is 
$$\begin{bmatrix} \bar{x} \\ \bar{y} \\ \bar{z} \end{bmatrix}.$$

Note that  $E_t = B^{-1}U_t$ . Hence, (3.3) is equivalent to

$$H_t = \mu + \sum_{i=0}^{\infty} A^i B^{-1} U_{t-i} = \mu + \sum_{i=0}^{\infty} \phi_i U_{t-i} \quad (3.4)$$

where  $\phi_i$  is a 3 x 3 matrix,  $A^i B^{-1} = \begin{bmatrix} \phi_{11}(i) & \phi_{12}(i) & \phi_{13}(i) \\ \phi_{21}(i) & \phi_{22}(i) & \phi_{23}(i) \\ \phi_{31}(i) & \phi_{32}(i) & \phi_{33}(i) \end{bmatrix}$

This  $\phi$  matrix in the (3.4) shows the effects of the disturbances  $(\epsilon_{xt-i}, \epsilon_{yt-i}, \epsilon_{zt-i})$  on the dependent variables  $(x_t, y_t, z_t)$ . The elements in the  $\phi$  matrix are called “impulse response functions” (Enders 2004, 274). If a shock (innovation) is given to the  $\phi$  matrix, the impact of the shock on the dependent variables can be traced by plotting the impulse response functions. Since  $A^i B^{-1}$  cannot be identified, however, additional restriction needs to be imposed on the  $B$  matrix. By utilizing the Choleski decomposition, the  $B$  matrix can be orthogonalized. The Choleski decomposition transforms the  $B$  matrix into a triangular matrix, which means that this decomposition forces  $(n^2 - n)/2$  values of the  $B$  matrix to equal zero. For instance,  $b_{21}$ ,  $b_{31}$ , and  $b_{32}$  in the

$B$  matrix can be restricted as zero. Then, the  $A^i B^{-1}$  matrix becomes identifiable, and the impulse responses are traceable. However, when using the Choleski factorization, if there are significant contemporaneous correlations between the residuals, the results of the Moving Average Representation (MAR) analysis can be affected by the ordering of the endogenous variables. Hence, it is important to check the contemporaneous covariance matrix of disturbances, as well as evaluate alternative orderings for robustness of the results. This study acknowledges this concern and discusses it in the following chapter.

The MAR analysis shows how a simulated shock to one variable influences the other variables. The simulation results will show the direction and magnitude of each relationship. In this study, confidence intervals of the effects are calculated by using Monte Carlo integration and the fractile method recommended by Sims and Zha (1999). The simulation results show who influences whom and the direction and magnitude of the influence. The VAR-X variant is used to include exogenous variables in the system.

## 6. Conclusions

This study investigates the potentially reciprocal relationships between the president, the news media, and the public. In order to examine the relationships, each actor's issue stances should be measured. This chapter discusses the measurement and data for the three actors' issue stances and control variables.

Stimson (1991) measures the public's issue stances based on survey results. Analyzing the public's attitudes toward domestic issues, Stimson constructs a general public opinion movement, Public Mood. This movement is plotted on the liberal-conservative continuum through time. If Public Mood moves toward the liberal (con-

servative) side, this generally means that the public prefers more (less) government spending/involvement regarding social issues, such as welfare, health care, and education. Stimson's Public Mood is a global measure of public opinion changes, which fits for this study investigating the general relationships between the president, the news media, and the public.

As a measure of presidential issue stances, this study uses Wood and Lee's Presidential Liberalism (2009). Compared to other measures of presidential issue stances, this presidential liberalism measure has some major advantages for this study. First of all, Presidential Liberalism is based on presidential rhetoric. Presidents mainly use their rhetoric to persuade the public and other elites. Also, presidents respond to the public and other elites through their rhetoric. Second, unlike other measures, Wood and Lee's Presidential Liberalism varies within presidencies and years. Hence, we can examine presidential responsiveness and leadership in detail. Finally, this presidential liberalism measure is comparable with Stimson's Public Mood because Presidential Liberalism is measured based on the liberal-conservative concept and based on the nine domestic issues.

This study measures media biases on social issues to construct a media liberalism measure and labels it "Media Liberalism". This study codes news stories into liberal and conservative. Simply speaking, liberal (conservative) news stories contain the messages about more (less) government spending/involvement to solve social problems. As presidents converse with the public and other elites through their rhetoric, the news media use news stories to converse with the public and the president. The news media make news of the public and the president. The public and the president consume news stories. Hence, constructing a media liberalism measure based on news stories is appropriate for this study investigating the influence and responsiveness of the news media. For the purpose of comparability with Public Mood and Presidential

Liberalism, this study measures media biases on the nine domestic issues. This media liberalism measure comprehensively shows changing media biases through time (1958-2004).

Beyond these three actors' issue stances, some control variables are introduced in this chapter. The variables are political and economic conditions and events. The control variables may simultaneously affect the president, the news media, and the public. Political conditions are measured as types of government (e.g., Democrat president, Democrat House, Republican Senate) and median legislator's issue position in Senate and the House. Economic conditions are measured as the public's economic perceptions (Index of Consumer Sentiment) and the state of the national economy (Conference Board's Composite Index of Coincident Indicators and unemployment and inflation rate). Finally, critical political events are included as control variables.

These variables are used to test the theories presented in the previous chapter. Since this study theorizes multidirectional relationships between the president, the news media, and the public, the VAR approach is applied to test the theory. The Granger causality test is utilized to examine who Granger causes whom. However, because the Granger causality has some limitations, this study also applies the MAR method to examine the magnitude and polarity of the influence of one variable to the other variables. In the following chapter, this study examines the reciprocity between the president, the news media, and the public and tries to answer to the question: "who affects whom?"

## CHAPTER IV

### RESULTS

One of the purposes of this study is analyzing the relationship between elites and the public. More specifically, this study focuses on presidential leadership of and responsiveness to the public. Unlike prior research, this study argues that the news media significantly intervene in the interaction between the president and the public and theorizes that the relationships between the president, the news media, and the public are potentially reciprocal. However, while the direct relationship between the president and the public is weak and indirect, the news media significantly and directly affect both the president and the public. The theoretical framework of this study is summarized in Figure 4.

To answer the question, “who affects whom?” this study analyzes three actors’ issue stances from 1958 through 2004. As statistical methods, the VAR, Granger causality test, and MAR methods are utilized. To examine how the news media interact with the other actors, interaction models are utilized. The measures and statistical methods were introduced in the previous chapter. This chapter presents the results from the statistical tests.

#### 1. VAR Results

Before answering the question, “who affects whom?”, this section introduces what factors affect the three endogenous variables besides themselves. Each variable in the VAR should be affected by a set of exogenous variables as well as being mutually determined by one another. The effects of the exogenous variables can be examined through the VAR regressions. Note that the three endogenous variables are simultaneously treated as the dependent and independent variables. Four lags of



each endogenous variable are included as independent variables to control the inertia of the endogenous variables.<sup>1</sup> The Granger causality test treats these four lags as a block and examines whether the blocks of the four lags of the endogenous variables collectively affect the dependent variables (The Granger causality test results are introduced in the following section).<sup>2</sup> This section introduces the VAR results by focusing on the exogenous variables.

### 1.1. Explaining Presidential Issue Stances

This study considers that political and economic conditions may affect the endogenous variables. As the political environment, government types and congressional policy positions are included in the VAR system. In this study, “government type” means which party holds the presidency and Congress, such as Republican Congress and Democratic Congress in Model 1 and 4 in Table 3. Divided Congress is represented in the constant term, and presidential party is coded as a dummy variable (Republican=1, Democrat=0). Also, as seen in Table 3, this study includes all possible types of government formation in Model 2. Republican President/Divided Congress is represented in the constant term (There is no case of Democratic President/Divided Congress during the time span (1958-2004) this study examines.). Another political environment variable is congressional policy positions, which are measured as the median legislator’s policy position in Senate and the House based on the DW-

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<sup>1</sup>This study utilizes information criteria, such as AIC and BC, and likelihood ratio tests to determine the appropriate lag length.

<sup>2</sup>Interpreting the individual coefficients on the endogenous variables is inappropriate because collinearity and feedback effects between variables can make the coefficients misleading. Hence, the tables reporting the VAR results do not include the lagged variables.

NOMINATE scores.<sup>3</sup>

As long as presidents are politicians, the argument that political conditions significantly influence presidential behavior is quite obvious. The results in Table 3 support this argument. The statistical results in Model 1 and 4 illustrate that presidential rhetoric is significantly explained by their partisanship. Republican presidents, as expected, speak conservatively, and Democratic presidents send more liberal messages. Model 2 in Table 3, beyond the simple explanation, shows how presidents respond to who controls Congress.

Some studies, such as Kernell (1993), argue that presidents tend to go public and send more partisan messages when they face unfavorable Congresses. When the public supports presidential agendas, presidents can use the public's support as their leverage to bargain with Congress (Neustadt 1990). In order to persuade the public to support their policies, presidents need to send more messages to the public. Accordingly, presidents are likely to send more partisan messages when they expect that Congress is unlikely to pass their agendas.

In contrast, Wood and Lee (2009) reveal that presidents tend to reduce liberal messages when they face unfavorable Congresses (see also, Wood (2009, 115)). If presidents expect that Congress will support their liberal agendas, presidents send more liberal messages. However, when Congress is unlikely to support presidential liberal agendas, presidents are less likely to speak about their agendas as long as presidents are rational actors considering costs and benefits of their behavior. The results in Table 3 are consistent with this reasoning.

According to the results from Model 2, Democrat presidents tend to increase

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<sup>3</sup>Certainly, alternative measures might be used, such as the proportion of one party in the House and Senate, ideological distance between the two parties' median voters, and ideological distance between the president and the House and Senate (Wood and Lee 2009; Wood 2009).

Table 3. VAR Results: Explaining Presidential Liberalism

<i>Variables</i>	<i>Model1</i>	<i>Model2</i>	<i>Model3</i>	<i>Model4</i>
Constant	0.692 (1.95)	0.114 (0.35)	0.124 (0.26)	0.188 (0.37)
Event	0.097 (1.16)	0.089 (1.05)	0.131 (1.26)	0.088 (1.04)
ICS <sub><i>t</i>-1</sub>	-0.005 (-1.66)	-0.005 (-1.61)	-0.001 (-0.26)	-0.000 (-0.09)
CICI <sub><i>t</i>-1</sub>	0.112 (0.85)	0.106 (0.81)	0.175 (1.00)	
Unemployment( $\Delta$ ) <sub><i>t</i>-1</sub>				0.044 (0.41)
Inflation <sub><i>t</i>-1</sub>				0.018 (0.95)
Rep. Congress	0.600 (5.34)			0.602 (8.40)
Dem. Congress	0.106 (0.93)			0.092 (0.76)
Rep. President	-0.556 (-6.22)			-0.587 (-6.21)
Dem. President/Rep. Congress		1.237 (8.28)		
Rep. President/Dem. Congress		0.124 (1.08)		
Dem. President/Dem. Congress		0.666 (6.37)		
Rep. President/Rep. Congress		0.490 (3.23)		
House-DW-1st			0.006 (0.01)	
Senate-DW-1st			0.214 (0.25)	
House-DW-2nd			0.212 (0.26)	
Senate-DW-2nd			-0.191 (-0.12)	
<i>N</i>	179	179	179	179
<i>p(Q)</i>	0.18	0.16	0.02	0.21
<i>AIC</i>	138.99	154.67	155.14	154.58

Note: The numbers in the table are coefficients and t-statistics (in parentheses). All models include the lagged endogenous variables. Four lags of each endogenous variable are included in the system. *N*: Number of observations. *p(Q)*: *p* value of the *Q* statistic (Ljung and Box 1978). *AIC*: Akaike's Information Criterion.

liberal messages when they face Democrat Congresses. In Model 2, the coefficient of the Democratic President/Democratic Congress variable is .666, which is statistically significant ( $t=6.37$ ) at the  $\alpha$  level .10. Note that the numbers in the parentheses in the table are t-statistics. These results are consistent with Wood and Lee (2009) and Wood (2009).

Another case of unified government is Republican President/Republican Congress. In Table 3, the statistics of this variable illustrate that Republican presidents tend to send more liberal messages when the Republican party holds Congress in Model 2 (coefficients=.490,  $t=3.23$ ), which is consistent with Wood and Lee's argument that presidents tend to send more liberal messages when they expect congressional support for liberal agendas. However, this may just explain the case of G.W. Bush's last two years of his first term because the case of Republican President/Republican Congress only occurred during the G.W. Bush presidency (2003-2004). Figure 6 in the previous chapter shows that president G.W. Bush noticeably increased liberal messages during 2003 and 2004 even though he significantly sent more conservative messages in general during his entire term.<sup>4</sup>

The results in Table 3, however, show that Democrat presidents send more liberal messages even when Democrat presidents face Republican Congresses. The coefficient of the Democratic President/Republican Congress variable is 1.237, which is statistically significant ( $t=8.28$ ) in Model 2. This statistically significant result seems to support the argument that presidents tend to go public and send more partisan messages when they face unfavorable congresses. However, from 1958 through 2004, the

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<sup>4</sup>See Table 14 in the Appendix reporting ARIMA results (Box and Jenkins 1976). In the ARIMA model, Presidential Liberalism is set as the dependent variable, and each president is treated as an independent variable. According to the results in this table, president G.W. Bush significantly sent more conservative messages than the mean level of all presidents. The coefficient of the G.W. Bush variable is -.405, and the t-statistic of this coefficient is -2.50.

case of Democrat President/Republican Congress occurred only during the Clinton presidency (1995-2001). That is, it is difficult to generalize this finding.<sup>5</sup>

Another case where presidents face unfavorable Congresses is Republican President/Democrat Congress. The Republican President/Democrat Congress variable shows positive coefficients (.124) in Model 2, which means that presidents tend to reduce their partisan messages when they do not expect congressional support. However, the effects are not statistically significant ( $t=1.08$ ). Also, the constant term representing the case of Republican President/Divided Congress does not show statistical significance. Hence, it is difficult to assert whether or not presidents tend to be more partisan when they face unfavorable Congresses.

Instead of government types, Model 3 includes congressional issue positions measured by the DW-NOMINATE scores. Note that Poole and Rosenthal (1991) code conservative votes/positions as positive numbers and liberal votes/positions as negative numbers. Hence, if the president positively responds to Congress, the DW score variables should show negative signs. The results from Model 3 seem to illustrate that the president positively responds to congressional issue positions in general. However, all of the effects of congressional positions on the president are statistically insignificant. That is, the president does not significantly respond to congressional issue positions.<sup>6</sup> Rather, presidents tend to respond to who controls Congress. Specifically,

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<sup>5</sup>One may argue that president Clinton sent relatively more liberal messages than other presidents. Using the ARIMA model, this study examines this argument more systematically. According to the ARIMA results in Table 14 in the Appendix, president Clinton significantly sent more liberal messages than the mean level of all presidents. The coefficient of the Clinton variable is .771, which is statistically significant ( $t=5.93$ ).

<sup>6</sup>One may argue that presidential issue liberalism is a function of the interaction between presidential partisanship and congressional issue positions. To examine this argument, this study uses interaction models between presidential partisanship and congressional issue positions based on the DW-NOMINATE scores. The results in Table 15 show that most of the interaction terms are statistically insignificant.

presidents tend to send more liberal messages when their party holds Congress. The Ljung-Box Q statistic shows that some autocorrelation exists between the residuals from Model 3.

Besides the political environment, this study considers that economic conditions may affect presidential issue liberalism. As economic variables, the public's economic perceptions (Index of Consumer Sentiments, ICS) and the state of the national economy (Composite Index, CICI and unemployment and inflation rate) are included in the VAR system. These variables can show presidential responsiveness to economic conditions. All economic variables are included as lagged variables,  $t-1$ .<sup>7</sup> The Unemployment variable is included as unemployment rate change ( $\Delta$ ). Since the Composite Index includes various information of current economic conditions including employment data, this study does not include the CICI, unemployment rate change, and inflation rate in one model. Model 1, 2 and 3 use the Composite Index while Model 4 uses the unemployment rate change and the inflation rate to examine the effects of objective economic conditions on the endogenous variables.

The results in Table 3 show that presidents do not respond to the public's economic perceptions in general. According to the results in Model 1 in this table, presidents tend to negatively respond to the public's economic perceptions. However, this significant result is not held in the other models, and the effects are nearly zero in all models. Similarly, presidents do not respond to objective economic conditions in all four models. The CICI, Unemployment, and Inflation variables do not show statistical significance. In sum, the VAR results in Table 3 illustrate that presidents tend to respond to the political environment, more specifically government types, but not economic conditions. These results are different from Wood (2009). Wood (2009)

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<sup>7</sup>This is because presidential rhetoric and news stories can contemporaneously affect the public's economic perceptions and economic conditions (Wood 2007).

shows that presidents respond both the political and economic conditions. However, the models in Wood (2009) do not simultaneously include both the political and economic conditions. Neither are the news media included in the models. The omitted variables might cause the different results.<sup>8</sup>

## 1.2. Explaining Media Biases

Table 4 shows the VAR results when Media Liberalism is considered as the dependent variable. Like Table 3, Table 4 reports the statistics of the exogenous variables but not the statistics of the lagged endogenous variables.

Some have argued that the media is like a fourth branch of government (Carter 1959)e.g., checking the actions of the president, Congress, and courts. For instance, when presidents, Congress, and the courts become too liberal, the media move in the opposite direction to contain extreme movements that might be inconsistent with the mass public.

According to the results in Table 4, unlike the president responding to the political environment, the news media seem not to respond to the political environment. Except the case of Democrat Congress in Model 4, all political variables are statistically insignificant. These results generally illustrate that the news media do not act like the fourth branch of government. If the news media checked government, we should observe some negative effects of the Democrat President/Democrat Congress variable (i.e., they should send more conservative news stories when the Democratic party holds both the presidency and Congress) and some positive effects of the Republican President/Republican Congress variable (i.e., they should send more liberal

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<sup>8</sup>Wood (2009) uses the Newey-West estimator to control autocorrelation instead of the ARIMA approach, which might also cause the different results. Generally, the ARIMA results are more conservative (less likely to reject the null hypothesis).

Table 4. VAR Results: Explaining Media Liberalism

<i>Variables</i>	<i>Model1</i>	<i>Model2</i>	<i>Model3</i>	<i>Model4</i>
Constant	-0.283 (-0.90)	-0.304 (-1.05)	-0.243 (-0.73)	0.196 (0.46)
Event	0.023 (0.31)	0.018 (0.24)	0.024 (0.32)	0.037 (0.52)
ICS <sub><i>t</i>-1</sub>	0.003 (1.04)	0.003 (1.06)	0.002 (0.78)	-0.001 (-0.34)
CICI <sub><i>t</i>-1</sub>	-0.024 (-0.21)	-0.027 (-0.24)	-0.019 (-0.15)	
Unemployment( $\Delta$ ) <sub><i>t</i>-1</sub>				0.219 (2.41)
Inflation <sub><i>t</i>-1</sub>				-0.051 (-3.07)
Rep. Congress	-0.049 (-0.49)			-0.063 (-0.67)
Dem. Congress	0.021 (0.21)			0.168 (1.65)
Rep. President	-0.007 (-0.09)			0.075 (0.95)
Dem. President/Rep. Congress		0.005 (0.04)		
Rep. President/Dem. Congress		0.031 (0.31)		
Dem. President/Dem. Congress		0.031 (0.34)		
Rep. President/Rep. Congress		-0.112 (-0.84)		
House-DW-1st			0.016 (0.05)	
Senate-DW-1st			-0.120 (-0.20)	
House-DW-2nd			0.128 (0.22)	
Senate-DW-2nd			0.376 (0.35)	
<i>N</i>	179	179	179	179
<i>p(Q)</i>	0.66	0.62	0.65	0.41
<i>AIC</i>	138.99	154.67	155.14	154.58

Note: The numbers in the table are coefficients and t-statistics (in parentheses). All models include the lagged endogenous variables. Four lags of each endogenous variable are included in the system. *N*: Number of observations. *p(Q)*: *p* value of the *Q* statistic (Ljung and Box 1978). *AIC*: Akaike's Information Criterion.



news stories when the Republican party holds both the presidency and Congress). Also, the news media do not respond to congressional issue positions in Model 3.

These insignificant results might be caused by the measurement of the political environment, which is static rather than dynamic. Note that the House and Senate median DW scores and government types are fixed for at least two years in general. However, Media Liberalism noticeably changes within years according to Figure 8 in the previous chapter. Probably, Media Liberalism is the most dynamic series among the three endogenous variables as Figure 9 in the following section illustrates. If the news media instantaneously respond to changing political conditions, and their responsiveness decays quickly, the measures of the political environment this study uses may not effectively capture the impact of the political environment on the news media. In other words, if we can utilize more dynamic measures of political conditions, we may with more certainty conclude whether and how the news media respond to political conditions.

The news media, however, seem to clearly respond to economic conditions. This study argues that the news media may respond to objective economic conditions in different manners depending on economic problems. As stated before, one of the possible prescriptions for unemployment is more government intervention in the economy. That is, government should actively engage in the economy and propose liberal programs to help the unemployed and create jobs when the unemployment rate is increasing. This study argues that the news media recognize this and prescribe liberal measures when the unemployment rate is high. The results from Model 4 in Table 4 support this argument. The coefficient of the Unemployment variable is .219, and its t-statistic is 2.41. That is, the news media tend to report more liberal news stories as the unemployment rate increases.

The significant effect of unemployment on media biases may imply that the news

media are sympathetic to the plight of people in an economic decline. When the national economic conditions are declining, the unemployed are seriously suffered from losing income and need government support. The response to unemployment is consistent with Keynesian prescriptions. That is, when economic conditions are bad, government should more actively involve itself in the market and resolve economic and social problems. The impact of unemployment on news stories may illustrate that the news media demand more government actions to resolve economic and social problems.

Another theoretical expectation regarding the economic impact on the news media is that the news media tend to produce more conservative news stories as the inflation rate increases. This is because one of the possible solutions for high inflation is reducing government spending including social spending in order to decrease the total amount of money in circulation. This theoretical expectation is also supported by the results from Model 4 in Table 4. The coefficient of the Inflation variable is  $-.051$  and statistically significant ( $t: -3.07$ ). The negative sign of the Inflation variable illustrates that the news media tend to send more conservative stories as the inflation rate increases.

Other economic variables, however, do not show any statistical significance. The Composite Index does not significantly explain media issue liberalism according to the results in Table 4. This may indirectly support the argument that the news media respond to specific economic problems in different manners, not to the general economic state in a uniform manner. Like the president, the news media do not respond to the public's economic perceptions. Both the president and the news media seem to ignore how the public perceives economic conditions according to the results in Table 3 and 4. In sum, the VAR results in Table 4 show that the news media tend to respond to specific economic problems in different manners but not to political

conditions in general.

### 1.3. Explaining Public Policy Sentiments

This study, finally, shows the VAR results when Public Mood is set as the dependent variable. Like the president and the news media, this study considers that the public may respond to political and economic conditions. According to Durr (1993), the public tends to positively respond to their economic perceptions. More correctly, he reveals that the public supports liberal policies when the public's business expectation is rosy. The ICS variable shows the positive sign in Model 1, 2, and 3, which is consistent with Durr's argument. However, the results are statistically insignificant.<sup>9</sup> The VAR results in this table illustrate that the public's economic perceptions do not influence public issue liberalism.<sup>10</sup>

Like the public's economic perceptions, the current state of the economy measured as the Composite Index consistently seems not to affect public opinion. In all models, the CICI variable does not show statistical significance even though this variable shows the negative sign in all models (Model 1, 2, and 3). The negative sign means that the public expresses more liberal preferences as the national economy becomes worse. However, the impact of the nation economy on the public is not

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<sup>9</sup>These results are not changed noticeably when the public's economic perceptions are measured as the public's business expectations instead of the ICS series. This study uses the ICS series because this index contains more comprehensive information about the public's economic perceptions including the public's business expectations.

<sup>10</sup>These results may be caused by including the ICS variable as a lagged term. If the public issue liberalism is explained only by the public's contemporaneous economic perceptions, the lagged ICS variable will not show statistical significance. In fact, when the ICS is included as a current term, this variable shows statistical significance in the following section. However, these results may be also caused by including the news media in the system. When only the president and the public are considered as endogenous variables, the lagged ICS variable significantly affects Public Mood in two models.

Table 5. VAR Results: Explaining Public Mood

<i>Variables</i>	<i>Model1</i>	<i>Model2</i>	<i>Model3</i>	<i>Model4</i>
Constant	-0.846 (-1.91)	-0.569 (-1.40)	-0.066 (-0.13)	-0.293 (-0.46)
Event	0.115 (1.10)	0.108 (1.02)	0.116 (1.08)	0.126 (1.21)
ICS <sub><i>t</i>-1</sub>	0.005 (1.28)	0.005 (1.30)	0.001 (0.35)	-0.000 (-0.06)
CICI <sub><i>t</i>-1</sub>	-0.228 (-1.40)	-0.232 (-1.43)	-0.227 (-1.27)	
Unemployment( $\Delta$ ) <sub><i>t</i>-1</sub>				0.169 (1.26)
Inflation <sub><i>t</i>-1</sub>				-0.037 (-1.52)
Rep. Congress	0.186 (1.33)			1.830 (1.31)
Dem. Congress	0.281 (1.98)			0.356 (2.38)
Rep. President	0.294 (2.65)			0.361 (3.09)
Dem. President/Rep. Congress		-0.043 (-0.23)		
Rep. President/Dem. Congress		0.296 (2.06)		
Dem. President/Dem. Congress		-0.009 (-0.07)		
Rep. President/Rep. Congress		0.098 (0.51)		
House-DW-1st			0.169 (0.38)	
Senate-DW-1st			0.301 (0.34)	
House-DW-2nd			0.921 (1.14)	
Senate-DW-2nd			-0.014 (-0.00)	
<i>N</i>	179	179	179	179
<i>p(Q)</i>	0.55	0.57	0.47	0.62
<i>AIC</i>	138.99	154.67	155.14	154.58

Note: The numbers in the table are coefficients and t-statistics (in parentheses). All models include the lagged endogenous variables. Four lags of each endogenous variable are included in the system. *N*: Number of observations. *p(Q)*: *p* value of the *Q* statistic (Ljung and Box 1978). *AIC*: Akaike's Information Criterion.

significant.

The results from Model 4 in Table 5 also show that the public does not respond to change economic conditions, which is different from the results in Erikson, MacKuen, and Stimson (2002, 233). The insignificant influence of economic conditions on the public may be caused by including the news media in the model. If the news media interpret economic information, and the public consumes the interpreted information, the news media rather than objective and subjective economic conditions are likely to affect the public.<sup>11</sup> In fact, when only the president and the public are considered as endogenous variables, the public seems to negatively, significantly react to the inflation rate.<sup>12</sup>

Unlike the economic variables, according to the results in Table 5, the public seems to respond to certain political conditions. Specifically, the results in Model 1 and 4 show that the public tends to express significantly more liberal preferences when the Democratic party holds Congress. Unlike the public's responsiveness to Congress, the public tends to react to the president. That is, the public expresses significantly more liberal preferences when the Republican party holds the presidency, and vice versa.

Certainly, when the Republican party holds the presidency and the Democratic party holds congress, the public tends to prefer liberal policies according to the results from Model 2 in this table (coefficient: .296, t: 2.06). However, the other government formation variables in Model 2 do not show any statistical significance.

According to Wlezien's (1995) argument, the public thermostatically reacts to

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<sup>11</sup>Also, these results may be caused by including the economic variables as lagged terms. The results in Table 10 show that the current CICI variable significantly, negatively affects the public.

<sup>12</sup>The results are reported in Table 17 in the Appendix.

changing policies. Broadly speaking, the “thermostat” theory means that the public tends to express more liberal preferences when conservative policies are enacted. Assume that more conservative policies are likely to be produced when a conservative party holds both the presidency and Congress. If this assumption is reasonable, based on the “thermostat” theory we can expect that the public expresses more liberal preferences when the Republican party holds both the presidency and Congress, and vice versa. On the contrary, this study also acknowledges that the public may respond to the dominant party’s issue stances because the public receives similar policy information from the president and Congress.

The VAR results in Table 5, however, do not support any of these theoretical expectations. The unified government cases, Democratic President/Democratic Congress and Republican President/Republican Congress, do not significantly explain public issue liberalism. In other words, these results may imply that the public does not rely on political information from unified governments or dominant parties holding both the legislative and executive branches.

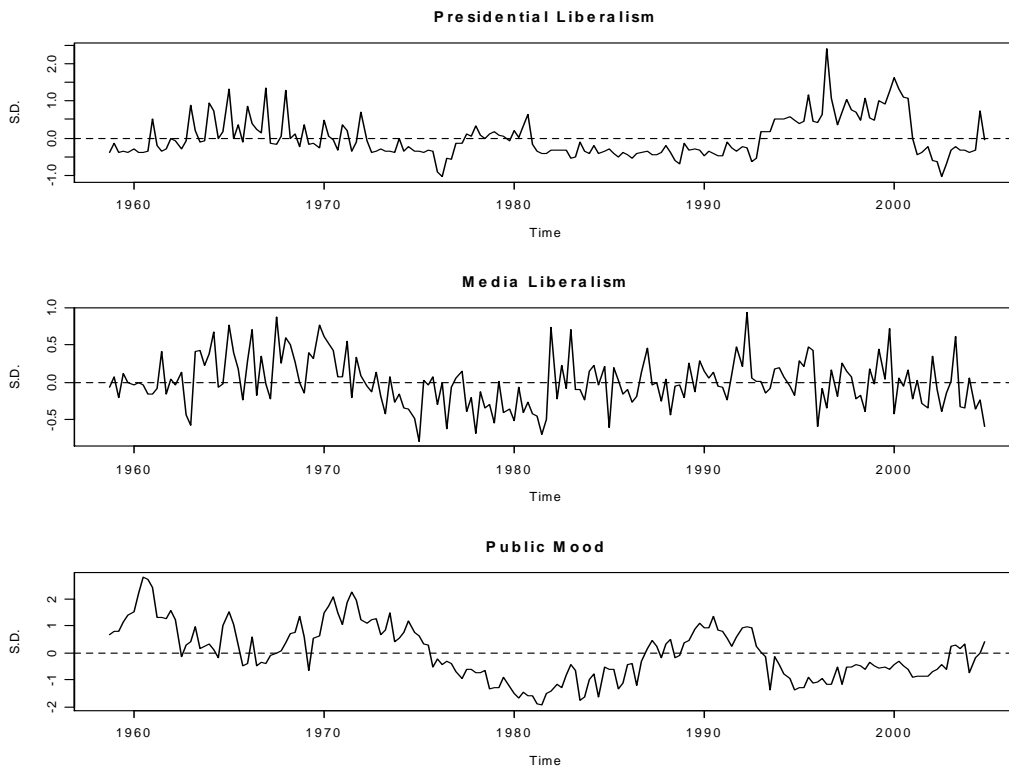
## 2. Who Affects Whom?

The previous section shows what exogenous factors affect the relative liberalism of issue stances by the president, media, and public. This section focuses on the endogenous relationships between these actors. To examine the direction of the relationships between these actors, this study again utilizes the Granger causality test and MAR methods.

Before examining statistical test results, we can graphically examine the co-movements of the three measures. Presidential Liberalism, Media Liberalism, and Public Mood are simultaneously presented in Figure 9. Note that these three series

are standardized with their respective means and standard deviations. Hence, “more liberal” implies more liberal “with respect to its mean.”

Figure 9. Three Liberalism Measures



The top panel in Figure 9 shows Presidential Liberalism, the middle panel shows Media Liberalism, and the bottom panel shows Public Mood. This figure does not clearly illustrate whether or not the Presidential Liberalism series moves together with the other series. However, one noticeable pattern is found between Media Liberalism and Public Mood. According to this figure, media and public liberalism move together during the early and mid 1970s. Later the relationship seems more random. Thus, it is difficult to assert that one series leads the other series based on the figure.

This visual examination gives a sense of the actors' changing issue stances through time. This ocular test suggests an absence of common trends among the three series. Nevertheless, statistical analyses are required to test the multidirectional relationships between the president, the news media, and the public. If we want to know who affects whom, rigorous tests are necessary.

### 2.1. Granger Causality between the President, the News Media, and the Public

Previous studies found some mixed results in relation to presidential responsiveness to and leadership of the public. No empirical study rigorously tests the reciprocity between the president, the news media, and the public. This study considers the reciprocity and examines who Granger causes whom. As explained before, the Granger test treats multiple lags of the endogenous variables as a block and examines whether each block affects the endogenous variables. Hence, simply speaking, significant Granger causality means that past movements significantly and collectively explain the current movement.<sup>13</sup>

In Table 6, the arrows indicate Granger causality of the independent variables (right-hand side) to the dependent variables (left-hand side) at the  $\alpha$  level .10. Each of the independent variables includes four lags to control the inertia of the variables. The Granger causality test shows the significance of each block coefficient of the lags. Table 6 presents  $p$  values from  $F$  tests for the null hypothesis of no Granger causality. Hence, no Granger causality implies that a group of four lags does not significantly

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<sup>13</sup>Note that the Granger test is based on the VAR. In the previous section, this study runs four different models. Among the four models, this study chooses Model 1, which shows the lowest AIC statistics. The AIC is a measure of the goodness of fit of an estimated statistical model. The smaller the AIC statistic is, the better the model is (Akaike 1973). The Granger test results in this section are based on Model 1.



Table 6. Granger Causality Test Results: Three Liberalism Measures

<i>DependentVariable</i>		<i>IndependentVariables</i>	<i>pvalue</i>
Presidential Liberalism	←	Presidential Liberalism	.00
		Media Liberalism	.31
		Public Mood	.72
Media Liberalism		Presidential Liberalism	.76
	←	Media Liberalism	.03
		Public Mood	.38
Public Mood		Presidential Liberalism	.94
	←	Media Liberalism	.08
	←	Public Mood	.00

forecast the current realization.<sup>14</sup>

The most prominent finding in Table 6 is that each of the endogenous variables is inertial. For instance, the current presidential rhetoric is significantly explained by previous presidential rhetoric. If a president spoke liberally in the past, he is likely to speak more liberally or conservatively in this quarter. Media Liberalism is also inertial. The p-value of the Media Liberalism variable is .03 when the Media Liberalism is considered as the dependent variable. That is, today's news reporting is significantly explained by past news reporting. Public Mood is also significantly explained by its past movements. If the public expressed more liberal issue preferences in past quarters, the public is likely to express more liberal or conservative preferences today.

<sup>14</sup>Note that the Granger test results do not show the direction of the relationship between the endogenous variables. That is, from the results we can only know that the past movements of Presidential Liberalism and Public Mood contain significant information about their current state.

Beyond the inertia of the series, this study is interested in whether one variable Granger causes the other variables. This study argues that the news media influence the public basically because the public receives most of their political information from the news media. This study considers that the public is likely to be an information receiver rather than an information sender in terms of policy information (Zaller 1992). Furthermore, the public tend to receive most of their political information from the news media even though other elites disseminate political information. Hence, this study argues that the news media should directly influence the public.

The Granger test results in Table 6 support this argument. Considering Public Mood as the dependent variable, the p-value of the Media Liberalism variable is .08, which is statistically significant at the  $\alpha$  level .10. This result means that media biases Granger cause the public's issue stances. If the news media sent more liberal news stories in the past, the public tends to express more or less liberal preferences today. The Granger results show that the influence of the news media on the public exists even though the results do not show how the news media affect the public.

Unlike the news media, however, the president seems to fail to affect the public according to the results in Table 6. When Public Mood is considered as the dependent variable, the p-value of the Presidential Liberalism variable is .94, which means that changes in presidential rhetoric in the past do not affect the current public opinion changes. As proposed in the theory chapter, because presidential messages are rarely transmitted intact to the public, it is difficult to observe presidential direct influence on the public. The Granger causality results in this table support this argument.<sup>15</sup>

The Granger causality results show that presidential leadership of the public is

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<sup>15</sup>Wood (2009) examines the bivariate Granger causality between the president and the public. He also found that presidential issue liberalism does not Granger cause public issue liberalism.

absent. This study argues that presidents fail to move public opinion successfully because the public generally receives presidential messages through the news media selecting/interpreting/modifying/evaluating their messages. That is, the direct impact of the president on the public is weak. These results in this table seem to support the argument and are consistent with previous studies maintaining lack of presidential leadership of the public, such as Glaros and Miroff (1983), Edwards (2003), and Wood (2009).

This study also argues that the direct relationship between the president and the public is weak. As presidential issue stances in the past do not affect the current public opinion changes, presidential responsiveness to the public is not supported by the statistical results in Table 6. When Presidential Liberalism is considered as the dependent variable, the  $p$  value of the Public Mood variable is .72. That is, past public opinion changes do not affect the current presidential issue stances. The Granger causality test results in this table show that both the president and the public seem to be oblivious of each other, which is consistent with the findings in Wood (2009).

In the second chapter, this study argues that the president tends to respond to the news media rather than directly to the public due to the influence of the news media on the public. However, the Granger test results in Table 6 do not support this argument. When Presidential Liberalism is considered as the dependent variable, the  $p$  value of the Media Liberalism variable is .31. This result means that expressed media biases during past quarters do not affect presidential rhetoric today. The Granger test results in this table generally show that the current presidential issue liberalism cannot be explained by past behavior of the public and the news media.<sup>16</sup>

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<sup>16</sup>These results are consistent with Wood and Peake (1998) and Edwards and Wood (1999) investigating public agenda setting at the aggregate level.

Figure 1 shows that the news media receive information from the president and the public. That is, the president and the public potentially affect the news media. However, this study stresses that the news media are more likely to respond to the public because of the profit pressures. In contrast, the news media are less likely to respond to the president because the news media tend to index various news sources beyond the president. According to the test results in Table 6, both the president and the public do not Granger cause the news media.

When the dependent variable is Media Liberalism, the  $p$  value of the Presidential Liberalism variable is .76. This result illustrates that past presidential issue stances do not affect the current news media biases. Also, past public opinion changes do not affect the current media biases. When Media Liberalism is considered as the dependent variable in the VAR system, the  $p$  value of the Public Mood variable is .38. The test results in Table 6 only partially support the theory of the responsiveness of the news media to the public and the president.

In sum, the Granger causality test results in Table 6 show that only one Granger causal relationship exists between the three actors. Media biases Granger cause the public's issue preferences.

However, as mentioned before, the Granger causality test has limitations. First, the Granger causality test results in the tables do not show the direction of relationships, which means that we do not know how the past media biases affect the current public issue liberalism. Second, from the Granger causality test results, we cannot know the size of the influence of the news media on the public. Finally, an absence of Granger causality does not necessarily mean no causality (Lütkepohl 2005). Contemporaneous feedback between the endogenous variables can veil the cause and effect relationship between them. Hence, this study uses the MAR methods to explore the cause and effect relationship between the three actors. The MAR results

are introduced in the following section.

## 2.2. MAR Results: How Do the Actors Affect Each Other?

MAR methods are used to observe the dynamic responses of the endogenous variables to a simulated shock given to one endogenous variable. In this study, the shock is one positive standard error of each series.<sup>17</sup>

This study argues that the news media should be considered in order to explain presidential leadership and responsiveness correctly because the news media play a role of information channel between the president and the public. The mixed results in prior research on presidential leadership of and responsiveness to the public may be caused by the omission of the news media. Figure 10 shows who affects whom and how.

Depending on the correlations among the residuals from the VAR regressions, the MAR results may be affected by ordering the endogenous variables.<sup>18</sup> In Figure 10, the order of the endogenous variables is Presidential Liberalism, Media Liberalism, and Public Mood.<sup>19</sup> This order is selected based on the theory that policy information generally flows from the president to the public through the news media and the Granger causality test results that Media Liberalism Granger causes Public Mood.

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<sup>17</sup>The shock is given to the  $\phi$  matrix in the equation (3.4) in the third chapter. Note that if the endogenous variables are contemporaneously uncorrelated, the  $B$  matrix becomes an identity matrix. Hence, the effects of the simulated shock varies according to  $A^i$  matrix, which represents the past effects of the endogenous variables.

<sup>18</sup>If the residuals are contemporaneously correlated, the off-diagonal elements of the  $B$  matrix are not zero. Hence, the  $E$  matrix in the equation (3.2) is not equal to the  $U$  matrix in the equation (3.1). In other words, if there are strong contemporaneous correlations between the residuals from the VAR, the order of endogenous variables in the VAR system may affect the MAR results. Table 18 in the Appendix presents the correlation coefficients.

<sup>19</sup>An alternative order is also used. The results are presented in Figure 11 in the Appendix. The major findings in Figure 10 are consistent with the results in Figure 11.

Also, the order is based on statistical testing.<sup>20</sup>

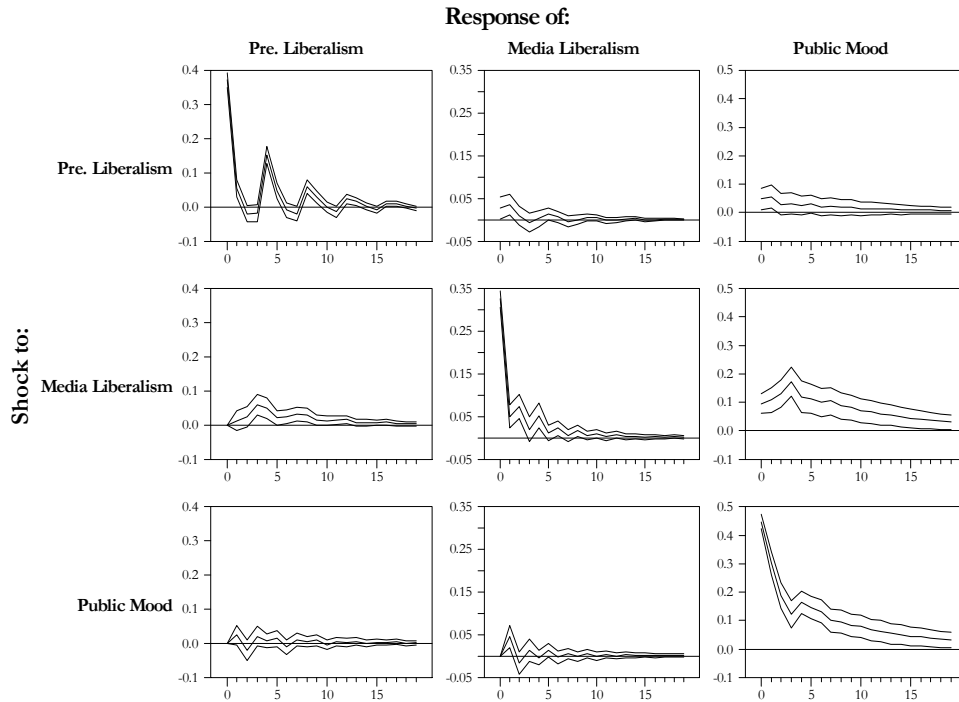
The Granger causality test results in Table 6 support the argument that the news media move public opinion. However, the results do not show how the news media influence the public. The panel in the second row and third column (2,3) in Figure 10 shows how the public responds to a simulated shock to the news media. A one standard error increase in Media Liberalism produces positive movements of Public Mood. The initial effect of Media Liberalism on Public Mood is positive and statistically significant. The positive effects increment till about the third quarter after the shock. Then, the effects decay over time but last for longer than five quarters even though the later effects are small. That is, if the news media increase liberal news stories, the public immediately expresses more liberal preferences. Along with the Granger causality test results in Table 6, the simulation results in this figure support the argument that the news media positively influence the public.

The persuasive effect of the news media on the public in Figure 10 is consistent with some voting studies, such as Dalton, Beck, and Huckfeldt (1998), Bartels (1993), Gerber, Karlan, and Bergan (2009), and Kahn and Kenney (2002). These

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<sup>20</sup>Note that the impulse response function recursively identifies the structural shocks by using the Choleski decomposition of the covariance matrix. That is, the variable ordered first in the VAR is contemporaneously unaffected by all other variables. This means that the endogenous variable that is least correlated contemporaneously with the other variables should be placed first when the endogenous variables are correlated with each other. According to the contemporaneous correlation between the residuals in Table 18 in the Appendix, the appropriate order is Presidential Liberalism - Media Liberalism - Public Mood. Presidential Liberalism is least correlated with the other measures, and Public Mood is most correlated with the other measures. Also, the decomposition of variance from the VAR can be utilized to determine the order of the variables in the impulse response function. Since the variable first ordered implies that this variable is least explained by the other endogenous variables at first, its variance should be least explained by the other endogenous variables at the first stage of the recursive identification process. The decomposition of variance from the VAR shows that Presidential Liberalism is least explained by the other endogenous variables at the first stage. Public Mood is most explained by the other two variables at the first stage. Table 19 in the Appendix shows the decomposition of variance.

Figure 10. MAR: Presidential Liberalism, Media Liberalism, and Public Mood



studies show that news stories significantly affect voters' candidate evaluations and vote choice. Generally speaking, these studies show that when the news media disproportionately report news stories supporting/favoring one candidate over the other candidates, voters tend to positively evaluate and/or vote for the supported candidate. Likewise, the results in this figure show that when the news media disproportionately report news stories supporting/favoring liberal policies, the public tends to support liberal policies.

Another argument of this study is that the news media should influence the president. This argument is not supported by the Granger causality test results in

Table 6. However, as shown by Lütkepohl (2005), this does not necessarily mean that no cause and effect relationship exists between the news media and the president. In fact, Figure 10 illustrates that news stories do affect presidential rhetoric. The panel in the second row and first column (2,1) in Figure 10 shows the influence of the news media on the president. When the news media increase liberal news stories one standard error from their mean, the president does not immediately respond to the increase. About a quarter later, however, the president begins significantly responding to the shock in a positive way. This means that presidents speak more liberally after the news media increase liberal news stories. The impact of Media Liberalism on Presidential Liberalism becomes larger by the third quarter after the shock. Then, the impact decays. The significant impact seems to persist for about three quarters after the innovation. The results in this panel support the theory that the president positively responds to the news media.<sup>21</sup>

The results in Table 4 show that the news media do not react to political conditions, and this study concludes that the news media do not act like a fourth branch of government in terms of checking a dominant party holding both the presidency and Congress. However, the results in Figure 10 show that the news media significantly affect presidential rhetoric and public opinion. As long as presidential rhetoric regarding social issues reflects presidential issue positions, the significant influence of news stories on presidential rhetoric may imply that the news media affect presidential policy making. Likewise, as long as congressmen are affected by their constituency's issue preferences (Miller and Stokes 1963), the news media can affect policy making through moving public opinion, which supports Graber's muckraking model (Graber 2006). In sum, the MAR results illustrate that the news media can significantly influence

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<sup>21</sup>This one-way relationship is consistent with previous agenda setting studies, such as Wood and Peake (1998) and Edwards and Wood (1999).



politics.

Unlike the presidential responsiveness to the news media shown in the panel (2,1), presidential responsiveness to the public is not supported by the simulation results in Figure 10. The panel in the third row and first column (3,1) shows the effects of an innovation in Public Mood on Presidential Liberalism. This panel illustrates that public opinion changes do not affect presidential rhetoric, which means that presidents do not directly respond to the public. Like the results in Table 6, presidential responsiveness to the public is absent in Figure 10. According to the results in this figure, presidents directly respond to the news media rather than to the public.

This study argues that presidential leadership of the public is weak or limited because the public receives political information mostly through the news media. The panel in the first row and third column (1,3) in Figure 10 shows how a simulated shock to Presidential Liberalism affects Public Mood. According to this panel, the impact of the president on the public seems to be positive. A positive shock to Presidential Liberalism produces positive responses of Public Mood, and the responses last for about three quarters. However, the responses are barely significant. These weak results suggest that presidents do not successfully lead the public.

The results in Figure 10 also illustrate whether and how the president and the public influence the news media. The Granger causality test results reported above in Table 6 show that both presidential and public issue liberalism do not Granger cause media biases. Corresponding with these results, the panel in the first row and second column (1,2) shows presidential influence on the news media. When presidents increase liberal messages, the news media seem to report more liberal news stories immediately. However, the increased number of liberal news stories due to the increased number of presidential liberal messages quickly moves back to its mean number. The impact of the president on the news media is barely significant

and does not last very long. This again suggests that presidents do not lead the mass media.

The panel in the third row and second column (3,2) in Figure 10 shows the influence of the public on the news media. According to this panel, the news media seem to positively respond to the public for about a quarter. However, the impact of the public on the news media is almost insignificant. These results again imply that regarding their news making, the news media do not seriously consider public issue stances.

The results in Figure 10 generally support the theories presented in Figure 4. The news media significantly and directly affect the president and the public. The direct relationship between the president and the public is weak. On the other hand, the results show that the news media are not very responsive to the president and the public. In other words, the news media is an independent actor in reporting news about the presidency and nation-at-large.

### 3. The Possible Indirect Influence between the President and the Public

The MAR simulation results show that the news media directly affect the president and the public. In contrast, the direct relationship between the president and the public seems to be insignificant. Presidents tend to generally ignore public opinion changes. Also, presidents fail to lead the public successfully. However, these results do not simultaneously deny the possibility that the president and the public might affect each other indirectly through the news media. Hence, this section examines the possibility of the indirect influence between the president and the public on one another through the news media.

### 3.1. Indirect Presidential Leadership

The results in the previous section show that the influence of the president on the news media is slight and fleeting, but marginally significant. Then, does this imply that the president indirectly moves public opinion? In other words, by influencing the news media, can presidents in turn affect the public?

To address these questions, Media Liberalism is separated into two components. One component is explained by Presidential Liberalism, and the other component is the residual component. Since this study analyzes time series data, a regression model,  $Media\ Liberalism_t = \beta_0 + \beta_1 * Presidential\ Liberalism_{t-1} + \epsilon$ , is utilized to extract the two components. The predicted Media Liberalism from the model represents the component in the Media Liberalism variable explained by the Presidential Liberalism variable. The  $\epsilon$  in the model represents the rest of the variation in Media Liberalism.<sup>22</sup>

Instead of the Media Liberalism variable, the two components are included in Table 7 in order to test the indirect influence of the president on the public. Hence, the dependent variable is Public Mood.<sup>23</sup> In this table, the  $\widehat{ML}_{PL}$  variable represents the information of media biases predicted by presidential rhetoric. That is, if the president affects the public through the news media, this variable should show statistical significance. The  $Resid_{MLPL}$  variable shows the variation of Media Liberalism unexplained by Presidential Liberalism.<sup>24</sup>

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<sup>22</sup>More lagged Presidential Liberalism variables can be included in the model. Adding more lagged variables does not change the findings in Table 7.

<sup>23</sup>The lagged Public Mood variable in Table 7 is to control the inertia of public opinion changes.

<sup>24</sup>Since the news media do not instantaneously respond to public opinion changes according to the MAR results, this study includes the variables as current terms. Also, to replicate Erikson, MacKuen, and Stimson (2002) and Wood (2009), the economic variables are included as current terms. These studies assume that the public cannot affect economic conditions contemporaneously.

Table 7. Indirect Presidential Leadership

<i>Variables</i>	<i>Coefficient(t)</i>
Public Mood <sub><i>t</i>-1</sub>	0.747 (15.13)
$\widehat{ML}_{PL}$	0.446 (0.49)
<i>Resid</i> <sub><i>MLPL</i></sub>	0.304 (3.50)
ICS	0.008 (2.17)
CICI	-0.298 (-2.02)
Event	0.129 (1.48)
Rep. Congress	0.179 (1.48)
Dem. Congress	0.407 (3.30)
Rep. President	0.307 (2.62)
Constant	-1.187 (-2.92)
<i>N</i>	180
<i>p(Q)</i>	0.19

Note: The dependent variable is Public Mood. “PL” represents Presidential Liberalism. “ML” represents Media Liberalism.  $\widehat{ML}_{PL}$  represents predicted Media Liberalism by Presidential Liberalism. The predicted Media Liberalism is derived from the regression model:  $ML_t = \beta_0 + \beta_1 * PL_{t-1} + \epsilon$ . *Resid*<sub>*MLPL*</sub> represents the residuals ( $\epsilon$ ) in the equation. The numbers in the table are coefficients and *t*-statistics (in parentheses). The coefficients are estimated by least squares, and the *t*-statistics are calculated by using Newey and West (1987) autocorrelation- and heteroskedasticity-consistent standard errors. *N*: Number of observations. *p(Q)*: *p* value of the *Q* statistic (Ljung and Box 1978).

The regression results in Table 7 negate the possibility that the president indirectly moves public opinion through affecting news stories. The coefficient of the  $\widehat{ML}_{PL}$  variable is positive but statistically insignificant.<sup>25</sup> According to the MAR results, the direct impact of presidential rhetoric on public opinion is very small and barely significant. This may be the reason why the indirect impact of the president on the news media is absent.

Unlike the  $\widehat{ML}_{PL}$  variable, the coefficient of the  $Resid_{MLPL}$  variable is positive and statistically significant. That is, the impact of the news media on the public is independent, which is consistent with the results in the previous sections. As argued in the theory chapter, the news media do not just transmit objective information but also independently report their views and interpret information. The results in this table may support this argument .

The results regarding economic conditions are consistent with Durr (1993), Erikson, MacKuen, and Stimson (2002), and Wood (2009). Public issue liberalism is significantly and positively affected by the public's economic perceptions. When the public perceives that economic conditions are better, they are more likely to support liberal policies. However, according to the results in this table and Wood (2009), the public tends to express more liberal preferences when the national economy is in a downturn. These economic variables are insignificant in the VAR results, where the variables are included as lagged variables. From the results, we may infer that the public is sensitive to economic conditions and instantaneously respond to changing economic conditions.

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<sup>25</sup>The Presidential Liberalism variable may be included in the model. However, adding Presidential Liberalism does not alter the findings, and the Presidential Liberalism does not show statistical significance when it is included.

### 3.2. Indirect Influence of the Public on the President

Like the presidential indirect influence on the public, it is possible to presume that the indirect impact of the public on the president is through the news media. According to the MAR simulation results, presidents tend to respond to news stories even though the responses are delayed. Also, the public seems to affect news reporting even though the impact is small and short lived. Hence, one may argue that the public can affect the president through affecting news stories. This study examines this possible argument.

Like the model in Table 7, the Media Liberalism is separated into two components. One component is predicted by the Public Mood variable:  $\widehat{ML}_{PM}$  in Table 8. To extract the predicted component of the Media Liberalism variable by the Public Mood variable, this study uses a regression model:  $ML_t = \gamma_0 + \gamma_1 * PM_{t-1} + u$ . The predicted values from the regression model is  $\widehat{ML}_{PM}$ . The residuals from the regression,  $u$ , represents the unexplained component of Media Liberalism by Public Mood, which is  $Resid_{MLPM}$  in Table 8.

To control the seasonal and autoregressive characteristics in the Presidential Liberalism series, the ARIMA approach is utilized (Box and Jenkins 1976). In Table 8, the  $AR(1)$  and  $SAR(1)$  variables represent the first-order autoregressive and first-order seasonal autoregressive components in the Presidential Liberalism series, which are statistically significant in all models. According to the  $Q$  statistic, the model successfully controls autocorrelations in the series. The political and economic conditions are also included as control variables in this table. The economic variables are included as lagged variables because presidential rhetoric may affect the public's economic perceptions and objective economic conditions according to Wood (2007). The political conditions are included as current terms.

Table 8. Indirect Presidential Responsiveness

<i>Variables</i>	<i>Coefficient(z)</i>
<i>AR</i> (1)	0.244 (3.21)
<i>SAR</i> (1)	0.411 (21.11)
$\widehat{ML}_{PM}$	0.775 (0.87)
<i>Resid</i> <sub>MLPM</sub>	0.112 (1.17)
<i>ICS</i> <sub><i>t</i>-1</sub>	-0.004 -(0.64)
<i>CICI</i> <sub><i>t</i>-1</sub>	0.204 (1.05)
Event	1.31 (1.44)
Rep. Congress	0.690 (3.39)
Dem. Congress	-0.014 (-0.06)
Rep. President	-0.760 (-6.61)
Constant	0.732 (1.07)
<i>N</i>	179
<i>p</i> ( <i>Q</i> )	0.86

Note: The dependent variable is Presidential Liberalism. To control the seasonal and autoregressive components in Presidential Liberalism, the ARIMA approach is applied (Box and Jenkins 1976). *AR*(1): Autoregressive component. *SAR*(1): Seasonal autoregressive component. “PM” represents Public Mood. “ML” represents Media Liberalism.  $\widehat{ML}_{PM}$  represents predicted Media Liberalism by Public Mood. The predicted Media Liberalism is derived from the regression model:  $ML_t = \gamma_0 + \gamma_1 * PM_{t-1} + u$ . *Resid*<sub>MLPM</sub> represents the residuals (*u*) in the equation. *N*: Number of observations. The numbers in the table are coefficients and *z*-statistics (in parentheses). *p*(*Q*): *p* value of the *Q* statistic (Ljung and Box 1978).

If the public significantly affects the president by influencing the news media, the  $\widehat{ML}_{PM}$  variable should show a significant and positive coefficient. However, unlike the presumption, the results in Table 8 illustrate that the public does not indirectly affect the president through the news media. The  $\widehat{ML}_{PM}$  variable show a positive but insignificant coefficient (0.775, t:0.87). Along with the Granger causality and MAR results, the results in this table seem to confirm that presidents are irresponsive to public opinion changes in general.

Like the VAR results, presidential rhetoric is significantly explained by presidential partisanship. Republican presidents speak conservatively, and Democratic presidents tend to send more liberal messages. The economic conditions do not significantly affect presidential rhetoric.<sup>26</sup> Presidents tend to ignore the public's economic perceptions and objective economic conditions when they speak about domestic policies.

The regression results in this section general illustrate that the indirect influence between the president and the public through the news media is absent. Even though presidents may affect news stories, it is unlikely to affect the public through the news media. This may be because the impact of the president on the news media is slight, and because the news media send messages independent of presidential rhetoric. Likewise, the public does not affect presidential issue stances directly and indirectly. Generally, presidents seem to ignore public opinion changes.

#### 4. The News Media Intervening in Presidential Responsiveness and Leadership

Beyond the question, "who affects whom?", this study is interested in whether and how the news media intervene in the relationship between the president and the

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<sup>26</sup>When the economic variables are included as current terms, the variables do not show statistical significance.



public. This study argues that the news media can condition presidential leadership of and responsiveness to the public. This section presents the regression results regarding the conditional effects of the news media on presidential leadership and responsiveness. To examine how the news media interactively affect the president and the public, this study utilizes interaction models. In this section, this study addresses the question: When are presidential leadership of and responsiveness to the public likely to be observed?

#### 4.1. News Media and Presidential Leadership

Table 9 reports the regression results regarding presidential leadership of the public based on two interaction models.<sup>27</sup> Hence, the dependent variable is Public Mood in the models.<sup>28</sup> In this table, Presidential Liberalism is interacted with Media Liberalism in order to examine whether and how the president and the new media interactively affect the public. Besides these two variables, political and economic conditions are included as control variables, which are used in the previous Granger causality test and MAR simulations.

Table 9 presents the test results from two different interaction models:  $PL_1ML_1$  and  $MLPL_1$ . In the second column of this table, the lagged Presidential Liberalism and lagged Media Liberalism variables are interacted. This interaction represents the case in which the president and the news media simultaneously move.

According to the MAR results in Figure 10, the news media and the president

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<sup>27</sup>The models are estimated by least square methods. To control possible autocorrelations between residuals, this study uses Newey and West (1987) autocorrelation- and heteroskedasticity-consistent standard errors. The Ljung and Box (1978) Q statistics show that the null hypothesis (No autocorrelation between the residuals after regression) cannot be rejected in all models in the table.

<sup>28</sup>To control the inertia of public opinion changes, the lagged Public Mood variable is included in the models.

Table 9. News Media and Presidential Leadership of the Public

<i>Variables</i>	<i>PL<sub>1</sub>ML<sub>1</sub></i>	<i>MLPL<sub>1</sub></i>
Public Mood <sub><i>t</i>-1</sub>	0.752 (15.76)	0.747 (15.50)
Pres. Liberalism <sub><i>t</i>-1</sub>	0.033 (0.48)	0.010 (0.16)
Media Liberalism <sub><i>t</i>-1</sub>	0.174 (1.76)	
PL <sub><i>t</i>-1</sub> *ML <sub><i>t</i>-1</sub>	-0.191 (-1.86)	
Media Liberalism <sub><i>t</i></sub>		0.302 (3.61)
ML <sub><i>t</i></sub> *PL <sub><i>t</i>-1</sub>		0.015 (0.12)
ICS	0.010 (2.58)	0.008 (2.24)
CICI	-0.330 (-2.45)	-0.297 (-2.12)
Event	0.139 (1.50)	0.128 (1.47)
Rep. Congress	0.142 (1.15)	0.180 (1.43)
Dem. Congress	0.413 (3.34)	0.407 (3.30)
Rep. President	0.309 (2.71)	0.307 (2.61)
Constant	-1.306 (-3.21)	-1.186 (-2.97)
<i>N</i>	181	180
<i>p</i> ( <i>Q</i> )	0.38	0.37
<i>AIC</i>	667.66	658.51

Note: Dependent variable: Public Mood. “PL” represents Presidential Liberalism. “ML” represents Media Liberalism. “\*” represents interaction. The numbers in the table are coefficients and *t*-statistics (in parentheses). The coefficients are estimated by least squares, and the *t*-statistics are calculated by using Newey and West (1987) autocorrelation- and heteroskedasticity-consistent standard errors. *N*: Number of observations. *p*(*Q*): *p* value of the *Q* statistic (Ljung and Box 1978).

positively affect the public even though the impact of presidential rhetoric on public opinion is small. Hence, it may be plausible to hypothesize that the public is more likely to be influenced by both the president and the news media when they move together (synergy effect). On the contrary, it is also reasonable to argue that the public may react to the simultaneous movement of the president and the news media because the public does not want radical social/policy changes. That is, the public may thermostatically check the simultaneous movement of the news media and the president.<sup>29</sup>

The synergy effect of the news media and the president on the public can be examined from the interaction term ( $PL_{t-1} * ML_{t-1}$ ) in Table 9. This interaction variable is negative and statistically significant. These results mean that the public negatively reacts to the simultaneous movement of the president and the news media. The president and the news media do not more successfully move public opinion when they simultaneously send similar messages.<sup>30</sup>

The negative interaction term demonstrates that the president negatively conditions the impact of the news media on the public, and vice versa. For instance, when the news media sent one standard deviation more liberal messages from their mean level, and presidents sent two standard deviations more liberal messages, then

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<sup>29</sup> Wlezien (1995) reveals that the public thermostatically reacts to government spending. For instance, when defense spending is increased, the public tends to express preference for less defense spending.

<sup>30</sup> Certainly, when both the president and the news media increased liberal messages at the same time, the public may move toward the liberal side. Simply assume that both the president and the public moved to the liberal side about one standard deviation. In this case, the total impact of the simultaneous movement on the public is  $0.016 (= 0.033 (\text{Presidential Liberalism}_{t-1} = 1) + 0.174 (\text{Media Liberalism}_{t-1} = 1) - 0.191 (\text{Interaction} = 1))$ , which means the public moves toward the liberal side. However, also note that the lagged Presidential Liberalism variable is statistically insignificant. If this variable is regarded as zero, the total impact is -0.017.

the public expresses more conservative preferences rather than liberal preferences.<sup>31</sup>

In other words, the negative interaction term in the second column implies that the public tends to thermostatically react to the simultaneous movement of the president and the public. When the president and the news media simultaneously moved to one direction, the public seems skeptical about the movement and reacts to the movement. The results in the second column in Table 9 seem to support the “thermostat” theory (Wlezien 1995).

The results in the second column also illustrate that the news media independently and significantly affect the public. Assume that the president did not move, but the news media sent one standard deviation more liberal news stories. Then, the public responds to this increase in liberal news stories and expresses more liberal issue preferences. The coefficient of the lagged Media Liberalism variable is 0.174, which is statistically significant ( $t=1.76$ ) at the  $\alpha$  level .10.<sup>32</sup> These results are consistent with the MAR results that the news media independently affect the public.

Another case is that the media did not move, but the president sent more liberal messages. In this instance, according to the MAR results, the public may positively respond to the president (Set the lagged Media Liberalism variable as zero, then the interaction term is also zero.). The sign of the Presidential Liberalism variable is positive but statistically insignificant. That is, presidents do not independently affect the public, which is also somewhat consistent with the Granger causality test and MAR simulation results.

The results from the  $PL_1ML_1$  model show how the president and the news media interactively affect the public. However, this model does not systematically

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<sup>31</sup> $0.033*2+0.174*1-0.191*2=-0.142$ . When the lagged Presidential Liberalism is regarded as zero, the total impact is -0.208

<sup>32</sup>Note that if  $Presidential\ Liberalism_{t-1}=0$ ,  $PL_{t-1}*ML_{t-1}=0$ .

test whether and how the news media condition presidential leadership of the public. Because it uses time-series data, this study can analyze the interaction between the president and the news media by considering the order of the actors' movement.

The  $MLPL_1$  model interacts the current Media Liberalism variable with the lagged Presidential Liberalism variable. This interaction indicates that the president moves first, and the news media move next.<sup>33</sup> In other words, this model considers the president as the first mover as presented in the second chapter.<sup>34</sup> This interaction helps to systematically address the question: Do the news media condition the effects of presidential rhetoric on public issue liberalism?

This study argues that the news media can amplify or diminish the influence of the president on the public by producing consonant or dissonant news stories with presidential messages. If the news media positively condition presidential leadership of the public, the interaction term in the third column ( $ML_t * PL_{t-1}$ ) will show a positive sign. As expected, the sign of the interaction term is positive. However, the conditional impact is statistically insignificant, which means that the news media do not amplify or diminish presidential leadership.

The results in Table 9 do not support the theory that the news media positively condition the effects of presidential messages on public opinion changes. Rather, the empirical findings in this section show that the public negatively reacts to the simultaneous movement of the president and the news media. For instance, if the

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<sup>33</sup>Including the current term of Media Liberalism implies that the public does not contemporaneously affect the news media, which is supported by the MAR results. In contrast, the public instantaneously responds to the news media according to the simulation results.

<sup>34</sup>The MAR simulation results show that the news media significantly affect the president. However, the impact of the president on the news media is barely significant. Hence, the current Media Liberalism variable does not contain much information about the past Presidential Liberalism.

president and the news media sent more liberal messages at the same time, the public is unlikely to rely on the messages and tends to react to the similar messages .

#### 4.2. News Media and Presidential Responsiveness

Another argument of this study is that the news media can condition presidential responsiveness to the public. According to the statistical results in the previous sections, presidents are not responsive to public opinion changes. In other words, the public does not independently affect the president. However, this does not necessarily mean that the president never responds to the public. In fact, some studies (e.g., Canes-Wrone 2006; Wood 2009) argue that under certain conditions presidents are responsive to the public. This study focuses on whether and how the news media affect presidential responsiveness to the public. Specifically, this section addresses the following question: Do presidents become more responsive to the public when the news media send news stories consonant with public opinion changes?

Table 10 reports the regression results regarding how the news media condition presidential responsiveness to the public. Hence, the dependent variable is Presidential Liberalism in the models:  $PM_1ML_1$  and  $MLPM_1$ .<sup>35</sup>

To examine how the public and the news media jointly affect the president, this study first interacts the lagged Public Mood variable and the lagged Presidential Liberalism variable.<sup>36</sup> This interaction term shows the current movement of Presidential

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<sup>35</sup>To control the seasonality and autoregressive characteristics in the Presidential Liberalism series, the ARIMA models are utilized (Box and Jenkins 1976). The  $AR(1)$  and  $SAR(1)$  variables represent the first-order autoregressive and first-order seasonal autoregressive components, which are statistically significant in all models. According to the  $Q$  statistics, no significant autocorrelation remains after regression in both models.

<sup>36</sup>The political and economic variables are also included as control variables in the models.

Table 10. News Media and Presidential Responsiveness to the Public

<i>Variables</i>	<i>PM<sub>1</sub>ML<sub>1</sub></i>	<i>MLPM<sub>1</sub></i>
<i>AR</i> (1)	0.342 (4.57)	0.316 (4.21)
<i>SAR</i> (1)	0.559 (8.22)	0.572 (8.42)
Public Mood <sub><i>t</i>-1</sub>	0.027 (0.45)	-0.006 (-0.11)
Media Liberalism <sub><i>t</i>-1</sub>	-0.047 (-0.59)	
PM <sub><i>t</i>-1</sub> *ML <sub><i>t</i>-1</sub>	-0.137 (-1.75)	
Media Liberalism <sub><i>t</i></sub>		0.053 (0.67)
ML <sub><i>t</i></sub> *PM <sub><i>t</i>-1</sub>		0.156 (1.81)
ICS <sub><i>t</i>-1</sub>	-0.000 (-0.06)	0.001 (0.34)
CICI <sub><i>t</i>-1</sub>	0.006 (0.04)	-0.108 (-0.77)
Event	-0.032 (-0.48)	-0.032 (-0.49)
Rep. Congress	0.631 (3.59)	0.691 (4.02)
Dem. Congress	0.137 (0.76)	0.199 (1.15)
Rep. President	-0.775 (-5.96)	-0.759 (-5.97)
Constant	0.387 (0.75)	-1.186 (-2.97)
<i>N</i>	174	174
<i>p</i> ( <i>Q</i> )	0.99	0.99
<i>AIC</i>	557.29	557.14

Note: The dependent variable is Presidential Liberalism. To control the seasonal and autoregressive components in Presidential Liberalism, the ARIMA models are used (Box and Jenkins 1976). *AR*(1): Autoregressive component. *SAR*(1): Seasonal autoregressive component. *N*: Number of observations. “PM” represents Public Mood. “ML” represents Media Liberalism. “\*” represents interaction. The numbers in the table are coefficients and *t*-statistics (in parentheses). *p*(*Q*): *p* value of the *Q* statistic (Ljung and Box 1978). *AIC*: Akaike’s Information Criterion.

Liberalism when the public and the news media simultaneously moved in the past. The model,  $PM_1ML_1$ , tests the synergy effect of the public and the news media on the president. The results of this interaction regression are presented in the second column in Table 10.

According to the Granger causality test and MAR simulation results, presidents seem unresponsive to public opinion changes. In contrast, the MAR results illustrate that the news media significantly affect presidential issue liberalism. Figure 10 shows that presidents positively respond to news stories even though the responses are somewhat delayed. However, these results do not tell whether presidents become responsive when the public and the news media simultaneously express similar issue preferences.

This study argues that the news media condition presidential responsiveness to the public. If presidents become more responsive when the news media report more news stories consonant with the public's issue preferences, the interaction term in the second column in Table 10 will show a positive sign. However, unlike the theoretical expectation, the interaction term,  $PM_{t-1} * ML_{t-1}$ , is negative and statistically significant. That is, presidents negatively react to the simultaneous movement of the public and the news media.

The results from the  $PM_1ML_1$  do not support the theory that the news media positively condition presidential responsiveness to the public. Rather, the results present that the news media negatively condition the influence of the public on the president. This model tests how presidents respond to the simultaneous movements of the public and the news media. Since this study utilizes time-series data, the conditional effects of the news media may be more systematically examined.

Unlike the interaction term in the  $PM_1ML_1$  model, the  $MLPM_1$  model interacts the lagged Public Mood variable with the current Media Liberalism variable in Table



10. This model shows whether the news media induce presidential responsiveness today when the public expressed its issue preferences in the past. The regression results from this model are presented in the third column.<sup>37</sup>

The interaction term ( $ML_t * PM_{t-1}$ ) in Table 10 has a positive coefficient (0.156), which is statistically significant at the  $\alpha$  level .10 ( $t=1.81$ ). These results mean that the news media significantly and positively affect presidential responsiveness to the public.

According to the results from the  $MLPM_1$  model, the past movement of the public does not influence the current presidential rhetoric if the news media do not increase or decrease liberal or conservative news stories today. Note that the coefficient of the lagged Public Mood variable is -0.006, which is statistically insignificant. As illustrated in Figure 10, the president does not instantaneously respond to the news media. Similarly, the coefficient of the current Media Liberalism is 0.053, which is not statistically significant. These results mean that the news media do not contemporaneously independently affect the president.<sup>38</sup>

When the news media increase news stories consonant with past public opinion changes, however, presidents respond to the changes. Certainly, if the news media increase news stories dissonant with past public opinion changes, presidents send more messages dissonant with public issue preferences but consonant with news stories. That is, presidential responsiveness to the public is likely to be observed when the news media increase news stories consistent with past public opinion changes.

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<sup>37</sup>According to the Granger causality test and MAR simulation results reported earlier, this order is plausible. First, the public does not Granger cause the news media. Hence, the news media can be included as a current term while the public is included as a lagged term. Second, the president rarely influences the news media contemporaneously. Hence, the news media can be included as a current term.

<sup>38</sup>Note that the responses of the president to the news media are somewhat delayed (about 2-3 quarters).

The ARIMA results in Table 10 illustrate that presidential responsiveness is somewhat complex. When the public and the news media simultaneously moved to the same direction in the last quarter, presidents tend to react to this movement in this quarter. In other words, presidents thermostatically react to the simultaneous movement of the news media and the public. This finding may not support the positive conditional impact of the news media on presidential responsiveness to the public. However, when the public's issue preferences are expressed in the last quarter, the news media affect presidential responsiveness to the public. When news stories are consonant with past public opinion changes, presidents tend to send messages consonant with public opinion changes.

## 5. Conclusions

This chapter introduces the statistical results from the VAR, Granger causality test, and MAR simulations. The most prominent finding regarding the relationship between the president, the news media, and the public is the impact of the news media on the public. This study argues that the news media move public opinion since the public receives most of their political information from the news media. According to the test results, political biases in news stories Granger cause public opinion changes. Also, changes in media bias significantly forecast changes in the public's issue stances. When the news media send more liberal news stories, the public's policy sentiments tend to move toward the liberal side.

As well as the public, presidents seem to respond to the news media. Presidents have incentives to respond to news stories in order to earn public support or avoid losing it. This argument is supported by the MAR results: Media Liberalism significantly affects Presidential Liberalism. That is, when the news media report more

liberal news stories, presidents also tend to send more liberal messages by responding to the increase in liberal news stories.

The president, however, seems to not directly affect the news media. As argued in the theory chapter, the news media index various information sources and interpret presidential messages. Hence, presidential influence on news stories is weak even though the president is one of the major news sources. According to the Granger causality test and MAR simulation results, presidential rhetoric does not affect media bias. That is, even though presidents send more liberal messages, the news media do not significantly report more or fewer liberal news stories.

As the news media ignore presidential rhetoric, the news media rarely significantly consider public opinion changes while making news. This study theorizes that the news media may positively respond to public opinion changes. However, the empirical results do not support this argument. Rather, the results show that the public has little direct effect on the media, which imply that the news media tend to act like opinion leaders rather than representatives. Note that the news media significantly, positively affect the public.

As the news media are unresponsive to the public, presidents seem to be unresponsive to public opinion changes. In other words, the public has no direct effect on the president. Some scholars (e.g., Stimson, Mackuen, and Erikson 1995; Erikson, MacKuen, and Stimson 2002) argue that presidents respond to the public because presidents can earn public support by responding to the public. On the contrary, others (e.g., Jacobs and Shapiro 1995; Wood 2009) insist that presidents tend to lead public opinion rather than follow it or respond to their partisan issue stances. The results in this study illustrate that presidents do not significantly respond to the public.

Neither does the public positively, significantly respond to the president. Pres-

idential leadership, according to the theory in this study, is rarely observed because presidential messages are generally indirectly transmitted to the public through the news media. The test results support this argument and show that presidential messages do not significantly explain public opinion changes. These results imply that direct, independent presidential leadership of the public is absent. In sum, the direct relationship between the president and the public is weak. However, this does not necessarily mean that the indirect relationship between the president and the public is also absent.

Beyond the direct relationship between the president and the public, this study examines whether or not the president indirectly influences the public. The regression results in this chapter show that the president does not indirectly affect the public through the media. Even though there is a slight chance that presidents can affect the news media, they cannot significantly move public opinion by affecting the news media, which may be because the impact of presidential rhetoric on news stories is too small and barely significant. In addition, the news media do not significantly, positively condition presidential leadership of the public. Rather, the public seems to negatively react to the simultaneous movement of the news media and the president in the past. That is, when both the president and the news media simultaneously sent liberal messages yesterday, the public tends to express more conservative policy sentiments today.

Unlike the insignificant results regarding the indirect impact of the president on the public, there is some evidence that public opinion indirectly affects the president through the media. Specifically, when the public expressed more liberal policy sentiments in the past, presidents tend to send more liberal messages if the news media report liberal news stories today. That is, presidents become responsive to the public when the news media send consonant news stories with past public opinion changes.

However, when the news media and the public simultaneously move toward one direction in the past, the president seems to move toward the other direction today. On the other hand, as the president does not indirectly move public opinion by affecting the news media, neither does the public influence presidential issue stances by affecting news stories. In sum, presidential responsiveness to the public is likely to be observed when current news stories are consistent with past public opinion changes.

## CHAPTER V

### CONCLUSIONS

This study begins with two fundamental questions: Do elites respond to the public? Do elites lead the public? These questions are closely associated with democratic representation and leadership. To investigate these topics, this study focuses on the relationship between the president and the public because the president is the only representative elected by the entire nation and arguably the most important individual elite in the U.S.

According to the normative representative democracy theory, presidents should respond to the public's interests because they are elected by the people. On the other hand, the president is a commander-in-chief and an elected leader, which suggests leading the public, rather than following. People expect presidents to be leaders and not passive followers. Hence, more specifically, this study addresses the following questions: Do presidents respond to the public's issue preferences? Do presidents move public opinion? When are presidential leadership of and responsiveness to the public more likely to be observed? Do the news media intervene in the relationship between the president and the public?

#### 1. Study Summary

Presidential leadership of and responsiveness to the public have been investigated by numerous studies. Some (e.g., Erikson, MacKuen, and Stimson 2002; Canes-Wrone and Shotts 2004) argue that beyond the normative rationale, presidents have incentives to respond to the public's issue preferences. If presidents respond to the public, the public rewards presidential responsiveness with supporting presidential agendas and reelection. On the other hand, others argue that presidents do not need

to respond to the public's issue preferences to earn public support. According to Wood (2009), presidents usually have enough (potential) public support to enable following their own partisan preferences. Further, Wood argues that presidents can attempt to lead public preferences, rather than being passive followers of public opinion. Jacobs and Shapiro (2000) also argue that presidents tend to move public opinion rather than follow it. Furthermore, studies found that some factors condition presidential leadership (e.g., Page, Shapiro, and Dempsey 1987; Ostrom and Simon 1989; Cohen and Hamman 2003; Canes-Wrone 2006) and responsiveness (e.g., Canes-Wrone and Shotts 2004; Canes-Wrone 2006; Rottinghaus 2006; Wood 2009).

Despite the large number of empirical studies on presidential behavior, we cannot assert whether the president leads and/or responds to the public. Previous empirical studies on presidential leadership and responsiveness found mixed and contradictory evidence. This study points out that the mixed and contradictory results might be caused by two things. One is the reciprocity between the president and the public. The other possible cause is an omitted variable.

This study argues that the news media are critical to understanding the relationship between the president and the public because political information generally flows between the president and the public through the news media.

By considering the potentially reciprocal relationships among the president, the news media, and the public, this study investigates who affects whom. The Granger causality test results reported in previous chapters show that the news media significantly Granger cause the public, but not vice versa. The president and the public do not Granger cause each other. Neither do the president and the public Granger cause the news media. The Granger test results show that news stories in the past significantly affect the public's current policy sentiments.

Because the Granger test has some limitations, however, this study alternatively

uses the MAR methods to examine who affects whom. The MAR results generally support the theories presented in Chapter II. According to the MAR results, the news media significantly affect the president and the public. When the news media report more liberal news stories, the public positively responds to them. Likewise, the president sends more liberal messages after the news media report more liberal news stories. However, according to the MAR results, the direct relationship between the president and the public is weak or absent in general.

Along with the topic, who affects whom, this study examines whether and how the news media affect presidential leadership of and responsiveness to the public. According to the interaction regression results in Table 10, presidential responsiveness is likely to be observed when the news media increase news stories consonant with past public opinion changes. However, when the news media and the public simultaneously express more liberal or conservative preferences, presidents tend to negatively react to the movements. Similarly, the public thermostatically reacts to the simultaneous movement of the president and the news media.

## 2. News Media: Information Interpreters?

This study argues that the news media interpret objective information, and the interpreted information affects the other actors specifically, the public. This argument seems to be supported by the VAR results. The public's responsiveness to economic conditions may be an example illustrating that the public is affected by the interpreted information. Previous studies (Erikson, MacKuen, and Stimson 2002; Wood 2009) show that the public responds to different economic conditions in different manners. The VAR results in Table 17 in the Appendix also show that the public conservatively responds to high inflation when only Presidential Liberalism and Public Mood are



included in the VAR system. However, these results are changed by considering the news media as another endogenous variable in the VAR system (Table 5). When the news media are considered as another endogenous variable, the inflation rate does not affect the public's issue stances.

The change may be caused by the significant responsiveness of the news media to inflation as reported in Table 4. The news media report more conservative news stories as the inflation rate increases. The Granger test and MAR results show that the public is significantly affected by news stories. That is, the public's significant response to inflation observed in Table 17 may just reflect the significant response of the news media to inflation.

These results seem to support the argument that events rarely speak for themselves (Page and Shapiro 1992), and the public may be influenced by the interpreted information. According to the VAR results, the public does not respond to political events. However, these results do not necessarily mean that the public ignores objective conditions and relies on interpreted information. In fact, the public significantly and contemporaneously responds to the general economic state of the nation according to the results in Table 7 and 9. Rather, from the results we can infer that the public tends to respond to objective conditions or events as long as the conditions or events are easy to perceive and understand. When objective conditions or events do not have conventional meanings and need to be interpreted, the public may rely on interpreted information.

This study, in sum, shows that the manner in which the news media interpret economic and political events is critical to understanding public opinion changes. The public may not correctly recognize the meanings of political events if the news media misinterpret or disregard the events (Bartels 1994). These results seem to confirm the argument that the news media play a role of the public's eyes and ears.

### 3. News Media: Fourth Branch of Government?

The news media are often regarded as a fourth branch of government (e.g., Carter 1959) and can affect policy making (e.g., Graber 2006). Then, do the news media act like a fourth branch of government or affect policy making in reality? The empirical findings in this study provide answers to this question.

The expression “fourth branch of government” means that the news media check a dominant power in the political arena. If the news media act like a fourth branch of government, the news media may negatively react to a dominant party. For instance, if the Democratic/Republican party holds both the presidency and Congress, the news media should report more conservative/liberal news stories to check the dominant party.

According to the VAR results in this study, the news media independently report news stories no matter who controls both the presidency and Congress. Moreover, the news media seem to ignore political conditions in general. These results imply that the news media do not check a dominant party and act like a fourth branch of government.

The same results, however, imply that the news media independently report social issues regardless of who controls the presidency and Congress. That is, the news media are not influenced by a dominant party and congressional issue positions and do not just represent the interests of a dominant political power. The independent news media may reflect the presence of press freedom even though this freedom is not actively used by the news media: checking a dominant power.

The unresponsiveness of the news media to political conditions does not necessarily mean that the news media cannot be considered as political actors. Rather than directly reacting to a dominant party, the news media seem to lead society ac-

according to the national economic conditions. The news media seem to recognize that specific economic problems need specific prescriptions. The VAR results show that liberal news stories are increased as the unemployment rate increases. Also, more conservative news stories are reported when the inflation rate increases. These results illustrate that the news media try to guide society and policies according to the national economic environment.

This study reveals that the news media directly and significantly affect both the president and the public. The significant effects of the news media on presidential rhetoric and public opinion imply that the news media can influence politics. As long as the president is an important policy maker, the news media should be considered as significant political actors affecting policy making because presidential issue liberalism is influenced by news stories. On the other hand, moving public opinion, the news media can affect policy making as long as lawmakers are concerned about their constituency opinion (Miller and Stokes 1963).

The findings in this study, in sum, illustrate that the news media may affect policy making by influencing presidential issue stances and public policy sentiments. The influence of the news media seems independent from other actors, such as the president and the public. Neither are the news media affected by a dominant political power. That is, the news media independently interpret economic and political events, which in turn affects presidential issue stances and public policy sentiments.

#### 4. News Media in Democracy

In democracy, the news media are often considered as the public's eyes and ears. That is, one of the functions the news media perform in democracy is informing the public about events and issues (Graber 2006; Iyengar and McGrady 2007). Furthermore,

the news media “is to serve as a ‘watchdog’ on behalf of citizens, scrutinizing the actions of government officials and blowing the whistle when those officials cross the bounds of political propriety” (Iyengar and McGrady 2007). The watchdog, civic, journalism intends to resolving social/political problems by influencing politicians and/or citizens.

The results in this study show that the news media seem to do their jobs. Or, at least, the empirical findings illustrate that the news media have potential to affect policy making. Both the president and the public are significantly affected by the news media. Then, do the news media use their potential for the public? Certainly, the private news media do not have to represent the public’s interests even though the Communication Act states that the media “serve the public interest, convenience, and necessity.”<sup>1</sup> The news media are not the representatives elected by the public.

Even though the news media do not have to represent public interests and cannot directly participate in policy making, the news media may indirectly enhance democratic representation. If the news media are more responsive to public opinion changes, the news media may serve “the public interest” by affecting presidential responsiveness to the public. As presented in the result chapter, the direct relationship between the president and the public is generally insignificant. In other words, the president does not directly respond to the public. As Wood (2009) concludes, presidential representation seems to be a myth. However, this study shows that presidential responsiveness to the public is more likely when the news media report more news stories consonant with expressed public opinion. In other words, the news media can increase presidential responsiveness to the public.

If responsive presidents are more likely to be serve “the public interest” than

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<sup>1</sup>The Communication Act does not state about “the public interest” in detail.

unresponsive presidents, the news media can also serve “the public interest” by supporting/reflecting public opinion changes in news stories. The news media, however, seem apathetic about the public. In reality, the news media tend to move public opinion rather than respond to it. If the news media should be the mouse of the public as well as the eyes and ears, the news media need to be more responsive to public opinion changes and make more news congruent with them. The responsive news media may finally improve democratic representation in democracy.

Responding to the public does not mean that the news media need to appeal the public to raise their ratings and readership. Bennett (2008) argues that the news media “dramatize” and “personalize” social issues in news stories in order to appeal their audiences. This sensationalization trivializes social problems and makes the public ignorant about the problems. In this study, responding to the public means introducing and supporting public opinion changes in news. By doing so, the news media can fulfill one of their missions: “serving the public interest.”

This study shows that media power in politics is not a myth or minimal. The news media significantly affect presidential rhetoric and public opinion. Even though this does not necessarily confirm that the news media positively work in the democratic process, the news media seem to do their jobs in terms of “independent journalism.” Although news stories are often politically biased, the news media are not bossed by certain political conditions or power. Rather, the news media seem to independently guide society. This study also reveals that the news media can positively affect presidential responsiveness to the public, which may imply that the news media can contribute to democratic representation.

## 5. Future Studies

One of the purposes of this study is to address the question: who affects whom between the president, the news media, and the public? Even though the empirical results of this study shed light on presidential responsiveness and leadership in the democratic process, there are remaining questions related to presidential responsiveness and leadership. Focusing on the general aspects of the relationships between the president, the news media, and the public, this study does not test the possibility that the relationships between the three actors may vary across issues. According to agenda setting studies (Wood and Peake 1998; Edwards and Wood 1999; Peake 2001; Eshbaugh-Soha and Peake 2005), the influence of one actor to others varies across issues. Likewise, presidential responsiveness and leadership may vary across issues. For instance, if the president generally possesses dominant information regarding specific issues compared to other actors, the president is likely to influence other actors with respect to the issues.

Issue salience and difficulty may also affect presidential responsiveness and leadership (Hurley and Hill 2003). Elites are more likely to affect the public when issues are relatively new and difficult for the public because elites have more and better information than the public. In contrast, if issues are relatively easy and well known, elites tend to respond to the public rather than persuade them. Similarly, the relationship between the president and the news media may also vary across time because information asymmetry can be altered depending on situations. For instance, when a new program is issued by the president, the president is likely to have more information than other actors regarding the program (issue). Also, the information asymmetry can be changed as the news media index various information sources. In sum, the relationship between the president and the news media may vary across

issues and time. These topics are worthy to understand the relationship between the president and the news media in detail.

Another interesting subject is the consequences of presidential leadership and responsiveness. Scholars presume that presidential leadership and/or responsiveness affect presidential popularity. Studies on presidential responsiveness to the public assume that presidents respond to the public's issue preferences in order to earn public support. This study also considers that presidents have incentives to respond to news stories to earn public support or avoid losing it. On the other hand, presidents try to move public opinion to earn public support. Successful leadership implies high popularity for presidents. These assumptions are empirically testable with the data sets this study utilizes. That is, we can empirically examine whether and how presidential leadership and responsiveness affect presidential popularity.

Since this study utilizes three actors' issue stances, it is possible to examine changes in the three actors' issue preferences. If the president successfully leads or responds to the public, they will move to the same direction. Then, the president may earn public support. Similarly, if the president successfully leads or responds to the news media, they will move to the same direction. As a result, the president may earn public support. A future study can investigate whether or not presidents affect their own popularity by leading/responding to the public and/or the news media. This subject is important to explaining presidential popularity as well as presidential responsiveness/leadership.

## 6. Conclusion

This chapter concludes this study by reviewing the research questions, theories, study design, and results. In addition, this chapter discusses the implications of the empiri-

cal findings. From the test results, we can understand that presidential responsiveness to the public may be indirect through the news media. This also implies that the news media critically affect policy making and intervene in the democratic process. The manner in which the news media report social issues and interpret objective conditions including presidential messages and public opinion changes is critical to understanding public opinion changes and presidential issue stances.



## REFERENCES

- Akaike, Hirotogu. 1973. "Information Theory and the Extension of the Maximum Likelihood Principle." *Paper read at 2nd International Symposium on Information Theory, at Budapest* .
- Alesina, Alberto, and Howard Rosenthal. 1995. *Partisan Politics, Divided Government, and the Economy*. Cambridge, MA: Cambridge University Press.
- Althaus, Scott L., Jill A. Edy, and Patricia F. Phalen. 2001. "Using Substitutes for Full-Text News Stories in Content Analysis: Which Text is Best?" *American Journal of Political Science* 45(3): 707–724.
- Bailey, Michael A. 2007. "Comparable Preference Estimates across Time and Institutions for the Court, Congress, and Presidency." *American Journal of Political Science* 51(3): 433–438.
- Barnhurst, K. G., and Diana C. Mutz. 1997. "American Journalism and the Decline in Event-Centered Reporting." *Journal of Communication* 47(4): 27–53.
- Bartels, Larry M. 1993. "Message Received: The Political Impact of Media Exposure." *American Political Science Review* 87(2): 267–285.
- Bartels, Larry M. 1994. "The American Public's Defense Spending Preferences in the Post-Cold War Era." *Public Opinion Quarterly* 58(4): 479–508.
- Bartels, Larry M. 1996. "Politicians and the Press: Who Leads, Who Follows?" *Presented at the Annual Meeting of the American Political Science Association, San Francisco* .

- Bartlett, James E., Joe W. Kotrlik, and Chadwick C. Higgins. 1994. "Organizational Research: Determining Appropriate Sample Size in Survey Research." *Information Technology, Learning, and Performance Journal* 19(1): 43–50.
- Beck, Paul Allen, Russell J. Dalton, Steven Greene, and Robert Huckfeldt. 2002. "The Social Calculus of Voting: Interpersonal, Media, and Organizational Influences on Presidential Choices." *American Political Science Review* 96(1): 57–73.
- Behr, Roy L., and Shanto Iyengar. 1985. "Television News, Real-World Cues, and Changes in the Public Agenda." *Public Opinion Quarterly* 49(1): 38–57.
- Bennett, W. Lance. 1990. "Toward a Theory of Press-State Relations in the United States." *Journal of Communication* 40(2): 103–125.
- Bennett, W. Lance. 2008. *News: The Politics of Illusion*. 8 ed. New York: Longman.
- Berelson, Bernard, Paul F. Lazarsfeld, and William N. McPhee. 1954. *Voting: A Study of Opinion Formation in a Presidential Campaign*. Chicago: University of Chicago Press.
- Berkowitz, Dan. 1997. *Social Meanings of News: A Text-Reader*. London: Sage Publications.
- Blood, Debora J., and Peter C.B. Phillips. 1995. "Recession Headline News, Consumer Sentiment, the State of the Economy and Presidential Popularity: A Time Series Analysis 1989-1993." *International Journal of Public Opinion Research* 7(1): 2–22.
- Bond, Jon R., and Richard Fleisher. 1990. *The President in the Legislative Arena*. Chicago: University of Chicago Press.

- Box, George E.P., and Gwilym M. Jenkins. 1976. *Time Series Analysis: Forecasting and Control*. Oakland, CA: Holden-Day.
- Brown, Jane Delano, Carl R. Bybee, Stanley T. Wearden, and Dulcie Murdock Straughan. 1987. "Invisible Power: Newspaper News Sources and the Limits of Diversity." *Journalism Quarterly* 64(1): 45–54.
- Burstein, Paul. 2003. "The Impact of Public Opinion on Public Policy: A Review and an Agenda." *Political Research Quarterly* 56(1): 29–40.
- Canes-Wrone, Brandice. 2006. *Who Leads Whom?: Presidents, Policy, and the Public*. Chicago: University of Chicago Press.
- Canes-Wrone, Brandice, and Kenneth W. Shotts. 2004. "The Conditional Nature of Presidential Responsiveness to Public Opinion." *American Journal of Political Science* 48(4): 690–706.
- Canes-Wrone, Brandice, Michael C. Herron, and Kenneth W. Shotts. 2001. "Leadership and Pandering: A Theory of Executive Policymaking." *American Journal of Political Science* 45(3): 532–550.
- Carter, Douglass. 1959. *The Fourth Branch of Government*. Cambridge, MA: The Riverside Press.
- Clinton, Joshua, Simon Jackman, and Douglas Rivers. 2004. "The Statistical Analysis of Roll Call Data." *American Political Science Review* 98(2): 355–370.
- Cochran, W. G. 1977. *Sampling Techniques*. New York: John Wiley & Sons.
- Cohen, Bernard C. 1963. *The Press and Foreign Policy*. Princeton, NJ: Princeton University Press.

- Cohen, Jeffrey E. 1995. "Presidential Rhetoric and the Public Agenda." *American Journal of Political Science* 39(1): 87–107.
- Cohen, Jeffrey E. 1999. *Presidential Responsiveness and Public Policy-Making: The Public and the Policies that Presidents Choose*. Ann Arbor, MI: University of Michigan Press.
- Cohen, Jeffrey E., and John A. Hamman. 2003. "The Polls: Can Presidential Rhetoric Affect the Public's Economic Perceptions?" *Presidential Studies Quarterly* 33(2): 408–422.
- Conference-Board. 2001. *Business Cycle Indicators Handbook*. New York: Conference Board.
- Cook, Fay Lomax, Jason Barabas, and Benjamin I. Page. 2002. "Invoking Public Opinion: Policy Elites and Social Security." *Public Opinion Quarterly* 66(2): 235–264.
- Cook, Timothy E. 1998. *Governing with the News*. Chicago: The University of Chicago Press.
- Dalton, Russell J., Paul A. Beck, and Robert Huckfeldt. 1998. "Partisan Cues and the Media: Information Flow in the 1992 Presidential Election." *American Political Science Review* 92(1): 111–126.
- De Boef, Suzanna, and Paul M. Kellstedt. 2004. "The Political (and Economic) Origins of Consumer Confidence." *American Journal of Political Science* 48(4): 633–649.
- Dickey, David A., and Wayne A. Fuller. 1979. "Distribution of the Estimators for Autoregressive Time Series with a Unit Root." *Journal of the American Statistical*

- Association* 74(2): 427–431.
- Dickey, David A., and Wayne A. Fuller. 1981. “Likelihood Ratio Statistics for Autoregressive Time Series with a Unit Root.” *Econometrica* 49(3): 1057–1072.
- Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Harper.
- Druckman, James N. 2001a. “The Implications of Framing Effects for Citizen Competence.” *Political Behavior* 23(3): 225–256.
- Druckman, James N. 2001b. “On the Limits of Framing Effects: Who Can Frame?” *Journal of Politics* 63(4): 1041–1066.
- Druckman, James N. 2004. “Political Preference Formation: Competition, Deliberation, and the (Ir)relevance of Framing Effects.” *American Political Science Review* 98(4): 671–686.
- Druckman, James N., and Justin W. Holmes. 2004. “Does Presidential Rhetoric Matter? Priming and Presidential Approval.” *Presidential Studies Quarterly* 34(4): 755–778.
- Druckman, James N., and Kjerstern R. Nelson. 2003. “Framing and Deliberation: How Citizens’ Conversations Limit Elite Influence.” *American Journal of Political Science* 47(4): 729–745.
- Dunwoody, Sharon, and Steven Shields. 1986. “Accounting for Patterns of Selection of Topics in Statehouse Reporting.” *Journalism Quarterly* 63(3): 488–496.
- Durr, Robert H. 1993. “What Moves Policy Sentiment?” *American Political Science Review* 87(1): 158–170.

- Edwards, George C. III. 1980. *Presidential Influence in Congress*. San Francisco: W.H. Freeman and Company.
- Edwards, George C. III. 2003. *On Deaf Ears: The Limits of the Bully Pulpit*. New Haven, CT: Yale University Press.
- Edwards, George C. III, and B. Dan Wood. 1999. "Who Influences Whom?: The President, Congress, and the Media." *American Political Science Review* 93(2): 327–344.
- Edwards, George C. III, and Stephen J. Wayne. 1985. *Presidential Leadership: Politics and Policy Making*. New York: St. Martin's Press.
- Edy, Jill A., and Patrick C. Meirick. 2007. "Wanted, Dead or Alive: Media Frames, Frame Adoption, and Support for the War in Afghanistan." *Journal of Communication* 57(1): 119–141.
- Enders, Walter. 2004. *Applied Econometric Time Series*. 2 ed. Hoboken, NJ: Wiley.
- Erbring, Lutz, Edie N. Goldenberg, and Arthur H. Miller. 1980. "Front-Page News and Real-World Cues: A New Look at Agenda-Setting by the Media." *American Journal of Political Science* 24(1): 16–49.
- Erikson, Robert S. 1976. "The Influence of Newspaper Endorsements in Presidential Elections: The Case of 1964." *American Journal of Political Science* 20(2): 207–233.
- Erikson, Robert S. 1978. "Constituency Opinion and Congressional Behavior: A Reexamination of the Miller-Stokes Representation Data." *American Journal of Political Science* 22(3): 511–535.

- Erikson, Robert S., Michael B. MacKuen, and James A. Stimson. 2002. *The Macro Polity*. Cambridge, MA: Cambridge University Press.
- Eshbaugh-Soha, Matthew. 2003. "Presidential Press Conferences over Time." *American Journal of Political Science* 47(2): 348–353.
- Eshbaugh-Soha, Matthew, and Jeffrey S. Peake. 2005. "Presidents and Economic Agenda." *Political Research Quarterly* 58(1): 127–138.
- Fenno, Richard F. 1973. *Congressmen in Committees*. Boston: Little, Brown.
- Fiorina, Morris P. 1981. *Retrospective Voting in American National Elections*. New Haven, CT: Yale University Press.
- Fishman, Mark. 1980. *Manufacturing the News*. Austin, TX: University of Texas Press.
- Freeman, John R., John T. Williams, and Tse-min Lin. 1989. "Vector Autoregression and the Study of Politics." *American Journal of Political Science* 33(4): 842–877.
- Gans, Herbert J. 2004. *Deciding What's News: A Study of CBS Evening News, NBC Nightly News, Newsweek, and Time*. 2 ed. Evanston, IL: Northwestern University Press.
- Geer, John G. 1996. *From Tea Leaves to Opinion Polls*. New York: Columbia University Press.
- Gentzkow, Matthew, and Jesse M. Shapiro. 2006. "Media Bias and Reputation." *Journal of Political Economy* 114(2): 280–316.
- Gerber, Alan, Dean Karlan, and Daniel Bergan. 2009. "Does the Media Matter? A Field Experiment Measuring the Effect of Newspapers on Voting Behavior

- and Political Opinions.” *American Economic Journal: Applied Economics* 1(2): 35–52.
- Glaros, Roberta, and Bruce Miroff. 1983. “Watching Ronald Reagan: Viewers’ Reaction to the Public Support on Television.” *Congress and the Presidency* 10(1): 25–46.
- Goidel, Robert K., and Todd G. Shields. 1994. “The Vanishing Marginals, the Bandwagon, and the Mass Media.” *Journal of Politics* 56(3): 802–810.
- Graber, Doris A. 2006. *Mass Media & American Politics*. Washington DC: CQ Press.
- Granger, Clive W.J. 1969. “Investigating Causal Relations by Econometric Models and Cross-Spectral Models.” *Econometrica* 37(3): 424–438.
- Groseclose, Tim, and Jeffrey Milyo. 2005. “A Measure of Media Bias.” *Quarterly Journal of Economics* 120(4): 1191–1237.
- Grossman, Michael Baruch, and Martha Joynt Kumar. 1981. *Portraying the President: The White House and the News Media*. Baltimore, MD: The Johns Hopkins University Press.
- Gunther, Albert C. 1998. “The Persuasive Press Inference: Effects of Mass Media on Perceived Public Opinion.” *Communication Research* 25(5): 486–504.
- Hager, Gregory L., and Terry Sullivan. 1994. “President-centered and Presidency-centered Explanations of Presidential Public Activity.” *American Journal of Political Science* 38(4): 1079–1103.
- Hallin, Daniel C. 1985. “The American News Media: A Critical Theory Perspective.” In *Critical Theory and Public Life*, ed. John Forester. Cambridge, MA: MIT Press pp. 121–146.



- Hart, Roderick. 1987. *The Sound of Leadership: Political Communication in the Modern Age*. Chicago: University of Chicago Press.
- Heith, Diane J. 1998. "Staffing the White House Public Opinion Apparatus 1969-1988." *Public Opinion Quarterly* 62(2): 165-189.
- Hetherington, Marc J. 1996. "The Media's Role in Forming Voters' National Economic Evaluations in 1992." *American Journal of Political Science* 40(2): 372-395.
- Hill, Kim Quaile. 1998. "The Policy Agendas of the President and the Mass Public: A Research Validation and Extension." *American Journal of Political Science* 42(4): 1328-1334.
- Ho, Daniel E., and Kevin M. Quinn. 2008. "Measuring Explicit Political Positions of Media." *Quarterly Journal of Political Science* 3(4): 353-377.
- Hurley, Patricia A., and Kim Quaile Hill. 2003. "Beyond the Demand-Input Model: A Theory of Representation Linkage." *Journal of Politics* 65(2): 304-326.
- Iyengar, Shanto. 1991. *Is Anyone Responsible? How Television Frames Political Issues*. Chicago: University of Chicago Press.
- Iyengar, Shanto, and Donald R. Kinder. 1987. *News That Matters*. Chicago: University of Chicago Press.
- Iyengar, Shanto, and Jennifer A. McGrady. 2007. *Media Politics: A Citizen's Guide*. New York: W.W.Norton.
- Iyengar, Shanto, Mark Peters, and Donald R. Kinder. 1982. "Experimental Demonstrations of the "Not-So-Minimal" Consequences of Television News Programs." *American Political Science Review* 76(4): 848-858.

- Jacobs, Lawrence R., and Robert Y. Shapiro. 1994. "Issues, Candidate Image, and Priming: The Use of Private Polls Kennedy's 1960 Presidential Campaign." *American Political Science Review* 88(3): 527–540.
- Jacobs, Lawrence R., and Robert Y. Shapiro. 1995. "The Rise of Presidential Polling: The Nixon White House in Historical Perspective." *Public Opinion Quarterly* 59(2): 163–195.
- Jacobs, Lawrence R., and Robert Y. Shapiro. 2000. *Politicians Don't Pander: Political Manipulation and the Loss of Democratic Responsiveness*. Chicago: University of Chicago Press.
- Jacoby, William G. 2000. "Issue Framing and Public Opinion on Government Spending." *American Journal of Political Science* 44(4): 750–767.
- Johnstone, John, Edward Slawski, and William Bowman. 1976. *The News People*. Urbana, IL: University of Illinois Press.
- Jones ed., Bryan D. 1989. *Leadership and Politics*. Lawrence, KS: University Press of Kansas.
- Kahn, Kim Fridkin, and Patrick J. Kenney. 2002. "The Slant of the News: How Editorial Endorsements Influence Campaign Coverage and Citizens' Views of Candidates." *American Political Science Review* 96(2): 381–394.
- Kellstedt, Paul M. 2000. "Media Framing and the Dynamics of Racial Policy Preferences." *American Journal of Political Science* 44(2): 239–255.
- Kernell, Samuel. 1978. "Explaining Presidential Popularity: How Ad Hoc Theorizing, Misplaced Emphasis, and Insufficient Care in Measuring One's Variables Refuted

- Common Sense and Led Conventional Wisdom Down the Path of Anomalies.” *American Political Science Review* 72(2): 506–522.
- Kernell, Samuel. 1993. *Going Public*. Washington DC: CQ Press.
- Kiewiet, D. Roderick, and Mathew D. McCubbins. 1988. “Presidential Influence on Congressional Appropriations Decisions.” *American Journal of Political Science* 32(3): 713–736.
- Kinder, Donald R. 1981. “Presidents, Prosperity, and Public Opinion.” *Public Opinion Quarterly* 45(1): 1–21.
- Kinder, Donald R., and D. Roderick Kiewiet. 1979. “Sociotropic Politics: The American Case.” *British Journal of Political Science* 11(2): 129–161.
- Kingdon, John W. 1989. *Congressmen’s Voting Decision*. 3 ed. Ann Arbor, MI: University of Michigan Press.
- Klapper, Joseph T. 1960. *The Effects of Mass Communication*. Glencoe, IL: Free Press.
- Kohut, Andrew. 2008. “But What Do the Polls Show.” In *The Politics of News The News of Politics*, ed. Denis McQuail Doris A. Graber, and Pippa Norris. Washington, D.C.: CQ Press pp. 190–207.
- Kramer, Gerald H. 1971. “Short-Term Fluctuations in U.S. Voting Behavior, 1896–1964.” *American Political Science Review* 65(1): 131–143.
- Krosnick, Jon A., and Donald R. Kinder. 1990. “Altering the Foundations of Support for the President through Priming.” *American Political Science Review* 84(2): 497–512.

- Krosnick, Jon A., and Laura A. Brannon. 1993. "The Impact of the Gulf War on the Ingredients of Presidential Evaluations: Multidimensional Effects of Political Involvement." *American Political Science Review* 87(4): 963–975.
- Kuklinski, James H., and Richard C. Elling. 1977. "Representational Role, Constituency Opinion, and Legislative Roll-Call Behavior." *American Journal of Political Science* 21(1): 135–147.
- Kwiatkowski, Denis, Peter C.B. Phillips, Peter Schmidt, and Yongcheol Shin. 1992. "Testing the Null Hypothesis of Stationarity against the Alternative of a Unit Root." *Journal of Econometrics* 54 (1-3): 159–178.
- Lazarsfeld, Paul F., Bernard Berelson, and Hazel Gaudet. 1948. *The People's Choice*. New York: Columbia University Press.
- Light, Paul Charles. 1982. *The President's Agenda*. Baltimore, MD: The Johns Hopkins University Press.
- Ljung, G. M., and G. E. P. Box. 1978. "On a Measure of Lack of Fit in Time Series Models." *Biometrika* 65(2): 297–303.
- Lütkepohl, Helmut. 2005. *New Introduction to Multiple Time Series Analysis*. New York: Springer.
- MacKuen, Michael B. 1983. "Political Drama, Economic Conditions, and the Dynamics of Presidential Popularity." *American Journal of Political Science* 27(2): 165–192.
- MacKuen, Michael B., Robert S. Erikson, and James A. Stimson. 1992. "Peasants or Bankers? The American Electorate and the U.S. Economy." *American Political Science Review* 86(3): 597–611.

- Manheim, Jarol B. 2008. "The News Shapers: Strategic Communication as a Third Force in Newsmaking." In *The Politics of News The News of Politics*, ed. Doris A. Graber, Denis McQuail, and Pippa Norris. Washington, D.C.: CQ Press pp. 98–116.
- Marsh, Catherine. 1984. "Back on the Bandwagon: The Effect of Opinion Polls on Public Opinion." *British Journal of Political Science* 15(1): 51–74.
- Martin, Andrew D., and Kevin M. Quinn. 2002. "Dynamic Ideal Point Estimation via Markov Chain Monte Carlo for the U.S. Supreme Court, 1953–1999." *Political Analysis* 10(2): 134–153.
- Mayhew, David R. 1974. *Congress: The Electoral Connection*. New Haven, CT: Yale University Press.
- McCarty, Nolan M., and Keith T. Poole. 1995. "Veto Power and Legislation: An Empirical Analysis of Executive and Legislative Bargaining from 1961 to 1986." *Journal of Law, Economics, and Organization* 11(2): 282–312.
- McClosky, Herbert, and John Zaller. 1984. *The American Ethos*. Cambridge, MA: Harvard University Press.
- McCombs, Maxwell E., and Donald L. Shaw. 1972. "The Agenda-Setting Function of Mass Media." *Public Opinion Quarterly* 36(2): 176–187.
- Meernik, James, and Michael Ault. 2001. "Public Opinion and Support for U.S. Presidents' Foreign Policies." *American Politics Research* 29(4): 352–373.
- Miller, Joanne M., and Jon A. Krosnick. 2000. "News Media Impact on the Ingredients of Presidential Evaluations: Politically Knowledgeable Citizens Are Guided by a Trusted Source." *American Journal of Political Science* 44(2): 301–315.

- Miller, Warren E., and Donald E. Stokes. 1963. "Constituency Influence in Congress." *American Political Science Review* 57(1): 45–56.
- Mondak, Jeffrey J. 1993. "Source Cues and Policy Approval: The Cognitive Dynamics of Public Support for the Reagan Agenda." *American Journal of Political Science* 37(1): 186–212.
- Mutz, Diana C. 1998. *Impersonal Influence: How Perceptions of Mass Collectives Affect Political Attitudes*. Cambridge, MA: Cambridge University Press.
- Mutz, Diana C., and Joe Soss. 1997. "Reading Public Opinion: The Influence of News Coverage on Perceptions of Public Sentiment." *Public Opinion Quarterly* 61(3): 431–451.
- Mutz, Diana C., Paul M. Sniderman, and Richard A. Brody. 1996. *Political Persuasion and Attitude Change*. Ann Arbor, MI: University of Michigan Press.
- Nadeau et al., Richard. 1999. "Elite Economic Forecasts, Economic News, Mass Economic Judgments, and Presidential Approval." *Journal of Politics* 61(1): 109–135.
- Nadeau, Richard, Edouard Cloutier, and J.H. Guay. 1993. "New Evidence about the Existence of a Bandwagon Effect in the Opinion Formation Process." *International Political Science Review* 14(2): 203–213.
- Nelson, Thomas E., and Zoe Oxley. 1999. "Issue Framing Effects and Belief Importance and Opinion." *Journal of Politics* 61(4): 1040–1067.
- Nelson, Thomas E., Rosalee A. Clawson, and Zoe Oxley. 1997. "Media Framing of a Civil Liberties Conflict and Its Effect on Tolerance." *American Political Science Review* 91(3): 567–583.

- Neustadt, Richard E. 1990. *Presidential Power and the Modern Presidents: The Politics of Leadership from Roosevelt to Reagan*. New York: Free Press.
- Newey, W., and K. West. 1987. "A Simple, Positive Semi-Definite, Heteroskedasticity and Autocorrelation Consistent Covariance Matrix." *Econometrica* 55(3): 703–708.
- Noelle-Neumann, Elisabeth. 1974. "The Spiral of Silence: A Theory of Public Opinion." *Journal of Communication* 24(2): 43–51.
- Ostrom, Charles W., and Dennis M. Simon. 1989. "The Man in the Teflon Suit? The Environmental Connection, Political Drama, and Popular Support in the Reagan Presidency." *Public Opinion Quarterly* 53(3): 353–387.
- Page, Benjamin I., Robert Y. Shapiro, and Glenn R. Dempsey. 1987. "What Moves Public Opinion?" *American Political Science Review* 81(1): 23–44.
- Page, Benjamin J., and Robert Y. Shapiro. 1992. *The Rational Public*. Chicago: University of Chicago Press.
- Patterson, Thomas E. 2008. "Political Roles of the Journalist." In *The Politics of News The News of Politics*, ed. Doris A. Graber, Denis McQuail, and Pippa Norris. Washington, D.C.: CQ Press pp. 23–39.
- Patterson, Thomas E., and Robert D. McClure. 1976. *The Unseeing Eye: The Myth of Television Power in National Elections*. New York: G.P. Putnam's Sons.
- Peake, Jeffrey S. 2001. "Presidential Agenda Setting in Foreign Policy." *Political Research Quarterly* 54(1): 69–86.
- PEW. 2004. "How Journalists See Journalists in 2004."

- Phillips, P.C.B. 1986. "Understanding Spurious Regressions in Econometrics." *Journal of Econometrics* 33(3): 311–340.
- Pitkin, Hanna. 1967. *The Concept of Representation*. Berkeley, CA: University of California Press.
- Poole, Keith T., and Howard Rosenthal. 1991. "Patterns of Congressional Voting." *American Journal of Political Science* 35(1): 228–278.
- Pritchard, D. 1992. "The News Media and Public Policy Agendas." In *Public Opinion, The Press, and Public Policy*, ed. J. D. Kennamer. New York: Praeger pp. 103–112.
- Protest, David L. 1987. *Muckraking Matters: The Societal Impact of Investigative Reporting*. Evanston, IL: Northwestern University Press.
- Protest, David L., Donna R. Leff, Stephen C. Brooks, and Margaret T. Gordon. 1985. "Uncovering Rape: The Watchdog Press and the Limits of Agenda Setting." *Public Opinion Quarterly* 49(1): 19–37.
- Ragsdale, Lyn. 1984. "The Politics of Presidential Speechmaking, 1949-1980." *American Political Science Review* 78: 971–984.
- Rottinghaus, Brandon. 2006. "Rethinking Presidential Responsiveness: The Public Presidency and Rhetorical Congruency, 1953-2001." *Journal of Politics* 68(3): 720–732.
- Segal, Jeffrey A., and Albert D. Cover. 1989. "Ideological Values and the Votes of U.S. Supreme Court Justices." *American Political Science Review* 83(2): 557–565.



- Shapiro, Robert Y., and Lawrence R. Jacobs. 2001. "Presidents and Polling: Politicians, Pandering, and the Study of Democratic Responsiveness." *Presidential Quarterly* 31(1): 150–167.
- Sheafer, Tamir. 2007. "How to Evaluate It: The Role of Story-Evaluative Tone in Agenda Setting and Priming." *Journal of Communication* 57(1): 21–39.
- Sigal, Leon V. 1973. *Reporters and Officials: The Organization and Politics of Newsmaking*. Lexington, MA: DC Heath & Co.
- Sigelman, Lee. 1980. "Gauging the Public Response to Presidential Leadership." *Presidential Studies Quarterly* 10(3): 427–433.
- Sigelman, Lee, and Carol K. Sigelman. 1981. "Presidential Leadership of Public Opinion: From 'Benevolent Leader' to Kiss of Death?" *Experimental Study of Politics* 7(1): 1–22.
- Simon, Dennis M., and Charles W. Ostrom. 1989. "The Impact of Televised Speeches and Foreign Travel on Presidential Approval." *Public Opinion Quarterly* 53(1): 58–82.
- Simon, Herbert A. 1954. "Bandwagon and Underdog Effects and the Possibility of Election Predictions." *Public Opinion Quarterly* 18(3): 245–253.
- Sims, Christopher A. 1980. "Macroeconomics and Reality." *Econometrica* 48(1): 1–48.
- Sims, Christopher A. 1988. "Bayesian Skepticism on Unit Root Econometrics." *Journal of Economic Dynamics and Control* 12(3): 463–474.
- Sims, Christopher A., and T. Zha. 1999. "Error Bands for Impulse Responses." *Econometrica* 67 (5): 1113–1156.

- Sims, Christopher A., James H. Stock, and Mark W. Watson. 1990. "Inference in Linear Time Series Models with Some Unit Roots." *Econometrica* 58(1): 113–144.
- Snyder, James M. 1992. "Artificial Extremism in Interest Group Ratings." *Legislative Studies Quarterly* 17(3): 319–345.
- Soley, Lawrence C. 1992. *The News Shapers*. New York: Praeger.
- Stimson, James A. 1991. *Public Opinion in America: Moods, Cycles, and Swing*. Boulder, CO: Westview Press.
- Stimson, James A. 1999. *Public Opinion in America: Moods, Cycles, and Swing*. 2 ed. Boulder, CO: Westview Press.
- Stimson, James A., Michael B. Mackuen, and Robert S. Erikson. 1994. "Opinion and Policy: A Global View." *PS: Political Science and Politics* 27(1): 29–35.
- Stimson, James A., Michael B. Mackuen, and Robert S. Erikson. 1995. "Dynamic Representation." *American Political Science Review* 89(3): 543–565.
- Straffin, Philip D. 1977. "The Bandwagon Curve." *American Journal of Political Science* 21(4): 695–709.
- Tipton, L. 1992. "Reporting on the Public Mind." In *Public Opinion, The Press, and Public Policy*, ed. J. D. Kennamer. New York: Praeger pp. 131–144.
- Tuchman, Gaye. 1978. *Making News: A Study in the Construction of Reality*. New York: Free Press.
- Tulis, Jeffrey K. 1987. *The Rhetorical Presidency*. Princeton, NJ: Princeton University Press.

- Tversky, Amos, and Daniel Kahneman. 1981. "The Framing of Decisions and the Psychology of Choice." *Science* 211(January): 453–458.
- Valentino, Nicholas A., Vincent L. Hutchings, and Ismail K. White. 2002. "Cues that Matter: How Political Ads Prime Racial Attitudes During Campaigns." *American Political Science Review* 96(1): 75–90.
- Wayne, Stephen J. 1982. "Expectations of the President." In *The President and the Public*, ed. Doris Graber. Pittsburgh: University of Pittsburgh Press pp. 17–38.
- Weaver, David H., and G. Cleveland Wilhoit. 1991. *The American Journalist: A Portrait of U.S. News People and Their Work*. 2 ed. Bloomington, IN: Indiana University Press.
- White, David M. 1964. "The Gatekeeper: A Case Study in the Selection of News." In *People, Society, and Mass Communications*, ed. L.A. Dexter, and D.M. White. New York: Free Press pp. 160–172.
- Wlezien, Christopherr. 1995. "The Public as Thermostat: Dynamics of Preferences for Spending." *American Journal of Political Science* 39(4): 981–1000.
- Wood, B. Dan. 2007. *The Politics of Economic Leadership: The Causes and Consequences of Presidential Rhetoric on the Economy*. Princeton, NJ: Princeton University Press.
- Wood, B. Dan. 2009. *The Myth of Presidential Representation*. Cambridge, MA: Cambridge University Press.
- Wood, B. Dan, and Alesha Doan. 2003. "The Politics of Problem Definition: Applying and Testing Threshold Models." *American Journal of Political Science* 47(4): 640–653.

- Wood, B. Dan, and Han Soo Lee. 2009. "Explaining the President's Issue Based Liberalism: Pandering, Partisanship, or Pragmatism." *Journal of Politics* 71(1): 1–16.
- Wood, B. Dan, and Jeffrey S. Peake. 1998. "The Dynamics of Foreign Policy Agenda Setting." *American Political Science Review* 92(1): 173–184.
- Wood, B. Dan, Chris T. Owens, and Brandy M. Durham. 2005. "Presidential Rhetoric and the Economy." *Journal of Politics* 67(1): 627–645.
- Woolley, John T. 2000. "Using Media-Based Data in Studies of Politics." *American Journal of Political Science* 44(1): 156–173.
- Wright, Gerald C., Robert S. Erikson, and John P. McIver. 1987. "Public Opinion and Policy Liberalism in the American States." *American Journal of Political Science* 31(4): 980–1001.
- Yates, Jeff, and Andrew Whitford. 2005. "Institutional Foundations of the President's Issue Agenda." *Political Research Quarterly* 58(4): 577–585.
- Zaller, John. 1996. "The Myth of Massive Media Impact Revived." In *Political Persuasion and Attitude Change*, ed. Diana C. Mutz, Paul M. Sniderman, and Richard A. Brody. Ann Arbor, MI: The University of Michigan Press pp. 17–78.
- Zaller, John, and Dennis Chiu. 1996. "Government's Little Helper: U.S. Press Coverage of Foreign Policy Crises, 1945-1991." *Political Communication* 13(3): 385–405.
- Zaller, John R. 1992. *The Nature and Origins of Mass Opinion*. Cambridge, MA: Cambridge University Press.

Zupan, Mark A. 1992. "Measuring the Ideological Preferences of U.S. Presidents: A Proposed (Extremely Simple) Method." *Public Choice* 73(3): 351–361.

## APPENDIX 1

## PUBLIC MOOD: RULES FOR PUBLIC SENTIMENTS CLASSIFICATION

List of Public Mood indicator survey questions arranged by policy estimate areas (Stimson 1999).

## Education

- Search terms: education; public schools; school busing; teachers; students; education system; vouchers

Gallup:

Some people say that government should give financial help to build schools, especially in poorer states. Others say this will mean higher taxes and that committees should build their own schools. Do you favor or oppose federal aid to help build new public schools? (1957-1961) *More liberal would be favor federal aid; More conservative would be oppose federal aid.*

American National Election Survey:

There is much discussion about the best way to deal with racial problems. Some people think that achieving racial integration of schools is so important that it justifies busing children to schools out of their won neighborhoods. Others think that letting children go to their neighborhood schools is so important that they oppose busing. Where would you place yourself on this scale, or haven't you thought very much about this? (1972-1984) *More liberal would be favoring racial integration; More conservative would be opposing racial integration.*

If the cities and towns around the country need help to build more schools, the government in Washington ought to give them the money they need. (1956-

1962) *More liberal would be favoring federal funding of school construction; more conservative would be opposing federal funding of school construction.*

Some people think that the government should provide fewer services, even in areas such as health and education, in order to reduce spending. Other people feel that it is important for the government to provide many more services, even if it means an increase in spending. Where would you place yourself on this scale, or haven't you thought very much about this? (1980-1996) *More liberal would be increasing government services; more conservative would be opposing government services.*

Some people say that the government in Washington should see to it that white and Negro (black) children are allowed to go to the same schools. Others claim that this is not the government's business. Have you been concerned enough about this question to favor one side over the other? (1964-1986) *More liberal would be favoring government intervention in school integration; more conservative would be opposing government intervention.*

Some people think the government in Washington should help towns and cities provide education for grade and high school children; others think that this should be handled by the states and local communities. Have you been interested enough in this to favor one side over the other? (1964-1968) *More liberal would favor federal assistance for grade and high school education; more conservative would oppose such federal assistance.*

National Opinion Research Center:

Are we spending too much, too little, or about the right amount on improving the nation's education system? (1973-1996) *More liberal would say too little spending; More conservative would say too much.*

Roper:

Are we spending too much, too little, or about the right amount on improving the nation's education system? (1971-1986) *More liberal would say too little spending; more conservative would say too much spending.*

Trendex (General Electric):

Please tell me if you would like government to do more, do less, or do about the same as they have been on education. (1968-1982) *More liberal would say the government should do more on education; more conservative would say do less.*

I notice you said you would like the government to do more on education. Would you favor this increased activity if it required an increase in taxes? (1972-1982) *More liberal would favor increased government action even if it required an increase in taxes; more conservative would not.*

## Health

- Search terms: health; medical costs; hospital costs; insurance; medical care; hospital care; health care

Gallup:

In some places in the United States it is not legal to supply birth control information. How do you feel about this - do you think birth control information should be available to anyone who wants it, or not? (1959-1968) *More liberal would say birth control information should be available to anyone who wants it; more conservative would say it should not be available.*

American National Election Studies:

There is much concern about the rapid rise in medical and hospital costs. Some feel there should be a government insurance plan which would cover all medical and hospital expenses. Others feel that medical insurance should be paid by individuals,



and through private insurance like Blue Cross. Where would you place yourself on this scale, or haven't you thought very much about this? (1970-1996). *More liberal would say a government insurance plan should cover expenses; more conservative would favor private insurance.*

The government ought to help people get doctors and hospital care at low cost? (1956-1962) *More liberal would say the government ought to help with low cost doctor and hospital care; more conservative would say the government should not.*

Some say the government in Washington ought to help people get doctors and hospital care at low cost; others say the government should not get into this. Have you been interested enough in this to favor one side over the other? What is your position? (1964-1968) *More liberal would say the government ought to help with low cost doctor and hospital care; more conservative would say the government should not.*

Some people think that the government should provide fewer services, even in areas such as health and education, in order to reduce spending. Other people feel that it is important for the government to provide many more services, even if it means an increase in spending. Where would you place yourself on this scale, or haven't you thought very much about this? (1980-1996) *More liberal would favor increased services; more conservative would not.*

National Opinion Research Center:

Are we spending too much, too little, or about the right amount on improving and protecting the nation's health? (1973-1996) *More liberal would say we are spending too little in improving and protecting the nation's health; more conservative would say we are spending too much.*

In general, some people think that it is the responsibility of the government in Washington to see to it that people have help in paying for doctors and hospital bills.

Others think that these matters are not the responsibility of the federal government and that people should take care of these things themselves. Where would you place yourself on this scale, or haven't you made up your mind on this? (1975-1996) *More liberal would favor government responsibility for people paying for doctor and hospital bills; more conservative would favor people taking care of these things themselves.*

Roper:

Are we spending too much, too little, or about the right amount on improving and protecting the nation's health? (1971-1986) *More liberal would say we are spending too little in improving and protecting the nation's health; more conservative would say we are spending too much.*

Should the government be making a major effort, some effort, or no effort on taking steps to contain the cost of health care? (1979-1986) *More liberal would say the government should make a major effort to contain the cost of health care; more conservative would say the government should make no effort.*

Trendex (General Electric):

Would you like the government to do more, do less, or do about the same as they have been on health measures? (1965-1982) *More liberal would say the government should do more on health measures; more conservative would say the government should do less.*

I notice you said you would like the government to do more on health measures. Would you favor this increased activity if it required an increase in taxes? (1972-1982) *More liberal would favor government action on health measures even if it raised taxes; more conservative would not favor action that required increased taxes.*

## Race

- Search terms: race; black; blacks; negro; negroes; integration; busing; African-American; racism; Affirmative Action; ghettos; minority groups

Gallup:

Do you think the \*\*\*\* administration is pushing racial integration too fast, or not fast enough? (1962-1964) *More liberal would say the administration was not pushing racial integration fast enough; more conservative would say too fast.*

American National Election Studies:

There is much discussion about the best way to deal with racial problems. Some people think that achieving racial integration of schools is so important that it justifies busing children to schools out of their won neighborhoods. Others think that letting children go to their neighborhood schools is so important that they oppose busing. Where would you place yourself on this scale, or haven't you thought very much about this? (1972-1984) *More liberal would favor racial integration/busing; more conservative would not.*

Some people say that Negroes should be allowed to live in any part of town they want to. How do you feel? Should Negroes be allowed to live in any part of town they want to or not? (1964-1976) *More liberal would favor African-Americans living anywhere they wanted; more conservative would favor housing restriction for African-Americans.*

If Negroes are not getting fair treatment in jobs and housing, the government should see to it that they do? (1956-1960) *More liberal would favor government intervention in securing fair job and housing treatment for African-Americans; more conservative would not favor such intervention.*

Some people say that the government in Washington should see to it that white and Negro (black) children are allowed to go to the same schools. Others claim that this is not the government's business. Have you been concerned enough about this question to favor one side over the other? (1964-1986). *More liberal would favor federal intervention in achieving racial integration in schools; more conservative would not favor such federal intervention.*

Some feel that if Negroes are not getting fair treatment in jobs the government in Washington ought to see to it that they do. Others feel that this is not the federal government's business. Have you had enough interest in this to favor one side over the other? (1964-1972) *More liberal would favor federal government intervention in securing fair job treatment for African-Americans; more conservative would not favor such federal intervention.*

Some people feel that the government in Washington should make every possible effort to improve the social and economic position of Negroes and other minority groups. Others feel that the government should not make any special effort to help minorities because they should be expected to help themselves. Where would you place yourself on this scale, or haven't you thought very much about this? (1970-1996) *More liberal would favor federal intervention in improving social and economic position of African-Americans; more conservative would not favor such intervention.*

National Opinion Research Center:

Are we spending too much, too little, or about the right amount on improving the conditions of blacks? (1973-1996) *More liberal would say we are spending too little on improving the conditions of African-Americans; more conservative would say we are spending too much.*

Some people think (blacks/Negroes) have been discriminated against for so long that government has a special obligation to improve their living standards. Others

believe that government should not be giving special treatment to (blacks/Negroes). Where would you place yourself on this scale, or haven't you made up your mind on this? (1983-1996) *More liberal would say that the government should have a special obligation to improve African-American living standards; more conservative would oppose such government intervention.*

Roper:

Should the government be making a major effort, some effort, or no effort on trying to solve the problems caused by ghettos, race, and poverty? (1974-1987) *More liberal would say the government should be making a major effort to solve the problems caused by ghettos, race, and poverty; more conservative would say the government should make no effort.*

Trendex (General Electric):

Would you like the government to do more, do less, or do about the same as they have been on helping minority groups? *More liberal would say the government should do more to help minority groups; more conservative would say the government should do less.*

### Urban Problems

- Search terms: urban; urban renewal; ghetto; urban unrest; rioting; big cities; central cities

American National Election Studies:

There is much discussion about the best way to deal with the problem of urban unrest and rioting. Some say it is more important to use all available force to maintain law and order - no matter what results. Others say it is more important to correct the problems of poverty and unemployment that give rise to the disturbances.

Where would you place yourself on this scale, or haven't you thought very much about this? (1970-1992) *More liberal would favor correcting problems of poverty and unemployment; more conservative would favor using all available force to maintain law and order.*

National Opinion Research Center:

Are we spending too much, too little, or about the right amount on solving the problems of the big cities? (1973-1996) *More liberal would say we are spending too little on solving the problems of the big cities; more conservative would say we are spending too much.*

Opinion Research Corporation:

Many of our major central cities are experiencing financial difficulty, would you favor or oppose special federal aid for these central cities? (1976-1979) *More liberal would favor special federal aid for central cities; more conservative would oppose special federal aid for central cities.*

Roper:

Are we spending too much, too little, or about the right amount on solving the problems of the big cities? (1971-1986) *More liberal would say we are spending too little on solving the problems of the big cities; more conservative would say we are spending too much.*

Should the government be making a major effort, some effort, or no effort on trying to solve the problems caused by ghettos, race, and poverty? (1974-1987) *More liberal would say the government should be making a major effort to solve the problems caused by ghettos, race and poverty; more conservative would say the government should be making no such effort.*

Trendex (General Electric):

Would you like the government to do more, do less, or do about the same as they have been on urban renewal? (1966-1982) *More liberal would say the government should do more on urban renewal; more conservative would say the government should do less (not totally sure about what urban renewal means).*

### Welfare

- Search terms: welfare; poor; poverty; standard of living

Gallup:

In your opinion, which is more often to blame if a person is poor - lack of effort on his own part, or circumstances beyond his control? (1964-1990) *More liberal would say a person is poor due to circumstances beyond his control; more conservative would say a person is poor due to lack of effort on his own part.*

American National Election Studies:

In general, some people feel that the government in Washington should see to it that every person has a job and a good standard of living. Others think that the government should just let each person get ahead on his own. Have you been interested enough in this to favor one side over the other? Do you think that the government: (1964-1968) *More liberal would favor federal intervention in helping individuals get jobs and a good standard of living; more conservative would favor the government letting each person get ahead on his own.*

Some people feel that the government in Washington should see to it that every person has a job and a good standard of living. Others think that the government should just let each person get ahead on his own. And of course other people have a position somewhere in between. Where would you place yourself on this scale, or haven't you thought very much about this? (1972-1996) *More liberal would favor*

*federal intervention in helping individuals get jobs and a good standard of living; more conservative would favor the government letting each person get ahead on his own*

The government ought to see that every person who wants to work has a job (1956-1960) *More liberal would favor the government seeing to it that every person who wants to work has a job; more conservative would oppose such federal intervention (not sure about this one).*

Some people feel that the government in Washington should make every possible effort to improve the social and economic position of Negroes and other minority groups. Others feel that the government should not make any special effort to help minorities because they should be expected to help themselves. Where would you place yourself on this scale, or haven't you thought very much about this? (1970-1996) *More liberal would feel that government should make special effort to improve the social and economic position of African-Americans; more conservative would feel that government should not be making any special effort.*

National Opinion Research Center:

Are we spending too much, too little, or about the right amount on welfare? (1973-1996) *More liberal would say we are spending too little on welfare; more conservative would say we are spending too much on welfare.*

Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans. Other people think it is not the government's responsibility. Where would you place yourself on this scale? *More liberal would say the federal government should act to improve the standard of living of poor Americans; more conservative would oppose such federal intervention*

Think of a score of 1 as meaning that the government ought to reduce the income differences between rich and poor, and a score of 7 meaning that the government



should not concern itself with reducing income differences. What score between 1 and 7 comes closest to the way you feel? *More liberal would favor government action to reduce income differences between rich and poor; more conservative would oppose such intervention.*

Opinion Research Corporation:

Some people have said that instead of providing welfare and relief payments, the federal government should guarantee every American family a minimum yearly income of about \$3,000. Would you personally favor or oppose such an income guarantee? (1969-1972) *More liberal would favor a federal guaranteed annual income; more conservative would oppose such a policy.*

Roper:

Are we spending too much, too little, or about the right amount on welfare? (1971-1986) *More liberal would say we are spending too little on welfare; more conservative would say we are spending too much.*

Trendex (General Electric):

Would you like government to do more, do less, or do about the same as they have been on improving Social Security benefits? (1978-1982) *More liberal would say the government should do more about improving social security benefits; more conservative would say the government should do less.*

Would you like government to do more, do less, or do about the same as they have been on expanding employment? (1966-1982) *More liberal would say the government should do more about expanding employment; more conservative would say the government should do less.*

I notice you said you would like the government to do more on improving Social Security benefits. Would you favor this increased activity if it required an increase in taxes? (1978-1982) *More liberal would favor government intervention to improve*

*social security even if it resulted in higher taxes; more conservative would not favor raising taxes.*

### Size of Government

- Search terms: big government; small government; bigger government; smaller government; size of government

Gallup:

Do you consider the amount of federal income tax which you have to pay as too high, about right, or too low? (1952-1996) *More liberal would say income tax is too low; more conservative would say income tax is too high.*

In your opinion, which of the following do you think will be the biggest threat to the country in the future - big business, big labor, or big government? (1965-1985) *More liberal would say the biggest threat is big business; more conservative would say the biggest threat is either big labor or big government.*

American National Election Studies:

Do you think that people in the government waste a lot of the money we pay in taxes, waste some of it, or don't waste very much of it? (1958-1992) *More liberal would say the government doesn't waste very much of our taxes; more conservative would say the government wastes a lot of money.*

If the cities and towns around the country need help to build more schools, the government in Washington ought to give them the money they need (1956-1962) *More liberal would say the federal government should give towns and cities the money they need to build more schools; more conservative would oppose such federal intervention.*

Some people think that the government should provide fewer services, even in areas such as health and education, in order to reduce spending. Other people feel that

it is important for the government to provide many more services, even if it means an increase in spending. Where would you place yourself on this scale, or haven't you thought very much about this? (1980-1996) *More liberal would favor increased government services on health and education; more conservative would oppose increased government services.*

Some people say that the government in Washington should see to it that white and Negro (black) children are allowed to go to the same schools. Others claim that this is not the government's business. Have you been concerned enough about this question to favor one side over the other? (1964-1986). *More liberal would say that federal government should intervene in racial integration in schools; more conservative would oppose such federal intervention.*

Some feel that if Negroes are not getting fair treatment in jobs the government in Washington ought to see to it that they do. Others feel that this is not the federal government's business. Have you had enough interest in this to favor one side over the other? (1964-1972) *More liberal would favor federal intervention in securing fair treatment in jobs for African-Americans; more conservative would oppose such intervention.*

Some people think the government in Washington should help towns and cities provide education for grade and high school children; others think that this should be handled by the states and local communities. Have you been interested enough in this to favor one side over the other? (1964-1968). *More liberal would favor federal assistance for grade and high school education; more conservative would oppose such federal assistance.*

What is your feeling, do you think the government in Washington is getting too powerful or do you think the government has not gotten too strong? (1964-1992) *More liberal would say the federal government has not gotten too strong; more*

*conservative would say the federal government is getting too powerful.*

Some people feel that the government in Washington should make every possible effort to improve the social and economic position of Negroes and other minority groups. Others feel that the government should not make any special effort to help minorities because they should be expected to help themselves. Where would you place yourself on this scale, or haven't you thought very much about this? (1970-1996) *More liberal would favor federal intervention to improve the social and economic position of minorities; more conservative would oppose such federal intervention.*

National Opinion Research Center:

Do you consider the amount of federal income tax which you have to pay as too high, about right, or too low? (1976-1996) *More liberal would say federal income tax is too low; more conservative would say federal income tax is too high.*

Some people think that the government in Washington is trying to do too many things that should be left to individuals and private businesses. Others disagree and think that the government should do even more to solve our country's problems. Where would you place yourself on this scale, or haven't you made up your mind on this? *More liberal would say the government should do more to solve our country's problems; more conservative would say that more problems should be left to individuals and private business.*

Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans. Other people think it is not the government's responsibility. Where would you place yourself on this scale? *More liberal would say that the government is responsible for improving the standard of living for all poor Americans; More liberal would say the government is not responsible.*

## Crime, Liberties, and Guns

- Search terms: crime; gun control; guns; death penalty; mandatory registration; police; law enforcement

Gallup:

Are you in favor of the death penalty for persons convicted of murder? (1953-1996) *More liberal would not be in favor of the death penalty; more conservative would be in favor of the death penalty.*

In general, do you think the courts in this area deal too harshly or not harshly enough with criminals? (1965-1993) *More liberal would say the courts are dealing too harshly with criminals; more conservative would say the courts are not dealing harshly enough.*

In general, do you feel that the laws covering the sale of handguns should be made more strict, less strict, or kept as they are now? (1975-1988) *More liberal would feel laws covering the sale of handguns should be made more strict; More liberal would feel that the laws covering the sale of handguns should be made less strict.*

Would you favor or oppose a law which would require a person to obtain a police permit before he or she could buy a gun? (1959-1996) *More liberal would favor a law that would require a person to obtain a police permit before buying a gun; more conservative would oppose such a law.*

Harris:

Do you favor or oppose a federal law requiring that all handguns people own be registered by federal authorities? (1971-1984) *More liberal would favor federal registration of handgun ownership; more conservative would oppose federal registration of handgun ownership.*

Do you favor or oppose federal laws which control the sale of guns, such as making all persons register all gun purchases with federal authorities? (1975-1990)  
*More liberal would favor gun control; more conservative would oppose gun control.*

American National Election Studies:

There is much discussion about the best way to deal with the problem of urban unrest and rioting. Some say it is more important to use all available force to maintain law and order - no matter what results. Others say it is more important to correct the problems of poverty and unemployment that give rise to the disturbances. Where would you place yourself on this scale, or haven't you thought very much about this? (1970-1992) *More liberal would favor correcting the problems of poverty and unemployment; more conservative would favor using all available force to maintain law and order.*

Some people are primarily concerned with doing everything possible to protect the rights of those accused of committing crimes. Others feel that it is more important to stop criminal activity even at the risk of reducing the rights of the accused. Where would you place yourself on this scale, or haven't you thought very much about this? (1970-1978) *More liberal would favor increased protection of the rights of the accused; more conservative would favor reducing the rights of the accused.*

Daniel Yankelovich:

Do you favor or oppose gun control laws? (1983-1984) *More liberal would favor gun control laws; more conservative would oppose gun control laws.*

Do you favor or oppose mandatory registration of all handguns? (1977-1985)  
*More liberal would favor mandatory registration of all handguns; more conservative would oppose mandatory registration of all handguns.*

## Military Spending

- Search terms: military; defense;

No relevant questions

## Environment

- Search terms: environment; environmental protection; environmental regulation; global warming; pollution

National Opinion Research Center:

Are we spending too much, too little, or about the right amount on improving and protecting the environment? (1973-1996) *More liberal would say we are spending too little on improving and protecting the environment; more conservative would say we are spending too much.*

Are we spending too much, too little, or about the right amount on the environment? (1984-1996) *More liberal would say we are spending too little the environment; more conservative would say we are spending too much.*

Roper:

Are we spending too much, too little, or about the right amount on improving and protecting the environment? (1971-1986) *More liberal would say we are spending too little on improving and protecting the environment; more conservative would say we are spending too much.*

## APPENDIX 2

PRESIDENTIAL LIBERALISM: KEYWORDS AND RULES FOR  
PRESIDENTIAL LIBERALISM

## Education

- Keywords: educat, school, teacher, voucher, integration, segregation, busing, affirmative action

Liberal statements favor increased federal spending on education, increased federally sponsored or spurred education services, federal intervention to promote school integration, and generally a larger federal role in education. Conservative statements favor a decreased role for the federal government in all of these areas.

## Health

- Keywords: health; medic; hospital; doctor, physician, disease, illness

Liberal statements support a greater role for the federal government in providing or supporting health care, opposition to health privatization, greater information on birth control, efforts to reduce the costs of health care, and greater government versus private responsibility. Conservative statements favor a decreased role for the federal government in all of these areas.

## Crime

- Keywords: crime, gun, death penalty, victim's right, sentencing, sentenced, criminal, prison, penitentiary, capital punishment, death row, Brady bill, trigger lock



Liberal statements oppose capital punishment, promote defendant's rights, gun control, and a rehabilitation approach to addressing problems of crime. Conservative statements support capital punishment, oppose gun control, greater spending to address problems of crime, and get tough approaches in dealing with criminals.

### Urban Problems

- Keywords: urban, ghetto, inner city, inner-city, innercity, riot, big city, large city, big cities, large cities, central city, central cities, barrio, skid row, slum

Liberal statements favor correcting problems of poverty, unemployment, ghettos, and race in big cities. Conservative statements favor a restricted federal role in these areas. Conservative statements also favor using force to maintain law and order in cities.

### Welfare

- Keywords: welfare pay, welfare recip, welfare prog, welfare mo, welfare pol, social welfare, relief pay, single mo, supplemental income, food stamp, AFDC, WIC, TANF, Aid to Families with Dependent Children, poverty, low income, low-income, poor, indigent, destitute, impoverish, deprived, deprivation, needy, underprivilege, under-privilege.

Liberal statements favor a greater federal role in helping the poor, increased welfare spending, improving the lives of those in poverty, and promoting greater economic equality in America. Conservative statements favor federal restraint, and suggest greater individual responsibility for economic circumstances.

## Race

- Keywords: race, racial, negro, african american, hispanic, latino, native american, segregation, affirmative action, minorit, slavery, colored, Jim crow, voting rights act, discrimination, busing, riot, Black Panther, Martin Luther King, Malcolm X

Liberal statements imply that the administration should be pushing racial integration, fair housing, voting rights, equal jobs, education, non-discrimination, and greater opportunity for minorities. Conservative statements favor a decreased role for the federal government in all of these areas.

## Environment

- Keywords: environment global warming, climate change, pollut, Kyoto, forestation, acid rain, emission, smog, ozone, greenhouse, pesticide, hazardous waste, superfund, clean air, clean water, EPA, toxic, noxious, contamin, atmosphere.

More liberal statements advocate greater spending on the environment or increased efforts to protect the environment. Conservative statements advocate reduced environmental regulation, spending, and approaches grounded in markets.

## Military Spending

- Keywords: national defense, national security, military spending, military budget, military expenditure, military outlay, defense spending, defense budget, defense expenditure, defense outlay, arms spending, arms budget, arms expenditure, arms outlay, security spending, security budget, security expenditure, security outlay.

Liberal statements favor reducing expenditures for national defense, security, and the military. Conservative statements advocate increasing these expenditures.

### Size of Government

- Keywords: big government, small government, reduce tax, tax cut, cut tax, lower tax, high tax, over-regulat, over regulat, government waste, bureaucratic waste, red tape, reduce spend, cut spend, lower spend, excessive regulat, excessive government, limited government, reduce government, reduced government, wasteful government.

Liberal statements advocate measures that would increase the size of government, regulation, spending, or taxation. Conservative statements advocate reduced government, regulation, spending, taxation, or waste.

## APPENDIX 3

## MEDIA LIBERALISM: KEYWORDS AND RULES FOR MEDIA LIBERALISM

These keywords and rules are based on the previous studies (Stimson 1999; Wood and Lee 2009). Basic rules for all issues except Military Spending and Crime:

1. Liberal/conservative news stories include “more/less active government roles, more/less spending.” Not just facts, intention matters more. News stories are coded according to their intentions.
2. If an article praises liberal/conservative programs or policies, it is coded as liberal/conservative. If an article criticizes/condemns liberal/conservative programs or policies without other suggestions, it is coded as conservative/liberal.
3. If news stories treat social problems as government/individual responsibility, they are coded as liberal/conservative.
4. If an article introduces both liberal and conservative arguments, it is coded as neutral. If a story stresses one over the other argument, this story is coded according to the stressed argument even though both arguments are introduced in the story.
5. “Appointment” news stories are not considered as issues as long as they do not put any specific comments on the appointments.
6. If news stories support (stress) the role of federal/state(local) government rather than the role of state(local)/federal governments, they are coded as liberal/conservative.

7. Reporting just facts are generally coded as neutral. If news stories carry someone's arguments without comments or interpretation, they are coded according to the arguments.
8. Just indicating social problems without mentioning solutions or suggestions is generally coded as neutral.
9. Negative phenomenon after liberal/conservative policies are coded as neutral as long as there is no intention and argument in news stories. Positive phenomenon after liberal/conservative policies are coded neutral as long as there is no intention and argument in news stories.
10. If articles contain arguments about more/fewer regulations for obtaining government aids (regarding social issues), they are coded as conservative/liberal.
11. Court decisions are not considered as objective policies and not separately coded.
12. Proposals or plans (which need to be approved by someone) are not considered as objective policies.
13. If plans/proposals do not need to be approved and can be executed directly, they are coded as objective policies.
14. Voting results are coded as neutral as long as there is no argument or intention in news stories (just introducing voting results).
15. Failures of programs (policies) are coded as neutral if there is no suggestion or intention regarding the failures.
16. News about person (specially, death) is not counted as issues in general.

## Education

- Keywords: aid to student\* or aid to school\* or aid to education or aid for student or aid for school\* or aid for education or education aid or education-aid or educational aid or school aid or school-aid or voucher\* or integration or segregation or desegregation or busing or affirmative action or education spending or school bill\* or education bill\* or school plan\* or education plan\* or school program\* or education program\* or federal fun education or public fund\* education or federal fund\* school\* or public fund\* school\* or federal fund\* student\* or public fund\* student\* or government fund\* education or government fund\* school\* or government fund\* student\* or federal money education or public money education or federal money school\* or public money school\* or federal money student\* or public money student\* or government money education or government money school\* or government money student\*
1. If news stories contain the argument that government should spend more money (resources) for private (religious) schools, they are coded as conservative.

## Health

- Keywords: health care or healthcare or health-care or medicare or medicaid or birth-control or birth control or birth curb or birth-curb or health program or health plan or medical-care or medical-aid or medical care or medical aid or aged care or aged-care or mental care or mental-care or mental aid or mental-aid or health aid or health-aid or medical bill or health bill or care plan or medical relief or charity care or managed care or managed-care or State Children's Health Insurance Program or children's health insurance program or emergency care or emergency-care or Emergency Medical Treatment and Labor Act

AND NOT: foreign aid or aid program or aid plan

1. If news stories are about health roll, increasing health rolls is coded liberal and decreasing health rolls is coded conservative as long as there is no comment on the stories.
2. News stories about birth control are considered as a health issue when they mention something about government aid for birth control.
3. If articles are about frauds by doctors/hospitals but do not state about more regulations they are coded as neutral. However, if articles are associated with the argument that more regulations or suits of doctors or hospitals are needed to prevent their frauds, they are coded as liberal.
4. If articles state about “health care cost reduction” by more regulations of hospitals or doctors, they are coded as liberal.
5. If articles state about over-billing (as long as these stories imply spending too much or waste in medicaid/medicare in relation to medicare/medicaid), they are coded as conservative.
6. If articles state about health costs in private areas, such as private companies, they are not considered as health issues as long as the stories do not mention about government roles in health costs in private areas.

#### Crime

- Keywords: crime\* or criminal\* or gun\* control\* or gun\* sale\* or gun\* bill\* or sale\* of gun\* or gun\* lobb\* or gun\* law\* or regist\* gun\* or gun\* curb\* or gun\* rule\* or gun\* restrict\* or restrict\* gun\* or death penalty or victim’s right\* or

death sentenc\* or capital punishment\* or death row\* or death house\* or brady bill or trigger lock\* or mandatory registration

AND NOT: contempt\* or war crim\*

1. News stories supporting/Against gun control policies are considered as liberal/conservative.
2. Conservative news stories stress punishment or law enforcement (such as more police power) over rehabilitation or prevention. Liberal news stories stress rehabilitation or prevention over punishment or law enforcement.
3. News stories supporting/Against death penalty are coded as conservative/liberal.
4. If news stories just mention crime problems, they are coded as neutral.
5. News stories attacking or blaming white-collar or business crimes are coded as liberal.
6. Abortion is not treated as a crime issue.
7. Specific or individual criminal accidents are not treated as crime issues. For instance, “someone is killed by somebody.” “Someone is sentenced death.” “Some companies are accused due to frauds.” However, news stories about interpreting (explaining) specific or individual criminal accidents are treated as crime stories and coded according to the interpretation (explanation).
8. The issues of overcrowding in jails and judicial system are not considered as crime issues. However, if news stories try to connect them to solving crime problems, they are treated as crime issues and coded according the intentions of the stories.



## Urban Problems

- Keywords: urban or ghetto or inner city or inner-city or big city or large city or central city or big cities or large cities or central cities or barrio\* or skid row or slum or public housing or low-income housing or low income housing or empowerment zone

AND NOT: skid\* or segregation or desegregation or integration or affirmative action or welfare

1. If news stories support public (low-income) housing, it is coded as liberal. If news stories are about against public (low-income) housing, it is basically coded as conservative.
2. If news stories just mention about crime problems in big cities, they are coded as neutral. When crimes are connected to urban problems, they are considered as urban problems. Conservative stories about crimes in big cities are supporting stronger law enforcement. Liberal stories about crimes in big cities are supporting the argument of enhancing the environment of big cities to prevent crimes.
3. If news stories are about opposing urban renewal (low-income) housing because of preserving the environment and historical landmarks, they are coded as neutral.
4. If news stories are about curing urban problems by introducing private funds, they are coded as neutral. Also news stories about by giving tax incentives to private companies to cure urban problems are coded as neutral.

## Welfare

- Keywords: welfare or relief pay or single mo\* or single mother\* or supplemental income\* or food stamp\* or AFDC or WIC or TANF or Aid to Families with Dependent Children or poverty or low income or low-income or indigent or destitute\* or impoverish or depriv\* or needy or underprivilege\* or under-privilege\*
1. If news stories are about welfare roll, Liberal: increasing welfare rolls. Conservative: decreasing welfare rolls.
  2. However, if news stories about welfare roll contain any specific arguments or intentions, they are coded according to the arguments or intentions.

## Race

- Keywords: race or races or racial or negro\* or african american\* or hispanic or latino\* or native american\* or segregation or desegregation or integration or affirmative action or minorit\* or busing or riot or riots or black panther or martin luther king or malcolm “x’ or urban league or civil right or slavery or jim crow or voting rights act or discrimination\* or ethnic\*
- AND NOT: minority party or minority leader\* or raceway\* or will race or school\* integration or president\* race\* or governor\* race\* or gubernatorial race\* or nascar or united nations or age discrimination or school\* segregation or school\* desegregation or senat\* race\* or house race\* or elect\* race\* or human race\* or horse\* race\* or car\* race\* or bondage\* or mayor\* race\* or stake\* race\* or race\* course\* or arms race or minority stockholder\* or minority stake\* or minority shareholder\* or sport\* race\* or sex\* discrimination or jockey
1. If news stories accuse, charge, or blame racial problems or inequalities, they are

coded as liberal. News stories supporting equality between races are coded as liberal.

2. If news stories focus on racial violence but do not introduce (or comment on the violence) the reasons of violence, they are coded as neutral.
3. If news stories are about trials, they are coded as racial issues as long as racial problems are mentioned in their abstract.
4. If news stories are just about battles between minorities regarding racial equality, representation, or civil rights, they are coded as neutral. However, if there are clear intentions or messages regarding racial equality in news stories, they are coded as liberal.

#### The Environment

- Keywords: environment\* or global warming or climate change\* or climate control\* or pollut\* or Kyoto protocol or forestation\* or acid rain or emission\* or smog\* or ozone\* or greenhouse\* or pesticide\* or hazardous waste\* or superfund\* or clean air or clean water or EPA or toxic or noxious or contamin\*
1. News stories about accidents causing environmental problems (such as leaking oil, fire in chemical plants, and so on) are coded neutral. However, if environmental problems are caused not by accidents, such as intentionally spreading pollutants to ocean, they are coded as liberal because they generally imply more regulations or punishments regarding environmental problems.
  2. If news stories are about inspection without comments, they are coded as neutral. If the inspection news stories contain any intention, the intention is used to code the stories.

3. If news stories report that some products, such as pesticides, are bad for the environment, they are coded as liberal because these stories generally imply more regulations on the products. If news stories are about that some products are not bad for the environment, these stories are coded as conservative when these stories imply fewer regulations on the products.
4. If news stories indicate or blame industries because they cause environmental pollution or problems, they are coded as liberal.
5. If news stories are just about pollution penalty on companies by government, they are coded as neutral. However, if news stories explicitly state that companies agree to the penalty, they are coded as liberal. If news stories are about that companies or organizations deny penalties or charges, they are coded as neutral.
6. If news stories are about accusing companies in relation to environmental pollution or protection, they are coded as liberal.
7. If news stories contain the arguments that there is no environmental problem, or environmental problems are overrated, they are coded as conservative.
8. If news stories argue that governments should allow companies (groups) to develop (construct) something in spite of possible environmental dangers, they are coded as conservative. However, if news stories are about that governments allow companies/groups to develop (construct) something because of no possible environmental dangers, they are coded as neutral.
9. Development vs. Conservation argument: Conservation = Liberal. Development = Conservative.

10. Efforts by private organizations/communities improving or solving environmental problems are coded as neutral.
11. Global environmental problems are coded as neutral. If news stories are about urging or arguing the U.S.'s roles in relation to global environmental problems, they are coded as liberal.

### Military Spending

- Keywords: national defense\* or national security or military spending or military budget\* or military expenditure\* or military outlay or defense spending or defense budget\* or defense expenditure\* or defense outlay or arms spending or arms budget\* or arms expenditure\* or arms outlay or security spending or security budget\* or security expenditure\* or security outlay
1. Liberal statements favor reducing expenditures for national defense, security, and the military. Conservative statements advocate increasing these expenditures.

### Size of Government

- Keywords: big government\* or small government\* or reduce tax\* or tax cut\* or cut tax\* or lower tax\* or high tax\* or over-regulat\* or over regulat\* or government waste\* or bureaucratic waste\* or red tape\* or reduce spend\* or cut spend\* or lower spend\* or excessive regulat\* or excessive government\* or limited government\* or reduce government\* or reduced government\* or wasteful government\*
1. Liberal statements advocate the measures that would increase government regulations, spending, or taxation. Conservative statements advocate the measures

that would reduce government regulations, spending, or taxation.

2. Supporting a progressive tax is coded as liberal.

## APPENDIX 4

## SUPPLEMENTARY STATISTICAL TEST RESULTS

## Unit Root Test Results

Table 11. Augmented Dickey-Fuller Test Results (Null Hypothesis: Unit Root) (Enders 2004, 183)

Variables	Test Statistic	Lags	Test Value	Critical Value (10 %)
President	$\tau$	4	-3.16	-3.13
	$\phi_2$	4	3.33	4.07
	$\phi_3$	4	5.00	5.47
Media	$\tau$	1	-6.42	-3.13
	$\phi_2$	1	13.81	4.07
	$\phi_3$	1	20.70	5.47
Public	$\tau$	2	-2.77	-3.13
	$\phi_2$	2	2.66	4.07
	$\phi_3$	2	3.99	5.47

Table 12. KPSS Test Results (Null Hypothesis: Stationarity)

Variables	Stationarity Type	Lags	Test Value	Critical Value (1 %)
President	Mean ( $\mu$ )	4	0.519	0.739
	Trend ( $\tau$ )	4	0.180	0.216
Media	Mean ( $\mu$ )	1	0.521	0.739
	Trend ( $\tau$ )	1	0.325	0.216
Public	Mean ( $\mu$ )	2	1.606	0.739
	Trend ( $\tau$ )	2	0.393	0.216

Table 13. Bayesian Odds Ratio Test Results (Null Hypothesis: Unit Root)

Variables	Squared t	Schwarz Limit	Marginal Alpha
President	40.87	6.04	0.00
Media	110.53	5.24	0.00
Public	11.13	6.82	0.02



## Explaining Presidential Liberalism

Table 14. Presidents and Presidential Liberalism

Variables	Coefficient (t-statistic)
AR(1)	0.296 (3.92)
SAR(1)	0.539 (7.56)
Eisenhower	-0.534 (-1.32)
Kennedy	-0.012 (-0.05)
Johnson	0.327 (1.86)
Nixon	-0.119 (-0.66)
Ford	-0.378 (-1.79)
Carter	0.377 (1.93)
Reagan	-0.430 (-2.68)
G.H.W. Bush	-0.083 (-0.44)
Clinton	1.043 (6.43)
G.W. Bush	-0.418 (-2.07)
[-2.5ex] Ljung-Box Q (p)	0.56

Note: This study identifies the presidential issue liberalism series as an AR(1) and SAR(1) process. AR(1): First order autoregressive process. SAR: Seasonal first order autoregressive process. Hence, the model is:  $x_t = \beta x_{t-1} + \beta_s x_{t-s} + \alpha_i \text{President} + v_t$ , where  $x$  is Presidential Liberalism, President is each president as a dummy variable, and  $v_t$  is the white-noise error term.

Table 15. Presidential Partisanship and Congressional Issue Positions

Variables	Model A	Model B
AR(1)	0.476 (6.86)	0.439 (6.22)
SAR(1)	0.654 (10.17)	0.671 (10.68)
Republican	-0.534 (-2.83)	-0.752 (-5.57)
House-DW-1st	1.380 (1.45)	
Senate-DW-1st	-1.711 (-1.47)	
House-DW-2nd		-2.539 (-1.17)
Senate-DW-2nd		-2.995 (-1.31)
Rep.*House-1st	-2.408 (-1.85)	
Rep*Senate-1st	2.951 (1.61)	
Rep*House-2nd		2.312 (1.15)
Rep*Senate-2nd		0.085 (0.02)
[-2.5ex] Ljung-Box Q (p)	0.45	0.21
AIC	601.85	597.53

Note: Rep.\*House-1st, Rep\*Senate-1st, Rep\*House-2nd, and Rep\*Senate-2nd are interaction variables between presidential partisanship (Republican) and the DW scores (1st and 2nd dimension) of the House and Senate.

## Two Variable VAR Results

Table 16. Two Variable VAR Results: Explaining Presidential Liberalism

<i>Variables</i>	<i>Model1</i>	<i>Model2</i>	<i>Model3</i>	<i>Model4</i>
Constant	0.602 (1.71)	0.015 (0.04)	0.011 (0.02)	0.427 (0.85)
Event	0.122 (1.48)	0.115 (1.38)	0.145 (1.43)	0.123 (1.47)
ICS <sub><i>t</i>-1</sub>	-0.004 (-1.35)	-0.004 (-1.28)	-0.000 (-0.05)	-0.002 (-0.52)
CICI <sub><i>t</i>-1</sub>	0.133 (1.03)	0.130 (1.00)	0.186 (1.09)	
Unemployment( $\Delta$ ) <sub><i>t</i>-1</sub>				0.004 (0.03)
Inflation <sub><i>t</i>-1</sub>				0.001 (0.06)
Rep. Congress	0.565 (5.10)			0.559 (5.02)
Dem. Congress	0.091 (0.80)			0.112 (0.93)
Rep. President	-0.558 (-6.26)			-0.562 (-6.02)
Dem. President/Rep. Congress		1.204 (8.13)		
Rep. President/Dem. Congress		0.111 (0.96)		
Dem. President/Dem. Congress		0.652 (6.24)		
Rep. President/Rep. Congress		0.462 (3.19)		
House-DW-1st			0.047 (0.11)	
Senate-DW-1st			0.045 (0.05)	
House-DW-2nd			0.181 (0.23)	
Senate-DW-2nd			-0.366 (-0.25)	
<i>N</i>	180	180	179	180
<i>p(Q)</i>	0.31	0.28	0.01	0.27
<i>AIC</i>	36.27	41.77	42.49	41.76

Note: The numbers in the table are coefficients and t-statistics (in parentheses). All models include the lagged endogenous variables (four lags) *N*: Number of observations. *p(Q)*: *p* value of the *Q* statistic. *AIC*: Akaike's Information Criterion.

Table 17. Two Variable VAR Results: Explaining Public Mood

<i>Variables</i>	<i>Model1</i>	<i>Model2</i>	<i>Model3</i>	<i>Model4</i>
Constant	-0.951 (-2.15)	-0.680 (-1.67)	-0.188 (-0.40)	-0.019 (-0.03)
Event	0.153 (1.47)	0.148 (1.41)	0.158 (1.48)	0.156 (1.52)
ICS <sub><i>t</i>-1</sub>	0.006 (1.57)	0.007 (1.60)	0.002 (0.55)	-0.002 (-0.48)
CICI <sub><i>t</i>-1</sub>	-0.182 (-1.11)	-0.185 (-1.13)	-0.158 (-0.88)	
Unemployment( $\Delta$ ) <sub><i>t</i>-1</sub>				0.126 (0.95)
Inflation <sub><i>t</i>-1</sub>				-0.053 (-2.40)
Rep. Congress	0.138 (0.99)			0.140 (1.02)
Dem. Congress	0.273 (1.91)			0.369 (2.56)
Rep. President	0.293 (2.62)			0.379 (3.29)
Dem. President/Rep. Congress		-0.092 (-0.49)		
Rep. President/Dem. Congress		0.288 (1.99)		
Dem. President/Dem. Congress		-0.018 (-0.13)		
Rep. President/Rep. Congress		0.056 (0.31)		
House-DW-1st			0.325 (0.73)	
Senate-DW-1st			0.026 (0.03)	
House-DW-2nd			0.748 (0.91)	
Senate-DW-2nd			-0.110 (-0.07)	
<i>N</i>	180	180	179	180
<i>p(Q)</i>	0.73	0.73	0.73	0.69
<i>AIC</i>	36.27	41.77	42.49	41.76

Note: The numbers in the table are coefficients and t-statistics (in parentheses). All models include the lagged endogenous variables (four lags). *N*: Number of observations. *p(Q)*: *p* value of the *Q* statistic. *AIC*: Akaike's Information Criterion.

## Correlation between Residual Series and Variance Decomposition

Table 18. Correlation Coefficients between Residual Series after VAR

	$e_{xt}$	$e_{yt}$	$e_{zt}$
$e_{xt}$	1.00		
$e_{yt}$	.05	1.00	
$e_{zt}$	.11	.21	1.00

Note:  $e_{xt}$ : Residuals when Presidential Liberalism is the dependent variable in the VAR system.  $e_{yt}$ : Residuals when Media Liberalism is the dependent variable in the VAR system.  $e_{zt}$ : Residuals when Public Mood is the dependent variable in the VAR system.

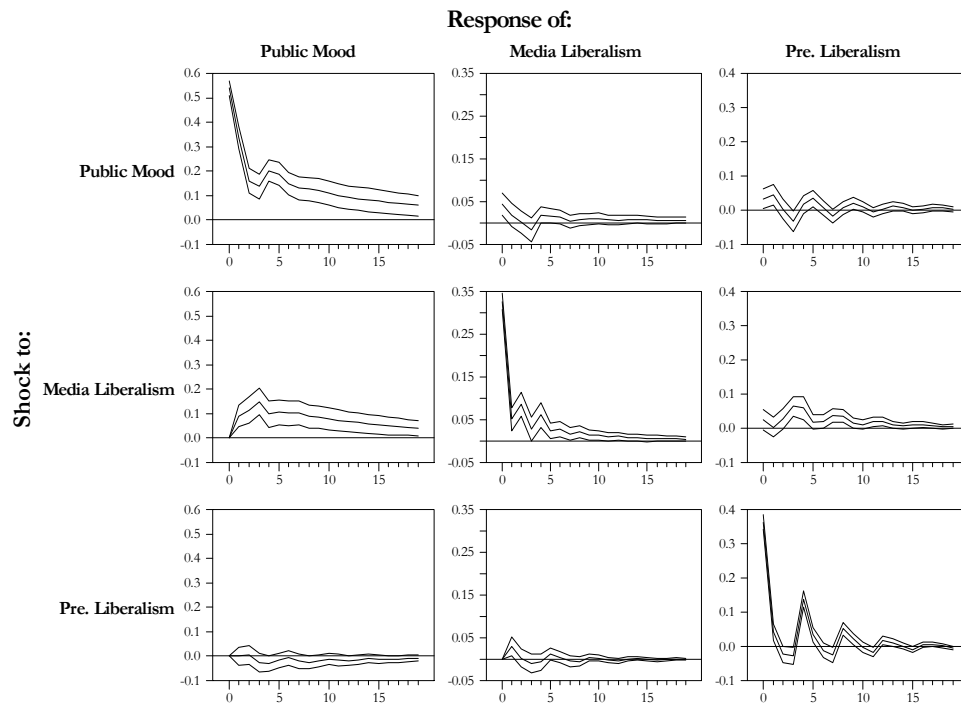
Table 19. The Decomposition of Variance

<i>Step</i>	<i>PL</i>	<i>ML</i>	<i>PM</i>
1	100.000	99.318	97.916
2	98.682	98.486	94.963
3	98.044	98.297	92.385

Note: The numbers show the percentage of the variance (of the forecast error) explained by itself in each step. *PL*: Presidential Liberalism. *ML*: Media Liberalism. *PM*: Public Mood.

## MAR Results with a Different Order

Figure 11. MAR: Public Mood, Media Liberalism, and Presidential Liberalism



## VITA

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