

## ABSTRACT

Title of Document: EXPLICATING THE HOSTILE MEDIA PERCEPTION: HOW SOURCE CREDIBILITY INFLUENCES PARTISANS' RESPONSES TO BALANCED NEWS COVERAGE OF HEALTH POLICIES

Kelly K. Daily, Doctor of Philosophy, 2014

Directed by: Professor Xiaoli Nan, Department of Communication

This dissertation proposed that source credibility research provides explanations for why partisans, or people with extreme positions on an issue, see balanced news coverage as biased against their own position (i.e., exhibit hostile media perception). The effects of three dimensions of source credibility (trust, competence, and goodwill) were considered. Partisans were expected to see neutral news articles authored by untrustworthy sources and sources lacking in goodwill as biased against their position, and perceptions of bias were expected to be more intense if untrustworthy sources and sources lacking in goodwill were seen as competent. This dissertation also hypothesized that source credibility perceptions could account for prior research that finds partisans charge bias against neutral news content said to be authored by journalists (but not college students) and neutral news content said to be authored by outgroup (but not an ingroup) members.

Three experiments in two health policy contexts (increasing taxes on sugar-sweetened beverages and requiring the human papillomavirus [HPV] vaccine) were

conducted. The results of the three experiments provide evidence that the influence of source credibility on hostile media perception is dependent upon (1) partisan position (i.e., supporters vs. opponents), (2) extremity of partisanship, and (3) health policy context. In the context of increasing taxes on sugar-sweetened beverages, several hypotheses were supported. In Experiment 1, partisan supporters perceived news to be biased against their position when the source was said to be lacking in goodwill. In Experiment 2, source trust and competence were predictive of hostile media perception for more extreme partisan supporters. In Experiment 3, trust mediated the relationship between source group membership and hostile media perception for more extreme partisans. In the context of requiring the HPV vaccine, competence was a significant predictor of hostile media perception in Experiment 1 and a significant mediator in Experiment 2. Finally, distrust of journalists or sources is perhaps necessary, but not sufficient, for hostile media perception to manifest, and distrust may not serve as an explanation for bias in all circumstances.

Theoretical and practical implications, limitations, and directions for future research related to source credibility and hostile media perception are discussed.

EXPLICATING THE HOSTILE MEDIA PERCEPTION: HOW SOURCE  
CREDIBILITY INFLUENCES PARTISANS' RESPONSES TO BALANCED NEWS  
COVERAGE OF HEALTH POLICIES

By

Kelly K. Daily

Dissertation submitted to the Faculty of the Graduate School of the  
University of Maryland, College Park, in partial fulfillment  
of the requirements for the degree of  
Doctor of Philosophy  
2014

Advisory Committee: Professor Xiaoli Nan, Chair  
Professor Robert Feldman  
Professor Edward L. Fink  
Professor Brooke Fisher Liu  
Professor Anita Atwell Seate

© Copyright by  
Kelly K. Daily  
2014

## Acknowledgments

I must express my thanks to many people for their assistance, guidance, and support as I worked to complete this dissertation.

First, I would like to thank my advisor, Dr. Xiaoli Nan. Throughout my academic career she provided me with numerous opportunities to grow and succeed as a researcher, a scholar, and a teacher. She set lofty goals for me, but also helped me to achieve them.

I must also thank my dissertation committee. Dr. Edward Fink challenged and supported me at every stage of my career. I don't know if he knows how much it meant to me to receive a compliment from him. His critiques and encouragement were always genuine, and I always felt that he wanted me to succeed. Dr. Brooke Liu has pushed me to improve as a scholar and a researcher. Dr. Anita Atwell Seate guided me as I explored new research areas and was always willing to offer her assistance. Dr. Robert Feldman provided invaluable insight into the area of health communication.

I would also like to thank my fellow graduate students, especially Melissa Janoske, Rowena Briones, Adam Richards, Amanda Irions, Irina Iles, Liang Ma, Eva Zhao, Bo Yang, Elizabeth Gardner, and Jessica Lu. You were amazing officemates and classmates, inspirational fellow researchers, supportive cohort comrades, and irreplaceable co-teachers.

Finally, thank you to my family. To my mom and my dad, who very early in life taught me the importance of education, and to my brothers and sister, A.J., Mike, and Katie, who were always there to celebrate my accomplishments. Knowing that I have a family that will love me now matter what allowed me to take risks and to try something new. I wouldn't be where I am today if I hadn't grown up in the Madden family. Thank

you to my husband, Steve. You have always been by my side, through all the ups and the downs, the endless hours, and the moments of peace. You've been my biggest fan, often believing in me more than I believed in myself. I will forever be grateful for your love, support, and companionship.

## Table of Contents

Acknowledgements .....	ii
Table of Contents.....	iv
List of Tables .....	vii
List of Figures.....	ix
Chapter 1: Introduction.....	1
Chapter 2: The Study of Source Credibility .....	7
The Definitions and Dimensions of Source Credibility .....	7
Effects of Source Credibility .....	11
Source Credibility and Hostile Media Perception .....	17
Reassessing Past Findings: The Influence of Source Profession and Source Group Membership .....	28
Chapter 3: Participants, Study Contexts, and Pilot Studies.....	37
Participants .....	37
Study Contexts.....	41
Criteria for Study Contexts.....	41
Selection of Study Contexts.....	42
Pilot Study 1 .....	46
Participants and Procedure .....	47
Measures.....	49
Results .....	50
Pilot Study 2 .....	56
Participants and Procedure .....	56
Stimuli .....	58
Measures.....	58
Results .....	59
Chapter 4: Common Methods for Main Experimental Studies .....	61
Common Procedures and Measures .....	61
Contexts and Participant Assignment to Condition.....	61
Compensation .....	63
Measures.....	64
Common Methods of Analysis .....	67
Data Screening.....	67
Data Transformation.....	67
Hypothesis and Model Testing.....	74

Analyses Used to Account for Partisan Position and Partisan Strength.....	75
Chapter 5: Experiment 1 .....	78
Method.....	78
Participants .....	78
Procedure .....	81
Analysis .....	82
Manipulation Checks.....	82
Scale Reliability Information.....	87
Results .....	89
ANCOVA .....	89
Discussion.....	96
Chapter 6: Experiment 2 .....	101
Method.....	101
Participants and Procedure .....	101
Analysis .....	105
Manipulation Check .....	105
Reliability Information and Data Screening Procedures .....	106
Results .....	108
ANCOVA .....	108
Structural Equation Modeling .....	111
Discussion.....	121
Chapter 7: Experiment 3 .....	129
Method.....	129
Participants and Procedure .....	129
Analysis .....	134
Manipulation Check .....	134
Reliability Information and Data Screening Procedures .....	134
Results .....	137
ANCOVA .....	137
Structural Equation Modeling .....	141
Discussion.....	156
Chapter 8: General Discussion .....	159
Summary of Experimental Findings.....	159
The Roles of Trust, Competence, and Goodwill in Hostile Media Perception.....	160
Analyzing the Influence of Extremity of Partisanship, and Context.....	164
Limitations.....	167



Future Research Directions .....	169
Practical Implications .....	170
Conclusions .....	171
Appendix A: Manipulations for Experiments 1, 2, and 3.....	173
Appendix B: Neutral News Articles .....	176
Appendix C: Measures .....	180
Appendix D: Covariance Matrices .....	185
References .....	235

## List of Tables

Table 3.1. <i>Percentages of Participants Reporting Partisan Perceptions on Policy Issues</i>	46
Table 3.2. <i>Pilot Study 1 Means, Standard Deviations, and Reliability of Source Credibility Scales</i>	53
Table 3.3. <i>Pilot Study 1 Principal Components Analyses for 18 Source Credibility Items</i>	55
Table 3.4. <i>Pilot Study 2 Means of Hostile Media Perception Measures Assessing Neutral News Articles</i>	60
Table 4.1. <i>Skewness and Kurtosis for Trust and Competence Measures for Experiment 2 Before and After Transformations</i>	69
Table 4.2 <i>Skewness and Kurtosis for Hostile Media Perception Measures for Experiment 2</i>	71
Table 4.3 <i>Skewness and Kurtosis for Trust Measures for Experiment 3 Before and After Transformations</i>	72
Table 4.4 <i>Skewness and Kurtosis for Goodwill Measures for Experiment 3</i>	73
Table 4.5 <i>Skewness and Kurtosis for Hostile Media Perception Measures for Experiment 3</i>	74
Table 5.1. <i>Experiment 1 Means, Standard Deviations, and Reliability of Scales, Taxes Context</i>	87
Table 5.2. <i>Experiment 1 Means, Standard Deviations, and Reliability of Scales, HPV Vaccine Context</i>	88
Table 6.1. <i>Experiment 2 Means, Standard Deviations, and Reliability of Scales, Taxes Context</i>	107
Table 6.2. <i>Experiment 2 Means, Standard Deviations, and Reliability of Scales, HPV Vaccine Context</i>	108
Table 6.3. <i>Experiment 2 Unstandardized Parameter Estimates for the Model of Hostile Media Perception, Taxes Context, All Partisans</i>	117

Table 6.4. <i>Experiment 2 Unstandardized Parameter Estimates for the Model of Hostile Media Perception, Taxes Context, More Extreme Partisans (Supporters/Opponents)</i>	118
Table 6.5. <i>Experiment 2 Unstandardized Parameter Estimates for the Model of Hostile Media Perception, HPV Vaccine Context, All Partisans (Supporters/Opponents)</i>	119
Table 6.6. <i>Experiment 2 Unstandardized Parameter Estimates for the Model of Hostile Media Perception, HPV Vaccine Context, More Extreme Partisans (Supporters/Opponents)</i>	120
Table 7.1. <i>Experiment 3 Means, Standard Deviations, and Reliability of Scales, Taxes Context</i>	135
Table 7.2. <i>Experiment 3 Means, Standard Deviations, and Reliability of Scales, HPV Vaccine Context</i>	135
Table 7.3. <i>Experiment 3: Unstandardized Parameter Estimates for the Model of Hostile Media Perception, Taxes Context, All Partisans</i>	147
Table 7.4. <i>Experiment 3: Unstandardized Parameter Estimates for the Model of Hostile Media Perception, Taxes Context, More Extreme Partisans</i>	148
Table 7.5. <i>Experiment 3: Unstandardized Parameter Estimates for the Model of Hostile Media Perception, HPV Vaccine Context, All Partisans</i>	149
Table 7.6. <i>Experiment 3: Unstandardized Parameter Estimates for the Model of Hostile Media Perception, HPV Vaccine Context, More Extreme Partisans</i>	150

## List of Figures

<i>Figure 2.1.</i> Conceptual Model of Hypotheses 1 through 4	27
<i>Figure 2.2.</i> Conceptual Model of Hypotheses 5 and 6	30
<i>Figure 2.3.</i> Conceptual Model of Hypotheses 8 through 10	36
<i>Figure 5.1.</i> Experiment 1: Taxes context, Interaction of trust and partisan position	90
<i>Figure 5.2.</i> Experiment 1: Taxes context, Interaction of goodwill and partisan position	92
<i>Figure 5.3.</i> Experiment 1: HPV Vaccine context, Interaction of competence and partisan position for more extreme partisans	94
<i>Figure 5.4.</i> Experiment 1: HPV Vaccine context, interaction of competence and partisan position for less extreme partisans	95
<i>Figure 6.1.</i> Experiment 2: Taxes context, Interaction between source profession and extremity of partisanship	109
<i>Figure 6.2.</i> Experiment 2: HPV context, Interaction between source profession and extremity of partisanship	110
<i>Figure 6.3.</i> Experiment 2 Structural Model, Taxes Context, All Partisans	124
<i>Figure 6.4.</i> Experiment 2 Structural Model, Taxes Context, More Extreme Partisans, Supporters	125
<i>Figure 6.5.</i> Experiment 2 Structural Model, Taxes Context, More Extreme Partisans, Opponents	126
<i>Figure 6.6.</i> Experiment 2 Structural Model, HPV Vaccine Context, All Partisans	127
<i>Figure 6.7.</i> Experiment 2 Structural Model, HPV Vaccine Context, More Extreme Partisans	128
<i>Figure 7.1.</i> Experiment 3: Taxes context, Interaction between source group membership and extremity of partisan position	138
<i>Figure 7.2.</i> Experiment 3: HPV context, Interaction between source group membership and extremity of partisan position	140
<i>Figure 7.3.</i> Experiment 3 Structural Model, Taxes Context, All Partisans	151

<i>Figure 7.4.</i> Experiment 3 Structural Model, Taxes Context, More Extreme Partisans	152
<i>Figure 7.5.</i> Experiment 3 Structural Model, HPV Vaccine Context, All Partisans	153
<i>Figure 7.6.</i> Experiment 3 Structural Model, HPV Vaccine Context, More Extreme Partisans	154

## Chapter 1: Introduction

In the United States, when citizens debate long-standing controversial social issues and policies, animosity seems commonplace and compromise appears distant (Huckfeldt & Sprague, 1995). Supporters and opponents of policies related to issues such as capital punishment, gun control, and abortion routinely disagree as to the merits of proposed legislation (Brewer, 2005; Huckfeldt & Sprague, 1995). Despite attempts at resolution through persuasion and discussion, sharp disagreements often persist, impeding action (Brewer, 2005; Lord, Ross, & Lepper, 1979).

The public routinely learns about policy disputes through the news media. Journalists relaying the intricacies of policy discussions strive for objectivity, attempting to give equal weight to arguments in support of and in opposition to proposed legislation (Cunningham, 2003; Dionne, 1996). Most media professionals laud objective reporting for its contribution to citizen knowledge (Godler & Reich, 2012; Zelizer, 2004). However, scholars have argued that balanced or neutral news reports related to controversial policy issues do not necessarily facilitate learning among people with strong opinions nor lead to compromise between supporters and opponents (Cunningham, 2003; Gunther & Liebhart, 2006; Gunther & Schmitt, 2004).

Rather, research shows that when presented with balanced news coverage of a controversial issue, people with extreme views on the issue (partisans) tend to level charges of bias against the news media and perceive the news coverage to be in opposition to their own position (Gunther & Liebhart, 2006; Gunther & Schmitt, 2004). This phenomenon, termed *hostile media perception* by Vallone, Ross, and Lepper (1985), has been presented as an exception to a robust finding in persuasion research known as

*biased assimilation*. Biased assimilation research demonstrates that when people are presented with information that is pertinent to their position on an issue, they rarely evaluate the information in an unbiased manner but rather perceive the information as supportive of their own position (Boysen & Vogel, 2008; Gunther & Schmitt, 2004; Lord et al., 1979; Lord & Taylor, 2009).

Scholars have attempted to explain why partisans perceive balanced information distributed by the news media as biased against their beliefs yet find similar or identical information unattributed to the news media to be supportive of their position (Gunther & Liebhart, 2006; Gunther & Schmitt, 2004). In hostile media perception research, partisans' distrust of journalists is discussed at length and offered as one reason why charges of bias are leveled against the news media (Gunther & Liebhart, 2006; Gunther & Schmitt, 2004). However, whether lack of trust in journalists *causes* hostile media perception remains an open question. In addition, the reasons why partisans level charges of bias against journalists may not be limited to distrust. In the persuasion literature, there is strong evidence that message acceptance is influenced by source credibility, which is a multidimensional construct consisting of trustworthiness (i.e., the degree to which a person perceives the assertions made by a source to be ones that the source considers valid), competence (i.e., the degree to which a source is perceived as knowledgeable), and goodwill (i.e., the degree to which a source is perceived to care for the audience or to have the audience's interests at heart; Hovland, Janis, & Kelley, 1953; McCroskey & Teven, 1999; O'Keefe, 2002; Perloff, 2003; Teven, 2008). The primary purpose of this dissertation is to investigate whether and how the three dimensions of source credibility

influence the likelihood of partisans perceiving news media coverage as hostile to their own point of view.

Source credibility research may offer an overarching explanation for seemingly disparate findings in the hostile media perception literature. For example, Gunther and colleagues have demonstrated that partisans level charges of bias when a source is purportedly a journalist but not when a source is said to be a college student (Gunther & Liebhart, 2006; Gunther & Schmitt, 2004). This finding in part may be explained by partisans' lack of trust in journalists (Corso, 2012; Public Policy Polling, 2013). Additional studies have shown that partisans are more likely to exhibit hostile media perception when a source is a member of an outgroup versus an ingroup (Gunther, McLaughlin, Gotlieb, & Wise, 2013; Reid, 2012). Source credibility perceptions may help explain this phenomenon because members of an ingroup tend to be perceived as more credible than members of an outgroup (Brewer, 1999; Brewer & Campbell, 1976; Clark & Maass, 1988). Research has also found that hostile media perception is more intense for partisans who are strongly committed to their ingroup (Ariyanto, Hornsey, & Gallois, 2007; Hartmann & Tanis, 2013; Matheson & Dursun, 2001). To the extent that stronger commitment to an ingroup leads partisans to perceive members of an outgroup as less trustworthy and lacking in goodwill, source credibility perceptions may well account for more intense hostile media perception among these highly committed partisans (Mastro, 2003; Oakes, Haslam, & Turner, 1994).

By integrating prior research on hostile media perception and source credibility, this dissertation aims to demonstrate that the likelihood of partisans leveling charges of bias against neutral news media coverage is in part dependent on the credibility of news



sources. Past studies have assumed that partisans are simply prone to biased processing of information and have failed to explain the impetus for hostile media perception from a theoretical perspective (Gunther et al., 2013; Reid, 2012). This dissertation addresses this critical gap and argues that the source characteristics of trust, competence, and goodwill act as catalysts for hostile media perception.

Three experiments have been designed to address the assertion that source credibility influences hostile media perception. The first experiment analyzes the effects of source trust, competence, and goodwill on the likelihood of partisans making charges of bias against news coverage. The second and third experiments seek to replicate past studies addressing the influence of source profession (journalist vs. student), source group membership (ingroup vs. outgroup), and strength of ingroup association, and to investigate the mediating role of source credibility perceptions as explanations for previous findings.

The three main experimental studies are tested in two health policy contexts: increasing taxes on sugar-sweetened beverages and requiring the human papillomavirus (HPV) vaccine. Scholars have argued that public opposition to these two health policies has hindered the passage and implementation of legislation (Calderón & Beltrán, 2004; Niederdeppe, Porticella, & Shapiro, 2012). Researchers have demonstrated that media messages play an important role in shaping public support and opposition to public policies (Gollust, Lantz, & Ubel, 2012; Lawrence, 2004; Niederdeppe et al., 2012). Understanding the influence of media messages on public policy support and opposition has important practical implications not only for advocates promoting increases in taxes

on sugar-sweetened beverages and HPV vaccine mandates, but also for people seeking public approval for other health policies and public policies in general.

In particular, policy advocates should consider that media messages delivered by journalists or people with clear partisan positions may be met with charges of bias and may either strengthen opposition or fail to increase support for key policy measures. Identifying sources that are trusted by partisans or who are perceived to have the partisans' interests at heart may quell partisan perceptions of bias and encourage support for a proposed policy.

The chapters that follow describe and more fully develop the arguments presented thus far and report the results of three experiments testing the contention that source credibility influences hostile media perception. Specifically, Chapter 2 describes source credibility research in both the persuasion and media effects literature and presents a rationale for why source credibility cues might act as catalysts for hostile media perception. Hypotheses for the three main experiments are also presented in Chapter 2. Chapter 3 provides information about the participants and contexts for all experiments and presents two pilot studies testing the experimental manipulations and the neutrality of news content. Next, the common methods and analyses for the three main experimental studies are described in Chapter 4. The results of Experiment 1, which analyzed the influence of source trust, competence, and goodwill, are presented in Chapter 5. The results for Experiment 2, which investigated the role of source profession (journalist vs. student) and the mediating roles of source trustworthiness and competence, are presented in Chapter 6. The results for Experiment 3, which explored the effects of group membership and strength of ingroup association and the mediating roles of source

trustworthiness and goodwill, are presented in Chapter 7. In Chapter 8, the theoretical significance, practical implications, and limitations of the three experimental studies are discussed and directions for future research are considered.

## **Chapter 2: The Study of Source Credibility**

This chapter begins with an overview of the literature related to the conceptualization and operationalization of source credibility in the persuasion and media effects literature. Next, the experimental research documenting the influence of source credibility on message acceptance is summarized. Finally, an argument for why source credibility should influence hostile media perception is presented, and the hypotheses for Experiments 1, 2, and 3 are put forth.

### **The Definitions and Dimensions of Source Credibility**

In the persuasion literature, scholars envision source credibility as the assessment of the believability of the communicator or the likelihood that a communicator provides messages that are reliable guides for beliefs or behaviors (O’Keefe, 2002; Simons, 2002). The study of source credibility in the persuasion literature is rooted in Aristotle’s (1954) writings on rhetoric, particularly in his discussion of *ethos*, or the projected character of the speaker in the mind of the listener. Aristotle and many contemporary persuasion scholars consider *ethos*, or source credibility, to be a speaker’s most powerful means of persuasion (Andersen & Clevenger, 1963; McCroskey & Young, 1981; Simons, 2002; Teven, 2008).

Aristotle (1954) envisioned a speaker’s *ethos* as a function of three elements: good sense, good moral character, and goodwill. Researchers have considered and evaluated elements of source credibility similar to Aristotle’s notion of *ethos* (Hovland et al., 1953). In 1953, Hovland and colleagues described three dimensions of source credibility thought to influence the effects of a message: expertise, trustworthiness, and intention toward the receiver. As research on source credibility continued in the 1960s

and 1970s, two dimensions of source credibility were most frequently recognized: trust and expertise (McCroskey & Teven, 1999; O’Keefe, 2002; Pornpitakpan, 2004). Various labels were offered for these dimensions, such as character, safety, and honesty for trust and qualifications, authoritativeness, intelligence, and, most commonly, competence for expertise (McCroskey, 1966; McCroskey & Teven, 1999; McCroskey & Young, 1981). Research has demonstrated that source competence and trust are key predictors of an individual’s assessment of the believability or credibility of a source (McCroskey & Richmond, 1996; McCroskey & Teven, 1999).

Hovland and colleagues (1953) defined trust as the degree to which a person perceives the assertions made by a source to be ones that the source considers valid.

Hovland and colleagues defined expertise or competence as the extent to which a source is viewed as capable of making correct assertions. Competence has also been defined as the knowledge or expertise a source possesses on a particular subject (Teven, 2008).<sup>1</sup>

Aside from Hovland and colleagues, few researchers have attempted to define or develop conceptualizations of the dimensions of source credibility. Most scholars either rely on the definitions provided by Hovland and colleagues or simply provide labels for abstract dimensions discovered through factor analytic techniques.<sup>2</sup>

The third source credibility dimension, goodwill or intention toward the receiver,

---

<sup>1</sup> Scholars tend to use very similar measures to assess the dimensions of expertise and competence (Ohanian, 1991). The term *competence* will be used throughout this dissertation in order to be consistent with McCroskey and Teven’s (1999) research on source credibility related to the dimensions of trust, competence, and goodwill.

<sup>2</sup> Scholars have claimed to have found additional dimensions of source credibility, such as dynamism, objectivity, sociability, composure, and extroversion (Berlo, Lemert, & Mertz, 1969; McCroskey, Holdridge, & Toomb, 1974; Whitehead, 1968). Research discussing these additional dimensions of source credibility has been met with criticism (McCroskey & Teven, 1999). Cronkhite and Liska (1976) condemned the exploratory factor analytic techniques used to discover dimensions of source credibility, arguing that the resultant dimensions are based on choices related to question inclusion, design, and analysis, rather than to critical consideration of the essence or conceptualization of source credibility.

was not referenced by Hovland et al. in 1953, but was absent from persuasion research for the next four decades due in part to misanalysis or misinterpretation of data and lack of satisfactory measures (McCroskey & Teven, 1999). McCroskey and Teven revived the concept of goodwill and defined it as the degree to which a source is perceived to have the person's interests at heart and to care for the person. McCroskey (1992) noted people are more likely to listen to and believe a source who has their interests at heart. Likewise, McCroskey argued, people are less likely to find credible a source who is driven by selfish motivations.

Teven and McCroskey (1997) developed measures to assess perceptions of goodwill. These measures assessed whether a source was perceived as self-centered and insensitive or understanding and caring, as well as if a source had the audience's interests at heart. Subsequent research evaluating perceptions of ten different types of sources, including political figures, journalists, entertainers, and teachers in large lectures, as well as interpersonal contacts like roommates, past romantic partners, and current and past supervisors, revealed source credibility to have three dimensions: trust, competence, and goodwill (McCroskey & Teven, 1999).

Despite McCroskey and Teven's (1999) research related to the concept of goodwill, persuasion scholars have typically described and examined only two dimensions of source credibility: trust and competence (Pornpitakpan, 2004). The lack of research related to goodwill in the persuasion literature, McCroskey and Teven (1999) argued, should not be considered an indication that the dimension is unimportant to the concept of source credibility. In fact, research by Teven (2008) demonstrated that perception of source goodwill was a stronger predictor of source believability than

perceptions of source trust or source competence in the context of evaluating politicians as sources. Work by McCroskey and Teven (1999) found goodwill to be a significant predictor of believability of source as well.

Researchers have also analyzed the dimensions of source credibility for sources with particular professions, including news media sources or journalists (Gaziano & McGrath, 1986; McCroskey & Jensen, 1975). In 1975, McCroskey and Jensen proposed that journalist credibility has five underlying dimensions: competence, character, sociability, composure, and extroversion. McCroskey and Jensen's work was based on perceptions of print as well as broadcast (television and radio) journalists. The dimensions of sociability, composure, and extroversion are most commonly explored in the realm of television news and televised presidential advertisements and debates (Allen & Post, 2009; Brann & Himes, 2010; Dumdum & Garcia, 2011) and are not suitable to a general conceptualization of news media source credibility for both print and broadcast journalists.

McCroskey and Jensen (1975) noted that the dimensions of competence and character were the most predictive of several measures of audience approval of the news media source, such as the likelihood that the source would change a person's mind and the likelihood that a person would choose the news outlet as a source of information. McCroskey and Jensen's measures for the dimension of character, such as caring, sympathy, and selfishness, mirror items later used by McCroskey and Teven (1999) to assess goodwill. McCroskey and Jensen's research related to news media source credibility supports two key dimensions: competence and goodwill. Absent from

McCroskey and Jenson's (1975) work on news media source credibility is a discussion of source trust.

In 1986, Gaziano and McGrath evaluated the dimensions of news media source credibility and reported two dimensions: credibility and social concern. Gaziano and McGrath's dimension of credibility was related to perceptions of trust and honesty as well as accuracy and the ability to separate fact from opinion, whereas the dimension of social concern addressed care for the audience. Gaziano and McGrath's dimension of credibility is similar to the dimensions of competence and trust, and their dimension of social concern mirrors the dimension of goodwill presented by McCroskey and Teven (1999). Gaziano and McGrath's research supported three key dimensions of news media source credibility: trust, competence, and goodwill.

In summary, research conceptualizing the notion of credibility for a variety of sources, including news media sources or journalists, tends to report or describe three underlying dimensions: trust, competence, and goodwill. Trust can be thought of as the degree to which a person perceives the assertions made by a source to be ones that the source considers valid (Hovland et al., 1953). Competence refers to the extent to which a source is viewed as capable of making correct assertions (Hovland et al.), and goodwill is considered the degree to which a source is perceived to have the person's interests at heart and to care for the person (McCroskey & Teven, 1999). McCroskey and Teven (1999) provided measures that appear to clearly distinguish the three dimensions when assessing a variety of sources, including journalists. Their operationalizations of the three credibility dimensions will guide research in this dissertation.



## **Effects of Source Credibility**

Following research identifying the dimensions of source credibility, scholars devoted a considerable amount of effort to analyzing the impact of source credibility on message acceptance (Chaiken, Wood, & Eagly, 1996; Petty & Wegener, 1997; Petty, Wegener, & Fabrigar, 1997; Sternthal, Phillips, & Dholakia, 1978). The majority of research has been conducted in the realm of persuasion. Specifically, this body of work has found that high credibility sources induce more persuasion than low credibility sources (Horai, Naccari, & Fatoullah, 1974; Hovland & Weiss, 1951; Johnson & Izzett, 1969; Johnson, Torvicia, & Poprick, 1968; Kelman & Hovland, 1953; Lirtzman & Shuv-Ami, 1986; Maddux & Rogers, 1980; Miller & Baseheart, 1969; O'Keefe, 2002; Pornpitakpan, 2004; Powell, 1965; Schulman & Worrall, 1970). In past studies, high credibility sources have convinced people to adopt specific decision-making strategies, promoted consumer purchasing, and motivated compliance with medical recommendations (Crano, 1970; Crisci & Kassinove, 1973; Fireworker & Friedman, 1977; Friedman & Friedman, 1979; Levine, Moss, Ramsey, & Fleishman, 1978; Ohanian, 1991; Woodside & Davenport, 1974).

It should be noted, however, that contextual factors have been shown to influence the effects of credibility (Bochner & Insko, 1966; Bock & Saine, 1975; Halperin, Snyder, Shenkel, & Houston, 1976; McGinnies, 1973; Sternthal, Phillips, & Dholakia, 1978). For example, Bochner and Insko (1966) found a moderately credible source to be just as, if not more, persuasive than a highly credible source when a message was moderately discrepant from participants' beliefs. Similar studies support this finding (Halperin et al., 1976; McGinnies, 1973). However, more recent message discrepancy research finds that

the influence of source credibility on belief change increases over time when a source is seen as highly credible (Chung, Fink, & Kaplowitz, 2008). Additionally, scholars have demonstrated that moderately credible sources induce more attitude change than highly credible sources when people are presented with information that clearly favors their position (Brock & Saine, 1975; Sternthal, Dholakia, & Leavitt, 1978). Sternthal et al. argued that people are inclined to think of more evidence in support of their position, and thus develop stronger attitudes, when they perceive a source to have moderate credibility or to be lacking the ability to provide convincing arguments.

In studies measuring the effects of persuasive messages, scholars have tended to simply describe and claim to test the influence of an overall concept of source credibility (O'Keefe, 2002; Pornpitakpan, 2004). In experimental studies, researchers usually do not separately manipulate the most common dimensions of source credibility, trust and competence; rather, the influence of a source high in credibility is compared to the influence of a source low or moderate in credibility (Briñol, Petty, & Tormala, 2004; O'Keefe, 2002; Tormala, Briñol, & Petty, 2007).

Several studies have attempted to assess the influence of source competence itself (Chaiken & Maheswaran, 1994; Maddux & Rogers, 1980) as well as source trust (Nan, 2009; Priester & Petty, 1995; Ziegler, 2010). Experimental studies tend to adopt Hovland et al.'s (1953) conceptualizations of trust, defined as the degree to which a person perceives the assertions made by a source to be ones that the source considers valid, and competence, defined as the extent to which a source is viewed as capable of making correct assertions. Relying on Hovland et al.'s definitions, researchers have developed experimental manipulations unique to each dimension, and found both trust and

competence to influence message evaluations. For example, Chaiken and Maheswaran (1994) demonstrated that people developed more favorable attitudes about an answering machine service when they read a review of the service that was said to be authored by a writer for a magazine specializing in scientific testing of new products (high competence) compared to when the same review was purportedly written by a member of a sales staff at a discount retail chain (low competence). Similarly, Maddux and Rogers (1980) found that a message about sleep attributed to a professor of physiology (high competence) was more persuasive than the same message purportedly written by a professor of music (low competence). In research related to source trust, Zeigler (2010) found more favorable attitudes were expressed for the building of a residential transportation tunnel when information was delivered by a source who reported an error in overpayment of his employee bonus (trustworthy) rather than by a source who failed to report the error and would not return the overpayment after being asked to do so (untrustworthy).

Additional research has tried to analyze the influence of source competence and trust on message acceptance within the same study (McGinnies & Ward, 1974; O'Hara, Netemeyer, & Burton, 1991; Weiner & Mowen, 1986). McGinnies and Ward (1974), in five cross-cultural experiments, manipulated source competence (professor or expert vs. writer or inexperienced) and source trust (honest, sincere, and trustworthy vs. dishonest, insincere, and untrustworthy). McGinnies and Ward found that the most persuasive source was a source high in both competence and trust. However, trustworthy sources were more persuasive than untrustworthy sources, whether the source was an expert or not (McGinnies & Ward, 1974). Research by O'Hara and colleagues (1991) and Weiner and Mowen (1986) was inconclusive as to the unique effects of source competence and

source trust.

Interactions between the dimensions of source competence and source trust are rarely discussed (O'Keefe, 2002). Interactions that tend to be addressed are interactions between one dimension of source credibility and additional message or source characteristics, such as attractiveness (Hovland & Mandell, 1952; for a review, see O'Keefe, 2002). The ability to identify interactions has been severely limited by common design choices in persuasion research in which researchers do not separately manipulate source competence and source trust (O'Keefe, 2002).

Although the influence of source trust and source competence on message acceptance are routinely addressed in the persuasion literature, the dimension of goodwill is absent from the majority of persuasion studies testing the effects of source credibility (Teven, 2008). Measures to capture the dimension of goodwill were lacking for scholars investigating the effects of source credibility in the 1960s, 1970s, and 1980s, but even since Teven and McCroskey (1997) created items to measure the concept, scholars have been slow to assess perceptions of or to manipulate goodwill in experimental research related to source credibility (Teven, 2008).

Overall, the body of research related to source credibility effects in persuasion research demonstrates that highly credible sources seem to be more persuasive than low credibility sources. In particular, highly trusted sources tend to be more persuasive than sources seen as untrustworthy, and highly competent sources tend to be more persuasive than sources seen as lacking in competence. Interactions between source credibility dimensions, as well as the influence of source goodwill, are rarely assessed in persuasion studies.

Similar to the study of source credibility in the persuasion literature, media effects research has embraced credibility as reflecting competence and trust. Definitions of trust and competence provided by media effects scholars mirror key concepts in definitions provided in the persuasion literature, such as believability and expertise. For example, Tsfati (2002) described mistrust as the perception that one cannot believe what one reads or hears in the news media. Druckman (2001) referred to trust as the audience's belief that the speaker will reveal what he or she knows. Druckman also conceptualized competence as the knowledge of the speaker.

Results of media effects studies of source credibility also report that credible sources are more persuasive or more influential (Druckman, 2001; Iyengar & Kinder, 1987; Miller & Krosnick, 2000; Tsfati, 2002). In particular, individuals who find the news media to be lacking in credibility are less likely to adopt the media's agenda or cues related to story importance (Iyengar & Kinder, 1987; Miller & Krosnick, 2000; Tsfati, 2002), to find beliefs espoused by the media to be accessible (Miller & Krosnick, 2000), to embrace media frames or storylines (Druckman, 2001), or simply to be less likely to accept journalistic judgments. In addition, a review of the body of media effects literature indicates that individuals who find the media to be incompetent and untrustworthy often dismiss, discount, or disregard news media coverage (Ladd, 2010).

Experimental manipulations of the concept of source credibility by media effects scholars are also similar to strategies used by persuasion scholars. For example, Druckman (2001) manipulated source competence by attributing a news article to either *The New York Times*, a major national newspaper (high competence), or *The National Enquirer*, a supermarket tabloid (low competence), and found people were more likely to

adopt the perspective presented in the article when the article was said to be published in *The New York Times*.<sup>3</sup>

Finally, the dimension of goodwill is largely absent from work on media effects (Dumdum & Garcia, 2011). In particular, investigations of a journalist having goodwill toward the audience and the effects of people's perceptions of journalistic goodwill on evaluations of news content are rare.

In summary, persuasion research as well as media effects research has demonstrated that the persuasive power of a message is influenced by source credibility (Miller & Krosnick, 2000; O'Keefe, 2002). Empirical evaluations of the effects of source trust and source competence, which find trustworthy and competent sources to be more influential and persuasive, are more common than analyses of the effects of source goodwill in both the persuasion and media effects literature (Ladd, 2010; Pornpitakpan, 2004).

### **Source Credibility and Hostile Media Perception**

Despite a large body of research related to the study of source credibility in the persuasion and media effects literature, scholars have yet to apply knowledge of the influence of source cues and perceptions to the understanding of a unique phenomenon known as *hostile media perception*. Hostile media perception research suggests that when people with extreme stances on issues, or people scholars have referred to as partisans, are exposed to neutral or balanced news coverage, charges of bias are often leveled and partisans perceive the information to be biased against their point of view. Early research on hostile media perception was sparked by an apparent contradiction to past persuasion

---

<sup>3</sup> Media effects researchers rarely manipulate perceptions of journalistic trust in experimental research, but rather measures participants' overall trust in the news media and its influence on message acceptance (Ladd, 2010).

studies on biased assimilation (Lord et al., 1979; Vallone et al., 1985). *Biased assimilation* has been defined as the phenomenon in which people generally highlight information that is supportive of their opinions or perceive new information as confirming their beliefs (Lord et al., 1979; Reid, 2012). Vallone et al. (1985) noted that when partisans were presented with a neutral news report their first instinct was not to assimilate supportive information but rather to perceive the news report to be in opposition to their beliefs and to level charges of bias against the news media.

In the first study to coin the term *hostile media perception*, Vallone and colleagues (1985) presented pro-Israeli and pro-Arab students from an American university with news coverage of the 1982 West Beirut Massacre. Those with neutral attitudes toward who was responsible for the massacre described the broadcasts as balanced. However, when pro-Israeli and pro-Arab participants viewed the same broadcasts, partisans on each side saw the broadcasts as biased in favor of the other side. Hostile media perception has generally received empirical support since Vallone et al.'s work. Experimental and survey studies span varying contexts, such as sports news (Arpan & Raney, 2003), the 1997 United Parcel Service (UPS) strike (Christen, Kannaovakun, & Gunther, 2002), the 1992 U.S. presidential election (Dalton, Beck, & Huckfeldt, 1988), genetically modified foods (Gunther & Schmitt, 2004), primates in laboratory research (Gunther, Christen, Liebhart, & Chia, 2001), and replications of Vallone et al.'s study of Middle East conflicts (Giner-Sorolla & Chaiken, 1994; Perloff, 1989).

However, several studies have failed to find hostile media perception among partisans (Giner-Sorolla & Chaiken, 1994; Vallone et al., 1985). For example, in a preliminary study investigating hostile media perception, Vallone et al. found no general

tendency for partisans to perceive news coverage of the 1980 U. S. presidential election as biased against the partisans' preferred candidate. Giner-Sorolla and Chaiken (1994) also failed to find hostile media perception among college students exposed to news articles related to abortion policies. Vallone et al. and Giner-Sorolla and Chaiken attributed the absence of hostile media perception to partisans characteristics, including weak feelings on an issue and insufficient extremity of partisan position. Past research and theoretical arguments suggest hostile media perception may only occur when investigating issues that prompt fierce and enduring partisanship (Giner-Sorolla & Chaiken, 1994; Vallone et al., 1985).

Researchers have also documented *relative hostile media perception*, which occurs when both groups perceive the news article to favor one side of the issue, yet partisans who belong to the side that is perceived to be favored perceive the news article to be less supportive of their position than partisans who belong to the side that is not favored (Gunther & Chia, 2001; Gunther et al., 2001). Research related to relative hostile media perception indicates that partisan position (i.e., support of or opposition to a policy) can play a role in predicting perceptions of bias.

The phenomenon of hostile media perception also appears to be unique to the mass media (Gunther & Liebhart, 2006; Gunther & Schmitt, 2004). Research in the two decades following Vallone et al.'s (1985) study attempted to offer reasons why balanced information distributed by the mass media was met with charges of bias, whereas similar information not presented by members of the news media resulted in biased assimilation and the strengthening of prior beliefs (Gunther & Liebhart, 2006; Gunther & Schmitt, 2004). Suggestions thus far have been related to source characteristics, particularly



source trust and source group membership (Gunther & Liebhart, 2006; Gunther & Schmitt, 2004; Gunther et al., 2013; Reid, 2012). However, scholars have yet to test whether the three dimensions of source credibility referenced in the persuasion literature (trust, competence, and goodwill) *cause* hostile media perception or help to explain past findings related to the influence of source profession and source group membership on the likelihood of partisans leveling charges of bias against neutral news reports.

Research related to message processing provides a rationale for why source credibility cues or perceptions may influence partisans' evaluation of neutral news coverage. Dual processing models, including the elaboration likelihood model (ELM, Petty & Cacioppo, 1986) and the heuristic systematic model (HSM, Eagly & Chaiken, 1993), account for how people process source credibility cues and how the processing of cues influences the evaluation of messages. The ELM and HSM delineate two routes of information processing (Eagly & Chaiken, 1993; Petty & Cacioppo, 1986). In the systematic or central route to persuasion, people elaborate on the arguments in a message and expend considerable cognitive effort to make a judgment. In the heuristic or peripheral route to persuasion, people rely on superficial cues related to the source, message, or context and arrive at a decision by employing little mental effort (Chaiken, Liberman, & Eagly, 1989).

Scholars contend that people often process source credibility information via the heuristic route to persuasion (Chaiken & Maheswaran, 1994; Petty, Cacioppo, & Goldman, 1981). Bohnet, Ruder, and Erb (2002) noted that cues related to source credibility that are processed via the heuristic route often establish expectations about subsequent messages disseminated by the source. For example, people expect that a

competent source will provide more convincing arguments than an incompetent source (Bohner et al., 2002; Chaiken & Maheswaran, 1994). Whether or not the expectations established via source credibility cues influence evaluations of messages depends on the ambiguity of the message (Bohner, Chaiken, & Hunyadi, 1994; Bohner et al., 2002).

When a message is unambiguous, or clearly supports or opposes a course of action, the processing of message content tends to have a significant influence on message evaluation, whereas the processing of source cues tends to have little influence on message acceptance (Chaiken & Maheswaran, 1994). However, when information is ambiguous, or provides information both supporting and opposing a conclusion, people rely less on the processing of message content to evaluate a message and more on source credibility cues to judge message validity (Bohner et al., 2002; Chaiken & Maheswaran, 1994). Specifically, the HSM's *bias hypothesis* predicts that when people struggle to determine whether a message provides sufficient support for a conclusion (i.e., when a message is ambiguous), they engage in heuristic processing of source credibility cues, and use source credibility cues to draw conclusions about a message's validity (Bohner et al., 2002; Chaiken & Maheswaran, 1994).<sup>4</sup> Several experimental studies have generally confirmed the bias hypothesis proposed by Chaiken et al. (1989) by demonstrating that source credibility cues have a direct and significant impact on the evaluation of ambiguous information (Bohner et al., 1994; Bohner, Moskowitz, & Chaiken, 1995; Bohner et al. 2002; Erb, Bohner, Schmälzle, & Rank, 1998).

Chaiken and Maheswaran (1984) noted that ambiguous messages provide a mix of pros and cons related to the solution for a problem. Similarly, hostile media perception

---

<sup>4</sup> Chaiken and Maheswaran (1994) define unambiguous messages as messages that provide clear support for a person, product, or solution and describe ambiguous messages as messages that provide a mix of the pros and the cons of selecting a product or solution to a problem.

researchers define neutral news coverage as news content that provides a mix of pros and cons related to proposed solutions offered by either side (Gunther & Schmitt, 2004). The bias hypothesis, which predicts source cues have a direct effect on judgments of ambiguous messages, should be applicable to hostile media perception research. Specifically, one should expect source credibility cues to establish expectations about subsequent news media messages and those expectations should have a direct effect on the evaluation of neutral news content (Chaiken et al., 1989). Judgments of news media messages, including whether information is biased, should be consistent with expectations established through source credibility cues (Bohner et al., 2002). This prediction warrants an investigation of the influence of source credibility on the likelihood of partisans leveling charges of bias against neutral news coverage.

In the media effects literature, bias has been defined as the perception that news coverage is inaccurate, unfair, and unbalanced. Specifically, biased news coverage extrapolates beyond the facts of the matter (inaccurate), fails to give an equal amount of coverage to all involved parties (unbalanced), and gives more favorable treatment to one side (unfair; Fico & Soffin, 1995; Lacy, Fico, & Simon, 1991; Lee, 2010; Simon, Fico, & Lacy, 1989).<sup>5</sup> Hostile media perception studies find that nonpartisans are unlikely to perceive bias in neutral news coverage (Christen et al., 2002; Vallone, Ross, & Lepper, 1985). Nonpartisans tend to accept journalistic interpretations of debates related to controversial issues as accurate, balanced, and fair. In contrast, hostile media perception studies find that partisans are likely to reject journalistic interpretations of events as

---

<sup>5</sup> Scholars have questioned whether media coverage that is unbalanced should be considered biased (Boykoff, 2008). For example, research has demonstrated that journalists, in attempts to provide balanced news coverage, provide arguments that support and also oppose scientific research validating climate change despite consensus among the scientific community that climate change is occurring (Boykoff, 2008). Some might consider this information unbalanced, but not biased.

accurate, balanced, and fair. Instead, partisans tend to perceive news to be biased against their own point of view (Gunther & Liebhart, 2006; Gunther & Schmitt, 2004).

The persuasion and media effects literature, when considered in combination with results of national polls, provides evidence that perceptions of source credibility (e.g., source trust and source goodwill) are instrumental to the acceptance or rejection of journalistic interpretations. Persuasion and media effects research has demonstrated that people tend to accept interpretations of an issue presented by a source that they perceive to be trustworthy, yet are prone to reject the interpretations of a source that they perceive to be untrustworthy (Druckman, 2001; Teven, 2008). Nonpartisans' acceptance of journalistic interpretations may be partially explained by nonpartisans' belief in a trustworthy press, whereas partisans' proclivity to reject journalistic interpretations by leveling charges of bias may be due to an ardent suspicion that the press is dishonest. If perceptions of trustworthiness are key to nonpartisans' acceptance of journalistic interpretations and partisans' rejection of journalistic interpretations, or perceptions that news is biased against their own point of view, we should expect that nonpartisans find news outlets to be trustworthy and that partisans perceive news outlets to be untrustworthy. Polling research confirms this assertion, revealing that people with moderate political views (nonpartisans) tend to trust most major news media outlets, whereas people with extreme positions on issues (partisans) tend to distrust most major news media outlets (Public Policy Polling, 2013).

Media effects research has also demonstrated a connection between rejection of journalistic interpretations and perceptions of a lack of source goodwill (Tsfati, 2003). Using large-sample data sets from the National Election Study and the Electronic

Dialogue Project, Tsfati (2003) demonstrated that people who perceived journalists to have goodwill were likely to accept journalistic interpretations, mirroring the media's judgments as to which news stories were the most important stories of the day. In contrast, people who perceived journalists to be lacking in goodwill were likely to reject the media's judgments of story importance; instead, these individuals indicated that the most important stories of the day were those given less attention in news coverage. Nonpartisans' acceptance of journalistic interpretations may be partially explained by nonpartisans' perceptions that journalists generally have their interests at heart, whereas partisans' rejection of journalistic interpretations may be due to partisans' strong belief that journalists are primarily driven by self-serving interests. If perceptions of goodwill are key to predicting nonpartisans' adoption of journalistic interpretations as well as partisans' perceptions that news is biased against their own point of view, we should expect nonpartisans to be unlikely to question journalists' care for the audience and for partisans to perceive journalists to be devoid of goodwill. Polling research supports this contention, finding that partisans are more likely than nonpartisans to believe that journalists do not care about their readers or are lacking in goodwill (Pew Research Center for the People and the Press, 2013).

Tsfati (2003) argued that his study extended research related to the effects of source credibility by demonstrating that perceptions of source credibility are influential not only in straightforward tests of persuasion, but also in evaluations of journalistic judgments, such as determination of story importance. Hostile media perception also differs from typical measures of persuasion, such as attitude change, attitude strength, positive and negative thoughts, and behavioral intentions (Chaiken & Maheswaran, 1994;

Johnson et al., 1968; Nan, 2009; O'Hara et al., 1991). However, hostile media perception may be considered a type of message rejection or a rejection of journalistic interpretations, in that partisans are rejecting news coverage as an accurate, fair, and balanced portrayal of controversial issues.

Given research related to source credibility, the HSM's bias hypothesis, and partisans' perceptions of news sources, one can argue that partisans perceive neutral news coverage to be biased against their own point of view because they find journalists to be untrustworthy and lacking in goodwill. Specifically, with regard to the dimensions of source trust and source goodwill, the following hypotheses are proposed:

H1: Partisans perceive a balanced news article authored by an untrustworthy (vs. trustworthy) source as more biased against their own point of view.

H2: Partisans perceive a balanced news article authored by a source lacking in goodwill (vs. having goodwill) as more biased against their own point of view.

The influence of source competence on hostile media perception may be more complex than the influence of source trust or source goodwill. In the persuasion literature, incompetent sources tend to be less persuasive than competent sources (Chaiken & Maheswaran, 1994; Horai et al., 1974; Maddux & Rogers, 1980; McGinnies & Ward, 1974; for a review, see Pornpitakpan, 2004). One might hypothesize that when partisans are exposed to a balanced news article authored by an incompetent source, charges of bias might be leveled because the source is seen as lacking the ability to present valid, convincing arguments (Bohner et al., 2002).

However, in hostile media perception, the influence of source competence may have the opposite effect, with partisans leveling charges of bias against competent sources if the source is also seen as untrustworthy or lacking in goodwill. Hostile media perception scholars have argued that partisans are prone to evaluating news coverage as biased to prevent journalists from influencing others' opinions (Sun & Hwang, 2013; Wei, Chia, & Lo, 2011). Charges of bias should be more likely to occur if two criteria are satisfied: (1) partisans expect the journalist to provide a position in opposition to the views of the partisan, and (2) the journalist is competent. The first set of hypotheses proposed above suggests that partisans expect journalists to present a position in opposition to the views of the partisan when the journalist is seen as untrustworthy and lacking in goodwill. Charges of bias should be more likely to occur when an untrustworthy source or a source lacking in goodwill, who is expected to provide a position in opposition to the partisan's stance, is perceived to be competent (vs. incompetent). On the other hand, when partisans perceive a trustworthy source or a source having goodwill to be competent (vs. incompetent), they should judge information to be less biased against their own point of view, because partisans should expect the competent source to be able to provide convincing arguments in support of the partisan's position. This leads to difficulty in predicting a main effect of source competence on hostile media perception but does offer insight into possible interactions between source trust and source competence, and between source goodwill and source competence. The following hypotheses regarding these interactions are proposed:

H3: (a) Partisans perceive a balanced news article authored by an untrustworthy source as more biased against their own point of view when a source has high (vs.

low) competence; (b) partisans perceive a balanced news article authored by a trustworthy source as less biased against their own point of view when a source has high (vs. low) competence.

H4: (a) Partisans perceive a balanced news article authored by a source lacking goodwill as more biased against their own point of view when a source has high (vs. low) competence; (b) partisans perceive a balanced news article authored by a source having goodwill as less biased against their own point of view when a source has high (vs. low) competence.

The first four hypotheses describe the role of source credibility in predicting hostile media perception. These hypotheses are modeled in Figure 2.1. Experiment 1, which is described in detail in Chapter 5, will test these hypotheses and the proposed model of hostile media perception.

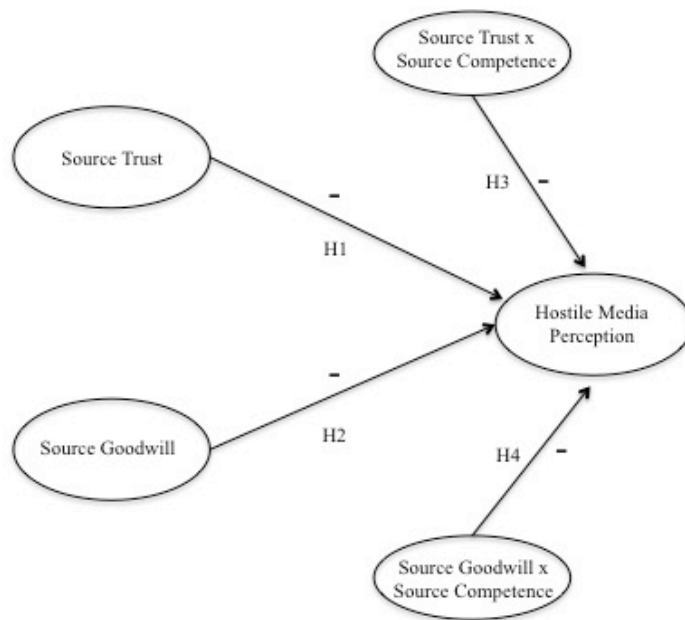


Figure 2.1. Conceptual Model of Hypotheses 1 through 4.



## **Reassessing Past Findings: The Influence of Source Profession and Source Group Membership**

The theoretical connection between source credibility and hostile media perception developed in this dissertation may be used to understand previous findings along two lines of research related to source profession and source group membership. In previous research related to source profession, Gunther and colleagues (Gunther & Liebhart, 2006; Gunther & Schmitt, 2004) have demonstrated that hostile media perception is dependent on the profession of the author, or more specifically that partisans exhibit hostile media perception when a source is said to be a journalist, but not when a source is said to be a college student.

In past research, Gunther and colleagues have found that when information was presented as authored by a college student, partisans on both sides of an issue typically perceived the news article as balanced or neutral (Gunther & Liebhart, 2006; Gunther & Schmitt, 2004). However, when identical information was presented as authored by a professional journalist, partisans' perceptions of the content diverged such that partisans on both sides perceived the content to be biased against their own view (Gunther & Liebhart, 2006; Gunther & Schmitt, 2004). One explanation for this finding, as these researchers mentioned, is that partisans perceive journalists as less trustworthy than college students, leading to hostile media perception. However, this possibility has not been empirically tested within an overarching theoretical framework such as the literature related to source credibility.

Experimental manipulations of source profession in hostile media perception research may lead partisans to perceive differences in source credibility not only on the

dimension of trust, but also on the dimension of competence. For example, partisans may find journalists to be more competent or to have more expertise than a college student, especially if the journalist is said to work for a major news media outlet. In fact, research demonstrates that people are prone to adopting the heuristic that experts (such as trained journalists) are able to provide convincing arguments, whereas sources who are inexperienced are unlikely to provide persuasive information (Bohner et al., 2002). As mentioned previously, hostile media perception scholars have argued that partisans level charges of bias to prevent the source of the information from influencing others' opinions (Sun & Hwang, 2013; Wei et al., 2011). Partisans should only be concerned, and level charges of bias, if the source is expected to provide an opinion in opposition to the partisan and if the source is seen as competent.

The influence of partisans' perceptions of source trust and source competence may be instrumental in explaining past hostile media perception research related to the effects of source profession. Specifically, partisans may level charges of bias against journalists (but not college students) because partisans perceive journalists as untrustworthy (i.e., likely to present information in opposition to the partisan's stance) and competent (i.e., to possess the power to convince others). To further evaluate the influence of source profession on hostile media perception and to explain the relationship within the source credibility framework proposed in this dissertation, Gunther and colleagues' studies will first be replicated:

H5: Partisans see information as more biased against their own point of view when information is authored by a journalist (vs. a college student).

Next, the mediating roles of source trust and competence will be analyzed:

H6a: The relationship between source of the information (journalist vs. student) and hostile media perception is mediated by partisans' perceptions of source trust, such that partisans perceive journalists (vs. college students) to be less trustworthy and perceptions of distrust (vs. trust) lead partisans to perceive the information as more biased against their own point of view.

H6b: The relationship between source of the information (journalist vs. student) and hostile media perception is mediated by partisans' perceptions of source competence, such that partisans perceive journalists (vs. college students) to be more competent and perceptions of competence (vs. incompetence) lead partisans to perceive the information as more biased against their own point of view.

Hypotheses H5, H6a, and H6b were tested in Experiment 2. The hypotheses related to Experiment 2 seek to replicate past hostile media perception studies and to test the mediating roles of the source credibility dimensions of trust and competence to explain the relationship between source profession and hostile media perception. These hypotheses are modeled in Figure 2.2.

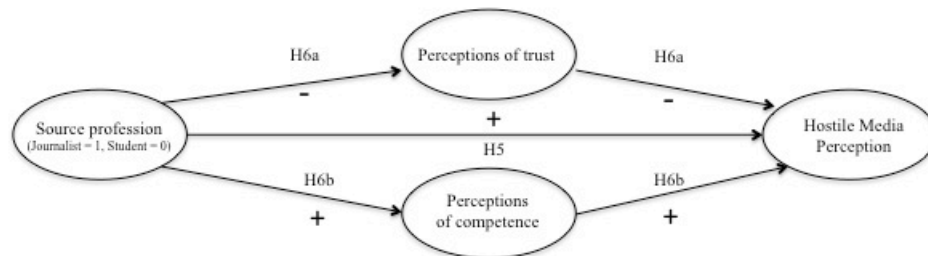


Figure 2.2. Conceptual Model of Hypotheses 5 and 6.

A second line of research in the hostile media perception literature shows source group membership (Gunther et al., 2013; Reid, 2012) and partisans' strength of ingroup association (Ariyanto et al., 2007; Hartmann & Tanis, 2013; Matheson & Dursun, 2001) influence the likelihood of hostile media perception.

Allport (1954) noted it can be difficult to define an ingroup, but argued ingroups form through a process in which the social landscape is differentiated into people that are acknowledged to be "us" (ingroup) and those who are not (outgroup; Allport, 1954; Brewer, 1999). The first step to creating ingroups is drawing intergroup boundaries (Giles & Giles, 2013). A group may communicate an intergroup boundary by acknowledging that their group members differ from people in other groups in specific ways, such as by spiritual rituals or moral standards, languages, geographic region, or policy preferences (Giles & Giles, 2013). Once defined, intergroup boundaries establish ingroups and outgroups. Ingroups then specify rules for cooperation and interdependence and are sustained through mutual trust and obligation (Brewer, 1999).

According to Allport (1954), members of a family, a school, a labor union, a city, a state, or a country can form an ingroup. Scholars have also argued political party membership establishes perceptions of ingroups and outgroups, specifically membership in the Democratic and the Republican party in the United States (Chambers, Baron, & Inman, 2006; Fowler & Cam, 2007; Hackel, Looser, & Van Basel, 2014; Smith, Seger, & Mackie, 2014).

In instances where ingroup membership is relevant, people tend to exaggerate differences between groups. For example, during a policy debate or an election cycle, people tend to highlight political party membership (Reid, 2012). Chambers et al. (2006)

demonstrated that when political party membership is highlighted, people not only overestimate the degree of discrepancy between their own stance on an issue and the stance of those who belong to the opposing party, but also to overstate the degree of difference between other relevant dispositional attributes, such as caring for others. This phenomenon was demonstrated across several different policy contexts, including abortion, crime prevention, military funding, public education funding, and social inequalities (Chambers et al., 2006; Robinson, Keltner, Ward, & Ross, 1995).

Hostile media perception scholars have sought out contexts, such as policy debates and elections, in which people tend to highlight group membership, and have suggested that group membership of a source influences hostile media perception in these contexts (Gunther et al., 2013; Reid, 2012). Scholars have posited that partisans use group membership of the source as a heuristic, which establishes the expectations that ingroup members strongly agree with the partisan and that outgroup members strongly disagree (Brewer & Gardner, 1996; Reid, 2012). These expectations lead to hostile media perception when the source is a member of an outgroup, but not when the source is a member of the ingroup (Gunther et al., 2013; Reid, 2012). Studies find that when a journalist or source is identified as a member of an ingroup, hostile media perception is less extreme or nonexistent, but when the source is identified as a member of the outgroup, hostile media perceptions occur and can be quite extreme (Gunther et al., 2013; Reid, 2012).

Reid (2012) suggested that partisans expect to find content authored by an outgroup member to be disagreeable because partisans find members of outgroups to be untrustworthy. If source trust helps to explain why people level charges of bias when a

source is a member of an outgroup but not when a source is a member of an ingroup, we should expect people to find ingroup members to be trustworthy and to find outgroup members to be untrustworthy. Past research supports this contention. Ingroup members are perceived to be more believable, honest, reasonable, and trustworthy than members of an outgroup (Brewer, 1999; Brewer & Campbell, 1976; Clark & Maass, 1988). In addition to perceptions of trust, perceptions of goodwill may account for why partisans are prone to hostile media perception when a source is a member of an outgroup. Past group membership research indicates that people tend to lack concern for members of an outgroup (Skitka, Bauman, & Sargis, 2005) and to perceive ingroup members as caring (Clark & Maass, 1988).

Source credibility perceptions, particularly perceptions of source trust and goodwill, may partially explain the influence of source group membership on hostile media perception. When presented with content said to be authored by a member of an outgroup, partisans should find the author of the information to be untrustworthy and to lack goodwill for the partisan. These perceptions should lead the partisan to expect the information to be in disagreement with the partisan's position and to perceive the information as biased against their own point of view. To further evaluate the influence of source group membership on hostile media perception and to explain the relationship within the source credibility framework proposed in this research, past findings will be replicated:

H7: Partisans see information as more biased against their own point of view when the information is authored by a member of an outgroup (vs. an ingroup).

Next the mediating roles of source trust and goodwill will be analyzed:

H8a: The influence of the group membership of a source on hostile media perception is mediated by partisans' perceptions of source trust such that partisans perceive outgroup (vs. ingroup) members to be less trustworthy and perceptions of distrust (vs. trust) lead partisans to perceive the information as more biased against their own point of view.

H8b: The influence of the group membership of source on hostile media perception is mediated by partisans' perceptions of source goodwill, such that partisans perceive outgroup (vs. ingroup) members as having less goodwill and perceptions of less (vs. more) goodwill lead partisans to perceive information as more biased against their own point of view.

Additional research focusing on group membership has found that hostile media perception is more intense among partisans who are strongly committed to their ingroup (Ariyanto et al., 2007; Hartmann & Tanis, 2013; Matheson & Dursun, 2001). An extensive review of empirical research (Ellemers, Spears, & Doosje, 2002) shows that high group identifiers and low group identifiers respond differently to ingroup threats. When the group is threatened, high identifiers tend to react defensively by derogating the outgroup (Ellemers et al., 2002; Hartman & Tanis, 2013). In contrast, low identifiers are more likely to respond to an ingroup threat by distancing themselves from members of the ingroup (Ellemers et al., 2002; Hartman & Tanis, 2013). Scholars have also posited that individuals who more strongly identify as a member of an ingroup are more likely to accentuate differences between members of an ingroup and members of an outgroup and perceive greater social distance between members of an ingroup and an outgroup than

individuals who have weaker ties to an ingroup (Mastro, 2003; Oakes et al., 1994).

Partisans with stronger ingroup associations more than partisans with weaker ingroup associations should not only be more likely to derogate an outgroup source but also to perceive a source that belongs to an outgroup to be distant and different, reducing perceptions of trust and goodwill, and increasing hostile media perception. On the other hand, partisans with stronger ingroup association should also perceive a source that belongs to the ingroup to be closer and more similar to themselves, strengthening perceptions of trust and goodwill. Thus, the following hypotheses are proposed:

H9: Partisans with stronger ingroup association, compared to those with weaker ingroup association, find balanced news articles to be more biased against their own position when the information is authored by a member of an outgroup; when the information is authored by a member of an ingroup, partisans with stronger ingroup association, compared to those with weaker ingroup association, find balanced news articles to be less biased against their own position.

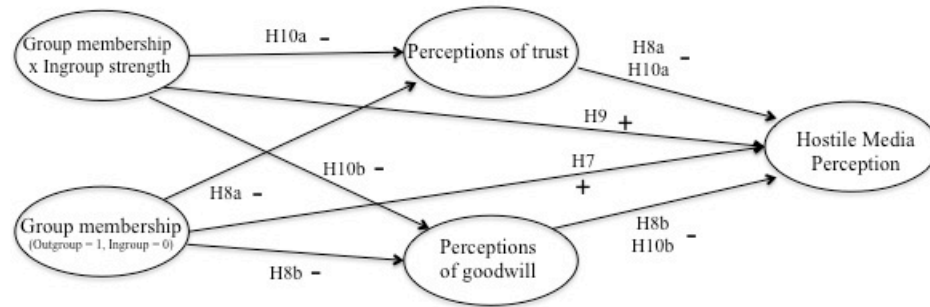
H10a: The influence of the predicted interaction in H9 between ingroup association and group membership of source on hostile media perception is mediated by partisans' perceptions of source trust.

H10b: The influence of the predicted interaction in H9 between ingroup association and group membership of source on hostile media perception is mediated by partisans' perceptions of source goodwill.

Hypotheses 7 through 10 were tested in Experiment 3. The hypotheses examined in Experiment 3 seek to replicate past hostile media perception and propose a mediating role of source credibility dimensions of trust and goodwill to



explain the relationships between source group membership and hostile media perception and between partisan strength of ingroup association and hostile media perception. These hypotheses are modeled in Figure 2.3.



*Figure 2.3.* Conceptual Model of Hypotheses 7 through 10.

### **Chapter 3: Participants, Study Contexts, and Pilot Studies**

This chapter first describes the participant recruitment strategy for all the pilot and main experimental studies. Next, a set of criteria is presented that was used to select the contexts for the three main experimental studies. Then two pilot studies are described: Pilot Study 1 had two purposes: to pretest prompts manipulating source credibility for Experiment 1 and to analyze the reliability and dimensionality of the measures of source trust, competence, and goodwill. The purpose of Pilot Study 2 was to pretest four news articles related to four health policies to determine if nonpartisans (people who reported that they were neutral on the policies selected) perceived the news articles to be neutral. The pilot studies and the three main experiments were approved by the Institutional Review Board at the University of Maryland.

#### **Participants**

Participants for all the pilot and main experimental studies were people recruited through Amazon.com's Mechanical Turk (MTurk). MTurk is an online platform that was originally designed to provide a resource for people looking to hire workers to complete human computation tasks, such as audio transcription, assessment of adult content, data extraction from images, and a variety of other small tasks that were either very difficult or impossible for computer programs to complete (Mason & Suri, 2011). Recently MTurk has become a marketplace for sociological and psychological researchers seeking participants for experimental studies (Mason & Suri, 2011). Researchers have used MTurk for behavioral experiments related to gender, culture, and risk preferences (Eriksson & Simpson, 2010), body size and body satisfaction (Gardner, Brown, & Boice,

2012), and social dilemmas of cooperation in an online community network (Suri & Watts, 2011).

Adults who can provide information confirming identity and eligibility for employment may sign up to become workers on MTurk (Amazon.com, 2014). Researchers using MTurk can set up advertisements for human intelligence tasks (HITs). MTurk workers look through listings of advertisements to select a HIT. After viewing an advertisement, a worker can agree or decline to complete a HIT. Once a HIT is completed, the researcher can review the work and compensate the MTurk worker through Amazon.com.

MTurk workers tend to be very diverse in terms of demographics, with wide ranges in age and socioeconomic status and with many different ethnicities (Buhrmester, Kwang, & Gosling, 2011; Eriksson & Simpson, 2010; Mason & Suri, 2011). Two separate sets of data collected from nearly 6,000 MTurk workers demonstrated that the majority of workers tend to be female (55%; Buhrmester et al., 2011; Mason & Siri, 2011). The average age of MTurk participants was 32 years, younger than that of the U.S. population, but significantly older than standard college samples, and average yearly income was approximately \$30,000, but ranged from less than \$1,000 to in excess of \$100,000 (Buhrmester et al., 2011; Mason & Siri, 2011).

Analyses assessing the quality of data obtained via MTurk have found no significant differences in results in comparison to traditional studies completed in laboratories. For example, Horton, Rand, and Zeckhauser (2011), using MTurk workers as participants, conducted classic psychological research studies related to prosocial behavior, priming, and gain- and loss-framing, and the results obtained were nearly identical to results

obtained in laboratories. Recent research also shows that MTurk workers spend more time with and recall more information from experimental studies than panelists for Knowledge Networks (a survey panel owned and by operated by GfK), despite Knowledge Networks' panelists earning nearly triple the compensation for completion of the studies (Kaplowitz & McCright, 2014).<sup>6</sup>

MTurk offers some unique advantages compared to undergraduate student subject pools at universities and colleges (Mason & Suri, 2011). First, MTurk offers an existing pool of potential participants that is relatively stable over time (Ipeirotis, 2010). In comparison, researchers often find the supply of participants in undergraduate subject pools to exceed demand at the beginning and end of a semester, while at other times the availability of subjects is insufficient (Mason & Suri, 2011). Second, as mentioned earlier, MTurk workers tend to be very diverse in terms of demographics, with wider ranges in age and socioeconomic status than typical undergraduate populations (Buhrmester et al., 2011; Eriksson & Simpson, 2010; Mason & Siri, 2011).

MTurk also has a distinct advantage over other participant recruitment strategies in terms of cost to the researcher. MTurk participants complete tasks for as little as one cent. Data gathered by Ipeirotis (2010) show that 25% of the tasks completed on MTurk have a price tag of \$0.01 per survey; 70% cost \$0.05 or less per survey, and 90% have a reward of less than \$0.10 per survey.

Trends on MTurk demonstrate that longer tasks that involve survey or experimental research come with a compensation level of between \$0.25 and \$1.00 per survey (Berinsky, Huber, & Lenz, 2011). In comparison, when paid, per subject costs for

---

<sup>6</sup> Knowledge Networks offers an advantage in their sampling procedures, which tend to produce samples that are statistically representative of the U.S. population.

undergraduate student samples in experimental designs tend to range from \$5 to \$10 (Kam, Wilking, & Zechmeister, 2007). Private survey firms tend to charge at least \$10 per subject for a 5-minute survey when respondents are recruited via an Internet panel (Berinsky et al., 2011).

## **Study Contexts**

### **Criteria for Study Contexts**

The news media has long been valued as an influential source for policy information and for information related to health (Smith, Wakefield, & Edsall, 2006). Research finds that national political attention to U.S. health care has risen dramatically over the past fifty years as measured by the number of bills introduced and the number of hearings held (Green-Pederson & Wilkerson, 2006). Scholars have called on media researchers to investigate the influence of health policy news coverage on the public's understanding of this growing area of policy (Smith et al., 2006; Slater & Rouner, 1996).

To select the health policy contexts for the three experimental studies, a set of criteria was initially developed. First, there must be a group of people who are strongly in favor of and a group of people who are strongly against a particular health policy. Although recruiting individuals who hold strong and deeply felt opinions on an issue is a common strategy in the hostile media perception literature, this arrangement does lead to a quasi-experimental design. Partisans cannot be randomly assigned to a particular position or strength of opinion on an issue, which threatens the internal validity of the study. People who oppose or support a particular policy may differ in ways that are significant in predicting hostile media perception. Several control variables (age, gender, race, ethnicity, education, income, media use, political views, political affiliation, and

behavioral measures) will be included in the analyses to aid in identifying ways in which participants may differ and to control for the influence of these variables on the analyses.

A second criterion for selection of contexts for the studies is that the health issues selected need to be policies for which legislation is pending so that participants will be interested in the outcome of the current proposed policy measures. If the health policy issues selected are no longer being debated among the press or the public, partisans may see no need to make charges of bias to defend their position.

### **Selection of Study Contexts**

The first criterion was addressed by examining polling data. A Harris Interactive and Health Day Poll conducted in 2012 asked 2,000 U.S. adults to indicate their level of agreement or disagreement on 14 health and safety issues. Of the 14 issues, people were deeply divided on three: increasing taxes on sugar-sweetened beverages, requiring the HPV vaccine for children ages 11 and 12, and banning the use of partially hydrogenated oils in food (Harris Interactive, 2012)<sup>7</sup>. The poll reported that 38% of individuals strongly or somewhat supported increasing taxes on sugar-sweetened beverages, with 62% strongly or somewhat opposing an increase. Additionally, 61% of respondents strongly or somewhat supported requiring the HPV vaccine, whereas 39% of respondents strongly or somewhat opposed the requirement. Finally, 62% of individuals strongly or somewhat supported banning the use of partially hydrogenated oils in food and 38% strongly or somewhat opposed the ban.

To address the second criterion of current, controversial legislation, news media coverage as well as past and pending legislation of the three health policies mentioned

---

<sup>7</sup> Harris Interactive conducted similar polls in 2013 and 2014. The details of the 2013 and 2014 polls were not released to the public.

above were examined. The first study context explored was banning the use of partially hydrogenated oils in food. In November 2013, the Food and Drug Administration (FDA) announced an initiative to ban the use of partially hydrogenated oils in food (Tavernise, 2013). Additionally, many food producers have already made adjustments to eliminate partially hydrogenated oils from their products. The proposed ban suggested by the FDA has not been met with overwhelming criticism from the food industry, perhaps making the policy an uncontroversial issue (Tavernise, 2013). The study context of banning the use of partially hydrogenated oils in food was judged as not meeting the second criterion of being a pending, controversial issue.

The second study context explored was increasing taxes on sugar-sweetened beverages. As of August 2014, no city or state in the United States had passed legislation implementing steep increases on taxes on sugar-sweetened beverages (Yale Rudd Center, 2014). However, legislation seeking to raise taxes on sugar-sweetened beverages has been proposed at the state or city level in 26 states since 2009 (Yale Rudd Center, 2014). In 2014, bills to heavily tax sugar-sweetened beverages were introduced in California, Connecticut, and Illinois (Reed & Schwarz, 2014; Steinmetz, 2014). Health professionals, the news media, and interest groups continue to debate whether increasing taxes on sugar-sweetened beverages helps solve the problem of obesity (Niederdeppe, Gollust, Jarlenski, Nathanson, & Barry, 2013). The study context of increasing taxes on sugar-sweetened beverages was judged to meet the second criterion.

The third study context explored was requiring the HPV vaccine for young boys and girls. HPV is the most common sexually transmitted disease in the United States and is the leading cause of cervical cancer. Since the approval of the first HPV vaccine in

2006, 24 states have introduced legislation to make the vaccine mandatory for young girls or both young girls and young boys entering the sixth grade. Currently, Washington, DC, and Virginia are the only jurisdictions that mandate the HPV vaccine. In 2014, legislators in Kentucky and New York proposed legislation to require the vaccine, and approval is being considered (National Conference of State Legislators, 2014). In June 2013, researchers at the Centers for Disease Control and Prevention (CDC) published a report noting that HPV vaccines have been more effective than expected (Leer, 2013). News coverage also emphasized the low vaccination rates in some areas of the country, particularly in Southern states such as Mississippi and Arkansas, where fewer than 15% of girls have received all three doses of the vaccine. The policy of HPV vaccine mandates was also judged to meet the second criterion of being a current, controversial issue.

In addition to examining polling data to assess the first criterion, 255 people who participated in the two pilot studies (described below) were asked to indicate their support or opposition to increasing taxes on sugar-sweetened beverages and requiring the HPV vaccine. Pilot study participants were also asked to indicate their support or opposition to two recent controversial health policies: regulating electronic or e-cigarettes and requiring smart gun technology on all handguns. Policies regulating the sale of e-cigarettes were proposed by the Food and Drug Administration in May 2014, sparking media coverage of the issue and debate among e-cigarette companies, government officials, and the public (Sullum, 2014). E-cigarette companies strongly opposed regulation of e-cigarettes, and physicians and consumer rights groups strongly supported governmental oversight. In 2014, politicians also renewed conversations about legislation that would require all handguns to be equipped with smart gun technology (Steinberg,



2014).<sup>8</sup> The news media made noted the intense debates between proponents and opponents of smart gun technology (Pokin, 2014). Representatives for the National Rifle Association (NRA) have strongly opposed policies requiring smart gun technology for handguns, whereas national organizations such as the Coalition to Stop Gun Violence have lobbied in support of such policies. These two additional health policy issues were deemed to meet the second criterion of being a current, controversial issue. Pilot study data for this dissertation were examined to determine if these policies met the first criterion of a having people who are strongly in favor of and a group of people who are strongly against the policy.

In Pilot Study 1 and Pilot Study 2 participants were asked, “To what extent do you oppose or support increasing taxes on sugar-sweetened beverages?”, “To what extent do you oppose or support requiring the HPV vaccine?”, “To what extent do you oppose or support regulating e-cigarettes?”, and “To what extent do you oppose or support requiring smart gun technology on all handguns?” These questions were measured on a 1 to 11 scale from *strongly oppose* to *strongly support*.

Several steps were taken to determine level of partisan opposition and support for each issue in the pilot study data ( $N = 255$ ). First, means and standard deviations for each policy question were obtained (see Table 3.1) and used to determine the scale values that were one standard deviation above and one standard deviation below the mean. These scale values were then used to identify people with extreme or strong stances on the issues (partisans). Next, frequency information was gathered and the percentages of

---

<sup>8</sup> The state of New Jersey passed The New Jersey Childproof Handgun Law, also known as Assembly Bill No. 700. The law makes the sale of handguns illegal unless the handgun is a smart gun that can only be fired by an authorized or recognized user. The law would take effect three years after the technology is available for retail purposes (Akin, 2013).

partisans both in opposition to and in support of an issue were reported (see Table 3.1). Of the participants in the pilot studies, 29.1% were strongly opposed to increasing taxes on sugar-sweetened beverages and 22.1% strongly supported an increase. In addition, 18.6% strongly opposed requiring the HPV vaccine and 23.7% strongly supported the requirement. Participants were largely in favor of regulating e-cigarettes. Participants were somewhat divided on the issue of requiring smart gun technology on all handguns (24.1% strongly opposed vs. 17.1% strongly in favor). However, 11 participants indicated having no opinion when asked about smart gun technology. For each of the other three policy issues, four or fewer participants reported having no opinion. The results of the pilot studies showed that participants were most divided on the issues of increasing taxes on sugar-sweetened beverages and requiring the HPV vaccine mandate, and a fair number of participants were unfamiliar with the issue of requiring smart gun technology on all handguns.

Based on the results of national polls and the pilot studies conducted for this dissertation, as well as in consideration of the second criterion of being a current, controversial issue, the contexts of increasing taxes on sugar-sweetened beverages and requiring the HPV vaccine were selected for the main experimental studies.

The pilot study data were also used to establish whether participants would be considered partisan on the two health policies selected for the main experimental studies. Similar to the results described above, participants were considered partisan on an issue if their score on the partisanship item was one standard deviation above or one standard deviation below the mean.

For the main experimental studies, participants were considered partisan on the issue of increasing taxes on sugar-sweetened beverages if their score on the partisanship item is a 1 or 2 (strongly oppose) or a 9, 10, or 11 (strongly support). They were considered partisan on the issue of requiring the HPV vaccine if their score on the partisanship item is 1, 2, or 3 (strongly oppose) or 10 or 11 (strongly support).

Table 3.1

*Percentages of Participants Reporting Partisan Perceptions on Policy Issues (N = 255)*

Policy	<i>M</i>	<i>SD</i>	Scores 1 <i>SD</i> above/ <i>SD</i> below mean	Percentage of participants 1 <i>SD</i> below mean	Percentage of participants 1 <i>SD</i> above mean	Percentage of participants considered partisans
Increasing taxes on SSBs	5.5	3.5	1 or 2 9, 10, or 11	29.1%	22.1%	51.2%
Requiring HPV vaccine	6.8	3.3	1, 2, or 3 10 or 11	18.6%	23.7%	42.3%
Regulating e-cigarettes	8.3	3.1	1, 2, 3, 4, or 5 11	14.5%	36.4%	50.9%
Requiring smart gun technology	7.0	3.7	1, 2, or 3 11	24.1%	17.1%	41.2%

### **Pilot Study 1**

The main goal of the first pilot study was to assess the effectiveness of the manipulations of source prompts for Experiment 1. The source prompts manipulated source trust, competence, and goodwill of the author. Previous studies were examined for examples of how researchers have manipulated trust, competence, and goodwill. Some

researchers have manipulated trust by simply stating the source is honest or dishonest and trustworthy or untrustworthy (Priester & Petty, 1995). Some researchers have manipulated competence by indicating that a source has extensive experience in a subject (King, 1966; Slater & Rouner, 1996; Sternthal et al., 1978), has a particular degree or profession (Slater & Rouner, 1996), or that the information comes from someone working for a highly recognizable and trusted organization (Chaiken & Maheswaran, 1994). Some researchers have manipulated goodwill by having the source express interest in the audience's well being (King, 1966). Some of these previously used manipulations of source credibility were adapted for use in this research. See Appendix A for experimental manipulations.

### **Participants and Procedure**

Participants were first asked questions assessing their opinions on four policy issues: "To what extent do you oppose or support increasing taxes on sugar-sweetened beverages?", "To what extent do you oppose or support requiring the HPV vaccine ?", "To what extent do you oppose or support regulating e-cigarettes?", and "To what extent do you oppose or support requiring smart gun technology on all handguns?" These items were measured on a 1 to 11 scale from *strongly oppose* to *strongly support*. The scale also included a response option of *no opinion*. Participants who selected scale values other than 6 (*neutral*) were randomly assigned to one of the eight experimental conditions (high vs. low trust x high vs. low competence x high vs. low goodwill; see Appendix A).<sup>9</sup> Perceptions of source trust, competence, and goodwill were measured after participants were exposed to the source prompt. To conclude the study, participants were

---

<sup>9</sup> Participants who selected scale values of 6 (which was labeled *neutral* on the scale) on one or more of the health policy issues were assigned to complete Pilot Study 2.

asked to report their gender, age, race, education, income (total family income from all sources before taxes), and political views and affiliation. See Appendix C for demographic measures. For Pilot Study 1, 160 participants were recruited from Amazon's Mechanical Turk forum (20 per condition).<sup>10</sup> The survey took less than five minutes to complete, and participants were compensated \$0.10.

Most participants were female (59%,  $n = 94$ ). The average age of participants was 36.62, and participants ranged in age from 18 to 73. The percentage of the sample identifying as White was 82% ( $n = 131$ ). Additionally, 13% of participants ( $n = 20$ ) identified as African-American or Black, 1% ( $n = 2$ ) as American Indian or Alaskan Native, 2% ( $n = 3$ ) as Chinese, 2% ( $n = 3$ ) as Filipino, 1% ( $n = 1$ ) as Japanese, and 2% ( $n = 3$ ) as other Asian.<sup>11</sup> In an additional question, 8% of participants ( $n = 12$ ) reported being of Hispanic, Latino, or Spanish descent.

In terms of education, 32% of participants ( $n = 49$ ) reported their highest level of education completed was an undergraduate degree from a 4-year college or university, 12% ( $n = 19$ ) reported graduating from a 2-year college, and 32% ( $n = 51$ ) reported having some college education; 11% ( $n = 18$ ) had obtained a Master's degree, and an additional 3% ( $n = 4$ ) had an advanced degree (e.g., Ph.D., M.D., or J.D.). Also, 12% ( $n = 19$ ) had obtained a high school diploma or GED. Average income of participants was approximately \$44,000, with incomes ranging from less than \$10,000 a year to more than \$150,000 annually.

---

<sup>10</sup> Some researchers have suggested a general rule of thumb of 20 participants per condition in psychological research (Cozby & Bates, 2011). A power analysis was also conducted. A meta-analysis of source credibility research found an average effect size of  $r = 0.24$  (Stiff, 1986). With an effect size of 0.24, a power of .80, and an alpha of .05, the sample size needed for an ANOVA was estimated to be 139 participants.

<sup>11</sup> Participants could identify with more than one category.

Participants tended to have liberal political views, with 11% ( $n = 18$ ) reporting to be very liberal, 36% ( $n = 57$ ) to be liberal, 34% ( $n = 55$ ) to be moderate, 16% ( $n = 25$ ) to be conservative, and 3% ( $n = 5$ ) to be very conservative. In addition, 12% ( $n = 19$ ) described themselves as very strong Democrats, 21% ( $n = 34$ ) as moderate Democrats, 18% ( $n = 29$ ) as Democratic-leaning Independents, 29% ( $n = 47$ ) as Independents, 9% ( $n = 15$ ) as Republican-leaning Independents, 5% ( $n = 8$ ) as moderate Republicans, and 5% ( $n = 8$ ) as very strong Republicans.

## Measures

**Trust.** Measures of source trust are taken from work by McCroskey and Teven (1999). McCroskey and Teven used their measures of trust to assess perceptions of a variety of sources, including sources in the mass media, politicians, and interpersonal sources; they were different from individuals' perceptions of source competence and source goodwill. Participants were asked, on a 1-11 scale to indicate their impression of source trustworthiness by selecting a number between a pair of adjectives. Participants were instructed that the closer the number was to an adjective, the more characteristic the source was of that adjective. The six items that were used to assess trust were: *honest* versus *dishonest*, *trustworthy* versus *untrustworthy*, *honorable* versus *dishonorable*, *moral* versus *immoral*, *ethical* versus *unethical*, and *genuine* versus *phony*.

**Competence.** Perceptions of source competence were assessed with measures developed by McCroskey and Teven (1999). Participants were asked, on a 1-11 scale, to indicate their impression of source competence by selecting a number between a pair of adjectives. Participants were instructed that the closer the number was to an adjective, the more characteristic the source was of that adjective. The six items that were used to

assess competence were: *unintelligent* versus *intelligent*, *untrained* versus *trained*, *inexpert* versus *expert*, *uninformed* versus *informed*, *incompetent* versus *competent*, and *stupid* versus *bright*.

**Goodwill.** Perceptions of source goodwill were assessed with measures developed by McCroskey and Teven (1999). Participants were asked on a 1-11 scale to indicate their impression of the source by selecting a number between a pair of adjectives. Participants were instructed that the closer the number was to an adjective, the more characteristic the source was of that adjective. The adjectives used to measure goodwill were: *not self-centered* versus *self-centered*, *cares about me* versus *doesn't care about me*, *has my interests at heart* versus *doesn't have my interests at heart*, *concerned with me* versus *unconcerned with me*, *sensitive* versus *insensitive*, and *understanding* versus *not understanding*.

## Results

**Manipulation checks.** Three 2 (high trust vs. low trust)  $\times$  2 (high competence vs. low competence)  $\times$  2 (high goodwill vs. low goodwill) ANOVAs with dependent variables of perceptions of source trust, source competence, and source goodwill were performed to test if the experimental manipulations were successful. Participants were randomly assigned to one of eight conditions, yielding 20 participants per condition. Six measures assessing each dimension were averaged to create the dependent variables of perceptions of source trust, competence, and goodwill. See Table 3.2 for scale means, standard deviations, and reliability information.

**Source trust.** The results of the ANOVA for the dependent variable of perceptions of source trust showed that none of the interactions involving experimental

manipulation of source trust was significant. There was a main effect of the experimental manipulation of source trust, such that participants in the high trust conditions perceived the source to be more trustworthy than participants in the low trust conditions,  $F(1, 152) = 162.08$   $p < .001$ , partial  $\eta^2 = .52$ . There was also a main effect of the experimental manipulation of source goodwill, such that participants in the high goodwill conditions perceived the source to be more trustworthy than participants in the low goodwill conditions,  $F(1, 152) = 9.89$   $p < .01$ , partial  $\eta^2 = .06$ . Far more variance was accounted for by manipulations of source trust than by manipulations of source goodwill (partial  $\eta^2 = .52$  and partial  $\eta^2 = .06$ , respectively), indicating that perceptions of source trust were most strongly influenced by the manipulation of source trust.

**Source competence.** The results of the ANOVA for the dependent variable of perceptions of source competence revealed a pattern that was similar yet distinct from the results reported for the manipulation check of source trust. Participants in the high competence conditions perceived the source to be more competent than participants in the low competence conditions,  $F(1, 152) = 114.326$ ,  $p < .001$ , partial  $\eta^2 = .43$ . In addition, participants in the high trust conditions perceived the source to be more competent than participants in the low trust conditions,  $F(1, 152) = 9.27$ ,  $p < .001$ , partial  $\eta^2 = .06$ . Finally, the interaction between source competence and source trust was significant,  $F(1, 152) = 5.92$ ,  $p < .05$ , partial  $\eta^2 = .04$ , such that perceptions of competence for those in the high competence, high trust conditions ( $M = 10.134$ ,  $SE = .307$ ) were significantly greater than those in the high competence, low trust conditions ( $M = 8.367$ ,  $SE = .316$ ).<sup>12</sup> Far

---

<sup>12</sup> Bonferroni adjustments were made to adjust for multiple comparisons in the ANCOVAs for the pilot studies.



more variance was accounted for by the manipulation of source competence than by manipulations of source trust and the interaction between source trust and source competence (partial  $\eta^2 = .43$ , partial  $\eta^2 = .06$ , partial  $\eta^2 = .04$ , respectively), indicating that perceptions of source competence were most strongly influenced by the manipulation of source competence.

***Source goodwill.*** The results of the ANOVA for the dependent variable of perceptions of source goodwill revealed a pattern that was similar to the results reported for the manipulation check of source competence. Participants in the high goodwill conditions perceived the source to have more goodwill than participants in the low goodwill conditions,  $F(1, 152) = 157.93, p < .001$ , partial  $\eta^2 = .51$ . In addition, participants in the high trust conditions perceived the source to have more goodwill than participants in the low trust conditions,  $F(1, 152) = 8.20, p < .01$ , partial  $\eta^2 = .05$ . Finally, the interaction between source goodwill and source trust was significant,  $F(1, 152) = 6.31, p < .05$ , partial  $\eta^2 = .04$ , such that perceptions of goodwill for those in the high goodwill, high trust conditions ( $M = 9.120, SE = .381$ ) were significantly greater than those in the high goodwill, low trust conditions ( $M = 6.981, SE = .381$ ). Far more variance was accounted for by the manipulation of source goodwill than by manipulations of source trust and by the interaction (partial  $\eta^2 = .51$ , partial  $\eta^2 = .05$ , and partial  $\eta^2 = .04$ , respectively), indicating that perceptions of source goodwill were most strongly influenced by the manipulation of source goodwill.

Overall, the results of the manipulation checks provide support for the validity of the experimental conditions yet indicate the difficulty in separately manipulating source trust, competence, and goodwill in experimental designs. Manipulation checks will be

undertaken in the analysis for Experiment 1 as well to investigate if there is an overlap in the influence of the manipulations and potential confounds will be considered when interpreting results.

**Measurement characteristics and scale modifications.** Items used to measure source trust, competence, and goodwill were subjected to principal components analysis (PCA). A PCA was undertaken to determine whether scale items should be excluded from the three main experimental studies and to assess the dimensionality of the overall concept of source credibility. The reliability of the scales used to measure source trust, competence, and goodwill was also assessed using Cronbach's alpha. Scale reliability is reported in Table 3.2.

Table 3.2

*Pilot Study 1 Means, Standard Deviations, and Reliability of Source Credibility Scales (N = 160)*

Variable	Number of items	<i>M</i>	<i>SD</i>	Cronbach's $\alpha$
Trust	6	5.93	3.65	.97
Competence	6	6.78	3.17	.96
Goodwill	6	5.66	3.53	.97

*Note:* Items were measured on 1 to 11 scales.

First, the factorability of the 18 items used to measure source credibility was assessed to determine if PCA was a suitable means of analysis (Field, 2013). All items had a correlation of at least .30 with at least one other item. The overall Kaiser-Meyer-Olkin (KMO) measure was .91, and individual KMO measures were all greater than .80,

above the commonly recommended value of .60 (Field, 2013). Bartlett's test of sphericity was statistically significant,  $\chi^2(153, N = 160) = 4545.75, p < .001$ . In addition, the diagonals of the anti-image correlations were all above .50. Based on these indicators, PCA was deemed a suitable means of analysis for all of the items.

Principal components analysis without rotation was used to assess whether there was an overarching dimension of source credibility. Results of the analysis revealed that three components had eigenvalues greater than one. The three-component solution explained 88.5% of the total variance, with the first component accounting for 52.7% of the variance, the second component explaining 20.8% of the variance, and the third component accounting for 14.9% of the variance. Of the 18 variables, 15 had their highest loading on the first component; however, many of these items also loaded on the second and third components. The component matrix is reported in Table 3.3. In line with past research (McCroskey & Teven, 1999), the results suggest the presence of a powerful first component that can be labeled source credibility. However, the interpretability of the second and third components is difficult. Research has demonstrated that the three source credibility dimensions correlate (McCroskey & Teven, 1999), suggesting that an analysis involving oblique rather than orthogonal rotation may provide a more interpretable solution. The 18 source credibility questions were submitted to a PCA with Promax oblique rotation requiring a three-factor solution (see Table 3.3). The results of the PCA support a three-factor solution with the dimensions of trust, competence, and goodwill. All of the items had their highest loading on the expected factor and all of the loadings were greater than .70.

Table 3.3

*Pilot Study 1 Principal Components Loadings for 18 Source Credibility Items, with and without rotation (N = 160)*

Variables	Unrotated			Promax rotation		
	Dimensions			Dimensions		
	1	2	3	Trust	Comp	Good
Dishonesty/honest	.74		-.57	.99		
Untrustworthy/trustworthy	.80		-.51	.94		
Dishonorable/honorable	.80		-.53	.98		
Immoral/moral	.80		-.45	.91		
Unethical/ethical	.81		-.47	.94		
Phoney/genuine	.83		-.43	.89		
Unintelligent/intelligent	.55	.68			.95	
Untrained/trained	.59	.70			.99	
Inexpert/expert	.64	.66			.96	
Uninformed/informed	.70	.62			.88	
Incompetent/competent	.72	.57			.83	
Stupid/bright	.66	.63			.92	
Self-centered/not self-centered	.72	-.37				.70
Doesn't/cares about me	.71	-.48	.45			.99
Doesn't have interests at heart/ has my interests at heart	.73	-.47	.45			.99
Unconcerned with me/ concerned with me	.72	-.48	.46			.99
Insensitive/sensitive	.71	-.45	.46			.98
Not understanding/ Understanding	.79	-.36	.34			.87

*Note.* Loadings less than .30 were not included.

The results of the second PCA, along with the reliability analyses of the scales, suggest that all of the items be retained for inclusion in the main experimental studies.

### **Pilot Study 2**

A second pilot study was conducted to assess neutral participants' perceptions of the news articles related to increasing taxes on sugar-sweetened beverages, requiring the HPV vaccine, regulating e-cigarettes, and requiring smart gun technology.

#### **Participants and Procedure**

In the second pilot study, screening questions were used to select MTurk participants who selected 6 (Neutral) on the partisanship scale for at least one of the four policy issues of increasing taxes on sugar-sweetened beverages, requiring HPV vaccine mandates, regulating e-cigarettes, and requiring smart gun technology on all handguns. (see Pilot Study 1 for screening questions).

Pilot Study 2 participants were paid \$0.10 each for the 5-minute task. The participants were presented with information about either increasing taxes on sugar-sweetened beverages, requiring the HPV vaccine, regulating e-cigarettes, or requiring smart gun technology on handguns, and then asked to indicate whether they perceived the information to be biased or neutral.

For Pilot Study 2, 25 neutral participants were recruited to read the news article related to increasing taxes on sugar-sweetened beverages, 25 participants were recruited to read the news article related to requiring the HPV vaccine, 25 participants were recruited to read the news article related to requiring smart gun technology, and 20 participants were recruited to read the news article related to e-cigarettes, yielding 95

participants for Pilot Study 2.<sup>13</sup> Most participants were female (61.1%,  $n = 58$ ). The average age of participants was 36.04, and participants ranged in age from 18 to 67. The percentage of the sample identifying as White was 83.2% ( $n = 79$ ). Additionally, 11.6% of participants ( $n = 11$ ) identified as African-American or Black, 2.1% ( $n = 2$ ) as American Indian or Alaskan Native, 1.1% ( $n = 1$ ) as Asian Indian, 2.1% ( $n = 2$ ) as Chinese, 1.1% ( $n = 1$ ) as Filipino, 1.1% ( $n = 1$ ) as Korean, 1.1% ( $n = 1$ ) as Middle Eastern, and 1.1% ( $n = 1$ ) as other. In an additional question, 5.3% of participants ( $n = 5$ ) reported being of Hispanic, Latino, or Spanish descent.

In terms of education, 38% of participants ( $n = 36$ ) reported their highest level of education completed was an undergraduate degree from a 4-year college or university, 7.4% ( $n = 7$ ) reported graduating from a 2-year college, and 18% ( $n = 17$ ) reported having some college education; 14% ( $n = 13$ ) had obtained a Master's degree, and 3% ( $n = 3$ ) had an advanced degree (e.g., Ph.D., M.D., or J.D.). Additionally, 19% ( $n = 18$ ) had obtained a high school diploma or GED, and 1% ( $n = 1$ ) reported having less than a high school degree. Average income of participants was approximately \$45,000, with incomes ranging from less than \$10,000 a year to more than \$150,000 annually.

Participants tended to have liberal political views, with 14% ( $n = 13$ ) reporting to be very liberal, 32% ( $n = 30$ ) to be liberal, 40% ( $n = 38$ ) to be moderate, 6% ( $n = 6$ ) to be conservative, and 8% ( $n = 8$ ) to be very conservative. In addition 10% ( $n = 9$ ) described themselves as very strong Democrats, 26% ( $n = 25$ ) as moderate Democrats, 11% ( $n = 10$ ) as Democratic-leaning Independents, 31% ( $n = 29$ ) as Independents, 9% ( $n = 8$ ) as

---

<sup>13</sup> Past hostile media perception studies have generally recruited panels of fewer than a dozen neutral colleagues or acquaintances to evaluate the neutrality of the news articles presented (Gunther & Liebhart, 2006; Gunther & Schmitt, 2004). To assess neutrality, this dissertation study recruited double the typical number of participants.

Republican-leaning Independents, 6% ( $n=6$ ) as moderate Republicans, and 8% ( $n=8$ ) as very strong Republicans.

### **Stimuli**

Four neutral news reports related to increasing taxes on sugar-sweetened beverages, requiring the HPV vaccine, regulating e-cigarettes, and requiring smart gun technology were created. These reports were constructed based on news reports related to the four issues, and edited for balance, equal length, and grade-level understanding using the Flesh-Kincaid grade level score provided by Microsoft Word. The article related to increasing taxes on sugar-sweetened beverages was 418 words with a Flesh-Kincaid grade level score of 10.1 (10<sup>th</sup> grade reading level). The article related to requiring the HPV vaccine was 405 words with a Flesh-Kincaid grade level score of 9.9 (10<sup>th</sup> grade reading level). The article related to regulating e-cigarettes was 415 words with a Flesh-Kincaid grade level score of 10.4 (10<sup>th</sup> grade reading level). The article related to requiring smart gun technology on all handguns was 440 words with a Flesh-Kincaid grade level score of 10.2 (10<sup>th</sup> grade reading level). See Appendix B for the four neutral reports.

### **Measures**

**Hostile media perception.** The participants were asked to indicate their perception of the neutral information using three items related to assessing hostile media perception, including “Would you say the information you read about increasing taxes on sugar-sweetened beverages/requiring the HPV vaccine/regulating e-cigarettes/requiring smart gun technology was biased against one side or another or was it neutral?”, “Would you say the information you just read about increasing taxes on sugar-sweetened

beverages/requiring the HPV vaccine/regulating e-cigarettes/requiring smart gun technology was in favor of supporters, neutral, or against supporters?” and “Would you say the information you just read about increasing taxes on sugar-sweetened beverages/requiring the HPV vaccine/regulating e-cigarettes/requiring smart gun technology was in favor of opponents, neutral, or against opponents?”

Participants were asked to report their responses on scales from 1 = *extremely biased against* to 11 = *extremely biased in favor*. Additionally, participants were asked an open-ended question to allow them to report why they felt the information was biased or neutral. Specifically, they were provided with a prompt asking “Did you find the information provided to be neutral? If you did not, please indicate why the information favored one side or another.”

## **Results**

One-sample *t* tests were conducted to analyze the perceived neutrality of the news articles for the two contexts that were selected for the main experimental studies: increasing taxes on sugar-sweetened beverages and requiring the HPV vaccine. The mean score on each of the three hostile media perception measures was compared to the midpoint on the scales (6), which was labeled as *Neutral*. Results showed that participants’ ratings of the bias of the news articles across all three measures and in both contexts did not differ significantly from the midpoint (see Table 3.4). Responses to the open-ended question were not analyzed because participants perceived the articles as neutral using the hostile media perception scales. The news articles presented in Pilot Study 2 were deemed to be news articles perceived as neutral by nonpartisans and were used as the stimuli for the three main experimental studies.



Table 3.4

*Means of Hostile Media Perception Measures Assessing Neutral News Articles (N = 95)*

Policy context	Biased in favor of one side or another	Biased in favor of supporters	Biased in favor of opponents
Increasing taxes on SSBs	5.96 ( <i>p</i> = .62)	6.40 ( <i>p</i> = .36)	5.92 ( <i>p</i> = .43)
Requiring the HPV vaccine	5.68 ( <i>p</i> = .21)	6.24 ( <i>p</i> = .53)	5.44 ( <i>p</i> = .13)

*Note.* Items were measured on 1 to 11 scales with *Neutral* (6) as the midpoint. The reported *p* values correspond to one-sample *t* tests comparing the mean of a measure to the neutral point of 6 on the scale.

## **Chapter 4: Common Methods for Main Experimental Studies**

The methods for the three main experimental studies were alike in several ways, including contexts, presentation of neutral news articles, participant compensation, measures, and analyses. In Chapter 4, the common methods are described and differences in experimental design noted where necessary.

### **Common Procedures and Measures**

#### **Contexts and Participant Assignment to Condition**

All three main experimental studies included two contexts: increasing taxes on sugar-sweetened beverages and requiring the HPV vaccine. To gather participants for the main experimental studies, two HITs were posted on Amazon.com's Mechanical Turk Web site. The first HIT advertised a study related to the health policy of increasing taxes on sugar-sweetened beverages. MTurk workers who choose to participate in this HIT were directed to an online survey using Qualtrics software. The online survey began with a short prompt, which stated:

First, we would like to ask your opinion about a controversial health policy: increasing taxes on sugar-sweetened beverages. Many states and cities are seeking to increase taxes on sugar-sweetened beverages like soda. The goal of this policy is to decrease consumption of sugar-sweetened beverages in order to lower obesity rates.

Next, participants were asked "To what extent do you oppose or support increasing taxes on sugar-sweetened beverages?" The partisanship item was measured on an 11-point scale (1 = *strongly oppose* to 11 = *strongly support*). The scale also included a response option of *no opinion*. Following the distribution of partisanship in the pilot

studies, participants were considered partisan on the issue of increasing taxes on sugar-sweetened beverages if their score on the partisanship item was a 1 or 2 (strongly oppose) or a 9, 10, or 11 (strongly support).<sup>14</sup>

Individuals who identified as partisan on the issue of increasing taxes on sugar-sweetened beverages were then randomly assigned to one of the three experimental studies in the context of increasing taxes on sugar-sweetened beverages, where they were presented with an experimental manipulation of the source, followed by a news article about increasing taxes on sugar-sweetened beverages. Participants were then asked to evaluate the news article in terms of bias. Including all three main experimental studies in one online Qualtrics survey ensured that MTurk workers participated in only one of the three main experimental studies for the context of increasing taxes on sugar-sweetened beverages. This strategy was deemed necessary because the main experimental studies in the context of increasing taxes on sugar-sweetened beverages, although differing in the description of the source, included the same news article.

A second HIT related to requiring the HPV vaccine was also posted on Amazon.com's MTurk Web site. Workers who chose to participate in the HIT related to requiring the HPV vaccine followed the same procedure described for workers who chose to participate in the HIT related to increasing taxes on sugar-sweetened beverages. The survey related to requiring the HPV vaccine began with a short prompt, which stated:

First, we would like to ask your opinion about a controversial health policy: HPV vaccine mandates. HPV vaccine mandates require girls and boys to receive the HPV vaccine before they enter the 6th grade. HPV is

---

<sup>14</sup> Participants who did not identify as partisan were thanked for their interest and were not permitted to continue with the study.

the most common sexually transmitted disease in the United States and is the leading cause of cervical cancer.

Participants were asked “To what extent do you oppose or support requiring the HPV vaccine?” Following the distribution of partisanship in the pilot studies, participants were considered partisan on the issue of requiring the HPV vaccine mandate if their score on the partisanship item was a 1, 2, or 3 (strongly oppose) or a 10 or 11 (strongly support). Individuals who identified as partisan on the issue of requiring the HPV vaccine were then randomly assigned to one of the three experimental studies in the context of requiring the HPV vaccine, where they were presented with an experimental manipulation of the source, followed by a news article about requiring the HPV vaccine. Participants were then asked to evaluate the news article in terms of bias.

MTurk workers were able to participate in both the study related to increasing taxes on sugar-sweetened beverages and the study requiring the HPV vaccine if they choose to participate in both HITs and if they identified as partisan on each issue. Data screening demonstrated that 23.1% of participants qualified for and completed a study in both contexts, while 76.9% of participants took part in only one study context.

### **Compensation**

Workers were expected to spend approximately 10 to 15 minutes completing the online surveys presented in the HITs on MTurk. Compensation for longer tasks (those more than 5 minutes) on MTurk generally falls between \$0.25 and \$1.00 per survey (Berinsky, Huber, & Lenz, 2011). Due to monetary limitations, each MTurk worker was paid \$0.25 per survey for participation.

## Measures

Measures for Experiment 1 included the measures of source trust, competence, and goodwill described in Pilot Study 1. Measures of source trust and competence were included in Experiment 2 and measures of source trust and goodwill were included in Experiment 3. See Appendix C for all measures.

The following measures were included in all three main experimental studies.

**Hostile media perception.** Participants were asked five questions to tap hostile media perception (Gunther & Liebhart, 2006), including:

Would you say the *information* you read about increasing taxes on sugar-sweetened beverages/requiring the HPV vaccine was biased in favor of one side or another or neutral?

Would you say the *writer* of the information you just read about increasing taxes on sugar-sweetened beverages/requiring the HPV vaccine was biased in favor of one side or another or neutral?

Would you say the information you just read about increasing taxes on sugar-sweetened beverages/requiring the HPV vaccine was in favor of supporters, neutral, or against supporters?

Would you say the information you just read about increasing taxes on sugar-sweetened beverages/requiring the HPV vaccine was in favor of opponents, neutral, or against opponents?

What percentage of the information do you believe was biased against your position?"

Participants were asked to respond to hostile media perception measures on scales from 1 = *extremely biased against increasing taxes on sugar-sweetened beverages/ requiring the HPV vaccine* to 11 = *extremely biased in favor of increasing taxes on sugar-sweetened beverages/requiring the HPV vaccine* and from 1 = *extremely biased against supporters/opponents* to 11 = *extremely biased in favor of supporters/opponents*, as well as a scale from 0% to 100%. Similar measures have been used in the past by several hostile media perception scholars (Giner-Sorolla & Chaiken, 1994; Gunther & Liebhart, 2006; Gunther & Schmitt, 2004), with alpha coefficients ranging from .82 to .90. Measures were recoded so that higher scores indicated hostile media perception, or that partisans perceived the information as biased against their position. Specifically, the first three measures, for which higher values indicated perception of bias in favor of the policy or in favor of supporters, were reverse coded only for participants who indicated that they supported the health policy. By recoding the measures, higher values indicated that the participant saw the news article as biased against the health policy or biased against supporters. The fourth measure, for which higher values indicated perception of bias in favor of opponents, was reverse coded only for participants who indicated that they opposed the health policy. By recoding the measure, higher values indicated that the participant saw the news article as biased against opponents. Higher values on all measures were then indicative of the participant perceiving the news article as biased against their position.

In all three experiments, hostile media perception was judged by comparing partisans' perceptions of bias of the news article to the value of 6 (*Neutral*) on the scale. Specifically, the estimated marginal means and the standard errors were analyzed and

used to calculate a confidence interval. Partisans were said to have perceived the news article as biased against their position if the range of values included in the confidence interval was greater than 6 (Gunther & Liebhart, 2006).

**Demographic measures.** Demographic questions included measures of gender, age, education, ethnicity, race, and income. Demographic variables, such as gender, education, and income, have been shown to be predictive of hostile media perception (Eveland & Shah, 2003; Gunther et al., 2001; Gunther & Schmitt, 2004). In addition, as mentioned previously, recruiting individuals who hold strong and deeply felt opinions on an issue leads to a quasi-experimental design. Demographic measures will be included in the analyses to aid in identifying ways in which participants may differ and to control for the influence of those variables in the analyses.

**Other control variables.** Other than demographics, participants were asked to describe their political views (very liberal to very conservative) and well as political affiliation (very strong Democrat to very strong Republican), which have been significant predictors of hostile media perception in previous studies (Eveland & Shah, 2003). In addition, participants were asked about their news media use, specifically on average how many days a week they get news online, on network television, cable television, radio, and from print newspapers. Two media use measures were used: media use (traditional), which included measures of network television, cable television, radio and print news, and media use (online). Participants were also asked whether they had worked as or considered themselves to be a media professional (journalist, editor, blogger, public relations professional, advertising professional, media professional, or photographer). Finally, control measures specific to the health policy contexts were included.

Participants were asked how many sugar-sweetened beverages they consumed on average in a week or whether they had received the HPV vaccine and whether they had a son or daughter who had received the HPV vaccine.

## **Common Methods of Analysis**

### **Data Screening**

For all three experiments, a similar data screening procedure was completed to assess assumptions of analytical procedures. First, data were screened to locate incomplete data sets. Missing data sets were examined for systematic patterns, such as data missing in a certain experimental condition or on particular questions. No patterns of missing data were identified in the data sets for the experimental studies, and listwise deletion was employed. Next, data were screened to test the assumptions of the statistical analyses employed, namely analysis of covariance (ANCOVA) and structural equation modeling. Any violations of the assumptions for the statistical procedures are reported individually for each experiment in Chapters 5, 6, and 7.

### **Data Transformation**

The estimation method of maximum likelihood in structural equation modeling requires the residuals of the dependent variables to approximate a multivariate normal distribution. Approximate normality of the data in structural equation modeling techniques is usually assessed through univariate kurtosis, univariate skewness, and multivariate kurtosis (Finney & DiStefano, 2006). Maximum likelihood techniques may yield biased results if values of univariate skewness approach 2 and values of univariate kurtosis approach 7 (Finney & DiStefano, 2006). Values of multivariate kurtosis greater than 10 also signal violations of the assumption of multivariate normality (Kline, 2005).



Under conditions of nonnormality, maximum likelihood estimation tends to report parameters that are relatively accurate, but  $\chi^2$  statistics and standard errors may be biased. To prevent problems with violations of the assumption of approximate multivariate normality of residuals, measured variables related to the endogenous latent factors in the structural models that appeared to be very nonnormal were transformed. Power transformations were selected through trial and error and the transformations used improved the skewness of the variables. The initial skewness values and the skewness values following transformation are reported in Table 4.1 for Experiment 2 and Table 4.2 for Experiment 3.

Next, the multivariate skewness and kurtosis of the measured variables related to the endogenous latent factors in the structural was assessed. Multivariate kurtosis was evaluated using LISREL 8.8. The multivariate kurtosis values exceeded 10 in the data for all structural models presented for Experiment 2 and Experiment 3. Multivariate kurtosis values ranged from 12.32 to 32.89. Robust maximum likelihood estimation using the Satorra-Bentler scaling procedures was used to estimate the goodness of fit indices, the parameter estimates, and standard errors. This approach is commonly used to accommodate non-normal continuous data, and can be especially useful when multivariate kurtosis appears problematic (Finney & DiStefano, 2006). This approach requires computing the asymptotic and observed covariance matrices from the raw data and then specifying the model and the robust maximum likelihood estimation technique in the SIMPLIS program file.

Table 4.1

*Skewness and Kurtosis for Trust and Competence Measures for Experiment 2 Before and After Transformations (Taxes N = 551; HPV N = 530)*

Variable	Skewness Untransformed	Skewness Transformed	Kurtosis Untransformed	Kurtosis Transformed
Taxes Context <sup>a, b</sup>				
Trust				
Dishonest/Honest	-0.441	-0.021	0.212	-0.146
Untrustworthy/ Trustworthy	-0.363	-0.053	-0.175	-0.047
Dishonorable/ Honorable	-0.321	-0.070	0.443	0.066
Immoral/Moral	-0.400	-0.049	0.429	-0.091
Unethical/Ethical	-0.495	-0.058	0.277	-0.128
Phoney/Genuine	-0.476	-0.061	-0.490	-0.367
Competence				
Unintelligent/ Intelligent	-0.656	-0.075	0.685	-0.555
Untrained/Trained	-0.455	-0.079	-0.553	-0.455
Inexpert/Expert	-0.144	-0.051	-0.634	-0.581
Uninformed/Informed	-0.437	-0.019	-0.195	-0.014
Incompetent/ Competent	-0.553	-0.030	0.200	-0.185
Stupid/Bright	-0.768	-0.007	0.825	0.560
HPV vaccine Context <sup>c, d</sup>				
Trust				
Dishonest/Honest	-0.276	-0.071	0.117	-0.192
Untrustworthy/ Trustworthy	-0.217	0.003	0.007	-0.022
Dishonorable/ Honorable	-0.218	0.008	0.268	-0.036
Immoral/Moral	-0.286	-0.038	0.410	0.088
Unethical/Ethical	-0.304	0.009	-0.400	-0.393

Phoney/Genuine	-0.318	-0.002	-0.901	-0.468
Competence				
Unintelligent/ Intelligent	-0.776	-0.036	1.034	-0.518
Untrained/Trained	-0.472	-0.023	-0.584	-0.489
Inexpert/Expert	-0.079	-0.079	-0.597	-0.597
Uninformed/Informed	-0.417	0.027	-0.193	-0.069
Incompetent/ Competent	-0.608	-0.065	0.358	0.259
Stupid/Bright	-0.675	0.016	0.993	-0.482

<sup>a</sup> The standard error of skewness was .104. The standard error of kurtosis was .208.

<sup>b</sup> Power transformations used were 1.4 for dishonest/honest, 1.3 for untrustworthy/trustworthy, 1.2 for dishonorable/honorable, 1.3 for immoral/moral, 1.4 for unethical/ethical, and 1.4 for phoney/genuine, 1.7 for unintelligent/intelligent, 1.5 for untrained/trained, 1.1 for inexpert/expert, 1.5 for uninformed/informed, 1.6 for incompetent/competent, and 1.8 for stupid/bright.

<sup>c</sup> The standard error of skewness was .103. The standard error of kurtosis was .212.

<sup>d</sup> Power transformations used were 1.2 for dishonest/honest, 1.2 for untrustworthy/trustworthy, 1.2 for dishonorable/honorable, 1.2 for immoral/moral, 1.3 for unethical/ethical, and 1.3 for phoney/genuine, 1.9 for unintelligent/intelligent, 1.6 for untrained/trained, 1.0 for inexpert/expert, 1.5 for uninformed/informed, 1.6 for incompetent/competent, and 1.7 for stupid/bright.

Table 4.2

*Skewness and Kurtosis for Hostile Media Perception Measures for Experiment 2 (Taxes N = 551; HPV N = 530)*

Variable	Skewness Untransformed	Kurtosis Untransformed
Taxes Context <sup>a</sup>		
Hostile Media Perception		
HMP 1	-0.084	0.393
HMP 2	-0.059	0.425
HMP 3	-0.100	0.261
HMP 4	-0.121	0.337
HPV Vaccine Context <sup>b</sup>		
Hostile Media Perception		
HMP 1	0.129	0.269
HMP 2	0.155	0.214
HMP 3	0.141	0.293
HMP 4	-0.121	0.287
HMP 5		

<sup>a</sup> The standard error of skewness was .104. The standard error of kurtosis was .208

<sup>b</sup> The standard error of skewness was .106. The standard error of kurtosis was .212.

Table 4.3

*Skewness and Kurtosis for Trust Measures for Experiment 3 Before and After Transformations (Taxes N = 551; HPV N = 532)*

Variable	Skewness Untransformed	Skewness Transformed	Kurtosis Untransformed	Kurtosis Transformed
Taxes Context <sup>a, b</sup>				
Trust				
Dishonest/Honest	-0.156	-0.028	-0.265	-0.155
Untrustworthy/ Trustworthy	-0.129	-0.018	-0.583	-0.500
Dishonorable/ Honorable	-0.207	-0.075	-0.288	-0.099
Immoral/Moral	-0.299	-0.060	-0.271	-0.129
Unethical/Ethical	-0.295	-0.073	-0.488	-0.484
Phoney/Genuine	-0.198	0.001	-0.665	-0.598
HPV Vaccine Context <sup>c, d</sup>				
Trust				
Dishonest/Honest	-0.196	0.023	-0.391	-0.265
Untrustworthy/ Trustworthy	-0.159	-0.057	-0.613	-0.583
Dishonorable/ Honorable	-0.263	-0.045	-0.422	-0.288
Immoral/Moral	-0.341	-0.023	-0.548	-0.271
Unethical/Ethical	-0.248	0.041	-0.636	-0.488
Phoney/Genuine	-0.219	-0.024	-0.743	-0.665

<sup>a</sup> The standard error of skewness was .104. The standard error of kurtosis was .208.

<sup>b</sup> Power transformations used were 1.1 for dishonest/honest, 1.1 for untrustworthy/trustworthy, 1.1 for dishonorable/honorable, 1.2 for immoral/moral, 1.2 for unethical/ethical, and 1.2 for phoney/genuine.

<sup>c</sup> The standard error of skewness was .106. The standard error of kurtosis was .206.

<sup>d</sup> Power transformations used were 1.2 for dishonest/honest, 1.1 for untrustworthy/trustworthy, 1.2 for dishonorable/honorable, 1.3 for immoral/moral, 1.2 for unethical/ethical, and 1.2 for phoney/genuine.

Table 4.4

*Skewness and Kurtosis for Goodwill Measures for Experiment 3 (Taxes  $N = 551$ ; HPV  $N = 562$ )*

Variable	Skewness Untransformed	Kurtosis Untransformed
Taxes Context <sup>a</sup>		
Goodwill		
Insensitive/Sensitive	-0.044	0.048
Doesn't/Does have interests at heart	-0.040	-0.043
Doesn't/Does care about public	0.065	-0.077
Unconcerned/concerned with public	0.055	-0.045
Self-centered/Not self-centered	-0.054	-0.157
Not understand/understanding	-0.157	-0.085
HPV Vaccine Context <sup>b</sup>		
Goodwill		
Insensitive/Sensitive	-0.132	-0.219
Doesn't/Does have interests at heart	0.011	-0.211
Doesn't/Does care about public	0.085	-0.170
Unconcerned/concerned with public	0.105	-0.181
Self-centered/Not self-centered	-0.050	-0.098
Not understand/understanding	-0.166	-0.132

<sup>a</sup> The standard error of skewness was .104. The standard error of kurtosis was .208.

<sup>b</sup> The standard error of skewness was .103. The standard error of kurtosis was .206.

Table 4.5

*Skewness and Kurtosis for Hostile Media Perception Measures for Experiment 3*  
(Taxes  $N = 551$ ; HPV  $N = 562$ )

Variable	Skewness Untransformed	Kurtosis Untransformed
Taxes Context <sup>a</sup>		
Hostile Media Perception		
HMP 1	0.202	0.339
HMP 2	0.140	0.269
HMP 3	0.115	0.161
HMP 4	-0.148	0.209
HPV Vaccine Context <sup>b</sup>		
Hostile Media Perception		
HMP 1	0.162	0.143
HMP 2	0.148	0.144
HMP 3	0.186	0.380
HMP 4	-0.142	0.174

<sup>a</sup> The standard error of skewness was .104. The standard error of kurtosis was .208.

<sup>b</sup> The standard error of skewness was .103. The standard error of kurtosis was .206.

### Hypothesis and Model Testing

Analyses of covariance with the dependent variable of hostile media perception were employed to test H1, H2, H3, and H4 in Experiment 1, H5 in Experiment 2, and H7 and H9 in Experiment 3.

Structural equation modeling with LISREL 8.8 was used to test H6a and H6b in Experiment 2, and H8a, H8b, H10a, and H10b in Experiment 3. Structural equation modeling can be used to address the mediation proposed in these hypotheses by testing

the statistical significance of the parameters indicating indirect effects. In addition, to test the specific indirect effects of each of the mediators in the models (i.e., perception of source trust, source competence, and source goodwill), phantom variables were created. Phantom variables are latent variables with a zero variance in the LISREL model (Cheung, 2007). Phantom variables do not contribute to model fit, the implied covariance matrix, or the parameter estimates, but are created with the sole purpose of estimating the mediating effects. By including the phantom variables in the model, LISREL calculates specific indirect effects. The structural models included demographic variables and control variables related to media use, political views and affiliation, and behavioral measures. See Appendix C for all measures.

### **Analyses Used to Account for Partisan Position and Partisan Strength**

Scholars have argued that hostile media perception occurs when both supporters and opponents of an issue perceive a news article to be biased against their point of view (Gunther & Liebhart, 2006; Gunther & Schmitt, 2004). In order to investigate whether both supporters and opponents of the two health policy issues perceived the news article to be biased against their point of view, interaction terms between the experimental manipulation of source and partisan position (supporter or opponent) were included in the ANCOVAs and multigroup comparison methods (supporters vs. opponents) were employed in the structural equation models. Including interaction terms and employing multigroup comparison methods investigated whether both supporters and opponents perceived the news article to be biased against their point of view (i.e., hostile media perception). Similar procedures have been used to investigate hostile media perception in past studies (Gunther & Liebhart, 2006; Gunther & Schmitt, 2004).



Scholars have also argued that extremity of position affects hostile media perception (Choi, Yang, & Chang, 2009; Gunther et al., 2001; Gunther & Liebhart, 2006). Specifically, researchers have found that predictions about the relationships between experimental manipulation of source and hostile media perception hold only for partisans with high levels of involvement or with extreme partisan positions. In order to account for extremity of partisan position, hypotheses were tested for both more extreme partisans and less extreme partisans in the ANCOVA analyses and tested for all partisans and more extreme partisans in the structural equation models. Specifically, an interaction term between extremity of partisanship and experimental manipulation of source as well as interaction terms between extremity of partisanship, partisan position, and experimental manipulation of source were included in the ANCOVA models, and structural equation models were run separately for all participants and for more extreme partisans. Partisans were coded as more extreme partisans if their score on the partisanship scale was a 1 (i.e., more extreme opponent) or an 11 (i.e., more extreme supporter) and as less extreme partisans if their score on the partisanship scale was a 2 or 3 (i.e., less extreme opponent) or a 9 or a 10 (i.e., less extreme supporter).

For the structural equation modeling procedures in Experiment 2 and Experiment 3, multigroup comparison models (supporters vs. opponents) were first run with data from all participants. Next, multigroup comparison models (supporters vs. opponents) were run with data from only more extreme partisans. To carry out the multigroup comparison procedures, measurement models with all paths constrained across groups were initially analyzed using confirmatory factor analysis (CFA). In the measurement models, all latent variables were allowed to covary. Metric assumptions were made by

fixing one indicator item for each latent variable equal to 1. The measurement models were evaluated through the use of several fit indices recommended by Hu and Bentler (1999), including a parsimonious fit index (RMSEA), an incremental fit index (CFI), and an absolute fit index (SRMR). A model was considered to have a good fit if the RMSEA value was less than or equal to .06, the CFI value was greater than or equal to .95, and the SRMR value was less than or equal to .08 (Hu & Bentler, 1999).<sup>15</sup> Covariance matrices are reported in Appendix D.

Following the CFAs, standardized residuals, factor loadings, and modification indices provided by LISREL were examined for ways to improve the fit of the measurement models. Adequate-fitting measurement models were obtained before moving on to test structural models. Details of the models structure are presented in the figures for each model in Chapters 6 and 7.

Next, structural models with all paths constrained to be equal across groups were analyzed. Modification indices were then consulted to analyze whether releasing any structural paths between the groups would improve the overall fit of the model. Modifications were made iteratively. The overall fit of the structural models was evaluated based on the fit indices of RMSEA, CFI, and SRMR.

---

<sup>15</sup> Often researchers applying SEM techniques will also use the model  $\chi^2$  as a measure of goodness of fit. However, the  $\chi^2$  statistic is sensitive to sample size and tends to be significant, irrespective of model fit, for studies with several hundred participants.

## Chapter 5: Experiment 1

Experiment 1 analyzes the influence of source credibility cues on hostile media perception. The first experiment is designed to test H1, H2, H3, and H4 described in Chapter 2. In this chapter, the method, analysis, and results of Experiment 1 are presented.

### Method

#### Participants

For Experiment 1, 316 partisans were recruited for the context of increasing taxes on sugar-sweetened beverages and 320 partisans were recruited for the context of requiring the HPV vaccine.<sup>16</sup> Data from a few participants (Taxes,  $n = 2$ , HPV Vaccine,  $n = 2$ ) were removed due to incomplete data sets, yielding 314 participants for the context of increasing taxes on sugar-sweetened beverages and 318 participants for the context of requiring the HPV vaccine.

Of the 314 participants in the study related to increasing taxes on sugar-sweetened beverages, most participants were female (61%,  $n = 187$ ). The average age of participants was 34.8, and participants ranged in age from 18 to 75. The percentage of the sample identifying as White was 85% ( $n = 263$ ). Additionally, 9% of participants ( $n = 27$ ) identified as African-American or Black, 4% ( $n = 12$ ) as American Indian or Alaskan Native, 1% ( $n = 2$ ) as Asian Indian, 1% ( $n = 4$ ) as Chinese, 1% ( $n = 3$ ) as Filipino, 1% ( $n = 3$ ) as Japanese, 1% ( $n = 3$ ) as Korean, 0.3% ( $n = 1$ ) as Vietnamese, 1% ( $n = 3$ ) as other Asian, 0.3% ( $n = 1$ ) as Guamanian or Chamorro, 1% ( $n = 2$ ) as Middle Eastern, and 1.0%

---

<sup>16</sup> To calculate sample size for ANCOVA, power analysis was used. A meta-analysis (Hansen & Kim, 2011) found the average effect size for hostile media perception studies to be .296. With an effect size of .296, a power of .80, and an alpha of .05, the sample size needed for the ANCOVA is estimated to be 222 participants.

( $n = 3$ ) as other. In an additional question, 6% of participants ( $n = 18$ ) reported being of Hispanic, Latino, or Spanish descent.

In terms of education, 30% of participants ( $n = 93$ ) reported their highest level of education completed was an undergraduate degree from a 4-year college or university, 12% ( $n = 37$ ) reported graduating from a 2-year college, and 33% ( $n = 100$ ) reported having some college education; 11% ( $n = 34$ ) had obtained a master's degree, and 3% ( $n = 8$ ) had an advanced degree (e.g., Ph.D., M.D., or J.D.). Additionally, 11% ( $n = 34$ ) had obtained a high school diploma or GED, and 0.6% ( $n = 2$ ) reported having less than a high school degree. Average income of participants was approximately \$35,000, with incomes ranging from less than \$10,000 a year to more than \$150,000 annually. In terms of profession, 13% of participants ( $n = 40$ ) indicated some connection to work related to media or the news, including 1% ( $n = 4$ ) who identified as media professionals, 0.3% ( $n = 1$ ) as public relations professionals, 1% ( $n = 4$ ) as advertising professionals, 1% ( $n = 3$ ) as journalists, 6% ( $n = 17$ ) as bloggers, and 4% ( $n = 11$ ) as photographers.

Participants in this study tended to have independent political views, with 35% ( $n = 108$ ) reporting to be moderate, 10% ( $n = 32$ ) to be very liberal, 29% ( $n = 88$ ) to be liberal, 20% ( $n = 62$ ) to be conservative, and 6% ( $n = 18$ ) to be very conservative. In addition, 40% described themselves as Independents ( $n = 123$ ), 6% ( $n = 19$ ) as very strong Democrats, 20% ( $n = 60$ ) as moderate Democrats, 10% ( $n = 31$ ) as Democratic-leaning Independents, 8% ( $n = 25$ ) as Republican-leaning Independents, 14% ( $n = 43$ ) as moderate Republicans, and 2% ( $n = 7$ ) as very strong Republicans.

In terms of behavioral questions, participants reported drinking on average 6.68 sugar-sweetened beverages per week. More specifically, 20% ( $n = 62$ ) reported drinking

no sugar-sweetened beverages and a small number ( $n = 12$ ) reporting consuming on average 25 or more sugar-sweetened beverages in a week. Finally, in terms of participants' opinion toward increasing taxes on sugar-sweetened beverages, 64% ( $n = 196$ ) strongly opposed and 36% ( $n = 112$ ) strongly supported increasing taxes.

Of the 318 participants who chose to participate in the study related to requiring the HPV vaccine, most participants were female (57%,  $n = 182$ ). The average age of participants was 32.5, and participants ranged in age from 18 to 69. The percentage of the sample identifying as White was 83% ( $n = 263$ ). Additionally, 10% of participants ( $n = 31$ ) identified as African-American or Black, 3% ( $n = 10$ ) as American Indian or Alaskan Native, 2% ( $n = 5$ ) as Asian Indian, 2% ( $n = 5$ ) as Chinese, 1% ( $n = 3$ ) as Filipino, 2% ( $n = 5$ ) as Japanese, 1% ( $n = 3$ ) as Korean, 1% ( $n = 3$ ) as Vietnamese, 0.6% ( $n = 2$ ) as Middle Eastern, and 1% ( $n = 4$ ) as other. In an additional question, 6% of participants ( $n = 18$ ) reported being of Hispanic, Latino, or Spanish descent.

In terms of education, 29% of participants ( $n = 92$ ) reported their highest level of education completed was an undergraduate degree from a 4-year college or university, 13% ( $n = 42$ ) reported graduating from a 2-year college, and 32% ( $n = 103$ ) reported having some college education; 11% ( $n = 34$ ) had obtained a master's degree, and 3% ( $n = 8$ ) had an advanced degree (e.g., Ph.D., M.D., or J.D.). Additionally, 12% ( $n = 38$ ) had obtained a high school diploma or GED, and 0.3% ( $n = 1$ ) reported having less than a high school degree. Average income of participants was approximately \$32,500, with incomes ranging from less than \$10,000 a year to more than \$150,000 annually. In terms of profession, 15% of participants ( $n = 39$ ) indicated some connection to work related to media or the news, including 2% ( $n = 5$ ) who identified as media professionals, 1% ( $n =$

3) as public relations professionals, 1% ( $n = 4$ ) as advertising professionals, 3% ( $n = 10$ ) as journalists, 0.6% ( $n = 2$ ) as editors, 4% ( $n = 14$ ) as bloggers, and 4% ( $n = 11$ ) as photographers.

Participants in this study tended to have liberal points of view, with 17% ( $n = 54$ ) reporting to be very liberal, 31% ( $n = 100$ ) to be liberal, 30% ( $n = 96$ ) reporting to be moderate, 17% ( $n = 53$ ) to be conservative, and 5% ( $n = 15$ ) to be very conservative. In addition 41% described themselves as Independents ( $n = 129$ ), 12% ( $n = 39$ ) as very strong Democrats, 17% ( $n = 53$ ) as moderate Democrats, 12% ( $n = 38$ ) as Democratic-leaning Independents, 9% ( $n = 30$ ) as Republican-leaning Independents, 6% ( $n = 20$ ) as moderate Republicans, and 3% ( $n = 9$ ) as very strong Republican.

In terms of behavioral measures, 25% ( $n = 78$ ) of participants had received the HPV vaccine, 68% ( $n = 216$ ) had not received the HPV vaccine, and 8% ( $n = 24$ ) were unsure of their vaccination status. Additionally, 9% ( $n = 29$ ) reported having had their child vaccinated against HPV, 46% ( $n = 145$ ) reported that their child or children had not received the HPV vaccine, 2% ( $n = 7$ ) reported being unsure of their child's vaccination status, and 43% ( $n = 137$ ) reported having no children. Finally, in terms of participants' opinion toward requiring the HPV vaccine, 36% ( $n = 115$ ) were strongly opposed and 64% ( $n = 203$ ) were strongly supportive of requiring the vaccine.

## **Procedure**

After participating in the screening questions assessing partisanship as described in Chapter 4 and reading a consent form, participants were directed to an opening page asking about their political affiliation and political views (see Appendix C). Participants were randomly assigned to one of eight conditions manipulating source trust (high vs.

low), competence (high vs. low), and goodwill (high vs. low). See Appendix A for experimental manipulations. Measures of perceptions of source trust, competence, and goodwill followed as manipulation checks on the experimental conditions. The next page presented neutral information related to the health policy context. Measures of hostile media perception followed. To conclude the experiment, participants were asked demographic questions as well as questions about their profession, weekly media consumption, and health behaviors.

## **Analysis**

### **Manipulation Checks**

Three 2 (high trust vs. low trust)  $\times$  2 (high competence vs. low competence)  $\times$  2 (high goodwill vs. low goodwill) ANOVAs with dependent variables of perceptions of source trust, source competence, and source goodwill were performed to test if the experimental manipulations were successful in each experimental context. The six measures assessing each dimension were averaged to create the dependent variables of perceptions of source trust, competence, and goodwill. See Table 5.1 and Table 5.2 for scale means, standard deviations, and reliability information.

**Taxes on sugar-sweetened beverages.** ANOVAs provided mixed evidence for successful manipulations of source trust, source competence, and source goodwill in the context of increasing taxes on sugar-sweetened beverages.

**Source trust.** There was a main effect of the experimental manipulation of source trust on the dependent variable of perception of source trust, such that participants in the high trust conditions perceived the source to be more trustworthy ( $M = 8.51$ ) than participants in the low trust conditions ( $M = 2.73$ ),  $F(1, 300) = 709.34$ ,  $p < .001$ , partial

$\eta^2 = .70$ .<sup>17</sup> There was also a main effect of the experimental manipulation of source goodwill on perceptions of source trust, such that participants in the high goodwill conditions ( $M = 6.40$ ) perceived the source to be more trustworthy than participants in the low goodwill conditions ( $M = 4.84$ ),  $F(1, 300) = 51.59, p < .001$ , partial  $\eta^2 = .15$ . Also, the interaction between source competence and source trust was significant,  $F(1, 300) = 15.01, p < .001$ , partial  $\eta^2 = .05$ , such that perceptions of trust for those in the high competence, high trust conditions ( $M = 9.04, SE = .208$ ) were significantly greater than those in the low competence, high trust conditions ( $M = 7.99, SE = .220$ ),  $F(1, 300) = 11.792, p = .001$ .<sup>18</sup>

More variance was accounted for by manipulations of source trust than by manipulations of source goodwill or the interaction between source competence and source trust (partial  $\eta^2 = .70$ , partial  $\eta^2 = .15$ , and partial  $\eta^2 = .05$ , respectively), indicating that perceptions of source trust were most strongly influenced by the manipulation of source trust.

**Source competence.** The results of the ANOVA with the dependent variable of perceptions of source competence revealed a pattern that was similar yet distinct from the results reported for the manipulation check of source trust. Participants in the high competence conditions ( $M = 8.08$ ) perceived the source to be more competent than participants in the low competence conditions ( $M = 4.60$ ),  $F(1, 300) = 179.375, p < .001$ , partial  $\eta^2 = .37$ . In addition, participants in the high trust conditions perceived the source to be more competent ( $M = 7.57$ ) than participants in the low trust conditions ( $M = 5.11$ ),  $F(1, 300) = 89.413, p < .001$ , partial  $\eta^2 = .23$ ). More variance was accounted for by

---

<sup>17</sup> All means reported in the manipulation checks are estimated marginal means.

<sup>18</sup> Bonferroni adjustments were made to adjust for multiple comparisons.



manipulations of source competence than by manipulations of source trust (partial  $\eta^2 = .37$ , partial  $\eta^2 = .23$ , respectively), indicating that perceptions of source competence were more strongly influenced by the manipulation of source competence than by the manipulation of source trust.

**Source goodwill.** The results of the ANOVA with the dependent variable of perceptions of source goodwill revealed a pattern that was similar to the results reported for the manipulation check of source competence. Participants in the high goodwill conditions ( $M = 7.99$ ) perceived the source to have more goodwill than participants in the low goodwill conditions ( $M = 3.45$ ),  $F(1, 300) = 284.963$ ,  $p < .001$ , partial  $\eta^2 = .49$ . In addition, participants in the high trust conditions ( $M = 6.91$ ) perceived the source to have more goodwill than participants in the low trust conditions ( $M = 4.53$ ),  $F(1, 300) = 78.222$ ,  $p < .001$ , partial  $\eta^2 = .21$ . More variance was accounted for by the manipulation of source goodwill than by the manipulation of source trust (partial  $\eta^2 = .49$ , and partial  $\eta^2 = .21$ , respectively), indicating that perceptions of source goodwill were more strongly influenced by the manipulation of source goodwill than by the manipulation of source trust.<sup>19</sup>

**Requiring the HPV vaccine.** ANOVAs provided mixed evidence for the successful manipulations of source trust, source competence, and source goodwill in the context of requiring the HPV vaccine.

**Source trust.** There was a main effect of the experimental manipulation of source trust in the ANOVA with the dependent variable of perceptions of source trust, such that

---

<sup>19</sup> The correlations for the dependent variables of source trust, competence, and goodwill for the manipulation checks were as follows: Taxes, trust and competence  $r = .554$ , trust and goodwill  $r = .643$ , competence and goodwill  $r = .449$ . HPV, trust and competence  $r = .594$ , trust and goodwill  $r = .634$ , competence and goodwill  $r = .512$ .

participants in the high trust conditions perceived the source to be more trustworthy ( $M = 7.85$ ) than participants in the low trust conditions ( $M = 2.93$ ),  $F(1, 309) = 415.641$ ,  $p < .001$ , partial  $\eta^2 = .57$ . There was also a main effect of the experimental manipulation of source goodwill, such that participants in the high goodwill conditions ( $M = 6.26$ ) perceived the source to be more trustworthy than participants in the low goodwill conditions ( $M = 4.51$ ),  $F(1, 309) = 52.843$ ,  $p < .001$ , partial  $\eta^2 = .15$ . There was also a main effect of the experimental manipulation of source competence, such that participants in the high competence conditions ( $M = 5.81$ ), perceived the source to be more trustworthy than participants in the low competence conditions ( $M = 4.96$ ),  $F(1, 309) = 12.232$ ,  $p < .001$ , partial  $\eta^2 = .04$ . Also, the interaction between source trust and source goodwill was significant,  $F(1, 309) = 7.356$ ,  $p < .001$ , partial  $\eta^2 = .05$ , such that perceptions of trust for those in the high trust, high goodwill conditions ( $M = 9.06$ ,  $SE = 2.43$ ) were significantly greater than those in the high trust, low goodwill conditions ( $M = 6.65$ ,  $SE = .240$ ),  $F(1, 309) = 49.74$ ,  $p < .001$ .

More variance was accounted for by manipulations of source trust than by manipulations of source goodwill or source competence or the interaction between source trust and source goodwill (partial  $\eta^2 = .57$ , partial  $\eta^2 = .15$ , partial  $\eta^2 = .04$ , and partial  $\eta^2 = .05$ , respectively), indicating that perceptions of source trust were most strongly influenced by the manipulation of source trust.

***Source competence.*** The results of the ANOVA with the dependent variable of perceptions of source competence revealed a pattern that was similar yet distinct from the results reported for the manipulation check of source trust. Participants in the high competence conditions ( $M = 7.80$ ) perceived the source to be more competent than

participants in the low competence conditions ( $M = 4.61$ ),  $F(1, 309) = 142.350$ ,  $p < .001$ , partial  $\eta^2 = .32$ . In addition, participants in the high trust conditions perceived the source to be more competent ( $M = 7.34$ ) than participants in the low trust conditions ( $M = 5.07$ ),  $F(1, 309) = 72.086$ ,  $p < .001$ , partial  $\eta^2 = .19$ , and participants in the high goodwill conditions ( $M = 6.94$ ) perceived the source to be more competent than participants in the low goodwill condition ( $M = 5.47$ ),  $F(1, 309) = 30.228$ ,  $p < .001$ , partial  $\eta^2 = .09$ . Also, the interaction between source competence and source trust was significant,  $F(1, 309) = 51.257$ ,  $p = .003$ , partial  $\eta^2 = .03$ , such that perceptions of competence were higher in the high competence, high trust conditions ( $M = 9.33$ ,  $SE = .268$ ) than in the high competence, low trust conditions ( $M = 6.37$ ,  $SE = .273$ ),  $F(1, 309) = 64.354$ ,  $p < .001$ .

More variance was accounted for by manipulations of source competence than by manipulations of source trust or source goodwill or the interaction between source competence and source trust (partial  $\eta^2 = .32$ , partial  $\eta^2 = .19$ , partial  $\eta^2 = .09$ , partial  $\eta^2 = .03$ , respectively), indicating that perceptions of source competence were more strongly influenced by the manipulation of source competence than by the manipulation of source trust or source goodwill.

***Source goodwill.*** The results of the ANOVA for the dependent variable of perceptions of source goodwill revealed two main effects. Participants in the high goodwill conditions ( $M = 7.87$ ) perceived the source to have more goodwill than participants in the low goodwill conditions ( $M = 3.30$ ),  $F(1, 309) = 320.311$ ,  $p < .001$ , partial  $\eta^2 = .51$ . In addition, participants in the high trust conditions ( $M = 6.60$ ) perceived the source to have more goodwill than participants in the low trust conditions ( $M = 4.58$ ),  $F(1, 309) = 62.587$ ,  $p < .001$ , partial  $\eta^2 = .27$ . More variance was accounted for by the

manipulation of source goodwill than by the manipulation of source trust ( $\eta^2 = .51$ , and partial  $\eta^2 = .27$ , respectively), indicating that perceptions of source goodwill were more strongly influenced by the manipulation of source goodwill than by the manipulation of source trust.

### Scale Reliability Information

To assess the influence of covariates and to test hypotheses using ANCOVA, items were averaged to create composite variables for the dependent variables for the manipulation checks and for the dependent variable of hostile media perception. Means, standard deviations, and reliability information are reported in Table 5.1 and Table 5.2.

Table 5.1

*Experiment 1 Means, Standard Deviations, and Reliability of Scales, Taxes (N = 314)*

Variable	Initial # of items	Final # of items	Initial <i>M</i>	Final <i>M</i>	Initial <i>SD</i>	Final <i>SD</i>	Initial $\alpha$	Final $\alpha$
Trust (manipulation check)	6	6	5.74	--	3.60	--	.974	--
Competence (manipulation check)	6	6	6.40	--	3.17	--	.963	--
Goodwill (manipulation check)	6	6	5.77	--	3.52	--	.969	--
Hostile Media Perception	5	4	5.62	5.94	1.70	1.75	.812	.843

Table 5.2

*Experiment 1 Means, Standard Deviations, and Reliability of Scales, HPV Vaccine Context (N = 318)*

Variable	Initial # of items	Final # of items	Initial <i>M</i>	Final <i>M</i>	Initial <i>SD</i>	Final <i>SD</i>	Initial $\alpha$	Final $\alpha$
Trust (manipulation check)	6	6	5.37	--	3.42	--	.968	--
Competence (manipulation check)	6	6	6.17	--	3.20	--	.956	--
Goodwill (manipulation check)	6	6	5.56	--	3.40	--	.966	--
Hostile Media Perception	5	4	5.48	5.77	1.70	1.92	.855	.886

The hostile media perception scale demonstrated adequate reliability in both contexts (Taxes  $\alpha = .812$ ; HPV  $\alpha = .855$ ). However, in both contexts, removing one measure (What percentage of information would you say was biased against your side?) improved the reliability of the scale (Taxes  $\alpha = .843$ ; HPV  $\alpha = .886$ ).

The factorability of the five items used to measure hostile media perception in each context was explored and PCA was deemed suitable means of analyses for all of the items (Taxes: KMO = .809, Bartlett's test of sphericity =  $\chi^2$  (10,  $N = 314$ ) = 656.318,  $p < .0005$ ); HPV: KMO = .834, Bartlett's test of sphericity =  $\chi^2$  (10,  $N = 318$ ) = 860.089,  $p < .0005$ ). The PCAs revealed that four

hostile media perception measures had loadings above .60 on a single factor, and the fifth measure (What percentage of information would you say was biased against your side?) had a loading of less than .60 for the context of increasing taxes on sugar sweetened beverages and a loading of .61 for the context of requiring the HPV vaccine on the single factor. The decision was made to remove the fifth item from the composite scales due to the results of the PCAs and the reliability information. For all subsequent analyses in Experiment 1, the hostile media perception scales are an average of the four retained measures.<sup>20</sup>

## **Results**

### **ANCOVA**

For each study context, a 2 (high trust vs. low trust) × 2 (high competence vs. low competence) × 2 (high goodwill vs. low goodwill) × 2 (opponent vs. supporter of the policy) × 2 (more extreme partisan vs. less extreme partisan) ANCOVA with the dependent variable of hostile media perception was performed to test H1, H2, H3, and H4. Covariates in the two ANCOVA procedures included age, gender, race, ethnicity, income, education, profession, media use (traditional), media use (online), political views, political affiliation, and behavioral measures.<sup>21</sup>

---

<sup>20</sup> Two participants also inquired about the correct way to interpret the item “What percentage of information was biased against your position?” Both participants suggested that the item could be interpreted in two ways. For example, if the individual believed the article to be slightly biased against their position, they might report an answer of 10% or, following the scales used in the previous HMP measures where the neutral midpoint 6 mapped onto 50%, the individual might report an answer of 60%.

<sup>21</sup> Covariates in the ANCOVAs were coded as: gender (1 = female, 0 = male), race (1 = White, 0 = non-White), ethnicity (1 = non-Hispanic, 0 = Hispanic), profession (1 = professional news experience [e.g., public relations specialist, journalist, blogger, etc.], 0 = no professional news experience), and HPV behavioral measures (1 = self/child received vaccine, 0 = self/child has not received vaccine or no children). Higher values on political views and political affiliation measures indicated greater conservatism and a stronger connection to the Republican party.

H1 predicted that partisans assigned to low source trust conditions would show greater hostile media perception than partisans assigned to high source trust conditions. In the context of increasing taxes on sugar-sweetened beverages, the main effect of experimental manipulation of source trust was not significant,  $F(1, 285) = .192, p = .656$ .

However, the interaction between partisan position and experimental manipulation of source trust was significant,  $F(1, 285) = 7.22, p < .01$ , partial  $\eta^2 = .03$ . Analyses of simple main effects revealed that opponents assigned to high trust conditions perceived the article to be biased against their point of view ( $M = 6.26, SE = .235$ ) and opponents assigned to low trust conditions perceived the article to be in favor of their position ( $M = 5.55, SE = .292$ ),  $F(1, 285) = 5.93, p < .05$ , partial  $\eta^2 = .02$  (see Figure 5.1).<sup>22</sup> These results were opposite to H1.

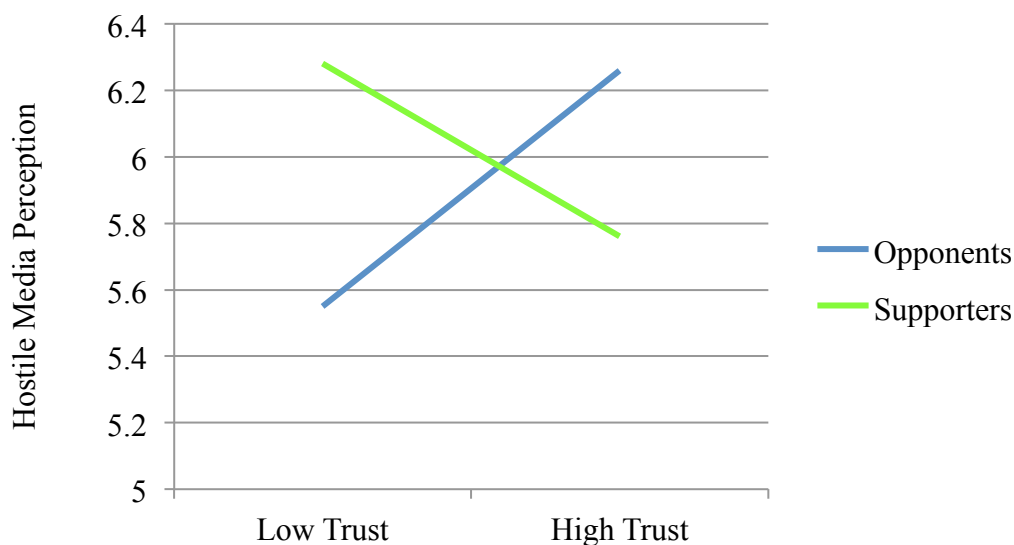


Figure 5.1. Experiment 1: Taxes context, Interaction of trust and partisan position.

<sup>22</sup> Bonferroni adjustments were made to adjust for multiple comparisons.

Results for supporters were in line with the predicted hypothesis such that supporters assigned to high trust conditions perceived the article to be supportive of their position ( $M = 5.76$ ,  $SE = 0.235$ ) and supporters assigned to low trust conditions perceived the article to be biased against their position ( $M = 6.28$ ,  $SE = 0.254$ ). However, the difference in perceived bias between supporters assigned to high trust conditions and low trust conditions was not statistically significant ( $p = .127$ ). H1 was not supported for supporters in the context of increasing taxes on sugar-sweetened beverages.

An additional ANCOVA was conducted that included as an independent variable the experimental manipulation of source trust, and controlled for the influence of perceptions of source competence and source goodwill.<sup>23</sup> The results were similar to the initial analysis in that the interaction between the experimental manipulation of source trust and partisan position was significant,  $F(1, 289) = 5.246$ ,  $p < .025$ , partial  $\eta^2 = .02$ , such that opponents in the high trust conditions perceived the news article to be biased against their position ( $M = 6.27$ ,  $SE = 0.255$ ) and opponents in the low trust conditions perceived the news article to be supportive of their position ( $M = 5.64$ ,  $SE = 0.257$ ),  $F(1, 289) = 6.047$ ,  $p < .025$ , partial  $\eta^2 = .02$ .

In the context of requiring the HPV vaccine, there was no main effect of the experimental manipulation of source trust ( $p = .445$ ). The interactions between the experimental manipulation of source trust and partisan position ( $p = .941$ ) and between the experimental manipulation of source trust and extremity of partisanship ( $p = .772$ ) were not significant. H1 was not supported in the context of requiring the HPV vaccine.

---

<sup>23</sup> The independent variables of the experimental manipulations of source competence and source goodwill were not included in the model.



H2 predicted that partisans assigned to low source goodwill conditions would show greater hostile media perception than partisans assigned to high source goodwill conditions. For the context of increasing taxes on sugar-sweetened beverages, the main effect of the experimental manipulation of source goodwill was not significant,  $F(1, 285) = 0.55, p = .460$ . However, the interaction between partisan position and experimental manipulation of source goodwill was significant,  $F(1, 285) = 4.38, p < .05$ , partial  $\eta^2 = .02$ . Analyses of simple main effects revealed that supporters of increasing taxes on sugar-sweetened beverages who were assigned to low goodwill conditions perceived the news article to be biased against their position ( $M = 6.32, SE = 0.259$ ), and supporters who were assigned to high goodwill conditions perceived the news article to be supportive of their position ( $M = 5.71, SE = 0.233$ ),  $F(1, 285) = 3.150, p < .05$ , partial  $\eta^2 = .01$ . In the context of increasing taxes on sugar-sweetened beverages, H2 was supported among supporters, but not among opponents.

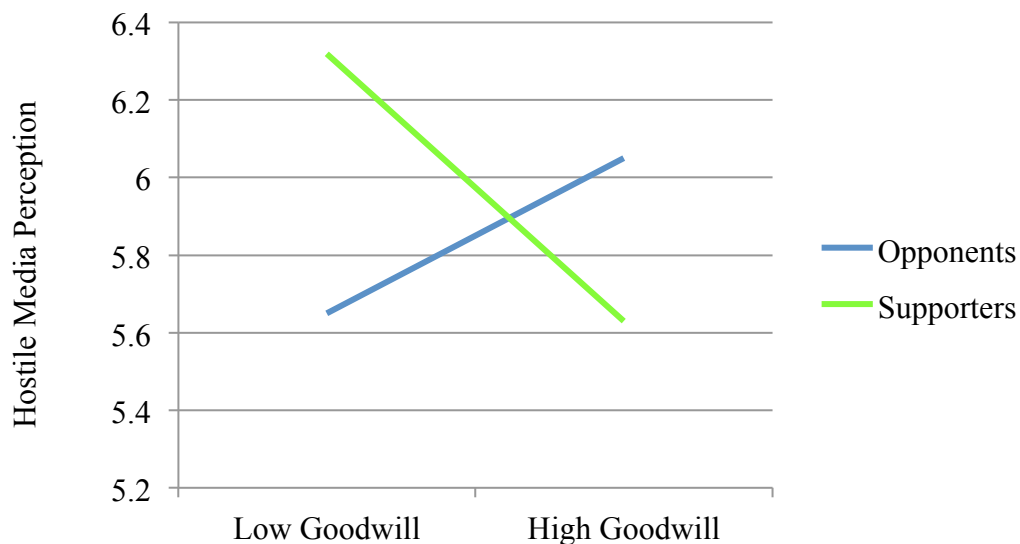


Figure 5.2. Experiment 1: Taxes context, Interaction of goodwill and partisan position.

Although the results of the analysis show a significant influence of the manipulation of source goodwill on hostile media perception in the context of increasing taxes on sugar-sweetened beverages, the results of the manipulation check indicated that manipulations of source goodwill also influenced perceptions of source trust. An additional ANCOVA was conducted that included as an independent variable the experimental manipulation of source goodwill, and controlled for the influence of perceptions of source trust.<sup>24</sup>

The results were similar to the initial analysis in that the interaction between the experimental manipulation of source goodwill and partisan position was significant,  $F(1, 290) = 4.853, p < .05$ , partial  $\eta^2 = .02$ , such that supporters in the low goodwill conditions perceived the news article to be biased against their position ( $M = 6.32, SE = 0.260$ ) and supporters in the high goodwill conditions perceived the news article to be supportive of their position ( $M = 5.63, SE = 0.234$ ),  $F(1, 290) = 3.855, p < .05$ , partial  $\eta^2 = .01$ .

In the context of requiring the HPV vaccine, there was no main effect of the experimental manipulation of source goodwill ( $p = .702$ ). The interactions between the experimental manipulation of source goodwill and partisan position ( $p = .924$ ) and between the experimental manipulation of source goodwill and extremity of partisanship ( $p = .868$ ) were not significant. H2 was not supported in the context of requiring the HPV vaccine.

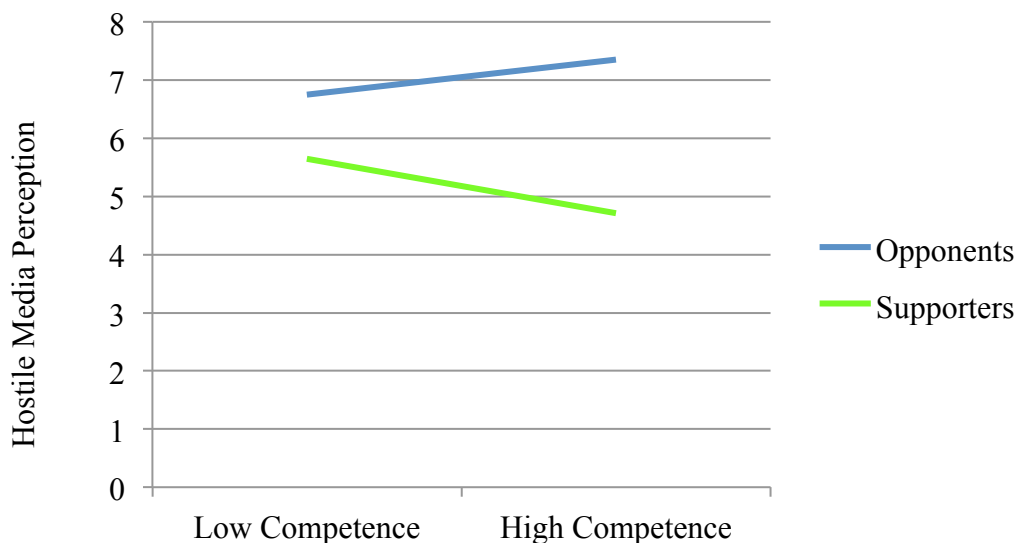
A main effect of competence was not hypothesized in Experiment 1. However, in the context of requiring the HPV vaccine, there was a significant three-way interaction,  $F(1, 293) = 5.89, p < .001$ , partial  $\eta^2 = .04$ . Analyses of simple main effects revealed that

---

<sup>24</sup> The independent variables of the experimental manipulations of source trust and source competence were not included in the model.

more extreme supporters in the high source competence conditions ( $M = 4.71$ ,  $SE = 0.355$ ) perceived the news article to be more supportive of their position than more extreme supporters in the low source competence conditions ( $M = 5.65$ ,  $SE = 0.338$ ),  $F(1, 293) = 7.458$ ,  $p < .01$ , partial  $\eta^2 = .02$  and that less extreme opponents in the high source competence condition perceived the news article to be supportive of their position ( $M = 5.72$ ,  $SE = .326$ ) and less extreme opponents in the low source competence condition perceived the news article to be biased against their position ( $M = 6.61$ ,  $SE = .347$ ),  $F(1, 293) = 5.275$ ,  $p < .01$ , partial  $\eta^2 = .02$ .

Although the results of the analysis show a significant influence of the manipulation of source competence on hostile media perception in the context of requiring the HPV vaccine, the results of the manipulation check indicated that manipulations of source competence also influenced perceptions of source trust.



*Figure 5.3.* Experiment 1: HPV Vaccine context, Interaction of competence and partisan position for more extreme partisans.

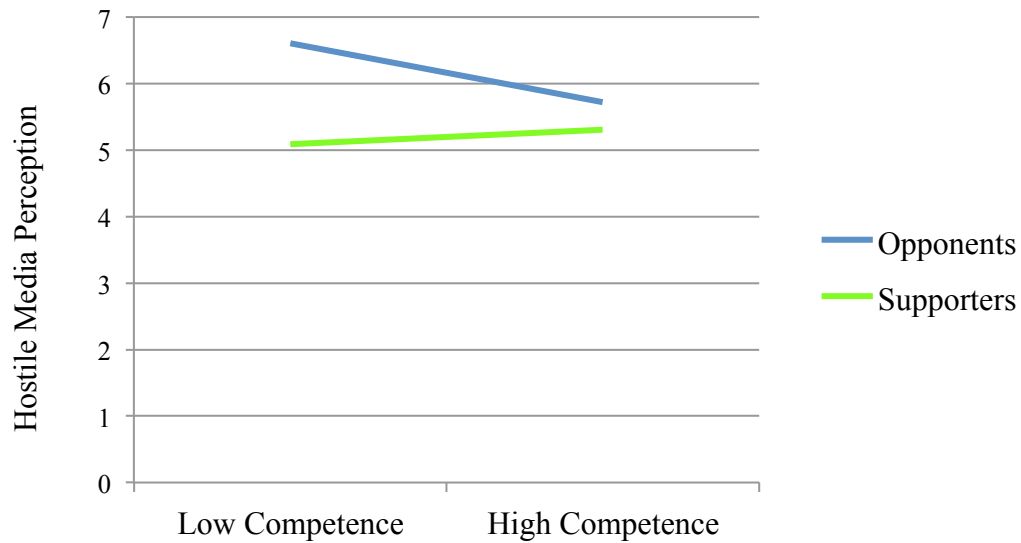


Figure 5.4. Experiment 1: HPV Vaccine context, interaction of competence and partisan position for less extreme partisans.

An additional ANCOVA was conducted that included as an independent variable the experimental manipulation of source competence and also controlled for the influence of perceptions of source trust.<sup>25</sup> Results confirmed a significant three-way interaction,  $F(1, 295) = 6.050, p < .01$ , partial  $\eta^2 = .04$ . Analyses of simple main effects revealed that more extreme supporters in the high source competence conditions ( $M = 4.77, SE = 0.361$ ) perceived the news article to be more supportive of their position than extreme supporters in the low source competence conditions ( $M = 5.67, SE = 0.337$ ),  $F(1, 295) = 7.55, p < .01$ , partial  $\eta^2 = .03$ , and that less extreme opponents in the high source competence condition perceived the news article to be supportive of their position ( $M = 5.51, SE = .371$ ) and less extreme opponents in the low source competence condition perceived the news article to be biased against their position ( $M = 6.83, SE = .350$ ),  $F(1, 295) = 4.78, p < .05$ , partial  $\eta^2 = .02$ .

<sup>25</sup> The independent variables of the experimental manipulations of source trust and source goodwill were not included in the model.

It should also be noted that there was a main effect of partisan position in the context of requiring the HPV vaccine,  $F(1, 293) = 32.06, p < .001$ , partial  $\eta^2 = .10$ , such that opponents of the policy perceived the news article to be biased against their position ( $M = 6.70, SE = 0.381$ ) and supporters of the policy perceived the news article to be supportive of their position ( $M = 5.27, SE = 0.313$ ).

H3 predicted an interaction, such that partisans assigned to low source trust conditions would exhibit greater hostile media perceptions when assigned to high source competence (vs. low competence) conditions and partisans in high source trust conditions would perceive less bias against their point of view when assigned to high source competence (vs. low source competence) conditions. The interaction between the experimental manipulation of source trust and source competence was not significant in either context. H3 was not supported.

H4 predicted a second interaction such that partisans assigned to low source goodwill conditions would exhibit greater hostile media perceptions when assigned to high source competence (vs. low source competence) conditions and partisans assigned to high source goodwill conditions would perceive less bias against their point of view when assigned to high source competence (vs. low source competence) conditions. The interaction between the experimental manipulation of source goodwill and source competence was not significant in either context. H4 was not supported.<sup>26</sup>

## **Discussion**

The results of Experiment 1 revealed that the relationship between source credibility dimensions and hostile media perception is complex. Whether and how trust,

---

<sup>26</sup> None of the covariates included in the model were significant predictors of hostile media perception in the context of increasing taxes on sugar-sweetened beverages or requiring the HPV vaccine.

competence, and goodwill affect partisans' perceptions of bias of neutral news content is dependent on partisan position (i.e., whether a partisan supports or opposes a policy) and extremity of partisanship. Results also differed between the two health policy contexts. The influence of the health policy context will be discussed in the general discussion in Chapter 8.

In the context of increasing taxes on sugar-sweetened beverages, the source characteristics of trust and goodwill influenced perceptions of bias of the news article, but the effects of source characteristics on hostile media perception were dependent on partisan position. Source trust was instrumental to perceptions of bias for opponents and source goodwill was key to predicting hostile media perception for supporters. Specifically, opponents tended to find news articles written by untrustworthy sources to be more supportive of their position than news articles written by trustworthy sources. In contrast, supporters found news articles written by sources lacking in goodwill to be biased against their position and news articles written by sources having goodwill to be supportive of their position.

The differences in the influence of source credibility characteristics for supporters and opponents may be best explained by considering (1) partisans' concern for the influence of media messages on public opinion, (2) public support or opposition for the issue, (3) evidence in persuasion research that shows people's inclination to provide more support to sources whom they believe favor their position but who lack credibility (Brock & Saine, 1975; Sternthal, Dholakia, & Leavitt, 1978; Sternthal, Phillips, & Dholakia, 1978), and (4) work that demonstrates source cues can be more influential when

expectations are violated (Aaker, Vohs, & Mogilner, 2010; Eagly, Wood, & Chaiken, 1978; Hunt, Dozmal, & Kernan, 1982).

Hostile media perception scholars have argued that partisans tend to be particularly sensitive to and concerned about the opinions of others and that partisans expect others to be less educated about an issue and more susceptible to information delivered via the news media (Gunther & Liebhart, 2006; Gunther & Schmitt, 2004). In addition, hostile media perception scholars have argued that partisans level charges of bias against neutral news articles to prevent news content from persuading others to disagree with the partisan's position (Sun & Hwang, 2013; Wei, Chia, & Lo, 2011).

Public opinion polls report that the majority of Americans oppose increasing taxes on sugar-sweetened beverages (Harris, 2012). In addition, no city or state has yet to pass legislation related to this health policy. Therefore, opponents of increasing taxes on sugar-sweetened beverages may perceive that most people oppose the policy. If opponents perceive that they are in the majority, they may not feel the need to discredit opposing arguments and the majority position in order to change or shape public opinion but rather may be more inclined to worry about protecting the majority position. If opponents are worried about protecting their majority position, they might highlight the arguments that favor their point of view and evaluate the news article as more supportive of their position, especially when a source is said to be untrustworthy. Opponents might be concerned that news coverage written by an untrustworthy source will lead people who currently oppose the policy to question the merits of the policy and question their opposition to the policy. When evaluating an article written by an untrustworthy source, partisans in the majority may feel the need to protect the source's credibility. By

evaluating the information as more supportive of their position, opponents signal to others that the news article provided by the untrustworthy source is valid and should not diminish public opposition to the policy. The phenomenon of people providing more support to a less credible (vs. more credible) source who agrees with their position has been documented in past research (Sternthal, Dholakia, & Leavitt, 1978). In an extensive review of the influence of source credibility on persuasion, Sternthal, Phillips, and Dholakia (1978) argued that when a source is seen as lacking in credibility, people who are supportive of the arguments presented in a message will try to help the source develop more persuasive arguments and tend to perceive or evaluate the message as more persuasive.

Conversely, results of public opinion polls show that supporters of increasing taxes on sugar-sweetened beverages are in the minority. Supporters may be most concerned that information presented as authored by a source lacking in goodwill or who does not have the supporter's interests at heart will encourage additional opposition to the supporters' point of view. In order to discredit the source, supporters may be more likely to highlight information that disagrees with their position and level charges of bias. When supporters are presented with a news article about the health policy that is said to be authored by a source having goodwill, supporters who are in the minority might be surprised to find a source who has their interests at heart. Supporters might highlight supportive information and perceive the news article as supportive of their position when the source is said to have goodwill. Past research has revealed that information from a source who violates expectations can be more persuasive than information from a source who conforms to expectations (Aaker, et al., 2010; Eagly, Wood, & Chaiken, 1978).



Finally, in the context of requiring the HPV vaccine, extreme partisans who supported the policy perceived the news article to be supportive of their position when the article was said to be authored by a competent source, yet viewed the news article as neutral when the article was said to be authored by an incompetent source, indicating perceptions of source competence were key in predicting extreme partisan supporters' perceptions of perceived bias. When interpreting these results in relation to hostile media perception, one must consider that both opponents and supporters perceived the news article in general to favor supporters. When extreme partisans who supported the policy were exposed to a news article said to be written by an incompetent source, their perception of the news article was no longer that the news article was supportive of their position, but rather that the news article was neutral. This pattern is an indication of hostile media perception for extreme supporters.

## **Chapter 6: Experiment 2**

Experiment 2 seeks to replicate past hostile media perception findings in which partisans (people with extreme stances on an issue) perceived news content to be biased against their position when the content was said to be authored by a journalist, but not when the same content was said to be authored by college student. In addition, Experiment 2 is designed to test whether partisan perceptions of trust and competence mediate the relationship between source profession (journalist vs. student) and hostile media perception. The second experiment is designed to test hypotheses H5, H6a, and H6b, described in Chapter 2. In this chapter, the method, analysis, and results of Experiment 2 are presented.

### **Method**

#### **Participants and Procedure**

The procedure for Experiment 2 was identical to Experiment 1 in terms of participant selection and questions related to partisanship and political variables. In Experiment 2, participants were randomly assigned to one of two conditions manipulating source profession (journalist vs. student). Next, participants were asked to respond to measures of perceptions of the source's trustworthiness and competence. Presentation of neutral information and measures of hostile media perception followed using the same procedure as described in Experiment 1. Following measures of hostile media perception was a manipulation check assessing source profession. Specifically, participants were asked to indicate whether the author of the information was a journalist or a student. To conclude the experiment, participants were asked to answer demographic

questions as well as questions about their profession, weekly media consumption, and health behaviors.

For Experiment 2, 577 partisans were recruited for the context of increasing taxes on sugar-sweetened beverages and 553 partisans were recruited for the context of requiring the HPV vaccine.<sup>27</sup> Data from several participants (Taxes  $n = 11$ ; HPV  $n = 13$ ) were removed due to incomplete data sets, yielding 566 participants for the context of increasing taxes on sugar-sweetened beverages and 540 participants for the context of requiring the HPV vaccine.

Of the 566 participants who chose to participate in the study related to increasing taxes on sugar-sweetened beverages, most participants were female (54%,  $n = 305$ ). The average age of participants was 33.7, and participants ranged in age from 18 to 70. The percentage of the sample identifying as White was 85% ( $n = 478$ ). Additionally, 10% of participants ( $n = 55$ ) identified as African-American or Black, 3% ( $n = 14$ ) as American Indian or Alaskan Native, 1% ( $n = 6$ ) as Asian Indian, 1% ( $n = 7$ ) as Chinese, 2% ( $n = 12$ ) as Filipino, 0.5% ( $n = 3$ ) as Japanese, 0.7% ( $n = 4$ ) as Korean, 0.5% ( $n = 3$ ) as Vietnamese, 0.5% ( $n = 3$ ) as other Asian, 0.4% ( $n = 2$ ) as Native Hawaiian, 0.5% ( $n = 3$ ) as Middle Eastern, and 2% ( $n = 11$ ) as other. In an additional question, 8% of participants ( $n = 43$ ) reported being of Hispanic, Latino, or Spanish descent.

In terms of education, 31% of participants ( $n = 176$ ) reported that their highest level of education completed was an undergraduate degree from a 4-year college or

---

<sup>27</sup> Analysis of covariance (ANCOVA) and structural equation modeling are used to analyze these data and address hypotheses related to this experiment. Sample size for the ANCOVA was calculated to be 92 participants, based on an effect size of .296, a power of .80, and an alpha of .05. In the proposed structural model for the second experiment, there are 55 parameters to be estimated. Based on the rules of thumb provided by Bentler and Cho (1987), at least 550 participants were recruited for each context.

university, 12% ( $n = 65$ ) reported graduating from a 2-year college, and 35% ( $n = 195$ ) reported having some college education; 10% ( $n = 58$ ) had obtained a master's degree, and 2% ( $n = 14$ ) had an advanced degree (e.g., Ph.D., M.D., or J.D.). Additionally, 10% ( $n = 54$ ) had obtained a high school diploma or GED, and 0.7% ( $n = 7$ ) reported having less than a high school degree. Average income of participants was approximately \$35,000, with incomes ranging from less than \$10,000 a year to more than \$150,000 annually. In terms of profession, 13% of participants ( $n = 72$ ) indicated some connection to work related to media or the news, including 1% ( $n = 6$ ) who identified as media professionals, 1% ( $n = 5$ ) as public relations professionals, 1% ( $n = 5$ ) as advertising professionals, 2% ( $n = 11$ ) as journalists, 1% ( $n = 5$ ) as editors, 3% ( $n = 19$ ) as bloggers, and 3% ( $n = 21$ ) as photographers.

In terms of political views, participants tended to be liberal, with 9% ( $n = 53$ ) of participants reporting to be very liberal, 31% to be liberal ( $n = 176$ ), 33% to be moderate ( $n = 184$ ), 22% to be conservative ( $n = 127$ ), and 5% to be very conservative ( $n = 26$ ). In addition 7% ( $n = 40$ ) described themselves as very strong Democrats, 14% as moderate Democrats ( $n = 79$ ), 15% as Democratic-leaning Independents ( $n = 82$ ), 43% ( $n = 243$ ) as Independents, 8% ( $n = 47$ ) as Republican-leaning Independents, 9% ( $n = 52$ ) as moderate Republicans, and 4% ( $n = 23$ ) as very strong Republicans.

In terms of behavioral measures, the average number of sugar-sweetened beverages consumed in a week was 6.15 ( $SD = 9.59$ ), and this ranged from 0 beverages to 100 beverages consumed in a week. More specifically, 20% ( $n = 111$ ) reported drinking no sugar-sweetened beverages and a small number ( $n = 23$ ) reporting consuming on average 25 or more sugar-sweetened beverages in a week. Finally, in terms of

participants' opinion toward increasing taxes on sugar-sweetened beverages, 58% ( $n = 330$ ) strongly opposed and 42% ( $n = 236$ ) strongly supported increasing taxes.

Of the 540 participants who chose to participate in the study related to requiring the HPV vaccine, most participants were female (58%,  $n = 314$ ). The average age of participants was 32.4, and participants ranged in age from 18 to 75. The percentage of the sample identifying as White was 82% ( $n = 442$ ). Additionally, 9% of participants ( $n = 48$ ) identified as African-American or Black, 4% ( $n = 19$ ) as American Indian or Alaskan Native, 0.6% ( $n = 3$ ) as Asian Indian, 2% ( $n = 13$ ) as Chinese, 2% ( $n = 8$ ) as Filipino, 0.4% ( $n = 2$ ) as Japanese, 1% ( $n = 7$ ) as Korean, 0.7% ( $n = 4$ ) as Vietnamese, 0.7% ( $n = 4$ ) as other Asian, 0.7% ( $n = 4$ ) as Middle Eastern, and 3% ( $n = 15$ ) as other. In an additional question, 8% of participants ( $n = 45$ ) reported being of Hispanic, Latino, or Spanish descent.

In terms of education, 32% of participants ( $n = 173$ ) reported that their highest level of education completed was an undergraduate degree from a 4-year college or university, 13% ( $n = 70$ ) reported graduating from a 2-year college, and 32% ( $n = 175$ ) reported having some college education; 12% ( $n = 62$ ) had obtained a master's degree, and 1.3% ( $n = 7$ ) had an advanced degree (e.g., Ph.D., M.D., or J.D.). Additionally, 10% ( $n = 53$ ) had obtained a high school diploma or GED. Average income of participants was approximately \$35,000, with incomes ranging from less than \$10,000 a year to more than \$150,000 annually. In terms of profession, 14% of participants ( $n = 74$ ) indicated some connection to work related to media or the news, including 1% ( $n = 5$ ) who identified as media professionals, 0.7% ( $n = 4$ ) as public relations professionals, 1% ( $n = 6$ ) as

advertising professionals, 2% ( $n = 12$ ) as journalists, 0.9% ( $n = 5$ ) as editors, 4% ( $n = 24$ ) as bloggers, and 3% ( $n = 18$ ) as photographers.

Participants tended to have liberal or moderate political views, with 12.0% ( $n = 65$ ) reporting to be very liberal, 33% ( $n = 177$ ) to be liberal, 37% ( $n = 201$ ) to be moderate, 14% ( $n = 74$ ) to be conservative, and 4% ( $n = 23$ ) to be very conservative. In addition 8% ( $n = 45$ ) described themselves as very strong Democrats, 14% ( $n = 75$ ) as moderate Democrats, 12% ( $n = 62$ ) as Democratic-leaning Independents, 52% ( $n = 279$ ) as Independent, 6% ( $n = 31$ ) as Republican-leaning Independent, 7% ( $n = 36$ ) as moderate Republican, and 2% ( $n = 12$ ) as very strong Republican.

In terms of behavioral measures, 18% ( $n = 97$ ) of participants had received the HPV vaccine, 72% ( $n = 389$ ) had not received the HPV vaccine, and 10% ( $n = 54$ ) were unsure of their vaccination status. Additionally, 8% ( $n = 45$ ) reported having had their child vaccinated against HPV, 47% ( $n = 255$ ) reported that their child or children had not received the HPV vaccine, 0.6% ( $n = 3$ ) reported being unsure of their child's vaccination status, and 44% ( $n = 237$ ) reported having no children. Finally, in terms of participants' opinion toward requiring the HPV vaccine, 32% ( $n = 173$ ) were strongly opposed and 68% ( $n = 367$ ) were strongly supportive of requiring the vaccine.

## **Analysis**

### **Manipulation Check**

Of the partisans who participated in the study context of increasing taxes on sugar-sweetened beverages, 15 failed the manipulation check by incorrectly identifying the profession of the source (journalist or college student). The working sample for the analysis included 551 participants, including 274 assigned

to the journalist-as-author condition and 277 assigned to the student-as-author condition. Of the partisans who participated in the study context of requiring the HPV vaccine, 10 failed the manipulation check of identifying the profession of the source (journalist or college student). The working sample for the analysis included 530 participants, including 260 assigned to the journalist-as-author condition and 270 assigned to the student-as-author condition.

### **Reliability Information and Data Screening Procedures**

To assess the influence of covariates and to test hypotheses using ANCOVA, items were averaged to create composite variables for the dependent variable of hostile media perception. Means, standard deviations, and reliability information are reported in Table 6.1 and Table 6.2 for each study context.

The hostile media perception scale demonstrated adequate reliability (Taxes  $\alpha = .800$ ; HPV  $\alpha = .789$ ). However, in both contexts, removing one measure (“What percentage of information would you say was biased against your side?”) improved the reliability of the scale (Taxes  $\alpha = .881$ ; HPV  $\alpha = .858$ ). To further assess the hostile media perception scale, data from the five measures were submitted to principal components analysis without rotation in each context. The factorability of the five items used to measure hostile media perception in each context was explored and PCA was deemed a suitable means of analyses for all of the items (Taxes: KMO = .791, Bartlett’s test of sphericity =  $\chi^2$  (10,  $N = 551$ ) = 1339.159,  $p < .0005$ ; HPV: KMO = .791, Bartlett’s test of sphericity =  $\chi^2$  (10,  $N = 530$ ) = 1339.159,  $p < .0005$ ). The PCAs revealed that four hostile media perception measures had loadings above .80 on the first factor, and the fifth

measure (“What percentage of information would you say was biased against your side?”) had a loading of less than .50 on the first factor. The decision was made to remove the fifth item from the composite scales. For all subsequent analyses in Experiment 2, the hostile media perception scales are an average of the four retained measures.

For the context of increasing taxes on sugar-sweetened beverages, there were significant interactions between media use online and the experimental manipulation ( $p = .029$ ) and between political views and the experimental manipulation ( $p = .030$ ), which violates the assumption of homogeneity of regression. Interaction terms between these variables were included in the model. For the context of requiring the HPV vaccine, none of the interactions between the covariates and the experimental condition on the dependent variable was found to be significant, indicating the assumption of homogeneity of regression was not violated.

Table 6.1

*Experiment 2 Means, Standard Deviations, and Reliability of Scales, Taxes Context, (N = 551)*

	Initial # of items	Final # of items	Initial <i>M</i>	Final <i>M</i>	Initial <i>SD</i>	Final <i>SD</i>	Initial $\alpha$	Final $\alpha$
Trust	6	6	6.93	--	2.00	--	.951	--
Competence	6	6	7.30	--	1.94	--	.918	--
Hostile Media Perception	5	4	5.57	5.87	1.44	1.46	.800	.881



Table 6.2

*Experiment 2 Means, Standard Deviations, and Reliability of Scales, HPV Vaccine Context, (N = 530)*

	Initial # of items	Final # of items	Initial <i>M</i>	Final <i>M</i>	Initial <i>SD</i>	Final <i>SD</i>	Initial $\alpha$	Final $\alpha$
Trust	6	6	7.027	--	1.97	--	.951	--
Competence	6	6	7.373	--	1.93	--	.910	--
Media use	5	4	2.87	.827	2.47	.959	.601	.614
Hostile Media Perception	5	4	5.36	1.483	5.71	1.509	.789	.858

## Results

### ANCOVAs

For each study context, a 2 (journalist vs. college student)  $\times$  2 (opponent vs. supporter of the policy)  $\times$  2 (more extreme partisan vs. less extreme partisan) ANCOVA with the dependent variable of hostile media perception was conducted to test H5, which predicted that partisans who read information purportedly written by a journalist would exhibit greater hostile media perception than partisans who read information purportedly written by a college student. Covariates included in the ANCOVA procedures included: age, gender, race, ethnicity, income, education, profession, online media use, traditional media use, political views, political affiliation, and behavioral measures.

In the context of increasing taxes on sugar-sweetened beverages, there was no main effect of experimental manipulation. There was also no main effect of partisan position. There was not a significant three-way interaction or a significant interaction

between the experimental manipulation and partisan position. However, a significant interaction between extremity of partisanship and experimental manipulation of source profession was found,  $F(1, 534) = 5.04, p < .05$ , partial  $\eta^2 = .01$ , such that more extreme partisans (both supporters and opponents) assigned to the journalist-as-author condition perceived the news article to be less supportive of their position ( $M = 5.91, SE = 0.180$ ) than less extreme partisans assigned to the journalist-as-author condition ( $M = 5.52, SE = 2.10$ ),  $F(1, 534) = 3.85, p < .05$ . However, these results do not confirm or disconfirm H5. In terms of H5, more extreme partisans assigned to the journalist-as-author condition found the news article to be less supportive of their position ( $M = 5.91, SE = 0.180$ ) than more extreme partisans assigned to the student-as-author condition ( $M = 5.64, SE = 0.179$ ). This pattern aligns with the prediction of H5, but the difference in hostile media perception was not statistically significant ( $p = .106$ ).<sup>28</sup>

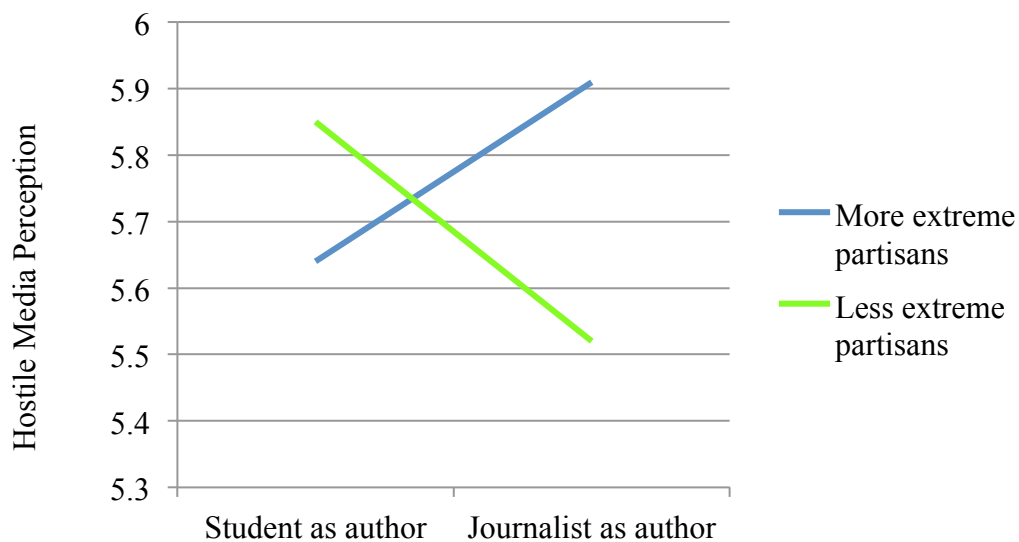
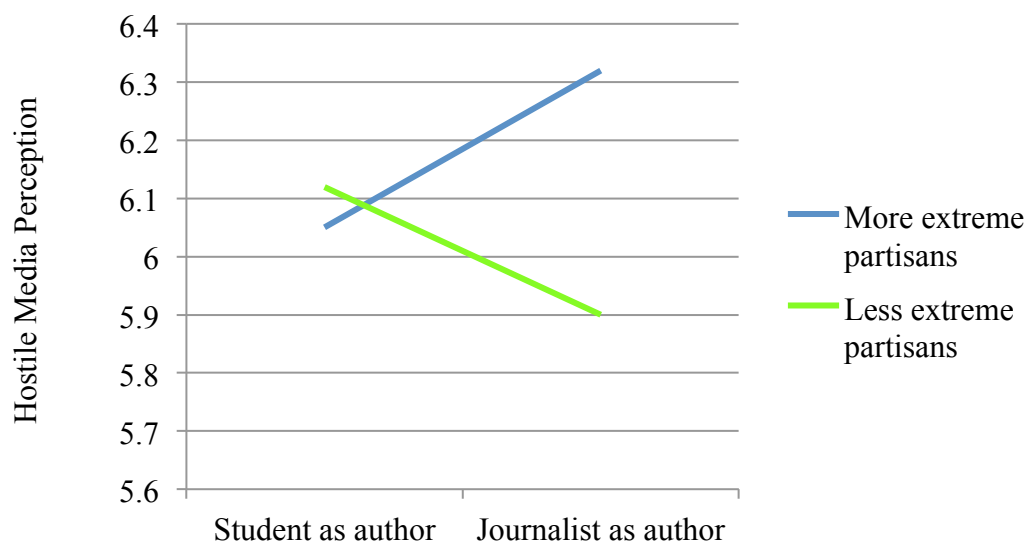


Figure 6.1. Experiment 2: Taxes context, interaction between source profession and extremity of partisanship.

<sup>28</sup> None of the covariates was a significant predictor of hostile media perception in the context of increasing taxes on sugar-sweetened beverages.

In the context of requiring the HPV vaccine, there was no significant main effect of manipulation of source profession. There was a main effect of partisan position  $F(1, 511) = 127.602, p < .001$ , partial  $\eta^2 = .20$ , such that opponents of the policy perceived the news article to be biased against their position ( $M = 6.89, SE = 0.205$ ), and supporters perceived the news article to favor their position ( $M = 5.32, SE = 0.174$ ).

In addition, the interaction between the manipulation of source profession and extremity of partisanship approached significance,  $F(1, 511) = 4.79, p = .062$ , partial  $\eta^2 = .01$ . Analyses of simple main effects revealed that more extreme partisans assigned to the journalist-as-author condition perceived the news article to be biased against their position ( $M = 6.32, SE = 0.197$ ) and those assigned to the student-as-author condition perceived the news article to be neutral ( $M = 6.05, SE = 0.187$ ),  $F(1, 511) = 4.043, p < .05$ .<sup>29</sup>



*Figure 6.2.* Experiment 2: HPV context, Interaction between source profession and extremity of partisanship

<sup>29</sup> Bonferroni adjustments were made to adjust for multiple comparisons.

In contrast, less extreme partisans assigned to both the journalist-as-author condition ( $M = 5.90$ ,  $SE = 0.226$ ) and student-as-author condition ( $M = 6.12$ ,  $SE = 0.227$ ) perceived the news article to be neutral,  $F(1, 511) = 0.935$ ,  $p = .334$ . H5 was supported for more extreme partisans but not for less extreme partisans in the context of requiring the HPV vaccine.<sup>30</sup>

### **Structural Equation Modeling**

Structural equation modeling was employed to test H6a and H6b, which predicted that source trust and source competence mediate the relationship between source profession and hostile media perception. The results of the ANCOVAs demonstrated that more extreme partisans were inclined to perceive the news articles as more biased against or less supportive of their position. Less extreme partisans tended to perceive the news articles as neutral. Mediation was analyzed with multiple group modeling for all partisans (Taxes:  $N = 551$ , HPV vaccine:  $N = 530$ ) and for more extreme partisans (Taxes:  $N = 401$ , HPV Vaccine:  $N = 386$ ) in both contexts. The experimental manipulation of source profession was coded as 1 for the journalist-as-author condition and as 0 for the student-as-author condition.

**Measurement models: Taxes.** Initial estimates showed moderate fit for the multigroup models with constrained measurements across groups: all partisans, RMSEA = .072, 90% CI [.066, .078], CFI = .96, SRMR = .069; extreme partisans, RMSEA = .067, 90% CI [.060, .075], CFI = .96, SRMR = .069. Standardized residuals and modification indices were consulted for ways to improve model fit. The largest modification suggested was between the errors of two items assessing competence

---

<sup>30</sup> Having received the HPV vaccine,  $F(1, 511) = 8.334$ ,  $p < .01$ , and political views (conservative),  $F(1, 511) = 4.069$ ,  $p < .05$ , were significant predictors of hostile media perception in the context of requiring the HPV vaccine.

(*untrained* and *inexpert*) for both models. Additionally, for extreme partisans, modification indices suggested allowing the errors of two measures of trust (*dishonest* and *untrustworthy*) to covary. The shared error may be a result of the similarity of the adjectives compared to the other adjectives addressing source trust and source competence. The errors for these variables were allowed to covary in the measurement models. In addition, modifications were suggested between the first and second hostile media perception measures for the measurement model with all partisans. These measures shared similar question stems and errors of these measures were allowed to covary. Allowing the errors of the variables to covary improved the fit of the measurement models, all partisans: RMSEA = .056, 90% CI [.050, .062], CFI = .97, SRMR = .066; extreme partisans: RMSEA = .051, 90% CI [.043, .059], CFI = .98, SRMR = .065.

**Measurement Models: HPV.** Initial estimations showed moderate fit for the multigroup models with constrained measurements across groups: all partisans, RMSEA = .066, 90% CI [.058, .073], CFI = .96, SRMR = .075; extreme partisans, RMSEA = .079, 90% CI [.072, .086], CFI = .95, SRMR = .079. Standardized residuals and modification indices were consulted for ways to improve model fit. In the measurement model for all partisans and for more extreme partisans, the largest modifications suggested were between the errors of two items assessing trust (*immoral* and *unethical*) and two items assessing competence (*untrained* and *inexpert*). In the measurement model for extreme partisans, two additional modifications were suggested, one between the errors of two items assessing trust (*dishonesty* and *untrustworthy*) and one between the errors of the first and second hostile media perception measures. The hostile media

perception measures shared similar question stems and errors of these measures were allowed to covary. The shared error between the measures of trust and competence may be a result of similarity of the adjectives compared to the other adjectives addressing source trust and source competence. The errors for these variables were allowed to covary in the measurement models as well. Allowing the errors of the variables to covary improved the fit of the measurement models: all partisans: RMSEA = .061, 90% CI [.055, .067], CFI = .97, SRMR = .074; extreme partisans: RMSEA = .059, 90% CI [.051, .067], CFI = .97, SRMR = .074.

**Structural models: Taxes.** To evaluate the structural models, models were run simultaneously for both supporters and opponents with all structural paths constrained to be equal across groups. The constrained model for all partisans demonstrated adequate fit, RMSEA = .056, 90% CI [.052, .060], CFI = .95, SRMR = .082. No significant modifications were suggested that were appropriate in theory. The constrained model for more extreme partisans demonstrated adequate fit, RMSEA = .058, 90% CI [.049, .060], CFI = .95, SRMR = .087. For the model with more extreme partisans, modification indices indicated that several paths should be unconstrained across groups, including the path from the experimental manipulation of source profession to perceptions of source trust, the path from the experimental manipulation of source profession to hostile media perception, and the paths from perceptions of source trust and perceptions of source competence to hostile media perception. The final model reflected these freed parameters and resulted in appropriate fit, RMSEA = .054, 90% CI [.048, .059], CFI = .96, SRMR = .075. The unstandardized structural parameters are reported in Table 6.3 and Table 6.4, and significant parameters are indicated.

**Structural models: HPV.** To evaluate the structural models, models were run simultaneously for both supporters and opponents with all structural paths constrained to be equal across groups. The constrained model for all partisans demonstrated adequate fit, RMSEA = .061, 90% CI [.056, .065], CFI = .95, SRMR = .080. Modification indices indicated that a single path from perceptions of source competence to hostile media perception should be unconstrained across groups. The final model reflected the freed parameter and resulted in appropriate fit, RMSEA = .061, 90% CI [.056, .065], CFI = .95, SRMR = .077. The constrained model for extreme partisans demonstrated adequate fit as well, RMSEA = .061, 90% CI [.056, .067], CFI = .95, SRMR = .083. Modification indices indicated that a single path from perceptions of source competence to hostile media perception should be unconstrained across groups. The final model reflected this freed parameter and resulted in appropriate fit, RMSEA = .061, 90% CI [.056, .065], CFI = .95, SRMR = .080. The unstandardized structural parameters are reported in Table 6.5 and Table 6.6, and significant parameters are indicated.

**Hypothesis testing: Taxes.** When hypotheses were tested for all partisans, no significant differences emerged between supporters and opponents. Both supporters and opponents perceived journalists to be less trustworthy ( $\gamma = -1.33$ ,  $SE = 0.24$ ,  $t = -5.60$ ) and to be more competent ( $\gamma = 3.32$ ,  $SE = 0.44$ ,  $t = 7.47$ ) than college students.<sup>31</sup> However, perceptions of trust ( $\beta = -0.03$ ,  $SE = 0.02$ ,  $t = -1.72$ ) and perceptions of competence ( $\beta = 0.01$ ,  $SE = 0.01$ ,  $t = 1.28$ ) were not significant predictors of hostile media perception.

---

<sup>31</sup>  $\gamma$  indicates a path emerging from an exogenous variable.  $\beta$  indicates a path emerging from an intervening variable and ending in the endogenous variable (hostile media perception). All parameters reported are unstandardized parameters.

Indirect effects were also not significant. H6a and H6b were not supported when all partisans were included in the model. See Figure 6.3.

Hypotheses were also tested for more extreme partisans and significant differences emerged between supporters and opponents. Specifically, more extreme opponents perceived journalists to be less trustworthy ( $\gamma = -1.70$ ,  $SE = 0.32$ ,  $t = -5.26$ ) and to be more competent ( $\gamma = 3.49$ ,  $SE = 0.54$ ,  $t = 6.41$ ) than college students. However, perceptions of trust ( $\beta = -0.02$ ,  $SE = 0.03$ ,  $t = -0.70$ ) and perceptions of competence ( $\beta = -0.01$ ,  $SE = 0.02$ ,  $t = -0.13$ ) were not predictive of hostile media perception, indicating perceptions of trust and perceptions of competence did not mediate the relationship between source profession and hostile media perception for more extreme opponents (see Figure 6.4). Indirect effects were also not significant.

However, extreme supporters perceived journalists to be less trustworthy ( $\gamma = -0.74$ ,  $SE = 0.37$ ,  $t = -2.02$ ) and to be more competent ( $\gamma = 3.49$ ,  $SE = 0.54$ ,  $t = 6.41$ ) than college students, and perceptions of trust ( $\beta = -0.09$ ,  $SE = 0.03$ ,  $t = -2.52$ ) and perceptions of competence ( $\beta = 0.04$ ,  $SE = 0.02$ ,  $t = 2.45$ ) were predictive of hostile media perception. The specific indirect effect of source trust was not significant ( $\gamma_1\beta_1 = -0.067$ ,  $SE = .041$ ,  $t = 1.70$ ), indicating that among more extreme supporters, perceptions of trust was not a significant mediator between source profession and hostile media perception (see Figure 6.5). However, the specific indirect effect of source competence was significant ( $\gamma_2\beta_2 = 0.15$ ,  $SE = .07$ ,  $t = 2.09$ ) indicating that among more extreme supporters, perceptions of competence mediated the relationship between source profession and hostile media perception such that journalists were seen as more competent than college students and increased perceptions of competence led supporters



to perceive the news article as less supportive of their position. H6a was not supported among more extreme supporters or more extreme opponents. H6b was supported among more extreme supporters.

**Hypothesis testing: HPV.** Similar differences emerged between supporters and opponents when all partisans were included in the model and when only more extreme partisans were included in the model. Although both supporters and opponents in the journalist-as-author condition perceived the source as less trustworthy and more competent than partisans in the student-as-author condition (all partisans: trust,  $\gamma = -0.93$ ,  $SE = 0.15$ ,  $-6.43$ ; competence,  $\gamma = 5.92$ ,  $SE = 0.76$ ,  $t = 7.80$ ; more extreme partisans: trust,  $\gamma = -1.04$ ,  $SE = 0.18$ ,  $t = -.575$ ; competence,  $\gamma = 5.52$ ,  $SE = 0.91$ ,  $t = 6.07$ ), only perceptions of the author's competence were predictive of hostile media perception for opponents of the policy (all partisans:  $-0.03$ ,  $SE = 0.01$ ,  $t = -3.53$ ; more extreme partisans:  $-0.02$ ,  $SE = 0.01$ ,  $t = -2.35$ ) such that opponents perceived the news article to be more biased against their position when the source was perceived as incompetent. See Figures 6.6 and 6.7. The results are opposite to the predicted hypothesis (H6b). The indirect effect of source profession on hostile media perception through competence was significant for opponents (all partisans:  $\gamma_2\beta_2 = -0.18$ ,  $SE = .063$ ,  $t = -2.79$ ; more extreme partisans:  $\gamma_2\beta_2 = -.011$ ,  $SE = .052$ ,  $t = 2.09$ ). Competence acted as a mediator between source profession and hostile media perception for opponents such that opponents assigned to the journalist-as-author condition perceived the source to be more competent and perceptions of increased competence led to less extreme hostile media perception. Although supporters and opponents perceived journalists as less trustworthy than college students,

perceptions of trust did not predict hostile media perception. H6a was not supported for supporters or opponents of requiring the HPV vaccine.

Table 6.3

*Experiment 2 Unstandardized Parameter Estimates for the Model of Hostile Media Perception, Taxes Context, All Partisans (N = 551)*

Path	Unstandardized Path Coefficients (SE)	<i>t</i> values
Hypothesized parameters		
Source profession --->HMP	-0.05 (0.08)	-0.63
Source profession --->Trust	-1.33 (0.24)***	-5.60
Source profession --->Competence	3.32 (0.44)***	7.47
Trust ---> HMP	- 0.03 (0.02)	-1.72
Competence ---> HMP	0.01 (0.01)	1.28
Control variable parameters		
Media use online ---> HMP	0.10 (0.06)	1.88
Media use traditional ---> HMP	-0.11 (0.08)	-1.42
Political views (Conservative) ---> HMP	-0.02 (0.08)	-0.30
Political affiliation (Republican) ---> HMP	-0.01 (0.06)	-0.20
Profession ---> HMP	-0.02 (0.08)	-0.23
Age ---> HMP	0.01 (0.01)	1.06
Gender (female) ---> HMP	0.04 (0.05)	0.65
Education ---> HMP	0.01 (0.04)	0.34
Income ---> HMP	-0.02 (0.03)	-0.88
Race (White) ---> HMP	-0.04 (0.09)	-0.44
Ethnicity (Non-Hispanic) ---> HMP	0.06 (0.11)	0.54
Average SSBs per week ---> HMP	-0.01 (0.01)	-0.13

\*\*\*  $p < .001$ .

Table 6.4

*Experiment 2 Unstandardized Parameter Estimates for the Model of Hostile Media Perception, Taxes Context, More Extreme Partisans (Supporters/Opponents) (N = 401)*

Path	Unstandardized Path Coefficients (SE)	<i>t</i> values
Hypothesized parameters		
Source profession --->HMP	-0.09 (0.14)/0.11 (0.14)	-0.66/0.82
Source profession --->Trust	-0.74 (0.37)*/-1.70(0.32)***	-2.02/-5.26
Source profession --->Competence	3.49 (0.54)***	6.41
Trust ---> HMP	- 0.09 (0.03)*/-0.02(0.03)	-2.52/-0.70
Competence ---> HMP	0.04 (0.02)*/-0.01(0.02)	2.45/-0.13
Control variable parameters		
Media use online ---> HMP	0.12 (0.07)	1.67
Media use traditional ---> HMP	-0.03 (0.10)	-0.28
Political views (Conservative) --> HMP	-0.04 (0.12)	-0.36
Political affiliation (Rep.) -> HMP	0.03 (0.08)	0.36
Profession ---> HMP	-0.07 (0.09)	-0.74
Age ---> HMP	0.01 (0.01)	1.28
Gender (female) ---> HMP	0.01 (0.07)	0.07
Education ---> HMP	-0.03 (0.05)	-0.54
Income ---> HMP	-0.03 (0.04)	-0.97
Race (White) ---> HMP	-0.04 (0.11)	-0.37
Ethnicity (Non-Hispanic) ---> HMP	0.08 (0.13)	0.57
Average SSBs per week ---> HMP	0.01 (0.01)	0.03

\*\*\*  $p < .001$ .

Table 6.5

*Experiment 2 Unstandardized Parameter Estimates for the Model of Hostile Media Perception, HPV Vaccine Context, All Partisans (Supporters/Opponents) (N = 530)*

Path	Unstandardized Path Coefficients (SE)	<i>t</i> values
Hypothesized parameters		
Source profession --->HMP	0.13 (0.08)	1.74
Source profession --->Trust	-0.93 (0.15)***	-6.43
Source profession --->Competence	5.92 (0.76)***	7.80
Trust ---> HMP	0.01 (0.03)	0.30
Competence ---> HMP	-0.01 (0.01)/-0.03(0.01)***	-0.13/-3.53
Control variable parameters		
Media use online ---> HMP	0.11 (0.06)	1.66
Media use traditional ---> HMP	-0.07 (0.05)	-1.36
Political views (Conservative) ---> HMP	-0.14 (0.07)	-1.91
Political affiliation (Republican) ---> HMP	0.06 (0.06)	0.99
Age ---> HMP	0.01 (0.01)	0.50
Gender (female) ---> HMP	0.20 (0.06)***	3.44
Education ---> HMP	0.03 (0.05)	0.55
Income ---> HMP	-0.02 (0.03)	-0.74
Race (White) ---> HMP	0.05 (0.09)	0.62

*Note.* The control variable of ethnicity was removed from the analysis due to multicollinearity with race. The variable of profession was removed from the analysis because it was a constant in one of the covariance matrices. Behavioral measures were excluded from the model because these variables had little variance in the model for opponents. Asymptotic covariance matrices could not be obtained when the behavioral measures were included in the model for opponents.

\*\*\*  $p < .001$ .

Table 6.6

*Experiment 2 Unstandardized Parameter Estimates for the Model of Hostile Media Perception, HPV Vaccine Context, More Extreme Partisans (Supporters/Opponents) (N = 386)*

Path	Unstandardized Path Coefficients (SE)	t values
Hypothesized parameters		
Source profession --->HMP	0.15 (0.08)	1.88
Source profession --->Trust	-1.04 (0.18)***	-5.75
Source profession --->Competence	5.52 (0.91)***	6.07
Trust ---> HMP	0.01 (0.03)	0.19
Competence ---> HMP	-0.01 (0.01)/-0.02 (0.01)*	-0.67/-2.35
Control variable parameters		
Media use online ---> HMP	0.15 (0.07)*	2.03
Media use traditional ---> HMP	-0.08 (0.05)	-1.52
Political views (Conservative) ---> HMP	-0.09 (0.07)	-1.26
Political affiliation (Republican) ---> HMP	0.01 (0.05)	0.23
Age ---> HMP	0.01 (0.01)	0.96
Gender (female) ---> HMP	0.13 (0.06)*	2.19
Education ---> HMP	0.04 (0.05)	0.97
Income ---> HMP	-0.01 (0.03)	-0.27
Race (White) ---> HMP	0.04 (0.08)	0.49

Note. The control variable of ethnicity was removed from the analysis due to multicollinearity with race. The variable of profession was removed from the analysis because it was a constant in one of the covariance matrices. Behavioral measures were excluded from the model because these variables had little variance in the model for opponents. Asymptotic covariance matrices could not be obtained when the behavioral measures were included in the model for opponents.

\*  $p < .05$ , \*\*\*  $p < .001$ .

## Discussion

The results of Experiment 2 provided some evidence that perceptions of source trust and source competence explain the relationship between source profession and hostile media perception. However, the role of source competence differed in each context, and support for the hypotheses was limited in that the analyses revealed a difference in level of support rather than differing perceptions of bias, and the relationships received limited support in one context (increasing taxes on sugar-sweetened beverages) and for partisans on one side of the debate (supporters).

In the context of increasing taxes on sugar-sweetened beverages, both supporters and opponents tended to perceive the news article as supportive of their position, but perceived level of support differed based on the experimental manipulation of source profession and extremity of partisanship. Specifically, extreme partisans tended to perceive a news article purportedly written by a journalist to be less supportive of their position than a news article purportedly written by a college student.

Perceptions of source trust were only predictive of level of perceived support for one's position for one group: extreme supporters of increasing taxes on sugar-sweetened beverages. However, perception of source trust was not a significant mediator between source profession and hostile media perception, as proposed in H6a. Perception of competence played a mediating role for extreme supporters of increasing taxes on sugar-sweetened beverages such that increased perceptions of source competence led to increased perceptions of bias, which supported H6b. These relationships were in line with the hypotheses that predicted partisans would level charges of bias against sources who were not only perceived as likely to disagree with their position (i.e., untrustworthy) but

also who possessed the ability to influence others (i.e., competent). However, the mediating role of trust was not significant and perceptions predicted less perceived support rather than charges of bias against one's position.

Although extreme opponents of increasing taxes on sugar-sweetened beverages also perceived journalists to be less trustworthy and more competent than college students, opponents' perceptions of source distrust and competence did not influence perceptions of bias. As mentioned in the discussion of the results for Experiment 1, the differences in the influence of source credibility characteristics for supporters and opponents may be best understood by taking into account partisans' concerns about the influence of media messages on others' opinions, perceptions of public support for a policy, and evidence that shows an inclination to provide support to sources who are likely to favor one's position but who lack credibility (Brock & Saine, 1975; Sternthal et al., 1978).

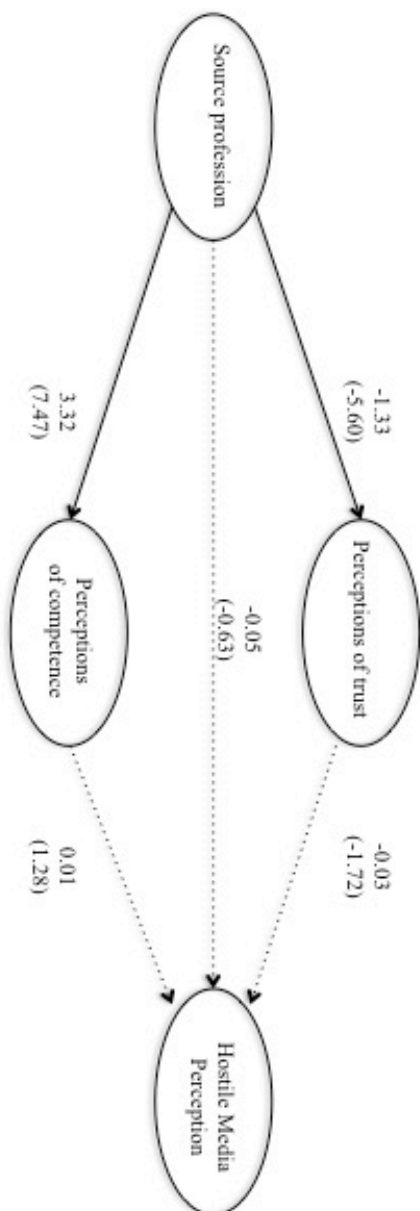
Similar to Experiment 1, when opponents were presented with information about the policy that was perceived to be written by an untrustworthy but competent journalist, they failed to level charges of bias. By evaluating the information as supportive of their position or neutral, opponents may have been attempting to signal to others that the information provided by the untrustworthy source was valid in order to protect their majority position. Opponents, who are in the majority, likely did not feel the need to discredit arguments that may have been supportive of the policy.

The role of partisan perceptions of source credibility differed in the context of requiring the HPV vaccine. Specifically, among opponents, perceptions of source trust did not influence perceptions of bias, but source competence was a significant mediator

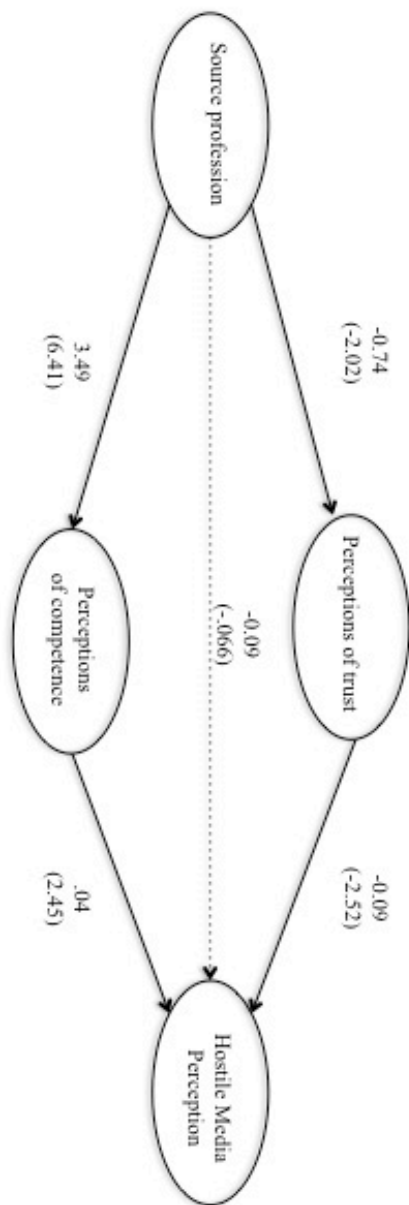
between source profession and hostile media perception. However, the influence of competence was in the opposite direction of the predicted relationship. Opponents of requiring the HPV vaccine found journalists to be more competent than college students, and increased perceptions of competence led to decreased perceptions of bias. Perceptions of source competence may have stymied more intense perceptions of bias among opponents. The influence of the health policy context will be discussed in Chapter 8.

Overall, the results of Experiment 2 demonstrate that the predicted relationships between source profession, source credibility perceptions, and hostile media perception are complex. The hypotheses received some support only among extreme partisan supporters of increasing taxes on sugar-sweetened beverages. Even though all partisans perceived journalists to be less trustworthy than college students, perceptions of distrust did not necessarily lead to hostile media perception, which challenges the contention put forth by past hostile media perception scholars that distrust of journalists causes hostile media perception (Gunther & Liebhart, 2006). Distrust of journalists seems to lead to increased perceptions of bias or perceptions of less support for one's position only when the partisan is in the minority position in a policy debate and perhaps feels the need to discredit a source in order to prevent increased opposition.

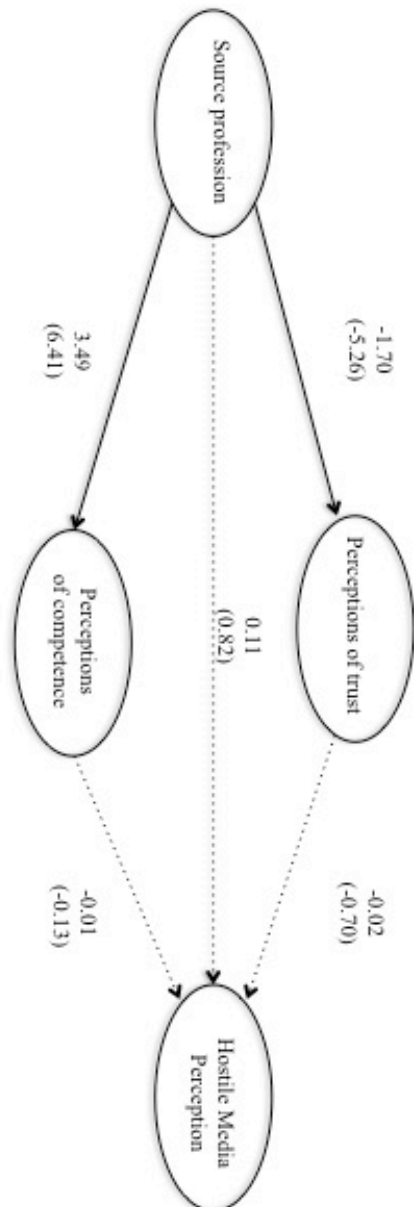




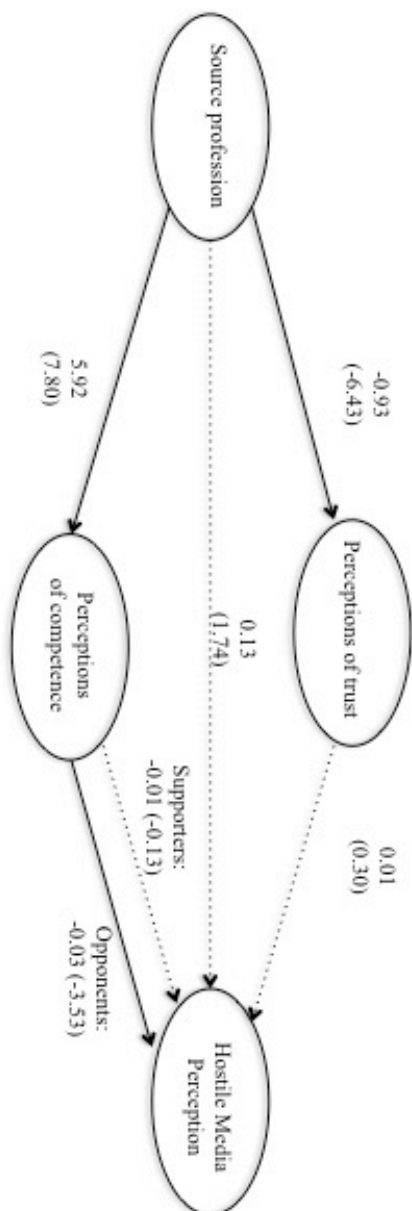
*Figure 6.3.* Experiment 2 Structural Model, Taxes Context. All Partisans  
 Significant paths are indicated by solid lines. Nonsignificant paths are indicated by dotted lines. Unstandardized parameter estimates are reported, with  $t$  values in parentheses. The exogenous experimental condition was coded as 1 = journalist and 0 = student. The latent variables of perceptions of trust and perceptions of competence were allowed to covary. The for Hostile Media Perception was .04.



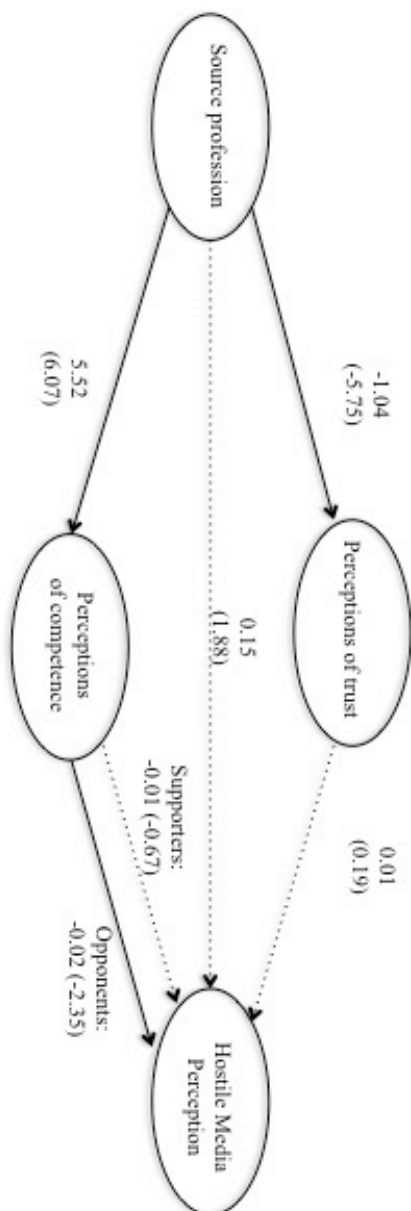
*Figure 6.4.* Experiment 2 Structural Model, Taxes Context, More Extreme Partisans, Supporters  
 Significant paths are indicated by solid lines. Nonsignificant paths are indicated by dotted lines. Unstandardized parameter estimates are reported, with *t* values in parentheses. The exogenous experimental condition was coded as 1 = journalist and 0 = student. The latent variables of perceptions of trust and perceptions of competence were allowed to covary. The  $R^2$  for Hostile Media Perception was .05.



*Figure 6.5.* Experiment 2 Structural Model, Taxes Context, More Extreme Partisans, Opponents  
 Significant paths are indicated by solid lines. Nonsignificant paths are indicated by dotted lines. Unstandardized parameter estimates are reported, with  $t$  values in parentheses. The exogenous experimental condition was coded as 1 = journalist and 0 = student. The latent variables of perceptions of trust and perceptions of competence were allowed to covary. The  $R^2$  for Hostile Media Perception was .05.



*Figure 6.6.* Experiment 2 Structural Model, HPV Vaccine Context. All Partisans  
 Significant paths are indicated by solid lines. Nonsignificant paths are indicated by dotted lines. Unstandardized  
 parameter estimates are reported, with  $t$  values in parentheses. The exogenous experimental condition was coded  
 as 1 = journalist and 0 = student. The latent variables of perceptions of trust and perceptions of competence were  
 allowed to covary. The  $R^2$  for Hostile Media Perception was .17.



*Figure 6.7. Experiment 2 Structural Model, HPV Vaccine Context, More Extreme Partisans*  
Significant paths are indicated by solid lines. Nonsignificant paths are indicated by dotted lines. Unstandardized parameter estimates are reported, with *t* values in parentheses. The exogenous experimental condition was coded as 1 = journalist and 0 = student. The latent variables of perceptions of trust and perceptions of competence were allowed to covary. The  $R^2$  for Hostile Media Perception was .14.

## **Chapter 7: Experiment 3**

Experiment 3 replicates past hostile media perception findings in which partisans perceived news content said to be authored by an outgroup member (vs. an ingroup member) to be biased against their position, and partisans with stronger ingroup association demonstrated more intense hostile media perceptions than partisans with weaker ingroup associations. In addition, Experiment 3 is designed to test whether partisan perceptions of source trust and source goodwill mediate the relationship between source group membership and partisans' strength of ingroup association and hostile media perception. Experiment 3 is designed to test hypotheses H7, H8a, H8b, H9, H10a, and H10b found in Chapter 2. In this chapter, the method, analysis, and results of Experiment 3 are presented.

### **Method**

#### **Participants and Procedure**

The procedure for Experiment 3 was nearly identical to Experiment 2. The only differences between Experiment 2 and Experiment 3 were the experimental conditions, measures of two latent variables (source goodwill and strength of ingroup association), and the manipulation check.

Following measures of political views and political association, participants were provided with measures of strength of ingroup association (Mastro, Behm-Morawitz, & Kopacz, 2008). Strength of ingroup association was measured on a 7-point scale (1 = *very little* to 7 = *very much*). Participants were asked: "Compared to the other characteristics which define you, how much do you value your political party membership?", "How strong a sense of belonging do you have when it comes to your political party?", "How

much do you like being defined by your political party?”, and “How much pride do you take in your political party membership?”

In Experiment 3, participants were assigned to one of two conditions manipulating the political party affiliation of the source. Participants then were asked to indicate perceptions of the author’s goodwill (along with trustworthiness) rather than perceptions of the author’s competence. Presentation of neutral information and measures of hostile media perception followed using the same procedure as described in Experiment 1. Following measures of hostile media perception was a manipulation check assessing source political party affiliation. Specifically, participants were asked to indicate whether the author of the information was a member of the Republican or Democratic party. Finally, participants were asked to answer demographic questions as well as questions about their profession, weekly media use, and health behaviors.

For Experiment 3, 580 partisans were recruited for the context of increasing taxes on sugar-sweetened beverages and 586 partisans were recruited for the context of requiring the HPV vaccine. Data from several participants (Taxes  $n = 9$ ; HPV Vaccine  $n = 12$ ) were removed due to incomplete data sets, yielding 571 participants for the context of increasing taxes on sugar-sweetened beverages and 574 participants for the context of requiring the HPV vaccine.

Of the 571 participants in the study related to increasing taxes on sugar-sweetened beverages, most participants were female (56.9%,  $n = 325$ ). The average age of participants was 36.0, and participants ranged in age from 18 to 73. The percentage of the sample identifying as White was 81.6% ( $n = 466$ ). Additionally, 11.2% of participants ( $n = 64$ ) identified as African-American or Black, 2.3% ( $n = 13$ ) as American Indian or

Alaskan Native, 1.6% ( $n = 9$ ) as Asian Indian, 1.9% ( $n = 11$ ) as Chinese, 1.2% ( $n = 7$ ) as Filipino, 0.7% ( $n = 4$ ) as Vietnamese, 0.4% ( $n = 2$ ) as Korean, 0.2% ( $n = 1$ ) as Japanese, 0.5% ( $n = 3$ ) as other Asian, 0.4% ( $n = 2$ ) as Middle Eastern, and 2.1% ( $n = 12$ ) as other. In an additional question, 8.2% of participants ( $n = 47$ ) reported being of Hispanic, Latino, or Spanish descent.

In terms of education, 32% of participants ( $n = 183$ ) reported their highest level of education completed was an undergraduate degree from a 4-year college or university, 12.8% ( $n = 73$ ) reported graduating from a 2-year college, and 32% ( $n = 183$ ) reported having some college education; 12.1% ( $n = 69$ ) had obtained a master's degree, and 2.8% ( $n = 16$ ) had an advanced degree (e.g., Ph.D., M.D., or J.D.). Additionally, 7.9% ( $n = 45$ ) had obtained a high school diploma or GED, and 0.4% ( $n = 2$ ) reported having less than a high school degree. Average income of participants was approximately \$22,000, with incomes ranging from less than \$10,000 a year to more than \$150,000 annually. In terms of profession, 10% of participants ( $n = 57$ ) indicated some connection to work related to media or the news, including 1.6% ( $n = 9$ ) who identified as media professionals, 0.7% ( $n = 4$ ) as public relations professionals, 0.4% ( $n = 2$ ) as advertising professionals, 0.9% ( $n = 5$ ) as journalists, 1.1% ( $n = 6$ ) as editors, 3.2% ( $n = 18$ ) as bloggers, and 2.3% ( $n = 13$ ) as photographers.

Participants tended to have liberal political views, with 15.6% ( $n = 89$ ) reporting to be very liberal, 37.8% ( $n = 216$ ) to be liberal, 19.3% ( $n = 110$ ) to be moderate, 21.4% ( $n = 122$ ) to be conservative, and 6.0% ( $n = 34$ ) to be very conservative. In addition 15.4% ( $n = 88$ ) described themselves as very strong Democrats, 26.4% ( $n = 151$ ) as moderate Democrats, 23.8% ( $n = 136$ ) as Democratic-leaning Independents, 14.4% ( $n =$



82) as Republican-leaning Independents, 13.5% ( $n = 77$ ) as moderate Republicans, and 6.5% ( $n = 37$ ) as very strong Republicans.<sup>32</sup>

In terms of behavioral measures, the average number of sugar-sweetened beverages consumed in a week was 5.04 ( $SD = 6.59$ ), and ranged from 0 beverages to 50 beverages consumed in a week. More specifically, 21.4% ( $n = 122$ ) reported drinking no sugar-sweetened beverages, and a small number ( $n = 14$ ) reported consuming on average 25 or more sugar-sweetened beverages in a week. Finally, in terms of participants' opinion toward increasing taxes on sugar-sweetened beverages, 55.9% ( $n = 319$ ) strongly opposed and 44.1% ( $n = 252$ ) strongly supported increasing taxes.

Of the 574 participants who chose to participate in the study related to requiring the HPV vaccine, most participants were female (64.1%,  $n = 368$ ). The average age of participants was 35.3, and participants ranged in age from 18 to 71. The percentage of the sample identifying as White was 85.2% ( $n = 489$ ). Additionally, 9.6% of participants ( $n = 55$ ) identified as African-American or Black, 1.2% ( $n = 7$ ) as American Indian or Alaskan Native, 0.9% ( $n = 5$ ) as Asian Indian, 2.1% ( $n = 12$ ) as Chinese, 1.0% ( $n = 6$ ) as Filipino, 0.3% as Japanese ( $n = 2$ ), 0.2% ( $n = 1$ ) as Korean, 0.2% ( $n = 1$ ) as Vietnamese, 0.7% ( $n = 4$ ) as Other Asian, 0.2% ( $n = 1$ ) as Samoan, 0.7% ( $n = 4$ ) as Middle Eastern, and 1.4% ( $n = 8$ ) as other. In an additional question, 6.2% of participants ( $n = 36$ ) reported being of Hispanic, Latino, or Spanish descent.

In terms of education, 34.3% of participants ( $n = 197$ ) reported their highest level of education completed was an undergraduate degree from a 4-year college or university,

---

<sup>32</sup> Participants who identified as Independent were not assigned to participate in Experiment 3 due to the hypotheses assessing the influence of an ingroup or outgroup source (i.e., Democratic or Republican source). Participants who identified as Independent were instead randomly assigned to participate in either Experiment 1 or Experiment 2.

10.8% ( $n = 62$ ) reported graduating from a 2-year college, and 27.9% ( $n = 160$ ) reported having some college education; 11.7% ( $n = 67$ ) had obtained a master's degree, and 3.7% ( $n = 21$ ) had an advanced degree (e.g., Ph.D., M.D., or J.D.). Additionally, 10.8% ( $n = 62$ ) had obtained a high school diploma or GED, and 0.9% ( $n = 5$ ) reported having less than a high school degree. Average income of participants was approximately \$36,000, with incomes ranging from less than \$10,000 a year to more than \$150,000 annually. In terms of profession, 10.6% of participants ( $n = 61$ ) indicated some connection to work related to media or the news, including 0.9% ( $n = 5$ ) who identified as media professionals, 0.9% ( $n = 5$ ) as public relations professionals, 0.9% ( $n = 5$ ) as advertising professionals, 0.5% ( $n = 3$ ) as journalists, 1.4% ( $n = 8$ ) as editors, 3.5% ( $n = 20$ ) as bloggers, and 2.6% ( $n = 15$ ) as photographers.

Participants tended to have liberal political views, with 16.7% ( $n = 96$ ) reporting to be very liberal, 37.8% ( $n = 217$ ) to be liberal, 22.0% ( $n = 126$ ) to be moderate, 18.6% ( $n = 107$ ) to be conservative, and 4.7% ( $n = 27$ ) to be very conservative. In addition 18.5% ( $n = 106$ ) described themselves as very strong Democrats, 26.1% ( $n = 150$ ) as moderate Democrats, 24.9% ( $n = 143$ ) as Democratic-leaning Independents, 13.1% ( $n = 75$ ) as Republican-leaning Independents, 13.8% ( $n = 79$ ) as moderate Republicans, and 3.7% ( $n = 21$ ) as very strong Republicans.

In terms of behavioral measures, 16% ( $n = 92$ ) of participants had received the HPV vaccine, 77.2% ( $n = 443$ ) had not received the HPV vaccine, and 6.7% ( $n = 39$ ) were unsure of their vaccination status. Additionally, 10.5% ( $n = 60$ ) reported having had their child vaccinated against HPV, 46% ( $n = 264$ ) reported that their child or children had not received the HPV vaccine, 1.6% ( $n = 9$ ) reported being unsure of their child's

vaccination status, and 41.8% ( $n = 240$ ) reported having no children. Finally, in terms of participants' opinion toward requiring the HPV vaccine, 32.9% ( $n = 189$ ) were strongly opposed and 67.1% ( $n = 385$ ) were strongly supportive of requiring the vaccine.

## **Analysis**

### **Manipulation Check**

Of the partisans who participated in the study context of increasing taxes on sugar-sweetened beverages, 20 failed to correctly identify the political party affiliation of the source (Democrat or Republican). Of the partisans who participated in the study context of requiring the HPV vaccine, 15 failed to correctly identify the political party affiliation of the source (Democrat or Republican). Individuals who failed the manipulation check were removed from the analyses, yielding 551 participants for the context of increasing taxes on sugar-sweetened beverages and 562 participants for the context of requiring the HPV vaccine. Of the 551 participants in the context of increasing taxes on sugar-sweetened beverages, 274 were assigned to the source-as-ingroup condition and 277 were assigned to the source-as-outgroup condition. Of the 562 participants for the context of requiring the HPV vaccine, 288 were assigned to the source-as-ingroup condition and 274 to the source-as-outgroup condition.

### **Reliability Information and Data Screening Procedures**

To assess the influence of covariates and to test hypotheses using ANCOVA, items were averaged to create several composite variables for the

Table 7.1

*Experiment 3 Means, Standard Deviations, and Reliability of Scales, Taxes Context (N = 551)*

	Initial # of items	Final # of items	Initial <i>M</i>	Final <i>M</i>	Initial <i>SD</i>	Final <i>SD</i>	Initial $\alpha$	Final $\alpha$
Trust	6	6		--	2.39	--	.973	--
Goodwill	6	6	5.74	--	2.42	--	.954	--
Strength of ingroup association	4	4	3.64	--	1.80	--	.955	--
Hostile Media Perception	5	4	5.73	6.05	1.57	1.58	.775	.830

Table 7.2

*Experiment 3 Means, Standard Deviations, and Reliability of Scales, HPV Vaccine Context (N = 562)*

	Initial # of items	Final # of items	Initial <i>M</i>	Final <i>M</i>	Initial <i>SD</i>	Final <i>SD</i>	Initial $\alpha$	Final $\alpha$
Trust	6	6	6.37	--	2.37	--	.968	--
Goodwill	6	6	5.60	--	2.49	--	.957	--
Strength of ingroup association	4	4	3.63	--	1.73	--	.938	--
Hostile Media Perception	5	4	5.44	5.82	1.63	1.71	.812	.881

independent variable of strength of ingroup association and the dependent variable of hostile media perception. Means, standard deviations, and reliability information are reported in Table 7.1 and Table 7.2.

The strength of ingroup association scale demonstrated sufficient reliability in both contexts. The hostile media perception scale demonstrated adequate reliability (Taxes,  $\alpha = .775$ ; HPV,  $\alpha = .812$ ). However, in both contexts, removing one measure (“What percentage of information would you say was biased against your side?”) improved the reliability of the scale (Taxes  $\alpha = .830$ ; HPV  $\alpha = .881$ ). To further assess the hostile media perception scale, data from the five measures were submitted to principal components analyses without rotation in each context. The factorability of the five items used to measure hostile media perception in each context was explored and PCA was deemed suitable means of analyses for all of the items (Taxes: KMO = .784, Bartlett’s test of sphericity =  $\chi^2(10, N = 551) = 1057.655, p < .0005$ ; HPV: KMO = .829, Bartlett’s test of sphericity =  $\chi^2(10, N = 562) = 1305.601, p < .0005$ ). The PCAs revealed that four hostile media perception measures had loadings above .60 on a single factor, and the fifth measure (“What percentage of information would you say was biased against your side?”) had a loading of less than .60 on the single factor. The decision was made to remove the fifth item from the composite scales. For all subsequent analyses in Experiment 3, the hostile media perception scales are an average of the four retained measures.

## Results

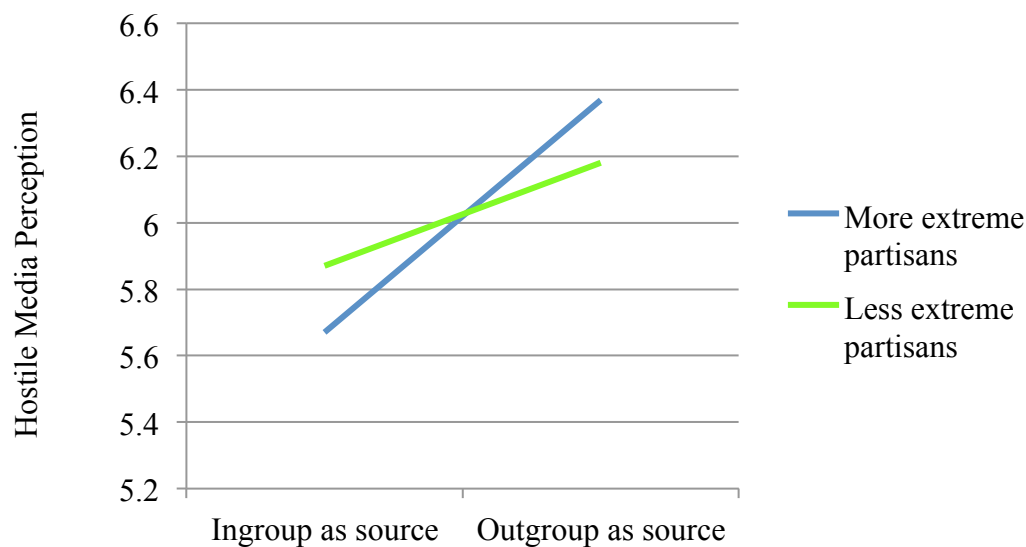
### ANCOVA

For each study context, a 2 (ingroup vs. outgroup member)  $\times$  2 (opponent vs. supporter of the policy)  $\times$  2 (more extreme partisan vs. less extreme partisan) ANCOVA with the dependent variable of hostile media perception was conducted to test H7 and H9. H7 predicted that partisans who read a news article purportedly written by a member of an outgroup would exhibit greater hostile media perception than partisans who read a news article purportedly written by a member of the ingroup. H9 predicted that partisans with stronger ingroup association (compared to those with weaker ingroup association) would exhibit greater hostile media perception when assigned to read a news article said to be written by a member of an outgroup than when assigned to read a news article said to be written by a member of an ingroup.

Covariates included in the ANCOVA were age, gender, race, ethnicity, income, education, profession, online media use, traditional media use, political views, political affiliation, and behavioral measures.

In the context of increasing taxes on sugar-sweetened beverages, there was a main effect of experimental manipulation,  $F(1, 529) = 12.01, p < .001$ , partial  $\eta^2 = .02$ , such that partisans who read an article said to be authored by a member of an ingroup perceived the article to favor their position ( $M = 5.77, SE = .176$ ), and partisans who read an article said to be authored by a member of an outgroup perceived the article to be biased against their position ( $M = 6.29, SE = 0.177$ ). The interaction effect between extremity of partisanship and experimental manipulation approached significance,  $F(1, 529) = 3.174, p = .075$ , partial  $\eta^2 = .01$ . An analysis of simple main effects revealed that

more extreme partisans assigned to the source-as-ingroup condition ( $M = 5.67$ ,  $SE = 0.182$ ) perceived the news article to favor their position, and more extreme partisans assigned to the source-as-outgroup condition perceived the news article to be biased against their position ( $M = 6.37$ ,  $SE = 0.191$ ),  $F(1, 529) = 17.728$ ,  $p < .001$ , partial  $\eta^2 = .03$ .<sup>33</sup> The difference in hostile media perception between less extreme partisans assigned to the source-as-ingroup condition ( $M = 5.87$ ,  $SE = 0.227$ ) and less extreme partisans assigned to the source-as-outgroup condition ( $M = 6.18$ ,  $SE = 0.218$ ) was not statistically significant ( $p = .182$ ). H7 was supported for more extreme partisans but not for less extreme partisans.



*Figure 7.1.* Experiment 3: Taxes context, interaction between source group membership and extremity of partisan position.

There was no main effect of partisan position ( $p = .671$ ). There was not a significant three-way interaction ( $p = .525$ ) between experimental manipulation of source group membership, partisan position, and extremity of partisanship or a significant

<sup>33</sup> Bonferroni adjustments were made to adjust for multiple comparisons.

interaction between experimental manipulation of source group membership and partisan position ( $p = .181$ ). In addition, the interaction between strength of ingroup association and experimental manipulation of source group membership was not significant ( $p = .650$ ), and there was no main effect of strength of ingroup association ( $p = .919$ ). H9 was not supported.<sup>34</sup>

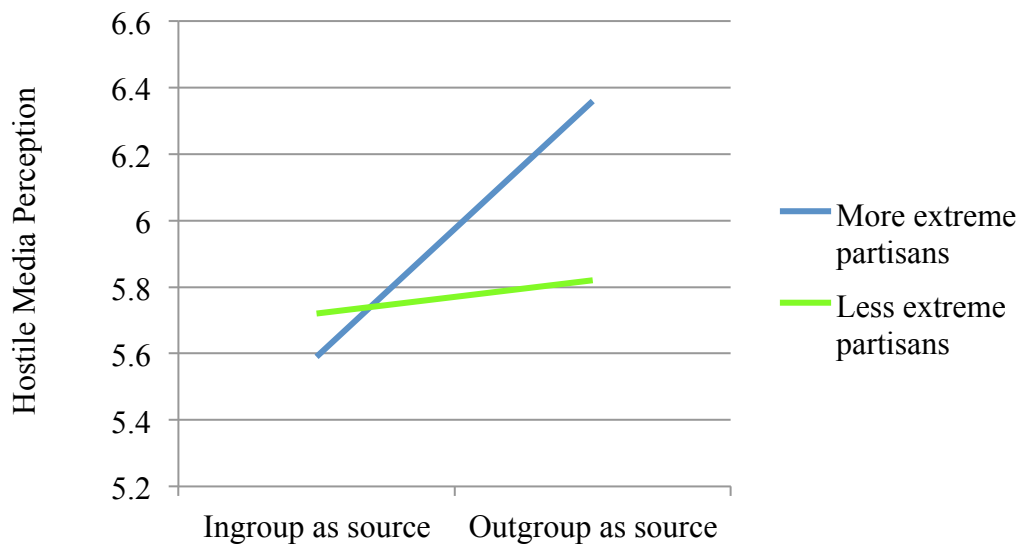
In the context of requiring the HPV vaccine, there was a main effect of experimental manipulation,  $F(1, 538) = 8.226, p < .01$ , partial  $\eta^2 = .02$ , such that partisans who read an article said to be written by a member of an ingroup perceived the article to be in favor of their position ( $M = 5.67, SE = 0.219$ ), and partisans who read an article said to be written by a member of an outgroup perceived the article to be neutral ( $M = 6.11, SE = 0.225$ ). The interaction between extremity of partisanship and experimental manipulation was also significant,  $F(1, 538) = 4.75, p < .05$ , partial  $\eta^2 = .01$ . An analysis of simple main effects revealed that more extreme partisans assigned to the source-as-ingroup condition ( $M = 5.59, SE = 0.230$ ) perceived the news article to favor their position, and more extreme partisans assigned to the source-as-outgroup condition perceived the news article to be biased against their position ( $M = 6.36, SE = 0.228$ ),  $F(1, 538) = 17.697, p < .001$ . The difference in hostile media perception between less extreme partisans assigned to the source-as-ingroup condition ( $M = 5.72, SE = 0.254$ ) and less extreme partisans assigned to the source-as-outgroup condition ( $M = 5.82, SE = 0.272$ ) was not statistically significant ( $p = .182$ ). H7 was supported for more extreme partisans, but not for less extreme partisans.

---

<sup>34</sup> Race (White) was a significant predictor of hostile media perception,  $F(1, 529) = 6.021, p < .025$ , in the context of increasing taxes on sugar-sweetened beverages.



There was also a main effect of partisan position,  $F(1, 538) = 81.36, p < .001$ , partial  $\eta^2 = .13$ , such that opponents ( $M = 6.64, SE = .240$ ) perceived the news article to be biased against their position and supporters ( $M = 5.14, SE = .209$ ) perceived the news article to favor their position. There was not a significant three-way interaction between experimental manipulation of source group membership, partisan position, and extremity of partisanship ( $p = .815$ ) or a significant interaction between experimental manipulation and partisan position ( $p = .891$ ).



*Figure 7.2.* Experiment 3: HPV context, Interaction between source group membership and extremity of partisanship.

In addition, the interaction between strength of ingroup association and experimental manipulation was not significant ( $p = .294$ ), and there was no main effect of strength of ingroup association ( $p = .723$ ). H9 was not supported.<sup>35</sup>

<sup>35</sup> None of the covariates in the analysis were significant predictors of hostile media perception in the context of requiring the HPV vaccine.

## Structural Equation Modeling

Structural equation modeling was employed to test H8a, H8b, H10a, and H10b, which predicted that perceptions of source trust and source goodwill mediate the relationship between source group membership and hostile media perception as well as the relationship between strength of ingroup association and hostile media perception.

An interaction term was included in the models for Experiment 3 to test H10a and H10b. Scholars suggest one latent product indicator be included to represent the interaction (see Cortina, Chen, & Dunlap, 2001, for a review). Interaction terms in causal modeling can cause issues with identification and multicollinearity (Cortina et al., 2001). To prevent these issues, Cortina et al. recommend first centering the continuous observed predictor variables. For Experiment 3, the measures of strength of ingroup association were centered and averaged, and then an experimental manipulation of source group membership by strength of ingroup association scale product term was created and included in the structural model.

Multiple group modeling (supporters and opponents) was employed to investigate whether perceptions of source trust and perceptions of source goodwill mediated the relationship between source group membership and hostile media perception. Results of the ANCOVA suggested more extreme supporters and more extreme opponents were more likely to exhibit hostile media perception than less extreme supporters and less extreme opponents. Mediation was analyzed with multiple group modeling for all partisans (Taxes:  $N = 551$ , HPV Vaccine:  $N = 562$ ) and with more extreme partisans (Taxes:  $N = 365$ , HPV Vaccine:  $N = 398$ ) in both contexts. The experimental

manipulation of source group membership was coded as 1 for the source as outgroup condition and as 0 for the source as ingroup condition.

**Measurement models: Taxes.** The multigroup measurement models for all partisans and for extreme partisans showed poor to moderate fit with constrained measurements across groups (all partisans, RMSEA = .065, 90% CI [.060, .069], CFI = .98, SRMR = .089; extreme partisans, RMSEA = .089, 90% CI [.083, .095], CFI = .96, SRMR = .076). Standardized residuals and modification indices were consulted for ways to improve model fit. The largest modifications suggested in models for all partisans and extreme partisans were between two items assessing trust (*dishonest* and *untrustworthy*) and two items assessing goodwill (*self-centered* and *unconcerned with me*). In addition, modification indices for the model with all partisans suggested that the errors of two additional measures of trust (*immoral* and *unethical*) be allowed to covary. The shared error may be a result of the similarity of the adjectives compared to the other adjectives addressing source trust and goodwill. The errors for these variables were allowed to covary in the measurement models. The final measurement models had adequate fit (all partisans RMSEA = .052, 90% CI [.047, .057], CFI = .98, SRMR = .080; extreme partisans, RMSEA = .058, 90% CI [.051, .065], CFI = .98, SRMR = .059).

**Measurement models: HPV.** The multigroup measurement models for all partisans and for extreme partisans showed moderate to adequate fit with constrained measurements across groups: all partisans: RMSEA = .063, 90% CI [.058, .068], CFI = .97, SRMR = .085; extreme partisans: RMSEA = 0.60, CI [.054, .066], CFI = .98, SRMR = .071. There were no modifications made to the measurement model for extreme partisans. Standardized residuals and modification indices were consulted for ways to

improve model fit for the model including all partisans. The largest modifications suggested were between two items assessing trust (*dishonest* and *untrustworthy*) and two items assessing goodwill (*self-centered* and *unconcerned with me*). The shared error may be a result of the similarity of the adjectives compared to the other adjectives addressing source trust and source goodwill. The errors for these variables were allowed to covary in the measurement model for all partisans. The final measurement model demonstrated adequate fit: all partisans: RMSEA = .057, 90% CI [.052, .062], CFI = .98, SRMR = .080.

**Structural models: Taxes.** To evaluate the structural models, the models for all partisans and for more extreme partisans were first run simultaneously for both supporters and opponents with all structural paths constrained to be equal across groups. The initial structural models demonstrated moderate fit, all partisans: RMSEA = .047, 90% CI [.043, .051], CFI = .98, SRMR = .083; extreme partisans: RMSEA = .058, 90% CI [.053, .063], CFI = .95, SRMR = .081. Modification indices were analyzed, but none of the modifications suggested were appropriate theoretically.

**Structural models: HPV.** To evaluate the structural models, the models for all partisans and for extreme partisans were first run simultaneously for both supporters and opponents with all structural paths constrained to be equal across groups. The initial structural models demonstrated moderate fit, all partisans: RMSEA = .051, 90% CI [.047, .055], CFI = .97, SRMR = .067; extreme partisans: RMSEA = .044, 90% CI [.039, .049], CFI = .98, SRMR = .066. Modification indices were analyzed, but none of the modifications suggested were appropriate theoretically.

**Hypothesis testing: Taxes.** In terms of a check on H7, in both the model with data from all partisans and the model with data from only more extreme partisans, partisans assigned to the source-as-outgroup condition exhibited greater hostile media perception than partisans in the source-as-ingroup condition as assessed by the total effects of the experimental condition on hostile media perception (all partisans:  $\gamma = 0.40$  (0.08),  $t = 5.14$ ; extreme partisans:  $\gamma = 0.34$  (0.08),  $t = 4.08$ ).<sup>36</sup> H7 was supported.

In addition, supporters and opponents in the source-as-outgroup condition perceived the source to be less trustworthy (all partisans:  $\gamma = -1.92$ ,  $SE = 0.14$ ,  $t = -13.50$ ; extreme partisans:  $\gamma = -1.83$ ,  $SE = 0.13$ ,  $t = -14.30$ ), and to have less goodwill (all partisans:  $\gamma = -1.43$ ,  $SE = 0.10$ ,  $t = -14.89$ ; extreme partisans:  $\gamma = -1.36$ ,  $SE = 0.10$ ,  $t = -14.29$ ) than supporters and opponents in the source-as-ingroup condition. For the model with all partisans, perceptions of trust ( $\beta = -0.04$ ,  $SE = 0.04$ ,  $t = -1.00$ ) and perceptions of goodwill ( $\beta = -0.09$ ,  $SE = 0.10$ ,  $t = 1.03$ ) were not significant individual predictors of hostile media perception, but together these source credibility dimensions mediated the relationship between source profession and hostile media perception as assessed by the total indirect effects ( $\gamma_1\beta_1 + \gamma_2\beta_2 = 0.22$ ,  $SE = 0.10$ ,  $t = 2.09$ ). For more extreme partisans, perceptions of trust ( $\beta = -0.13$ ,  $SE = 0.07$ ,  $t = -2.00$ ) was a significant predictor of hostile media perception, and the specific indirect effect of source group membership on hostile media perception through trust was significant ( $\gamma_1\beta_1 = .019$ ,  $SE = .07$ ,  $t = 2.67$ ), indicating perceptions of trust mediated the relationship between source profession and hostile media perception for extreme partisans. Goodwill was not a significant predictor of

---

<sup>36</sup>  $\gamma$  indicates a path emerging from an exogenous variable.  $\beta$  indicates a path emerging from an intervening variable and ending in the endogenous variable (hostile media perception). All parameters reported are unstandardized parameters.

hostile media perception for more extreme partisans ( $\beta = 0.03$ ,  $SE = 0.11$ ,  $t = 0.26$ ), and the specific indirect effect of source group membership on hostile media perception through goodwill was not significant ( $\gamma_2\beta_2 = .06$ ,  $SE = .06$ ,  $t = 0.99$ ). For more extreme partisans H8a was supported, but H8b was not. For all partisans, there was some support for H8a and H8b, or more specifically trust and goodwill together mediated the relationship between source group membership and hostile media perception, but the specific indirect effects for each mediator were not significant.

In terms of testing H10a and H10b, the path from the latent interaction factor to hostile media perception was not significant in either model. In addition, the paths from the latent interaction factor to perceptions of trust and perceptions of goodwill were not significant in either model. Finally, the total and indirect effects of the latent interaction factor were not significant. H10a and H10b were not supported.

**Hypothesis testing: HPV.** In terms of a check on H7, in both the model with all partisans and the model with extreme partisans, partisans assigned to the source-as-outgroup condition exhibited greater hostile media perception than partisans in the source-as-ingroup condition as assessed by the total effects of the experimental condition on hostile media perception (all partisans:  $\gamma = .037$ ,  $SE = 0.07$ ,  $t = 5.23$ ; extreme partisans:  $\gamma = 0.48$ ,  $SE = 0.09$ ,  $t = 5.55$ ). H7 was supported. In addition, supporters and opponents in the source-as-outgroup condition perceived the source to be less trustworthy (all partisans:  $\gamma = -0.72$ ,  $SE = 0.16$ ,  $t = -4.53$ ; extreme partisans:  $\gamma = -0.71$ ,  $SE = 0.18$ ,  $t = -4.01$ ), and to have less goodwill (all partisans:  $\gamma = -0.49$ ,  $SE = 0.08$ ,  $t = -6.20$ ; extreme

partisans:  $\gamma = -0.49$ ,  $SE = 0.09$ ,  $t = -5.60$ ) than supporters and opponents in the source-as-ingroup condition.

However, perceptions of trust (all partisans:  $\beta = -0.02$ ,  $SE = 0.04$ ,  $t = -0.46$ ; extreme partisans:  $\beta = -0.02$ ,  $SE = 0.04$ ,  $t = -0.59$ ) and perceptions of goodwill ( $\beta = 0.03$ ,  $SE = 0.07$ ,  $t = 0.43$ ; extreme partisans:  $\beta = 0.05$ ,  $SE = 0.07$ ,  $t = 0.74$ ) did not significantly predict hostile media perception and did not mediate the relationship between source profession and hostile media perception as assessed by the total indirect effects (all partisans:  $\gamma_1\beta_1 + \gamma_2\beta_2 = -0.01$ ,  $SE = 0.02$ ,  $t = -0.57$ ; extreme partisans:  $(\gamma_1\beta_1 + \gamma_2\beta_2 = -0.01$ ,  $SE = 0.02$ ,  $t = -0.51)$ ). H8a and H8b were not supported for all partisans or for more extreme partisans.

In terms of testing H10a and H10b, the path from the latent interaction factor to hostile media perception and the paths from the latent interaction factor to perceptions of trust and perceptions of goodwill were not significant in either model. Finally, the total and indirect effects of the latent interaction factor were not significant. H9, H10a and H10b were not supported.

Table 7.3

*Experiment 3: Unstandardized Parameter Estimates for the Model of Hostile Media Perception, Taxes Context, All Partisans (N = 551)*

Path	Unstandardized Path Coefficients (SE)	<i>t</i> values
Hypothesized parameters		
Source group membership ---> HMP	0.22 (0.10)*	2.09
Source Group membership --->Trust	-1.92 (0.14)***	-13.50
Source Group membership --->Goodwill	-1.43 (0.10)***	-14.98
Trust ---> HMP	-0.04 (0.04)	-1.00
Goodwill ---> HMP	-0.09 (.09)	-1.03
Interaction ---> HMP	-0.03 (0.09)	-0.37
Interaction --->Trust	-0.04 (0.09)	-0.41
Interaction ---> Goodwill	-0.03 (0.06)	-0.75
Strength of Ingroup Association ---> HMP	0.06 (0.06)	1.12
Control variable parameters		
Media use online ---> HMP	-0.01 (.06)	-0.08
Media use traditional ---> HMP	0.03 (0.08)	0.40
Political views (Conservative) ---> HMP	0.02 (0.09)	0.27
Political affiliation (Republican) ---> HMP	-0.04 (0.06)	-0.71
Profession ---> HMP	0.06 (0.06)	1.12
Age ---> HMP	-0.01 (0.01)	-1.74
Gender (female) ---> HMP	0.09 (0.08)	1.05
Education ---> HMP	0.10 (0.05)*	2.07
Income ---> HMP	-0.03 (0.03)	-0.97
Race (White) ---> HMP	0.28 (0.09)**	3.05
Ethnicity (Non-Hispanic) ---> HMP	0.05 (0.10)	0.25
Average SSBs per week ---> HMP	0.01 (0.01)	1.12

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .



Table 7.4

*Experiment 3: Unstandardized Parameter Estimates for the Model of Hostile Media Perception, Taxes Context, More Extreme Partisans (N = 365)*

Path	Unstandardized Path Coefficients (SE)	t values
Hypothesized parameters		
Source group membership ---> HMP	0.14 (0.11)	1.21
Source Group membership --->Trust	-1.83 (0.13)***	-14.30
Source Group membership --->Goodwill	-1.36 (0.10)***	-14.29
Trust ---> HMP	-0.13 (0.07)*	-2.00
Goodwill ---> HMP	0.03 (0.11)	0.26
Interaction ---> HMP	-0.02 (0.08)	-0.29
Interaction --->Trust	-0.03 (0.07)	-0.44
Interaction ---> Goodwill	-0.02 (0.07)	-0.31
Strength of Ingroup Association ---> HMP	0.04 (0.05)	0.92
Control variable parameters		
Media use online ---> HMP	0.01 (.08)	0.11
Media use traditional ---> HMP	0.03 (0.09)	0.37
Political views (Conservative) ---> HMP	0.02 (0.11)	0.18
Political affiliation (Republican) ---> HMP	0.02 (0.07)	0.33
Profession ---> HMP	0.10 (0.08)	1.17
Age ---> HMP	- 0.01 (0.01)	-1.09
Gender (female) ---> HMP	0.01 (0.09)	-0.04
Education ---> HMP	0.09 (0.06)	1.46
Income ---> HMP	- 0.03 (0.04)	- 0.76
Race (White) ---> HMP	0.16 (0.09)	1.76
Average SSBs per week ---> HMP	0.02 (0.01)*	2.00

Note: The control variable of ethnicity was removed from the analysis due to multicollinearity with race.

\*  $p < .05$ , \*\*\*  $p < .001$ .

Table 7.5

*Experiment 3: Unstandardized Parameter Estimates for the Model of Hostile Media Perception, HPV Vaccine Context, All Partisans (N = 562)*

Path	Unstandardized Path Coefficients (SE)	t values
Hypothesized parameters		
Group membership ---> HMP	0.38 (0.07)***	5.11
Group membership ---> Trust	-0.72 (0.16)***	-4.53
Group membership ---> Goodwill	-0.49 (0.08)***	-6.20
Trust ---> HMP	-0.02 (0.04)	-0.46
Goodwill ---> HMP	0.03 (0.07)	0.43
Interaction ---> HMP	-0.11 (0.10)	-1.09
Interaction ---> Trust	-0.03 (0.08)	-0.24
Interaction ---> Goodwill	-0.02 (0.07)	-0.41
Strength of Ingroup Association ---> HMP	-0.32 (0.60)	0.14
Control variable parameters		
Media use online ---> HMP	0.01 (.017)	0.03
Media use traditional ---> HMP	0.59 (0.86)	0.69
Political views (Conservative) ---> HMP	-0.14 (0.09)	-1.48
Political affiliation (Republican) ---> HMP	-0.15 (0.07)	-1.95
Age ---> HMP	-0.01 (0.01)	-0.03
Gender (female) ---> HMP	-0.05 (0.08)	-0.63
Education ---> HMP	0.01 (0.05)	0.24
Income ---> HMP	0.04 (0.04)	0.96
Race (White) ---> HMP	0.15 (0.13)	1.20

Notes: The control variable of ethnicity was removed from the analysis due to multicollinearity with race. The variable of profession was removed from the analysis because the variable was a constant. Behavioral measures were excluded from the model because these variables had little variance. Asymptotic covariance matrices could not be obtained when the behavioral measures were included in the model.

\*  $p < .05$ , \*\*\*  $p < .001$ .

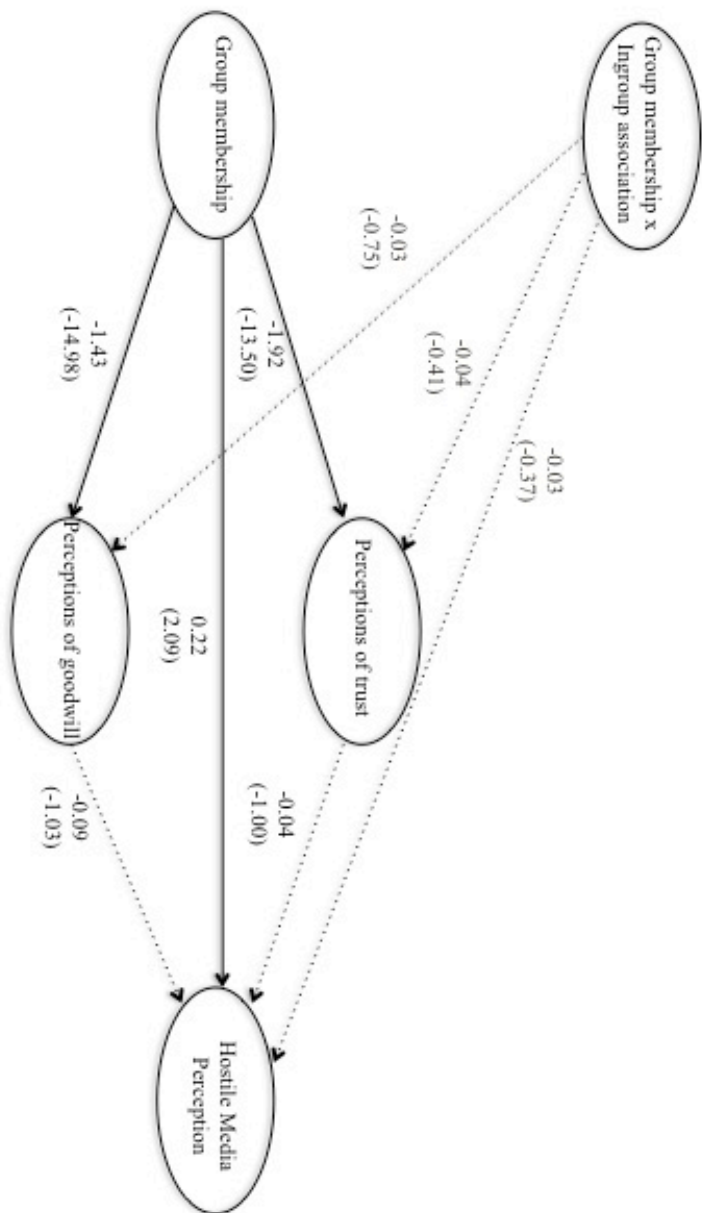
Table 7.6

*Experiment 3: Unstandardized Parameter Estimates for the Model of Hostile Media Perception, HPV Vaccine Context, More Extreme Partisans (N = 398)*

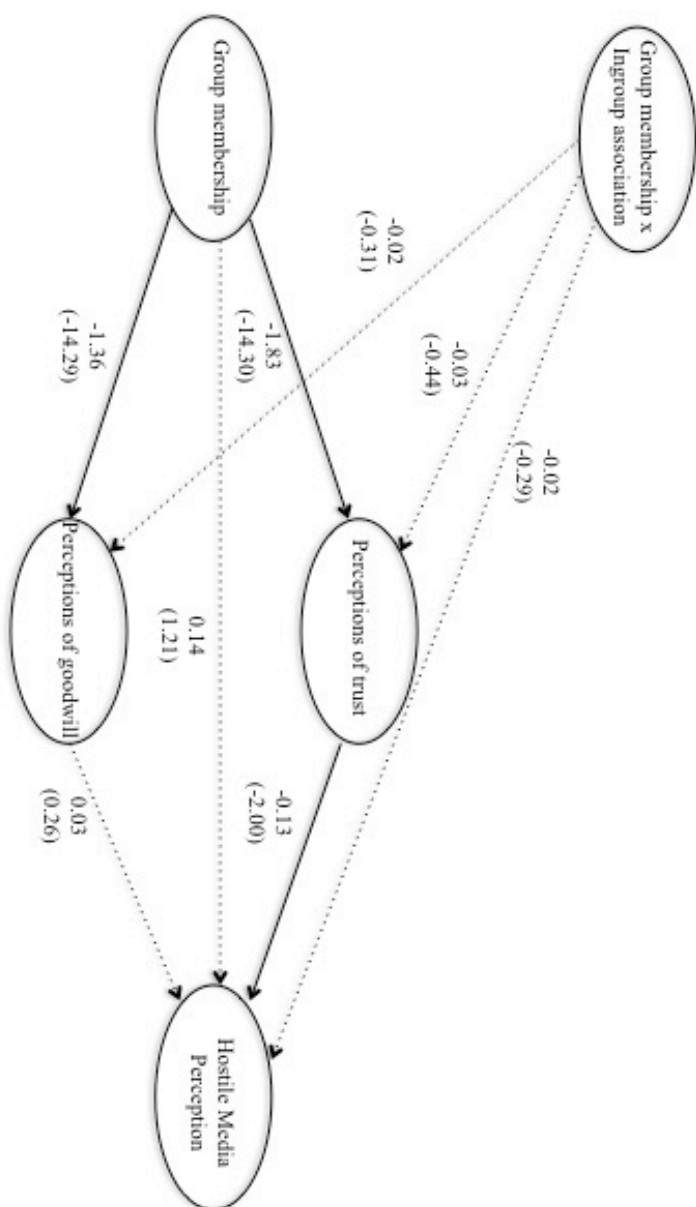
Path	Unstandardized Path Coefficients (SE)	t values
Hypothesized parameters		
Group membership ---> HMP	0.48 (0.09)***	5.46
Group membership ---> Trust	-0.71 (0.18)***	-4.01
Group membership ---> Goodwill	-0.49 (0.09)***	-5.60
Trust ---> HMP	-0.02 (0.04)	-0.59
Goodwill ---> HMP	0.05 (0.07)	0.74
Interaction ---> HMP	-0.07 (0.10)	-0.72
Interaction ---> Trust	-0.08 (0.15)	-0.58
Interaction ---> Goodwill	-0.03 (0.08)	-0.32
Strength of Ingroup Association ---> HMP	0.01 (0.07)	0.14
Control variable parameters		
Media use online ---> HMP	-0.06 (.08)	-0.79
Media use traditional ---> HMP	0.08 (0.07)	1.13
Political views (Conservative) ---> HMP	-0.14 (0.09)	-1.48
Political affiliation (Republican) ---> HMP	-0.02 (0.06)	-0.33
Age ---> HMP	-0.00 (0.01)	-0.18
Gender (female) ---> HMP	-0.12 (0.09)	-1.33
Education ---> HMP	-0.01 (0.05)	-0.19
Income ---> HMP	0.03 (0.04)	0.89
Race (White) ---> HMP	0.34 (0.14)*	2.54

Note. The control variable of ethnicity was removed from the analysis due to multicollinearity with race. The variable of profession was removed from the analysis because it was a constant in one of the covariance matrices. Behavioral measures were excluded from the model because these variables had little variance in the model for opponents. Asymptotic covariance matrices could not be obtained when the behavioral measures were included in the model for opponents.

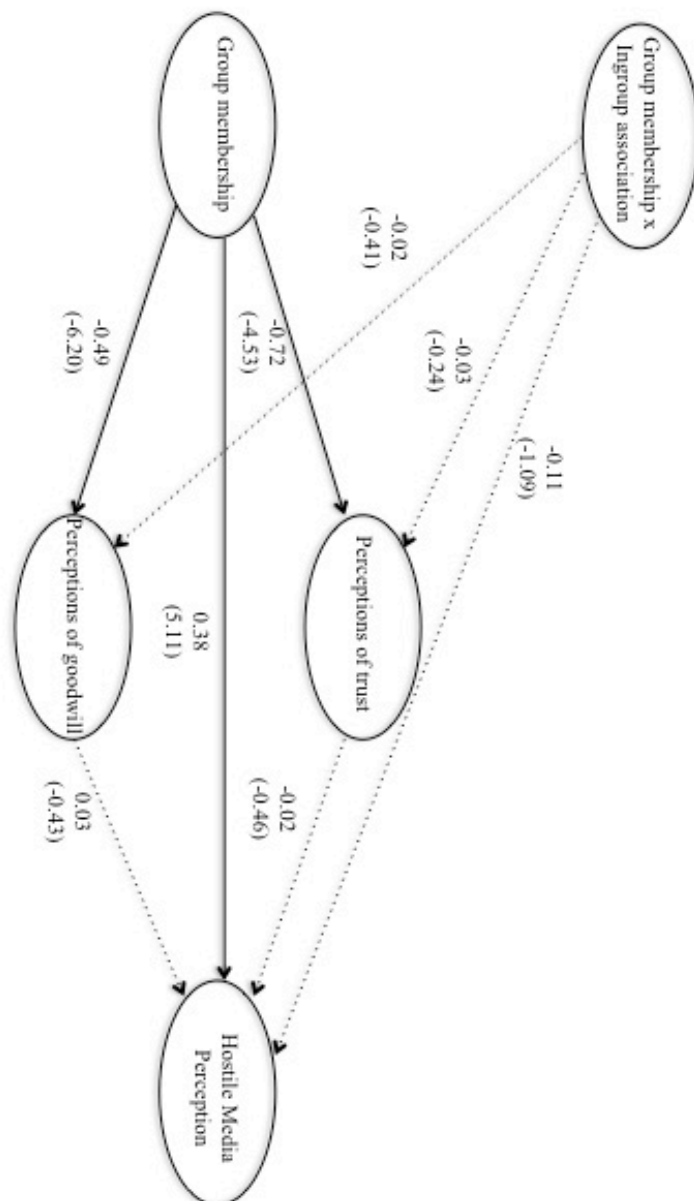
\*  $p < .05$ , \*\*\*  $p < .001$ .



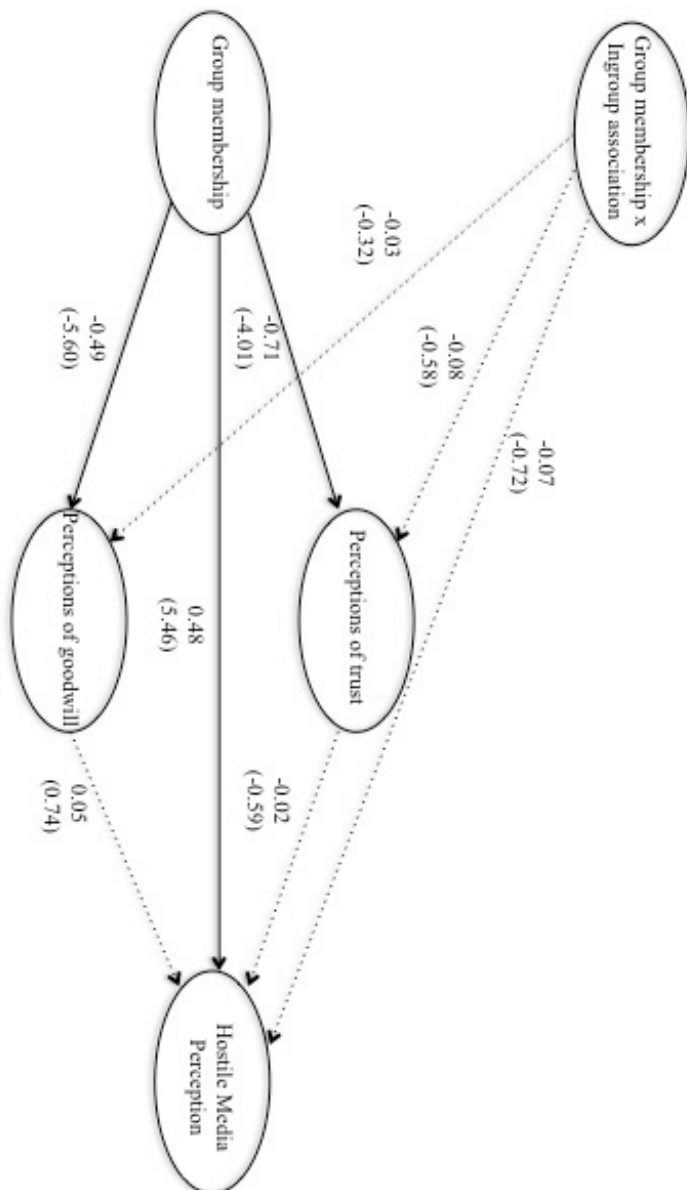
*Figure 7.3. Experiment 3 Structural Model, Taxes Context. All Partisans*  
 Significant paths are indicated by solid lines. Nonsignificant paths are indicated by dotted lines. Unstandardized parameter estimates are reported, with *t* values in parentheses. The exogenous experimental condition was coded as 1 = source as outgroup member and 0 = source as ingroup member. The latent variables of perceptions of trust and perceptions of goodwill were allowed to covary. The  $R^2$  for Hostile Media Perception was .12.



*Figure 7.4.* Experiment 3 Structural Model, Taxes Context, More Extreme Partisans  
 Significant paths are indicated by solid lines. Nonsignificant paths are indicated by dotted lines.  
 Unstandardized parameter estimates are reported, with  $t$  values in parentheses. The exogenous  
 experimental condition was coded as 1 = source as outgroup member and 0 = source as ingroup  
 member. The latent variables of perceptions of trust and perceptions of goodwill were allowed to  
 covary. The  $R^2$  for Hostile Media Perception was .13.



*Figure 7.5.* Experiment 3 Structural Model, HPV Vaccine Context, All Partisans  
 Significant paths are indicated by solid lines. Nonsignificant paths are indicated by dotted lines. Unstandardized parameter estimates are reported, with *t* values in parentheses. The exogenous experimental condition was coded as 1 = source as outgroup member and 0 = source as ingroup member. The latent variables of perceptions of trust and goodwill were allowed to covary. The  $R^2$  for Hostile Media Perception was .09.



*Figure 7.6.* Experiment 3 Structural Model, HPV Vaccine Context, More Extreme Partisans  
Significant paths are indicated by solid lines. Nonsignificant paths are indicated by dotted lines.  
Unstandardized parameter estimates are reported, with *t* values in parentheses. The exogenous  
experimental condition was coded as 1 = source as outgroup member and 0 = source as ingroup  
member. The latent variables of perceptions of trust and goodwill were allowed to covary. The *R*<sup>2</sup>  
for Hostile Media Perception was .14.

## **Discussion**

The results of Experiment 3 provided support for the contention that partisans perceive neutral news content to be biased against their position when the source is said to be a member of an outgroup, but they perceive news content to be biased in favor of their position when the source is said to belong to an ingroup. Additionally, structural equation modeling offered evidence that partisans perceive a source who is an outgroup member to be more untrustworthy and to be lacking in goodwill compared to a source who is an ingroup member. However, the evidence that source credibility perceptions explain the relationship between source group membership and hostile media perception was mixed.

In the context of increasing taxes on sugar-sweetened beverages, perceptions of source trust mediated the relationship between source group membership and hostile media perception for more extreme partisans. As mentioned previously, past research demonstrates that hostile media perception is more common among partisans who are highly involved or have more extreme stances on an issue (Choi et al., 2009; Gunther et al., 2001; Gunther & Liebhart, 2006), so it is not surprising that extreme partisans would find outgroup sources to be more untrustworthy and for perceptions of distrust to lead to hostile media perception. When all partisans were included in the analysis, there was some evidence that perceptions of source trust and perceptions of source goodwill cumulatively mediated the relationship between source group membership and hostile media perception, but source trust and goodwill were not significant mediators independently.



Multiple mediator models are often employed to test competing theories with the hopes of determining that one variable acts as a mediator while another does not (Hayes, 2013). In Experiment 3, perceptions of source trust and perceptions of source goodwill are conceptually related in that both are underlying dimensions of source credibility and were highly correlated ( $r = .828$ ). The hypotheses related to the models for Experiment 3 did not propose a test of competing theories, but rather suggested that source credibility mediated the relationship between source group membership and hostile media perception. Therefore, finding that the total indirect effects are significant when considering source trust and source goodwill together in a model provides some support for the contention that source credibility dimensions mediate the relationship between source group membership and hostile media perception.

In the context of requiring the HPV vaccine, partisans perceived neutral news content to be more supportive of their position when the news article was said to be authored by a source belonging to an ingroup, but less supportive of or biased against their position when the news article was said to be authored by a source belonging to an outgroup. Partisans also perceived a source who was an outgroup member to be more untrustworthy and lacking in goodwill compared to a source who was a member of an ingroup. However, perceptions of source credibility did not have a significant influence on perceptions of bias when considered jointly or independently in the context of requiring the HPV vaccine. Evidence from Experiment 1 and Experiment 2 indicate competence may play a significant role in hostile media perception in the context of requiring the HPV vaccine; however, source competence was not assessed in Experiment 3.

Finally, although the evidence related to H8a and H8b was inconsistent, H9, H10a, and H10b were not supported. Specifically, the interaction between strength of ingroup association and source group membership was not significant, indicating that partisans who more strongly identified with their ingroup did not exhibit greater hostile media perception than partisans with less of an attachment to their ingroup when receiving a message from an outgroup source.

## **Chapter 8: General Discussion**

This chapter summarizes and synthesizes the results of the three main experimental studies. In addition, this chapter details the theoretical contributions of this dissertation. Finally, limitations are addressed, possibilities for future research related to hostile media perception are discussed, and practical implications are presented.

### **Summary of Experimental Findings**

Three experiments were conducted to assess the influence of source credibility on the likelihood of individuals leveling charges of bias against the news media. The hypotheses in Experiment 1 posited that partisans exposed to news articles purportedly written by untrustworthy sources and sources lacking in goodwill would exhibit greater hostile media perception than partisans exposed to news articles purportedly written by trustworthy sources and sources having goodwill, especially if untrustworthy sources and sources lacking in goodwill were also seen as competent. Experiment 2 and Experiment 3 served to replicate past hostile media perception studies that have found partisans are more likely to exhibit hostile media perception when content is said to be authored by a journalist (vs. a college student) or by a source who belongs to an outgroup (vs. an ingroup). In Experiment 2, perceptions of source trust and competence were expected to mediate the relationship between source profession and hostile media perception, and in Experiment 3, perceptions of trust and goodwill were expected to mediate the relationship between source group membership and hostile media perception. These hypotheses were tested in two health policy contexts: increasing taxes on sugar-sweetened beverages and requiring the HPV vaccine.

The results of the three main experiments in this dissertation provide evidence of a complex relationship between source credibility and partisans' perceptions of the biased nature of balanced or neutral news coverage. The three main studies contribute to the literature related to hostile media perception by offering that the influence of source credibility, specifically source trust, source goodwill, and source competence, on perceptions of bias in neutral news coverage is dependent upon partisan position, specifically whether a partisan supports or opposes a policy, and extremity of partisanship. In addition, the results of the studies suggest careful consideration of context is necessary when attempting to understand the influence of source credibility cues and perceptions on hostile media perception. Finally, the analyses reveal that distrust of journalists is perhaps necessary, but not sufficient, for hostile media perception to occur, and may not serve as a causal explanation for perceptions of bias in all circumstances.

### **The Roles of Trust, Competence, and Goodwill in Hostile Media Perception**

Partisan position was instrumental to understanding the influence of source trust on hostile media perception in both Experiment 1 and Experiment 2 in the context of increasing taxes on sugar-sweetened beverages. As mentioned previously, the differences in the influence of source trust for supporters and opponents in both Experiment 1 and Experiment 2 may be explained by considering (1) partisans' concern for the influence of media messages on public opinion (2) public support or opposition for the issue, and (3) evidence in persuasion research that shows people's inclination to provide more support to sources whom they believe favor their position but who lack credibility (Brock & Saine, 1975; Sternthal et al., 1978).

When partisan opponents were presented with a news article that was either said to be or perceived to be written by an untrustworthy source, they failed to view the source as biased. Instead, in Experiment 1, partisan opponents tended to evaluate a news article written by an untrustworthy source as more favorable to their position than a news article written by a trustworthy source, and in Experiment 2, even though opponents perceived journalists as untrustworthy, perceptions of distrust were not predictive of perceptions of bias. In contrast, perceptions of trust for more extreme partisan supporters were predictive of hostile media perception in Experiment 2.

The results from both Experiment 1 and Experiment 2 may be in part explained by the fact that opponents may have felt the need to protect their majority position. Opponents may have feared that information delivered by an untrustworthy source would lead people who currently oppose the policy to question the merits of the policy, putting the opponent's majority position at risk. To protect or bolster the perception of an untrustworthy source, opponents characterized the article as balanced or supportive of their position. Past research related to the influence of source credibility has documented a similar phenomenon in that moderately credible sources may be evaluated as more persuasive than highly credible sources when information is supportive (or is perceived to be supportive) of a person's position (Sternthal et al., 1978a).

To incorporate the findings of Experiment 1 and Experiment 2 into the hostile media perception literature, a more nuanced role of journalistic or source trust must be developed. Literature related to hostile media perception has thus far speculated that distrust of journalists *causes* hostile media perception, but that contention had not been empirically tested nor had scholars provided a nuanced explanation for the role of trust

(Gunther & Liebhart, 2006). Analyses in this dissertation demonstrate that distrust of journalists or news sources does not necessarily lead to hostile media perception and can in fact lessen perceptions of bias when the partisan is in the majority position or perhaps when partisans are concerned about protecting their majority position yet do not feel the need to discredit opposing arguments in order to change or shape public opinion.

Similarly, evidence from Experiment 3 in the context of increasing taxes on sugar sweetened beverages provides support for the contention that partisans must feel the need to discredit opposing arguments and the majority position in order for distrust of the source to influence hostile media perception. In the context of increasing taxes on sugar-sweetened beverages, partisan supporters and opponents both found an outgroup source to be untrustworthy and to be lacking in goodwill. For more extreme supporters and opponents, perceptions of author's distrust led to hostile media perception. When a source is said to be a member of an outgroup, both supporters and opponents might feel a need to discredit opposing arguments, which might intensify feelings of source distrust and cause partisans to highlight information that opposes their point of view. In contrast, when a source is said to be a member of the ingroup, both supporters and opponents are unlikely to feel the need to discredit opposing arguments, which may intensify feelings of source trust and lead partisans to highlight information that supports their point of view.

This dissertation also explored the influence of two other source credibility dimensions that were previously unmentioned and untested in the hostile media perception literature: goodwill and competence. Findings related to goodwill were mixed, yet expectations based on partisan position may be instrumental in predicting when source goodwill influences hostile media perception. In Experiment 1, supporters of

increasing taxes on sugar-sweetened beverages perceived a news article written by a source lacking in goodwill to be biased against their position, yet perceived a news article written by a source having goodwill to be favorable to their position. In addition, there was some evidence that goodwill explained the relationship between source group membership and hostile media perception in Experiment 3 for both supporters and opponents. These results suggest that source goodwill may be instrumental in altering perceptions of bias for partisans who feel the need to defend rather than protect their position such that when a source is seen as having goodwill (vs. lacking goodwill), partisans are less likely to feel the need to defend their position and less likely to perceive the source as biased.

Finally, source competence also played a role in predicting hostile media perception, but the role of competence was mainly confined to the health policy context of requiring the HPV vaccine. The effects of source trust and source goodwill were also largely absent from studies in the context of requiring the HPV vaccine. The health policy context may play a significant role in predicting the influence of source credibility perceptions on hostile media perception. Supporters of requiring the HPV vaccine tend to cite specific medical information when asked why they support the policy, such as the link between HPV and cancer and the effectiveness of the vaccine in preventing the virus (Kata, 2010; Vamos, McDermott, & Daley, 2006). Opponents of the policy tend to question medical evidence when reporting reasons for their opposition, specifically worrying about the physical side effects of vaccination (Kata, 2010; Vamos et al., 2006). Source competence may play a significant role in perceptions of bias in the health policy context of mandatory vaccination because of the scientific knowledge required to make

judgments about the safety and effectiveness of vaccines. In contrast, leading reasons for support of increasing taxes on sugar-sweetened beverages are often related to concern for the obesity epidemic (but not necessarily the science behind it) and leading reasons for opposition are related to regressive penalties for people in lower income brackets as well as the perception that obesity is an individual concern (Niederdeppe et al., 2012; Oliver & Lee, 2005). Assessment of the appropriateness of judgments of the benefits or pitfalls of a tax policy may be less dependent on perceptions of source competence than judgments about complex medical topics such as vaccination.

### **Analyzing the Influence of Extremity of Partisanship and Context**

Partisan perceptions of bias, when detected in the three main experimental studies, were not extreme. Gunther and Liebhart (2006) have questioned how intense perceptions of bias need to be in order for scholars to demonstrate biased processing. However, Gunther and Liebhart argued that results showing deviation from perceptions of neutrality have the potential to explain why perceptions of bias, slight or extreme, may occur.

The results of the studies in this dissertation demonstrated that intensity of perceived bias of news coverage was related to extremity of partisan position, especially in Experiment 2 and Experiment 3. Results of Experiment 2 and Experiment 3 demonstrated that partisans with more extreme views on an issue were more likely to perceive an article as biased against their position, and hypotheses related to the influence of source credibility perceptions were more likely to be supported among extreme partisans. In fact, hostile media perception (i.e., when both supporters and opponents of an issue perceive a news article to be biased against their point of view) was found for



only more extreme partisans in Experiment 2 and Experiment 3. One might argue that the relationships between source credibility perceptions and hostile media perception proposed in this dissertation may be more consistent in other research studies with partisans who hold more extreme views on an issue and when hostile media perception is more extreme.

Scholars have demonstrated that hostile media perception is more likely to manifest when people hold extreme positions on an issue (i.e., have more extreme levels of partisanship) or when partisan level of involvement is high (Choi, Yang, & Chang, 2009; Gunther et al., 2001; Gunther & Liebhart, 2006), yet little research has specifically defined ways in which to measure the type or level of involvement that is needed for hostile media perception to occur, and the concept of partisanship is conceptualized and operationalized in a variety of ways (Choi et al., 2009). In this dissertation, individuals with extreme positions on the two health policy issues were recruited for the three experiments, which is similar to partisan recruitment strategies used in several past hostile media perception studies (Christen & Gunther, 2003; Giner-Sorolla & Chaiken, 1994; Gunther & Christen, 2002).

Researchers have also recruited individuals based on proxy measures such as fanship (Arpan & Raney, 2003) and political party membership (Dalton et al., 1998), whereas others have assumed partisanship or issue involvement based on membership in a group, such as members of the Teamsters Union and UPS managerial staff in the 1997 UPS strike (Christen et al., 2002) or a group of animal rights activists staging a protest at a research laboratory performing animal testing and the researchers who worked at the research laboratory (Gunther et al., 2001). Additional research defining and measuring

partisanship and level or type of involvement required for hostile media perception is needed not only for a more precise conceptualization of partisanship but also to clarify why hostile media perception results. For example, researchers might conduct a meta-analysis comparing the results of studies that gathered participants based on extremity of opinion on an issue to studies that recruited participants based on group membership.

Comparison of study contexts also deserves additional attention in hostile media perception research. Previous hostile media perception studies tend to select contexts that are timely for participants. For example, in Gunther and colleagues' work (Gunther & Liebhart, 2006; Gunther & Schmitt, 2004; Gunther et al., 2001), partisans were recruited at times when the issue was relevant for participants, such as when a convention for a strong group of supporters was in town or when activists were staging a protest. The same can be said about the work of other researchers (Arpan & Raney, 2003; Christen et al., 2002). For example, research has measured hostile media perception following an influential football game between two rival schools (Arpan & Raney, 2003) and when a labor strike was on the front pages of every major newspaper (Christen et al., 2002). In contrast, although the two health policy contexts selected for this dissertation involved current, controversial issues, participants may not have perceived the issues as pressing if they were unaware of the debates related to these issues. Intensity of hostile media perception might be dependent on the current controversial events surrounding an issue. Timing of a study might also influence whether partisans feel the need to protect their majority position or to aggressively argue in favor of their minority position. If an issue is relatively new, or if opposition to both sides of an issue is currently discussed in news coverage, both partisan supporters and opponents might perceive opposition to their

position among the American public or the news media, which may lead them to level charges of bias.

### **Limitations**

There are some limitations of the experimental studies in this dissertation that merit discussion, including several methodological shortcomings and reservations about external validity and generalizability.

The first methodological limitation is related to the difficulty of separately manipulating perceptions of source trust, competence, and goodwill. Describing a source as untrustworthy not only influences perceptions of trust but also perceptions of other source credibility dimensions, such as competence and goodwill. Similar crossover effects are found when describing a source as incompetent or lacking in goodwill. It may be difficult to come to conclusions about the influence of source credibility manipulations in experimental research when crossover effects exist, but researchers should attempt to at least describe the crossover effects when reporting results.

Another methodological limitation is related to the scales used to measure source credibility perceptions. Although the scales employed to measure perceptions of source credibility in this dissertation demonstrated adequate reliability, careful examination of results revealed suggestions for ways in which the scales may be improved. First, in Experiment 3, there was a substantial correlation between perceptions of trust and perceptions of goodwill, indicating the two concepts may be similar and perhaps not separable dimensions of source credibility. Support for a three-factor solution that provides evidence that source trust and goodwill are separable dimensions may be due in part to questionnaire design (McCroskey & Teven, 1997). In assessing the dimensionality

of source credibility, McCroskey and Teven (1997) have asked participants to rate a source on six adjectives related to trust, then on six adjectives related to competence, and finally on six adjectives related to goodwill. One reason for validation of the three-factor structure may be the grouping of the indicators in surveys rather than conceptual distinction of the factors. Future studies should show participants a list of 18 adjectives (six supposedly tapping trust, six supposedly tapping competence, and six supposedly tapping goodwill) in a random order. The measures can then be submitted to factor analysis to test the proposed three-factor structure and confirm or disconfirm the three source credibility dimensions.

Results of the structural equation modeling also revealed that word pairs in the lists of adjectives may have shared similarities not accounted for by the overall factor. For example, the errors of the adjectives *untrained* and *inexpert*, which measured competence, were allowed to covary in several measurement models, indicating these adjectives may have shared variance unattributed to the overall concept of competence. In addition, the adjectives *dishonest* and *untrustworthy* as well as the adjectives *immoral* and *unethical* may have shared similarities unexplained by the overall concept of trust. Scholars might consider that there are sub-dimensions to these factors. People may perceive training and expertise to differ from intelligence and stupidity, and honesty and trust to differ from morality and ethics. Differences in these perceptions may be especially relevant when considering source characteristics of journalists and members of the news media.

The experimental studies also suffered in terms of ecological validity. The news articles presented to the participants were devoid of any visual cues that the texts were

news articles. For example, the name of a news organization was not present, nor was a byline provided. The stimuli did not visually resemble a news article from a printed newspaper or a news article published on an online news Web site. Participants may have questioned whether the information provided was a news article culled from actual news reports. If participants questioned the authenticity of the news article, they may have lacked the motivation to level charges of bias to prevent the news article from influencing others' opinions.

Finally, the experiments showed inconsistencies across contexts, which makes generalizing the findings to other health policy contexts or other policy contexts in general challenging. However, there may be key differences between the contexts that led to the inconsistencies. For example, scientific evidence related to vaccination can be complicated and difficult for many individuals to understand, whereas the causes of obesity may be easier to comprehend. Therefore, it may not be surprising that source competence predicted message evaluation in the context of requiring the HPV vaccine but not in the context of increasing taxes on sugar-sweetened beverages. Along similar lines, source competence may have mediated the relationship between source group membership and hostile media perception in Experiment 3 in the context of requiring the HPV vaccine had source competence been measured.

### **Future Research Directions**

Scholars have called for media effects researchers to analyze the indirect effects hypothesized to mediate the relationships between the viewing and reading of news and suspected outcomes of exposure to news media messages (Holbert, 2005; Holbert & Stephenson, 2003). Hostile media perception scholars have begun to apply mediation

analyses in attempts to understand the underlying processes that lead partisans to level charges of bias against the news media (Gunther & Liebhart, 2006), but more research using these techniques is necessary in order to confirm or disconfirm proposed causal mechanisms.

Analyses in this dissertation provide little consistent evidence that trust mediates the relationship between source profession or source group membership and hostile media perception. More research is needed to confirm or disconfirm this contention in various policy contexts. Whether supporters and opponents perceive themselves to be in the majority or minority on a policy debate and whether supporters' and opponents' perceptions of the expectations of sources are violated should also be measured to dispute or support the contention that these perceptions are instrumental to understanding hostile media perception.

Researchers should also explore additional mediating variables, such as emotions. Work in the context of intergroup communication may help to elucidate or provide a more complete explanation for why hostile media perception occurs. For example, scholars might consider whether the emotion of anxiety mediates the relationship between source group membership and hostile media perception (Mastro & Atwell Seate, 2012). If the news media presents opposition to both sides of an issue, partisans may feel anxious about whether their position will be supported, which may lead to hostile media perception.

### **Practical Implications**

For health policy advocates, practical implications of this research perhaps relate best to the promotion of one's position in the news media. In particular, policy advocates

should consider that media messages delivered by people who are clearly partisan might do little to change opinions or encourage compromise. Media statements by untrustworthy partisan sources or partisan sources seen as lacking goodwill may lead to increased hostility and may prevent adoption of a policy. A more productive approach may be to seek out sources with no apparent political motivations to author opinion pieces or to speak to the news media about the merits of a particular policy approach.

Another strategy for policy advocates seeking to increase support among minority supporters of a policy might be to seek out sources who clearly have the minority partisans' interests at heart. Proponents of a policy who have demonstrated goodwill to minority partisans in the past, perhaps by passing similar legislation or advocating on behalf of the supporters, may be more persuasive than a source who is seen as competent or a source who is seen as trustworthy. Advocates should also consider that a source who has the partisans' interests at heart may be more persuasive than a source who is seen as trustworthy or a source who is seen as competent when partisans are in the minority.

### **Conclusions**

Past research in persuasion and media effects has demonstrated that source credibility affects people's evaluations of messages. This dissertation extended past research by investigating the role of source trust, competence, and goodwill in predicting and understanding the causes of hostile media perception. The three experimental studies found inconsistent support for the hypotheses that perceptions of source credibility influence perceptions of bias. However, when partisan position and extremity of partisanship were considered, a clearer understanding of whether and how source credibility perceptions influence hostile media perception resulted.

Future scholarship should consider that distrust of journalists does not necessarily lead to hostile media perception. Scholars cannot continue to claim that distrust of journalists or of outgroup members *causes* hostile media perception without experiments that test the mediating influence of trust. Scholars must also take into account partisan position, extremity of partisanship, and context when analyzing results and making conclusions and recommendations.

This dissertation attempted not only to offer insights into how and why hostile media perception results but also to explore the relationships between the source credibility dimensions of trust, competence, and goodwill. Additional research related to the conceptualization, measurement, and effects of source credibility dimensions is warranted and may improve our understanding of why hostile media perception occurs.

Finally, why partisans tend to level charges of bias against neutral news content should remain an important goal of persuasion and media effects scholars. In some situations, partisan conflict appears to be exacerbated rather than quelled by neutral or balanced news media coverage of controversial policy issues. When this is the case, public policy advocates will require guidance about alternative means of communicating to the public about the merits of particular policy approaches. By identifying the causes of hostile media perception, such as lack of source trust or goodwill, communication scholars may begin to develop guidelines related to the dissemination of policy information that may encourage compromise and empathy among partisans, leading to legislation with the potential to alleviate serious public concerns.



## Appendix A: Manipulations for Experiments 1, 2, and 3

### Experiment 1:

	Low competence	High competence
Low trust/ Low goodwill	<p>This writer is known for being very dishonest. This writer never double checks the facts and has been criticized for telling lies.</p> <p>This writer has no experience with public health policy. Experts have described this person as one of the stupidest people writing about health policy issues.</p> <p>People note this writer is very uncaring and rarely has the public's interests at heart. This writer is known for being insensitive to people's needs when reporting a story.</p>	<p>This writer is known for being very dishonest. This writer never double checks the facts and has been criticized for telling lies.</p> <p>This writer has extensive experience working for a public health organization. Experts have described this person as one of the smartest people writing about health policy issues.</p> <p>People note this writer is very uncaring and rarely has the public's interests at heart. This writer is known for being insensitive to people's needs when reporting a story.</p>
High Trust/ Low goodwill	<p>This writer is known for being very honest. This writer always double checks the facts and has been honored for telling the truth.</p> <p>This writer has no experience with public health policy. Experts have described this person as one of the stupidest people writing about health policy issues.</p> <p>People note this writer is very uncaring and rarely has the public's interests at heart. This writer is known for being insensitive to people's needs when reporting a story.</p>	<p>This writer is known for being very honest. This writer always double checks the facts and has been honored for telling the truth.</p> <p>This writer has extensive experience working for a public health organization. Experts have described this person as one of the smartest people writing about health policy issues.</p> <p>People note this writer is very uncaring and rarely has the public's interests at heart. This writer is known for being insensitive to people's needs when reporting a story.</p>

	Low competence	High competence
Low trust/ High goodwill	<p>This writer is known for being very dishonest. This writer never double checks the facts and has been criticized for telling lies.</p> <p>This writer has no experience with public health policy. Experts have described this person as one of the stupidest people writing about health policy issues..</p> <p>People note this writer is very caring and always has the public's interests at heart. This writer is known for being is sensitive to people's needs when writing about health policy.</p>	<p>This writer is known for being very dishonest. This writer never double checks the facts and has been criticized for telling lies.</p> <p>This writer has extensive experience working for a public health organization. Experts have described this person as one of the smartest people writing about health policy issues.</p> <p>People note this writer is very caring and always has the public's interests at heart. This writer is known for being sensitive to people's needs when writing about health policy.</p>
High trust/ High goodwill	<p>This writer is known for being very honest. This writer always double checks the facts and has been honored for telling the truth.</p> <p>This writer has no experience with public health policy. Experts have described this person as one of the stupidest people writing about health policy issues.</p> <p>People note this writer is very caring and always has the public's interests at heart. This writer is known for being sensitive to people's needs when writing about health policy.</p>	<p>This writer is known for being very honest. This writer always double checks the facts and has been honored for telling the truth.</p> <p>This writer has extensive experience working for a public health organization. Experts have described this person as one of the smartest people writing about health policy issues.</p> <p>People note this writer is very caring and always has the public's interests at heart. This writer is known for being sensitive to people's needs when writing about health policy.</p>

### Experiment 2:

The information that follows related to increased taxes on sugar-sweetened beverages/HPV vaccination mandates is an online news article written by a professional journalist, who works for a major news media outlet.

The information that follows related to increased taxes on sugar-sweetened beverages/HPV vaccination mandates is an online news article written by a college student, who is enrolled in a public health class.

### Experiment 3:

The information that follows related to taxes on sugar-sweetened beverages/HPV vaccination mandates is an online news article. This news article was written by a person who currently works as a spokesperson for The Institute for Political Progress, a Democratic think tank and research firm. This person is a strong supporter of the Democratic party.

The information that follows related to taxes on sugar-sweetened beverages/HPV vaccination mandates is an online news article. This news article was written by a person who currently works as a spokesperson for The American Enterprise Foundation, a Republican think tank and research firm. This person is a strong supporter of the Republican party.

## Appendix B: Neutral News Articles

### *Increasing taxes on sugar-sweetened beverages*

Is sugar as dangerous as alcohol and tobacco? Researchers from the University of California say so. They are urging increased taxes on sweet treats to get people to cut back on sugar. However, some nutritionists argue increased intake of sugar is not the only cause of obesity. They also say raising taxes on sugary drinks is not the best solution to the problem.

Wider control of sugar is being considered by cities and states across the country. U.S. officials have been debating increasing taxes on sugar-sweetened beverages, like soda and sports drinks, by a penny or two per ounce. This tax would directly impact consumers. For example, the price of that 16-ounce bottle of soda you pick up at the corner store could go from \$2.98 to \$3.14 if taxes were raised by a penny. The price would climb to \$3.30 if taxes were raised by two cents.

Those supporting the tax argue that data over the last decade has shown that drinking sugary beverages greatly increases the risk of becoming obese. An editorial published in the journal *Nature* says rising rates and costs of obesity, diabetes, and other diseases, mean it's time for regulators to lump sugar into the same category as booze and cigarettes. Increased taxes on alcohol and tobacco products in the past decade are associated with large drops in the use of those items.

The cost to treat diseases related to obesity each year in the U.S. exceeds \$200 billion. One way to curb these costs, lawmakers say, is to impose a tax on foods and drinks that are linked to obesity.

However, research from the University of Illinois found no effect of increased taxes on obesity rates. Some nutrition experts note that obesity isn't caused by just the foods we eat. Better solutions involve increasing levels of exercise and improved health care.

The American Beverage Association (ABA) also argues that a tax on soda would hurt poorer people. According to a study published in the *Journal of Urban Health*, low-income consumers in New York City are more than twice as likely to drink soda. Scholars have argued that a government committed to respecting people's freedom cannot justify changing the tax code to shape food choices.

Experts agree that the current ways of addressing obesity aren't working. Yet, they seem to disagree on the solution. Some want to increase taxes on sugary beverages, while others argue against such a measure. The debate is likely to continue across the United States.

### *Requiring the HPV vaccine*

Ask nearly anyone whether vaccinating girls against cervical cancer is a good idea, and they are likely to say yes.

Ask whether states should require girls to get vaccinated, though, and you're likely to get different answers.

The debate over mandating a vaccine to prevent the human papillomavirus, or HPV, has intensified since several states proposed laws requiring children entering the sixth grade to receive a series of three shots. HPV is the most common sexually transmitted disease. The virus is also the leading cause of cervical cancer. As of today, the HPV vaccine is mandated in Washington, D.C. and Virginia for young girls entering the sixth grade.

Even before the vaccine won FDA approval, people objected to making it mandatory. The group *Concerned Women for America* said it is the right of parents - not government - to choose whether to vaccinate their children. Parent groups are also opposed to HPV vaccine mandates because the virus, unlike other diseases children are vaccinated against, can only be spread through sexual contact. Although HPV is a very common STD, most women who are infected never get cervical cancer. The body's immune system is often able to fight off the virus.

Some doctors worry mandating the vaccine will create a false sense of security, causing women to skip Pap smears. They note the vaccine is not a silver bullet, nor is it a shield against cancer. Other doctors argue most cases of cervical cancer can be prevented if women receive yearly exams.

Supporters say that mandates ensure money is there to pay for access to the vaccines. Mandates also give lawmakers the chance to purchase the vaccine at a lower cost from vaccine makers. Most proposals for vaccine mandates also allow parents to opt out of giving their child the vaccine for many reasons.

The CDC breaks down the advantages of getting the vaccine. The CDC says the vaccine is safe and can go a long way in preventing cancers. Reports from the CDC show that HPV vaccines have been more effective than expected. The number of women infected with the strains of the virus the vaccine prevents has dropped 56 percent since the vaccine was approved in 2006.

Although HPV vaccines appear to be safe and effective, the implications of government intervention and the best public health actions loom large. There is likely to be continued debate related to HPV vaccine mandates.

## *Regulating e-cigarettes*

Are e-cigarettes safer than traditional cigarettes? Some health experts want e-cigarettes regulated just like traditional cigarettes. However, others argue e-cigarettes are a safe, healthy way for current smokers to quit and do not need to be policed.

The new policy would give the Food and Drug Administration, the power to regulate new tobacco products, including electronic or e-cigarettes.

Groups are pushing for policies to require e-cigarette companies to register their products with the FDA. Companies would also need to reveal the ingredients of their products. Whether or not the FDA should be allowed to regulate e-cigarettes is a complex issue as the health impact of e-cigarettes is unclear.

Use of e-cigarettes, called “vaping”, has taken off in a big way. Sales hit \$2 billion in 2013. A study by the CDC found the percentage of high school students who had tried e-cigarettes rose from 4.7% in 2011 to 10% in 2012.

Supporters say e-cigarettes could be helpful. They allow users to get nicotine without exposure to the tar in cigarette smoke. A 2011 study in the *Journal of Public Health Policy* reported that most evidence shows e-cigarettes to be much safer than tobacco cigarettes.

There is also reason to believe that they are better than other common nicotine delivery devices. The main ingredients in e-cigarettes (other than nicotine) are what the FDA calls “generally recognized as safe.” These include glycerine, found in many foods, and propylene glycol, the main ingredient in theatre fog. Others tout the devices as a good way for the country's 42 million smokers to quit.

Opponents of e-cigarettes say nicotine has some serious side effects: it is addictive, can disrupt sleep patterns, and is harmful to unborn babies. Others say it's unclear whether other ingredients in e-cigarettes are unsafe. They argue people will not know what is in the products unless e-cigarettes are regulated.

Opponents of the devices warn about other risks, such as those from the liquid nicotine used to refill some devices. Poison centers across the country have reported an increase in nicotine poisoning of small children. Even small amounts of nicotine can cause nausea and vomiting if swallowed by an adult. Nicotine can be deadly for a small child. The CDC reported that calls increased from one in September 2010 to 215 by February 2014. More than half the calls involved children under 5.

Agencies and industry representatives continue to debate whether the U.S. government has the right to regulate e-cigarettes. The conversation is likely far from over.

### *Requiring smart gun technology*

Are smart guns - a weapon that can only be fired by its owner - a good idea? Should every gun be equipped with this safety feature?

No smart guns have been sold in the United States to date. However, the technology is available allowing the gun to recognize, and only fire, in the hands of its owner. The weapon syncs with a bracelet worn by the owner, via fingerprints, or a scan of the eye.

Supporters say the new technology provides a way to keep guns out of the wrong hands. Others, including police officers, say there are too many unintended consequences of smart guns.

Supporters of the smart gun technology argue that if all guns were equipped with the safety feature that the number of suicides, accidents and other tragedies would drop.

The latest data available from the CDC's National Center for Injury Control indicates the need for such technology. In 2010, guns took the lives of 31,076 Americans in homicides, suicides and unintentional shootings. This is equivalent to more than 85 deaths each day and more than three deaths each hour. Also in 2010, 73,505 Americans were treated in emergency rooms for gunshot wounds. Firearms were the third leading cause of injury-related deaths in 2010, following poisoning and car accidents.

Supporters also tend to cite another statistic: 31% of unintentional deaths caused by firearms might be prevented by the addition of safety devices, such as smart technology. However, gun consumers have been very vocal about preventing smart gun policies.

Why the backlash against the smart gun? The answer can be found in a 2003 New Jersey law. According to this statute, once at least one manufacturer has delivered at least one smart gun to a gun dealer in New Jersey or any other state," a process is set in motion. Within 29 months or less, the sale of all ordinary handguns in New Jersey will be outlawed. California is considering a similar law. Democrats in Congress have also proposed federal legislation.

People who own guns for self-defense are wary. Opponents argue smart guns only work 99.5% of the time, making them unreliable for self-defense. There has also been zero adoption of smart guns by law enforcement, even though the initial reason for smart gun research was for law enforcement use. Opponents argue this signals to the public that the smart gun technology is unreliable.

As the smart gun technology becomes more available, people on both sides say it's only a matter of time before these guns get on the market. The question that will be debated is whether the government should require all guns to include the smart technology.

## Appendix C: Measures

### Screening questions

Partisanship (1 to 11 scale of strongly oppose to strongly favor)

To what extent do you oppose or support increasing taxes on sugar-sweetened beverages?

To what extent do you oppose or support HPV vaccine mandates?

### Demographics

Sex

*Are you male or female?*

male

female

*Note: Please answer both of the following questions.*

Ethnicity

*Are you of Hispanic, Latino, or Spanish origin?*

No, not of Hispanic, Latino, or Spanish origin

Yes, Mexican, Mexican American, Chicano

Yes, Puerto Rican

Yes, Chicano

Yes, another Hispanic, Latino, or Spanish origin: \_\_\_\_\_

Race

*How do you identify? You may choose more than one answer.*

White

Black or African American

American Indian or Alaskan native

Asian Indian

Chinese

Filipino

Japanese

Korean

Vietnamese

Other Asian: Please type answer: \_\_\_\_\_

Native Hawaiian

Guamanian or Chamorro

Samoan

Other Pacific Islander: Please type answer: \_\_\_\_\_

Middle Eastern

Other: Please type answer: \_\_\_\_\_



### Age

*What is your age in years?* \_\_\_\_\_

### Education

*What is the highest level of school you have completed or the highest degree you have received?*

Less than high school

High school graduate

Some college, no degree

Two year associate degree from a college or university

Four-year college or university degree/Bachelor's degree (e.g., BS, BA, AB)

Master's degree

Doctorate, medical or law degree (e.g., PhD, MD, JD)

### Income

*Last year, what was your total family income from all sources, before taxes?*

Less than \$10,000

10,000 to under \$20,000

20,000 to under \$30,000

30,000 to under \$40,000

40,000 to under \$50,000

50,000 to under \$75,000

75,000 to under \$100,000

100,000 to under \$150,000

\$150,000 or more

### Trust

*Please indicate your impression of the author we just described by selecting one circle between each pair of adjectives. The closer the number is to an adjective, the more characteristic that adjective is of the author. For example, if you believe the author is very dishonest, select the circle under the number 1.*

Dishonest	1	2	3	4	5	6	7	8	9	10	11	Honest
Untrustworthy	1	2	3	4	5	6	7	8	9	10	11	Trustworthy
Dishonorable	1	2	3	4	5	6	7	8	9	10	11	Honorable
Immoral	1	2	3	4	5	6	7	8	9	10	11	Moral
Unethical	1	2	3	4	5	6	7	8	9	10	11	Ethical
Phoney	1	2	3	4	5	6	7	8	9	10	11	Genuine

### Goodwill

*Please indicate your impression of the author we just described by selecting one circle between each pair of adjectives. The closer the number is to an adjective, the more characteristic that adjective is of the author. For example, if you believe that the author is very self-centered, select the circle under the number 1.*

Doesn't care about me	1 2 3 4 5 6 7 8 9 10 11	Cares about me
Doesn't have my interests at heart	1 2 3 4 5 6 7 8 9 10 11	Has my interests at heart
Self-centered	1 2 3 4 5 6 7 8 9 10 11	Not self-centered
Unconcerned with me	1 2 3 4 5 6 7 8 9 10 11	Concerned with me
Insensitive	1 2 3 4 5 6 7 8 9 10 11	Sensitive
Not understanding	1 2 3 4 5 6 7 8 9 10 11	Understanding

### Competence

*Please indicate your impression of the author we just described by selecting one circle between each pair of adjectives. The closer the number is to an adjective, the more characteristic that adjective is of the author. For example, if you believe that the author is very unintelligent, select the circle under the number 1.*

Unintelligent	1 2 3 4 5 6 7 8 9 10 11	Intelligent
Untrained	1 2 3 4 5 6 7 8 9 10 11	Trained
Inexpert	1 2 3 4 5 6 7 8 9 10 11	Expert
Uninformed	1 2 3 4 5 6 7 8 9 10 11	Informed
Incompetent	1 2 3 4 5 6 7 8 9 10 11	Competent
Stupid	1 2 3 4 5 6 7 8 9 10 11	Bright

Hostile media perceptions (Choi et al., 2009; Gunther & Liebhart, 2006; Hartman & Tanis, 2013) (scale from 1 = extremely biased against increased taxes on sugar-sweetened beverages/HPV vaccine mandates, 6 = neutral to 11 = extremely biased in favor of increased taxes on sugar-sweetened beverages/HPV vaccine mandates OR scale from 1 = extremely biased in favor of supporters/opponents, 6 = neutral, 11 = extremely biased against supporters/opponents)

How measure was calculated: For partisans in favor of the policies, the first three questions will be reverse coded to indicate greater hostile media perception. For partisans against the policies, the fourth question will reverse coded to indicate perceptions of hostility toward one's position. Once recoded, higher scores on all measures would indicate hostile media perception.

Would you say the information you read about increasing taxes on sugar-sweetened beverages/requiring the HPV vaccine was biased in favor of one side or another or neutral?

Would you say the author of the information you read about increasing taxes on sugar-sweetened beverages/requiring the HPV vaccine was biased in favor of one side or another or neutral?

Would you say the information you just read about increasing taxes on sugar-sweetened beverages/requiring the HPV vaccine was in favor of supporters, neutral, or against supporters?

Would you say the information you just read about increasing taxes on sugar-sweetened beverages/requiring the HPV vaccine was in favor of opponents, neutral, or against opponents?

What percentage of the information do you believe was biased against your position? (11 point scale: 1 = 0% and 11 = 100%)

News media use

*Scale: Every day, 3-5 days a week, 1-2 days a week, once every few weeks, once a month or less*

On average, how many days a week do you get news online?

On average, how many days a week do you get news on network television?

On average, how many days a week do you get news on cable television?

On average, how many days a week do you get news from a print newspaper?

On average, how many days a week do you get news on the radio?

Profession

*Currently or in the past have you worked as or do you perceive yourself as a...*

Public relations professional

Advertising professional

Media professional

Journalist

Editor

Blogger

Photographer

None of the above

Political affiliation measures

*In general, would you describe your political views as...*

Very liberal

Liberal

Moderate

Conservative

Very conservative

*In general, would you describe your political affiliation as...*

Very strong Democrat

Moderate Democrat

Democratic-leaning Independent

Independent

Republican-leaning Independent

Moderate Republican

Very strong Republican

Strength of ingroup association measures

*Please use the scale to answer the following four questions.*

*(1-7 scale from very little to very much)*

Compared to the other characteristics which define you, how much do you value your political party membership?

How strong a sense of belonging do you have when it comes to your political party?

How much do you like being defined by your political party?

How much pride do you take in your political party membership?

Behavioral measures

*Consumption of sugar-sweetened beverages*

How many sugar-sweetened beverages (such as sports drinks or soda) do you consume on average in a week?

*HPV vaccination (yes or no)*

Have you received the HPV vaccine?

Do you have a son or daughter that has received the HPV vaccine?

## Appendix D: Covariance Matrices

### Taxes, Experiment 2, All Supporters

	TR1	TR2	TR3	TR4	TR5	TR6
TR1	40.89					
TR2	26.61	25.94				
TR3	17.70	13.62	12.02			
TR4	19.64	16.25	11.91	21.10		
TR5	30.52	23.20	16.64	24.94	40.11	
TR6	29.91	24.64	17.70	25.46	35.69	44.57
C1	46.16	37.36	24.29	33.61	46.33	46.96
C2	16.61	16.41	10.69	17.59	24.70	25.36
C3	6.35	6.64	3.63	4.32	5.62	6.56
C4	24.35	20.69	14.10	16.19	29.55	30.64
C5	36.94	29.43	16.52	27.04	41.27	39.40
C6	64.11	46.47	32.19	50.63	69.66	69.65
HMP1	-0.55	-0.22	-0.37	-0.66	-0.63	-1.06
HMP2	0.09	0.15	0.06	-0.66	-0.22	-0.23
HMP3	-0.39	0.39	-0.29	-0.15	0.07	0.06
HMP4	0.21	0.56	-0.07	-0.05	0.56	0.55
LibCons	-0.29	-0.45	-0.22	-0.39	-0.49	-0.61
DemRep	-0.96	-0.69	-0.46	-0.56	-0.66	-1.31
Journ	-1.34	-0.56	-0.56	-0.66	-1.25	-1.21
Gender	0.66	0.37	0.07	-0.11	0.42	0.04
Age	2.46	0.51	1.50	1.63	1.15	3.61
Edu	0.15	-0.11	-0.16	0.13	0.16	-0.06
White	0.52	0.12	0.25	0.11	0.77	0.41
Income	-0.25	0.44	0.06	0.50	-0.07	-0.23
H1	0.15	-0.10	0.19	0.46	0.66	0.46
H2	-0.66	-0.40	-0.36	-0.40	-0.43	-0.19
H3	-0.44	0.15	-0.13	0.05	0.07	0.47
H4	0.16	0.06	-0.16	-0.37	-0.61	-0.19
H5	0.26	0.49	-0.09	0.61	0.69	1.03
SSBs	3.04	2.71	3.69	5.16	6.06	4.75
Hisp	0.27	-0.62	0.15	0.15	0.41	0.31
Prof	-0.17	-0.12	0.04	-0.03	-0.19	-0.51

	C1	C2	C3	C4	C5	C6
C1	163.52					
C2	76.33	93.45				
C3	20.75	24.52	10.60			
C4	72.55	58.92	18.35	71.44		
C5	102.85	67.84	18.63	70.82	121.23	
C6	173.21	101.62	26.57	105.89	160.36	321.65
HMP1	1.34	-0.18	0.20	-0.24	0.46	2.76
HMP2	0.76	-0.40	0.01	0.16	1.61	2.10
HMP3	2.19	0.56	-0.09	0.08	1.16	2.97
HMP4	2.24	1.67	0.17	1.11	1.54	3.30
LibCons	-0.70	0.12	0.00	-0.04	-0.70	-1.23
DemRep	-2.59	0.19	-0.17	-0.05	-1.38	-2.89
Journ	1.28	6.16	2.12	2.95	2.35	2.45
Gender	2.44	0.71	0.21	0.91	1.12	2.14
Age	9.17	0.21	-1.98	-3.32	-0.14	13.47
Edu	-0.48	-0.99	-0.46	-0.94	-0.55	-0.29
White	0.21	1.06	-0.05	0.85	1.35	1.57
Income	-2.19	-1.07	-0.32	-1.02	-1.36	0.21
M1	0.53	0.59	-0.03	0.32	-0.02	1.12
M2	-1.84	-0.21	0.19	0.26	-0.58	0.04
M3	-1.23	0.94	0.13	0.41	-0.09	-0.14
M4	-0.09	-0.81	-0.21	-0.44	-0.02	0.20
M5	1.84	0.86	-0.15	0.69	0.97	3.12
SSBs	10.19	2.49	0.12	2.24	3.29	12.13
Hisp	-1.21	-0.35	-0.46	-1.39	-1.84	-0.17
Prof	1.34	0.30	0.10	1.00	-0.05	1.93
	HMP1	HMP2	HMP3	HMP4	LibCons	DemRep
HMP1	2.98					
HMP2	1.92	2.66				
HMP3	1.61	1.50	2.73			
HMP4	1.28	0.92	1.83	2.66		
LibCons	-0.30	-0.22	-0.32	-0.18	0.85	
DemRep	-0.28	-0.15	-0.31	-0.20	0.82	1.89
Journ	-0.05	-0.02	-0.01	0.07	0.10	0.18
Gender	-0.17	-0.07	0.04	-0.03	0.01	0.05
Age	-1.38	0.14	-0.30	0.34	1.06	1.56
Edu	0.28	0.24	0.19	0.23	-0.16	-0.14
White	0.31	0.40	0.25	0.28	-0.11	0.30
Income	0.10	0.13	-0.03	0.17	0.13	0.18
M1	0.21	0.16	0.29	0.35	-0.10	-0.20
M2	-0.36	-0.38	-0.55	-0.29	0.09	0.16
M3	-0.48	-0.35	-0.27	0.10	0.09	0.10
M4	-0.06	-0.01	0.13	0.11	-0.08	-0.22
M5	0.21	0.06	0.22	0.39	-0.16	-0.18
SSBs	-0.14	-0.60	-0.36	0.22	-0.06	-0.57
Hisp	-0.17	0.07	-0.02	-0.15	0.08	0.27
Prof	0.30	-0.18	0.21	0.25	-0.04	0.06

	Journ	Gender	Age	Edu	White	Income
	-----	-----	-----	-----	-----	-----
Journ	1.00					
Gender	0.07	1.00				
Age	-0.25	1.33	122.46			
Edu	-0.23	-0.21	1.32	1.76		
White	0.19	0.04	1.75	-0.06	1.00	
Income	-0.28	-0.03	1.32	0.57	-0.21	4.28
M1	-0.06	-0.22	0.91	0.17	0.13	0.23
M2	0.06	-0.01	3.81	-0.17	-0.23	-0.08
M3	0.07	-0.06	1.45	-0.24	-0.19	0.18
M4	-0.02	-0.12	-0.29	0.11	-0.05	0.07
M5	-0.20	0.21	1.04	0.21	0.10	0.41
SSBs	-0.54	-0.68	9.78	-0.99	-0.07	-1.39
Hisp	-0.10	0.17	2.35	-0.10	0.07	0.26
Prof	-0.03	-0.06	-2.97	-0.12	-0.08	-0.17

	M1	M2	M3	M4	M5	SSBs
	-----	-----	-----	-----	-----	-----
M1	1.20					
M2	0.03	2.22				
M3	0.23	1.17	2.17			
M4	0.16	0.23	0.17	1.29		
M5	0.16	0.35	0.37	0.53	2.20	
SSBs	0.07	-0.79	-0.07	1.05	1.36	62.66
Hisp	0.04	-0.18	-0.36	0.12	-0.11	0.88
Prof	0.12	-0.11	-0.23	0.10	-0.25	-0.64

	Hisp	Prof
	-----	-----
Hisp	1.00	
Prof	-0.22	1.00

Taxes, Experiment 2, All Opponents

	TR1	TR2	TR3	TR4	TR5	TR6
TR1	41.53					
TR2	28.66	28.30				
TR3	19.12	14.84	13.61			
TR4	19.90	16.48	12.91	22.33		
TR5	30.94	24.11	18.74	26.34	41.63	
TR6	32.17	28.97	18.94	24.08	35.84	47.30
C1	37.16	31.93	26.68	30.07	37.96	41.18
C2	10.14	13.30	10.00	9.61	13.93	15.89
C3	4.84	5.53	3.90	4.17	6.37	7.15
C4	22.03	21.54	15.90	17.65	24.26	26.26
C5	30.40	29.11	21.69	26.71	38.54	40.58
C6	51.90	46.19	34.41	40.19	55.10	60.39
HMP1	0.06	0.03	-0.13	-0.59	-0.47	-0.63
HMP2	-0.90	-0.67	-0.69	-1.34	-1.49	-1.49
HMP3	-0.70	-0.34	-0.46	-0.96	-1.42	-1.00
HMP4	-0.80	-0.28	-0.45	-0.69	-1.15	-0.80
LibCons	-0.04	0.19	0.17	-0.15	-0.35	-0.05
DemRep	-0.13	0.17	0.13	0.07	-0.30	-0.27
Journ	-1.98	-1.16	-0.74	-1.22	-1.35	-1.82
Gender	-0.12	-0.06	0.31	-0.14	-0.42	-0.29
Age	2.33	3.08	-0.92	-3.52	-2.43	-0.06
Edu	0.97	0.51	0.26	-0.12	0.10	0.19
White	-0.79	0.02	0.12	0.05	-0.10	-0.55
Income	0.03	-0.04	-0.14	-0.41	-0.54	-0.39
H1	0.87	0.45	0.31	0.59	0.87	0.60
H2	1.37	1.03	0.86	0.97	1.27	1.20
H3	0.35	0.06	0.20	0.53	0.50	0.28
H4	1.08	0.71	0.54	0.39	0.80	0.62
H5	0.48	0.41	0.30	0.18	0.28	0.23
SSBs	-3.88	-4.28	-1.14	-0.82	-1.57	-2.74
Hisp	-0.16	-0.27	-0.96	-0.88	-0.59	-0.45
Prof	0.74	0.31	0.21	-0.12	0.35	0.25



	C1	C2	C3	C4	C5	C6
	-----	-----	-----	-----	-----	-----
C1	187.83					
C2	82.84	103.14				
C3	27.98	27.35	11.14			
C4	82.87	63.05	23.10	83.10		
C5	105.01	75.41	26.13	81.03	124.07	
C6	176.29	95.10	34.22	117.58	159.90	332.61
HMP1	-0.92	-1.12	-0.16	-1.34	-1.19	-3.19
HMP2	-1.83	-1.38	-0.49	-2.22	-1.97	-3.11
HMP3	-0.17	0.61	0.02	-0.92	-0.22	-0.79
HMP4	-0.61	0.29	-0.11	-0.77	-0.04	-1.64
LibCons	-0.07	-0.53	-0.16	-0.41	-1.22	-1.70
DemRep	0.29	-1.09	-0.53	-1.53	-2.00	-2.71
Journ	1.68	5.97	1.73	2.84	2.55	2.06
Gender	1.44	0.10	0.15	0.84	0.48	2.59
Age	-10.82	-6.45	-3.36	-6.98	-19.22	-15.63
Edu	-0.68	-0.88	-0.51	-0.60	-0.42	-0.03
White	0.46	-0.37	-0.04	0.37	-0.81	0.23
Income	-0.49	-1.46	-0.65	-1.08	-0.92	-0.31
M1	0.09	-0.32	-0.13	-0.25	0.04	0.12
M2	2.10	-0.04	0.05	0.17	0.79	2.53
M3	-0.53	-0.22	-0.24	-0.83	-0.62	-1.15
M4	1.26	1.11	0.22	1.04	0.91	1.87
M5	0.33	-0.63	-0.51	-0.51	-0.19	1.87
SSBs	5.24	-0.37	0.68	1.17	1.23	1.99
Hisp	-1.93	-2.21	-0.45	-1.60	-1.89	-2.55
Prof	0.52	-0.09	-0.26	-0.79	-0.95	-1.54
	HMP1	HMP2	HMP3	HMP4	LibCons	DemRep
	-----	-----	-----	-----	-----	-----
HMP1	2.98					
HMP2	2.11	2.77				
HMP3	2.00	2.10	3.17			
HMP4	1.89	2.09	2.58	3.00		
LibCons	0.07	0.15	0.11	0.08	1.08	
DemRep	0.08	0.22	0.05	0.03	0.92	1.88
Journ	-0.02	-0.02	0.12	0.06	-0.07	-0.20
Gender	0.03	0.01	0.08	0.07	-0.09	-0.20
Age	1.83	2.50	1.14	1.25	2.41	1.90
Edu	-0.19	-0.04	-0.03	-0.19	0.06	0.24
White	-0.09	-0.04	-0.25	-0.20	0.16	0.44
Income	-0.33	-0.01	-0.18	-0.23	0.48	0.58
M1	0.00	-0.06	-0.05	0.07	-0.02	0.04
M2	-0.01	-0.09	-0.19	0.08	0.12	-0.08
M3	0.00	-0.10	-0.10	0.04	0.06	-0.09
M4	-0.11	-0.05	-0.09	-0.08	0.02	-0.02
M5	-0.29	0.01	-0.08	-0.03	0.22	0.27
SSBs	0.39	0.72	-0.70	0.10	0.47	0.74
Hisp	0.22	0.39	0.20	0.15	0.24	0.19
Prof	-0.04	-0.18	-0.18	-0.23	-0.20	-0.21

	Journ	Gender	Age	Edu	White	Income
	-----	-----	-----	-----	-----	-----
Journ	1.00					
Gender	0.04	1.00				
Age	-0.03	1.49	138.10			
Edu	-0.02	-0.02	2.59	1.91		
White	0.09	-0.14	1.87	-0.09	1.00	
Income	0.14	0.09	3.53	1.04	0.07	4.82
M1	-0.06	-0.14	0.66	0.12	-0.05	0.37
M2	-0.19	0.18	2.78	-0.08	-0.15	0.32
M3	-0.15	-0.04	2.78	-0.06	-0.07	0.36
M4	-0.09	0.01	1.27	-0.04	-0.05	0.08
M5	-0.20	-0.07	2.05	0.31	0.16	0.88
SSBs	-0.95	-0.52	-3.69	-2.08	0.14	-1.61
Hisp	-0.05	-0.31	2.95	0.02	0.33	0.44
Prof	-0.07	-0.10	0.47	0.15	0.04	-0.34

	M1	M2	M3	M4	M5	SSBs
	-----	-----	-----	-----	-----	-----
M1	1.12					
M2	0.26	2.44				
M3	0.19	1.30	2.42			
M4	0.03	0.45	0.38	1.47		
M5	0.32	0.64	0.48	0.61	2.32	
SSBs	-1.50	2.26	2.28	1.67	0.68	102.37
Hisp	0.13	-0.27	-0.28	-0.22	-0.02	1.56
Prof	0.06	0.14	0.16	0.30	0.15	-1.57

	Hisp	Prof
	-----	-----
Hisp	1.00	
Prof	-0.13	1.00

Taxes, Experiment 2, More Extreme Supporters

	TR1	TR2	TR3	TR4	TR5	TR6
	-----	-----	-----	-----	-----	-----
TR1	45.04					
TR2	29.93	27.62				
TR3	20.34	15.80	13.80			
TR4	21.90	17.61	13.55	24.21		
TR5	32.85	25.27	18.22	28.26	44.53	
TR6	32.69	26.16	19.91	29.11	40.69	49.61
HMP1	-0.49	0.02	-0.27	-1.30	-1.17	-1.77
HMP2	0.08	-0.07	0.01	-1.52	-0.79	-1.09
HMP3	-1.22	-0.14	-0.60	-0.69	-0.55	-0.60
HMP4	-1.06	0.06	-0.28	-0.46	-0.23	-0.21
LibCons	-0.28	-0.50	-0.18	-0.35	-0.40	-0.60
DemRep	-0.79	-0.79	-0.66	-0.58	-0.81	-1.32
Journ	-0.83	-0.29	-0.58	-0.38	-0.94	-0.52
Gender	1.10	0.68	0.13	-0.14	0.34	-0.11
Age	2.11	3.11	3.99	3.95	3.81	8.55
Edu	-0.81	-0.64	-0.63	-0.28	-0.70	-0.93
White	0.71	0.32	0.18	0.13	1.01	0.41
Income	-0.52	-0.11	0.10	0.15	-0.36	-1.07
M1	-0.18	-0.06	0.09	0.75	1.22	0.82
M2	-0.66	-0.57	-0.44	-0.34	-0.50	0.16
M3	-0.40	0.06	-0.14	0.48	0.43	1.04
M4	0.13	-0.19	-0.22	-0.52	-0.72	-0.47
M5	0.14	0.51	-0.02	0.99	1.17	0.99
SSBs	6.75	4.85	6.91	8.72	11.05	9.76
Hisp	0.74	-0.45	0.30	0.38	0.91	0.50
Prof	-0.52	0.01	0.07	-0.13	-0.57	-0.63

	HMP1	HMP2	HMP3	HMP4	LibCons	DemRep
	-----	-----	-----	-----	-----	-----
HMP1	2.85					
HMP2	1.75	2.67				
HMP3	1.78	1.54	3.03			
HMP4	1.66	1.13	2.23	2.82		
LibCons	-0.28	-0.17	-0.36	-0.21	0.93	
DemRep	-0.11	0.02	-0.30	-0.08	0.87	1.93
Journ	0.23	0.19	0.03	0.17	0.10	0.11
Gender	-0.25	-0.09	-0.05	-0.06	0.12	0.11
Age	-0.24	1.69	0.01	0.85	0.47	0.15
Edu	0.12	0.16	0.26	0.19	-0.14	-0.03
White	0.50	0.44	0.16	0.38	-0.06	0.22
Income	-0.29	-0.02	0.05	0.22	0.21	0.48
M1	0.19	0.18	0.47	0.61	-0.12	-0.29
M2	-0.29	-0.40	-0.58	-0.32	0.08	0.06

	H1P1	HMP2	HMP3	HMP4	LibCons	DemRep
	-----	-----	-----	-----	-----	-----
M3	-0.44	-0.35	-0.26	0.06	-0.04	-0.06
M4	-0.24	-0.12	0.04	0.14	-0.07	-0.16
M5	-0.08	-0.21	0.14	0.43	-0.18	-0.09
SSBs	-0.06	-1.09	-0.64	0.09	-0.53	-1.38
Hisp	-0.20	0.10	0.01	-0.09	0.06	0.30
Prof	0.35	-0.29	0.15	0.19	0.14	0.18

	Journ	Gender	Age	Edu	White	Income
	-----	-----	-----	-----	-----	-----
Journ	1.00					
Gender	0.14	1.00				
Age	0.33	0.89	120.10			
Edu	-0.14	-0.17	1.79	1.82		
White	0.23	-0.11	1.05	0.06	1.00	
Income	-0.12	0.16	1.75	0.34	0.00	4.48
M1	-0.06	-0.28	0.61	0.22	-0.04	0.43
M2	-0.07	-0.05	4.24	-0.07	-0.10	-0.16
M3	-0.12	0.00	1.58	-0.12	-0.12	0.17
M4	0.04	-0.10	-0.14	0.06	-0.06	-0.16
M5	-0.28	0.16	1.60	0.36	0.03	0.48
SSBs	-0.43	-0.87	9.49	-1.67	0.20	-3.23
Hisp	0.06	0.05	2.86	-0.03	0.17	0.23
Prof	0.07	-0.11	-4.67	-0.11	-0.33	0.06

	M1	M2	M3	M4	M5	SSBs
	-----	-----	-----	-----	-----	-----
M1	1.35					
M2	0.04	2.35				
M3	0.24	1.06	2.09			
M4	0.22	0.27	0.18	1.22		
M5	0.19	0.39	0.46	0.42	2.28	
SSBs	0.30	-1.45	-1.16	1.59	2.26	85.67
Hisp	0.04	-0.28	-0.45	0.07	-0.15	0.71
Prof	0.06	-0.04	-0.13	0.17	-0.16	-0.24

	Hisp	Prof
	-----	-----
Hisp	1.00	
Prof	-0.34	1.00

Taxes, Experiment 2, More Extreme Opponents

	TR1	TR2	TR3	TR4	TR5	TR6
	-----	-----	-----	-----	-----	-----
TR1	45.92					
TR2	31.68	30.16				
TR3	21.23	16.78	14.94			
TR4	22.05	18.61	14.15	24.64		
TR5	34.47	27.04	20.66	29.26	46.25	
TR6	35.16	32.12	20.66	27.15	39.83	52.02
HMP1	-0.23	-0.08	-0.25	-0.59	-0.64	-1.00
HMP2	-1.29	-0.91	-0.95	-1.48	-1.81	-1.99
HMP3	-1.13	-0.61	-0.71	-0.92	-1.61	-1.47
HMP4	-1.13	-0.53	-0.59	-0.50	-1.23	-1.19
LibCons	0.16	0.36	0.33	0.01	-0.24	0.13
DemRep	0.17	0.28	0.35	0.22	-0.09	-0.09
Journ	-2.40	-1.28	-0.98	-1.49	-1.75	-2.10
Gender	-0.22	-0.26	0.29	-0.14	-0.60	-0.47
Age	3.11	2.97	0.01	-2.61	-3.41	0.39
Edu	1.32	0.60	0.49	0.22	0.53	0.51
White	-0.66	0.11	0.29	0.11	0.15	-0.42
Income	0.37	0.27	-0.15	-0.47	-0.48	-0.39
H1	1.16	0.61	0.43	0.79	1.14	0.80
H2	1.73	1.41	1.08	1.20	1.44	1.53
H3	0.75	0.56	0.40	0.83	0.73	0.46
H4	0.84	0.50	0.32	0.09	0.37	0.30
H5	0.39	0.31	0.26	0.13	0.35	0.04
SSBs	-5.23	-4.30	-2.73	-3.27	-3.72	-3.86
Hisp	0.02	-0.19	-1.02	-0.93	-0.63	-0.51
Prof	0.90	0.37	0.27	-0.10	0.51	0.47
	HMP1	HMP2	HMP3	HMP4	LibCons	DemRep
	-----	-----	-----	-----	-----	-----
HMP1	3.13					
HMP2	2.16	2.90				
HMP3	2.03	2.14	3.27			
HMP4	1.93	2.15	2.60	3.11		
LibCons	0.13	0.21	0.14	0.09	1.09	
DemRep	0.16	0.23	0.04	0.03	0.90	1.85
Journ	0.05	0.03	0.24	0.18	-0.05	-0.20
Gender	0.00	0.05	0.08	0.07	-0.07	-0.18
Age	1.80	3.10	1.66	1.87	2.98	2.60
Edu	-0.30	-0.14	-0.11	-0.30	0.11	0.27
White	-0.02	0.00	-0.24	-0.21	0.21	0.46
Income	-0.38	-0.03	-0.14	-0.17	0.61	0.56
H1	-0.06	-0.12	-0.07	0.05	-0.02	0.09
H2	0.02	-0.05	-0.04	0.24	0.17	-0.03

	HMP1	HMP2	HMP3	HMP4	LibCons	DemRep
	-----	-----	-----	-----	-----	-----
M3	0.10	-0.06	0.02	0.17	0.09	-0.05
M4	-0.03	0.03	0.08	0.10	0.02	-0.03
M5	-0.29	0.02	-0.06	-0.02	0.24	0.23
SSBs	0.83	1.35	-0.48	0.63	0.51	0.53
Hisp	0.22	0.45	0.20	0.14	0.22	0.17
Prof	-0.09	-0.18	-0.21	-0.26	-0.24	-0.27
	Journ	Gender	Age	Edu	White	Income
	-----	-----	-----	-----	-----	-----
Journ	1.00					
Gender	0.07	1.00				
Age	0.18	0.68	136.44			
Edu	-0.02	-0.05	2.06	1.93		
White	0.06	-0.15	2.34	-0.14	1.00	
Income	0.16	0.13	2.58	1.12	0.12	4.87
M1	-0.07	-0.19	0.70	0.22	-0.01	0.40
M2	-0.14	0.17	2.44	-0.11	-0.02	0.23
M3	-0.17	-0.02	2.91	-0.04	0.09	0.31
M4	-0.13	-0.03	1.32	0.03	0.00	0.03
M5	-0.08	-0.14	2.41	0.30	0.26	0.91
SSBs	-0.48	-0.86	-0.50	-2.01	0.82	-1.74
Hisp	-0.04	-0.26	3.22	-0.01	0.35	0.48
Prof	-0.13	-0.13	0.70	0.16	-0.01	-0.23
	M1	M2	M3	M4	M5	SSBs
	-----	-----	-----	-----	-----	-----
M1	1.24					
M2	0.27	2.44				
M3	0.19	1.37	2.51			
M4	-0.02	0.46	0.40	1.42		
M5	0.34	0.60	0.51	0.56	2.28	
SSBs	-1.99	2.40	2.69	1.47	0.42	108.10
Hisp	0.19	-0.28	-0.24	-0.05	0.10	1.81
Prof	0.05	0.18	0.24	0.36	0.16	-1.65
	Hisp	Prof				
	-----	-----				
Hisp	1.00					
Prof	-0.13	1.00				

HPV, Experiment 2, All Supporters

	TR1	TR2	TR3	TR4	TR5	TR6
	-----	-----	-----	-----	-----	-----
TR1	12.59					
TR2	11.26	15.05				
TR3	10.37	10.48	13.35			
TR4	9.17	9.56	10.40	14.02		
TR5	14.31	14.12	15.24	16.32	27.64	
TR6	14.08	13.82	14.56	15.25	22.88	29.10
C1	40.06	45.77	41.84	35.63	56.95	60.69
C2	7.05	14.01	11.82	8.02	13.81	13.33
C3	1.68	3.26	2.33	1.91	3.07	3.27
C4	11.76	15.62	13.74	14.83	19.67	20.08
C5	18.27	22.39	21.45	18.30	29.11	29.55
C6	23.22	25.58	26.89	23.69	35.53	36.53
HNP1	-0.13	-0.06	0.03	0.08	-0.53	-0.02
HNP2	0.00	0.10	0.24	-0.18	-0.15	0.14
HNP3	-0.52	-0.24	-0.16	-0.01	-0.42	-0.13
HNP4	0.06	0.38	0.53	0.02	-0.05	0.52
LibCons	-0.05	0.13	-0.12	-0.04	-0.07	0.12
DemRep	0.08	0.09	-0.12	0.02	-0.05	0.34
Journ	-1.04	-0.60	-0.71	-0.91	-1.18	-1.52
Gender	0.32	0.18	0.25	0.15	0.36	0.09
Age	3.84	2.95	4.85	1.58	4.06	5.67
Edu	-0.10	-0.15	0.05	-0.09	0.22	0.08
White	-0.30	-0.11	-0.06	0.02	0.00	0.09
Income	-0.24	-0.52	-0.21	-0.29	-0.27	-0.45
M1	0.07	0.12	0.06	0.06	-0.13	-0.11
M2	0.40	0.73	0.41	0.76	0.70	1.20
M3	0.52	0.85	0.56	0.65	0.54	0.83
M4	0.66	0.47	0.57	0.48	0.68	0.76
M5	0.53	0.72	0.53	0.18	0.42	0.41
	C1	C2	C3	C4	C5	C6
	-----	-----	-----	-----	-----	-----
C1	528.71					
C2	195.29	185.90				
C3	36.05	30.26	6.85			
C4	145.05	86.26	17.51	84.26		
C5	192.85	103.66	19.53	78.56	126.58	
C6	243.80	103.22	19.80	88.72	120.31	192.89
HNP1	-1.94	0.36	-0.03	0.45	-0.22	-0.61
HNP2	-0.18	2.56	0.51	0.50	1.22	0.88
HNP3	-2.55	0.37	0.00	0.58	0.04	-0.81
HNP4	1.70	3.19	0.49	0.66	1.91	1.60

	C1	C2	C3	C4	C5	C6
LibCons	1.12	0.12	0.07	0.66	0.26	0.32
DemRep	0.12	-1.15	-0.17	-0.40	-0.65	-0.62
Journ	4.22	9.91	1.76	2.96	3.23	1.27
Gender	1.97	0.22	-0.06	0.02	0.67	0.90
Age	12.36	2.57	0.46	0.69	7.66	15.96
Edu	-4.65	-2.60	-0.36	-1.73	-1.26	-2.79
White	-1.21	-0.55	-0.06	0.20	-0.15	0.71
Income	-2.43	-2.66	-0.34	-1.07	-0.92	-1.36
H1	-0.66	-0.60	-0.03	-0.04	-0.60	0.19
H2	1.76	0.67	0.31	0.62	1.75	1.46
H3	4.33	2.67	0.50	1.76	1.67	1.67
H4	1.90	1.56	0.26	0.72	1.07	0.66
H5	2.53	1.42	0.33	0.36	1.59	1.19
	HMP1	HMP2	HMP3	HMP4	LibCons	DemRep
HMP1	2.56					
HMP2	1.46	2.60				
HMP3	1.53	1.44	2.64			
HMP4	0.66	0.66	1.21	2.50		
LibCons	-0.19	-0.26	-0.21	-0.14	0.65	
DemRep	-0.06	-0.19	-0.19	-0.09	0.72	1.74
Journ	0.05	0.25	0.13	0.13	-0.02	-0.06
Gender	0.27	0.06	0.09	-0.05	-0.10	-0.19
Age	-0.14	0.10	0.31	-1.03	-0.06	-1.22
Edu	0.00	0.14	0.07	-0.15	-0.06	0.01
White	0.30	0.26	0.17	-0.02	-0.06	0.11
Income	-0.37	-0.37	-0.06	-0.33	0.15	0.03
H1	-0.06	0.04	0.09	0.11	-0.04	-0.03
H2	-0.32	-0.14	-0.06	0.23	0.23	0.13
H3	-0.07	-0.16	-0.13	0.31	0.27	0.23
H4	-0.06	-0.06	-0.06	0.19	-0.04	-0.13
H5	-0.09	0.00	0.04	0.27	0.04	-0.15
	Journ	Gender	Age	Edu	White	Income
Journ	1.00					
Gender	-0.03	1.00				
Age	0.12	0.51	105.94			
Edu	-0.03	-0.02	3.35	1.74		
White	0.02	0.02	1.22	-0.04	1.00	
Income	-0.17	-0.10	3.36	0.93	-0.27	4.92
H1	-0.07	-0.24	1.13	0.10	0.03	0.25
H2	0.00	0.10	2.17	0.03	-0.26	0.34
H3	0.04	0.06	1.64	0.02	-0.16	0.36
H4	0.06	-0.07	1.34	0.01	-0.06	0.00
H5	0.07	-0.11	1.62	0.32	0.05	0.43



	m1	m2	m3	m4	m5
m1	0.86				
m2	0.24	2.18			
m3	0.18	1.50	2.29		
m4	0.09	0.37	0.37	1.41	
m5	0.27	0.29	0.32	0.59	2.10

HPV, Experiment 2, All Opponents

	TR1	TR2	TR3	TR4	TR5	TR6
TR1	14.72					
TR2	12.60	14.85				
TR3	11.50	11.33	13.29			
TR4	10.64	10.04	11.26	13.15		
TR5	15.05	15.52	15.76	16.83	25.65	
TR6	16.50	15.85	14.12	15.13	20.72	27.33
C1	41.93	43.60	42.59	40.26	53.19	57.99
C2	3.25	10.91	6.10	6.10	10.36	2.98
C3	0.88	2.65	2.23	1.48	2.06	1.59
C4	14.76	20.99	15.22	15.30	22.53	20.98
C5	19.39	24.19	20.45	21.78	30.00	25.94
C6	28.88	29.37	30.03	31.68	41.23	41.21
HMP1	-0.71	-0.74	-0.75	-1.38	-1.35	-1.32
HMP2	-0.71	-0.64	-0.51	-1.20	-1.24	-1.42
HMP3	-1.20	-1.49	-1.18	-1.21	-1.66	-1.68
HMP4	-0.92	-0.97	-0.66	-0.67	-0.63	-1.40
LibCons	-0.07	-0.11	-0.40	-0.76	-0.61	-0.50
DemRep	0.24	0.05	-0.26	-0.73	-0.74	-0.23
Journ	-1.40	-0.88	-0.79	-0.83	-1.23	-1.99
Gender	0.38	0.41	0.24	0.48	0.58	0.49
Age	6.85	7.24	5.48	3.80	7.11	8.74
Edu	0.23	0.63	0.49	0.54	0.99	0.59
White	-1.05	-0.69	-0.76	-0.82	-1.03	-0.89
Income	0.28	0.64	0.75	0.38	1.22	0.57
H1	0.12	-0.23	0.07	-0.01	-0.43	-0.19
H2	0.74	0.49	1.02	0.79	0.74	1.45
H3	0.31	0.02	0.47	0.47	0.10	1.21
H4	0.18	0.15	0.24	0.32	0.39	0.66
H5	-0.98	-0.87	-0.76	-0.83	-1.00	-0.52

	C1	C2	C3	C4	C5	C6
C1	466.67					
C2	109.11	152.16				
C3	20.27	18.95	6.27			
C4	117.38	62.31	14.49	86.19		
C5	147.92	64.68	13.71	87.12	124.36	
C6	208.45	56.17	12.19	77.81	102.78	181.96
HMP1	-6.23	-0.34	-0.42	-3.68	-4.16	-5.62
HMP2	-2.60	-1.19	-0.40	-3.64	-4.27	-3.21
HMP3	-3.21	-2.63	-0.75	-4.16	-5.02	-3.58
HMP4	-1.75	-2.75	-0.51	-2.91	-4.42	-1.87
LibCons	0.00	0.71	-0.15	-1.16	-1.70	-1.49
DemRep	2.70	0.89	0.14	-0.90	-0.78	0.06
Journ	0.43	7.90	1.41	2.38	1.96	1.03
Gender	1.45	0.79	0.30	1.42	1.85	1.12
Age	27.81	4.64	-1.15	3.04	12.69	7.31
Edu	1.37	2.15	0.23	1.17	0.65	0.27
White	-2.03	1.06	0.46	-0.23	-1.34	-1.35
Income	2.65	-1.55	0.08	1.39	-0.72	-0.93
H1	-1.03	-1.57	-0.29	-1.04	-0.75	-1.51
H2	1.67	-0.12	0.08	-0.27	-1.23	0.45
H3	1.52	-0.41	0.06	0.62	0.37	2.31
H4	-1.38	-0.99	-0.16	-0.53	-0.26	0.82
H5	-2.54	-0.29	-0.09	-1.19	-1.06	-1.93
	HMP1	HMP2	HMP3	HMP4	LibCons	DemRep
HMP1	3.13					
HMP2	2.16	2.91				
HMP3	2.07	2.45	3.52			
HMP4	1.63	2.03	2.65	2.95		
LibCons	0.10	0.13	0.08	0.10	1.06	
DemRep	0.16	0.21	0.21	0.20	0.92	1.65
Journ	-0.10	-0.02	-0.02	0.08	0.00	0.03
Gender	0.20	0.37	0.34	0.39	-0.09	0.02
Age	1.65	1.43	0.26	0.70	1.60	0.72
Edu	-0.05	0.15	-0.06	0.07	0.05	0.04
White	-0.27	-0.32	0.16	0.04	0.18	0.33
Income	0.16	0.40	0.00	0.02	0.11	0.13
H1	0.16	-0.02	0.09	-0.16	-0.06	-0.11
H2	-0.22	0.07	-0.20	-0.12	0.05	-0.18
H3	-0.51	-0.17	-0.52	-0.35	-0.20	-0.20
H4	0.11	0.13	0.13	0.06	-0.19	-0.27
H5	0.32	0.20	0.19	0.03	0.09	-0.02

	Journ	Gender	Age	Edu	White	Income
	-----	-----	-----	-----	-----	-----
Journ	1.00					
Gender	0.06	1.00				
Age	-0.51	2.01	132.95			
Edu	0.07	0.06	2.70	1.50		
White	0.29	0.02	-0.75	-0.11	1.00	
Income	0.02	0.06	1.10	0.58	0.20	3.95
M1	-0.06	-0.22	-0.18	0.00	-0.14	0.09
M2	-0.13	-0.01	4.88	0.20	-0.21	0.15
M3	-0.14	-0.01	1.27	0.01	-0.18	-0.10
M4	-0.02	0.03	1.67	-0.05	-0.08	-0.07
M5	-0.03	0.01	3.96	0.09	0.17	0.24
	M1	M2	M3	M4	M5	
	-----	-----	-----	-----	-----	
M1	1.03					
M2	0.15	2.25				
M3	0.10	1.30	2.29			
M4	0.03	0.47	0.41	1.36		
M5	0.30	0.41	0.37	0.33	1.94	

HPV, Experiment 2, More Extreme Supporters

	TR1	TR2	TR3	TR4	TR5	TR6
	-----	-----	-----	-----	-----	-----
TR1	13.70					
TR2	12.52	16.97				
TR3	11.54	11.65	15.03			
TR4	9.76	10.42	11.43	15.19		
TR5	15.51	15.51	17.13	17.74	30.21	
TR6	15.72	15.30	16.50	16.91	25.43	30.73
C1	44.35	50.94	47.75	40.06	62.57	64.96
C2	8.15	15.96	13.86	10.18	15.42	14.93
C3	2.01	3.72	2.76	2.38	3.51	3.53
C4	12.55	17.03	15.69	16.94	21.27	21.70
C5	21.08	25.45	25.11	20.99	32.86	32.15
C6	25.31	28.19	31.39	26.53	38.95	41.02
HMP1	-0.20	-0.20	-0.11	-0.14	-0.79	-0.15
HMP2	0.09	0.12	0.28	-0.26	-0.07	0.24
HMP3	-0.70	-0.48	-0.36	-0.17	-0.68	-0.54
HMP4	-0.07	0.27	0.48	-0.16	-0.10	0.23
LibCons	-0.01	0.20	0.05	0.05	0.02	0.19
DemRep	0.20	0.22	0.06	0.06	0.10	0.21
Journ	-1.03	-0.47	-0.70	-0.74	-1.11	-1.41
Gender	0.37	0.27	0.25	0.14	0.45	0.11
Age	4.93	3.24	5.23	1.56	4.86	6.32
Edu	-0.03	-0.17	0.01	-0.16	0.28	-0.03
White	-0.26	-0.10	0.11	0.11	0.05	0.19
Income	-0.68	-0.98	-0.60	-0.77	-0.81	-1.13
H1	-0.05	0.10	-0.04	-0.06	-0.24	-0.22
H2	0.35	0.73	0.36	0.66	0.65	0.96
H3	0.45	0.87	0.58	0.54	0.39	0.47
H4	0.66	0.47	0.53	0.39	0.67	0.73
H5	0.63	0.98	0.72	0.25	0.58	0.73
	C1	C2	C3	C4	C5	C6
	-----	-----	-----	-----	-----	-----
C1	568.90					
C2	203.39	196.18				
C3	39.04	32.91	7.67			
C4	154.27	94.80	19.40	91.42		
C5	207.37	112.23	21.62	86.29	138.40	
C6	265.49	113.71	22.56	96.05	130.48	207.83
HMP1	-2.54	0.36	-0.02	0.75	-0.44	-1.14
HMP2	-0.25	2.86	0.58	0.66	1.17	1.03
HMP3	-3.85	0.21	-0.09	0.47	-0.55	-1.67
HMP4	0.72	3.56	0.51	0.56	1.66	1.45

	C1	C2	C3	C4	C5	C6
	-----	-----	-----	-----	-----	-----
LibCons	1.65	0.39	0.09	0.69	0.16	0.26
DemRep	0.04	-1.04	-0.19	-0.48	-1.32	-0.89
Journ	4.41	10.29	1.93	3.60	3.59	1.74
Gender	1.91	0.50	-0.02	0.43	1.21	0.99
Age	15.92	3.55	0.08	-1.12	8.38	16.61
Edu	-4.44	-2.66	-0.39	-1.93	-0.86	-2.61
White	-1.11	-0.01	-0.01	0.30	-0.07	0.64
Income	-4.04	-3.73	-0.44	-1.72	-1.70	-2.42
N1	-0.68	-0.75	0.02	0.09	-0.77	0.40
N2	1.25	0.94	0.23	0.66	1.56	1.55
N3	5.17	3.08	0.45	1.90	2.09	2.15
N4	2.72	2.07	0.38	1.06	1.50	1.41
N5	4.21	2.37	0.51	0.73	2.50	2.26
	HMP1	HMP2	HMP3	HMP4	LibCons	DemRep
	-----	-----	-----	-----	-----	-----
HMP1	2.76					
HMP2	1.44	2.97				
HMP3	1.50	1.36	2.78			
HMP4	0.53	0.78	1.13	2.56		
LibCons	-0.14	-0.27	-0.17	-0.11	0.85	
DemRep	-0.06	-0.24	-0.16	-0.05	0.72	1.75
Journ	0.08	0.27	0.17	0.13	0.03	-0.04
Gender	0.29	0.06	0.08	-0.09	-0.02	-0.15
Age	-0.15	0.33	0.54	-1.02	-0.27	-1.56
Edu	0.03	0.25	0.15	-0.14	-0.06	0.00
White	0.38	0.30	0.18	0.05	-0.10	0.12
Income	-0.37	-0.25	0.05	-0.37	0.15	0.06
N1	-0.08	0.05	0.11	0.11	-0.05	-0.04
N2	-0.43	-0.20	-0.12	0.24	0.20	0.04
N3	-0.16	-0.21	-0.19	0.31	0.24	0.21
N4	-0.06	-0.08	-0.06	0.15	0.00	-0.09
N5	-0.05	0.07	0.11	0.27	0.03	-0.13

	Journ	Gender	Age	Edu	White	Income
	-----	-----	-----	-----	-----	-----
Journ	1.00					
Gender	-0.04	1.00				
Age	0.20	1.19	107.86			
Edu	-0.03	0.00	3.26	1.78		
White	0.08	0.01	1.28	0.01	1.00	
Income	-0.10	-0.03	3.34	1.10	-0.12	5.25
M1	-0.07	-0.24	1.14	0.14	0.01	0.23
M2	0.00	0.17	1.40	0.07	-0.26	0.40
M3	0.05	0.14	1.46	0.00	-0.10	0.44
M4	0.10	-0.09	1.27	-0.01	-0.08	-0.08
M5	0.07	-0.15	2.49	0.40	0.05	0.51
	M1	M2	M3	M4	M5	
	-----	-----	-----	-----	-----	
M1	0.83					
M2	0.26	2.23				
M3	0.19	1.53	2.35			
M4	0.04	0.39	0.41	1.45		
M5	0.25	0.31	0.33	0.55	2.14	

HPV, Experiment 2, More Extreme Opponents

	TR1	TR2	TR3	TR4	TR5	TR6
	-----	-----	-----	-----	-----	-----
TR1	17.43					
TR2	14.23	16.00				
TR3	13.55	12.56	15.02			
TR4	12.67	11.51	12.89	14.23		
TR5	17.64	17.82	18.07	18.11	28.14	
TR6	19.52	17.22	16.39	17.97	23.82	31.10
C1	54.81	49.28	51.50	49.00	63.02	70.52
C2	-1.94	7.15	7.00	2.76	7.33	-3.51
C3	0.32	1.82	2.03	1.06	1.67	-0.02
C4	12.86	19.39	13.62	13.77	21.29	16.66
C5	21.95	26.30	22.65	23.05	32.91	27.42
C6	34.39	32.26	36.74	36.58	47.51	46.78
HMP1	-0.94	-1.03	-0.95	-1.33	-1.41	-1.45
HMP2	-1.15	-1.04	-0.78	-1.27	-1.52	-1.83
HMP3	-1.38	-1.46	-1.22	-1.11	-1.74	-1.76
HMP4	-1.19	-0.99	-0.71	-0.81	-0.83	-1.82
LibCons	0.11	0.06	-0.18	-0.57	-0.27	-0.45
DemRep	0.57	0.20	0.05	-0.19	-0.11	-0.05
Journ	-2.23	-1.61	-1.43	-1.55	-1.95	-3.00
Gender	0.06	0.17	-0.06	0.50	0.53	0.01
Age	9.90	8.90	8.70	5.29	9.63	13.01
Edu	-0.14	0.28	0.32	0.12	0.58	0.15
White	-1.14	-0.66	-0.77	-0.61	-0.58	-0.76
Income	-0.31	0.16	0.31	0.35	1.16	0.15
H1	0.48	0.04	0.21	0.08	-0.29	0.29
H2	1.21	0.78	1.44	1.07	0.87	2.06
H3	0.46	-0.15	0.76	0.93	0.42	1.21
H4	0.39	0.42	0.36	0.40	0.59	1.22
H5	-0.82	-0.58	-0.10	-0.21	-0.14	-0.42
	C1	C2	C3	C4	C5	C6
	-----	-----	-----	-----	-----	-----
C1	518.65					
C2	86.44	153.71				
C3	14.99	18.24	6.20			
C4	116.89	59.49	13.59	86.85		
C5	153.54	58.02	12.71	89.58	129.98	
C6	238.59	47.69	10.20	78.44	113.95	198.22
HMP1	-8.53	1.40	-0.64	-3.96	-3.76	-6.58
HMP2	-3.00	-0.19	-0.52	-3.80	-3.75	-2.60
HMP3	-2.04	-1.34	-0.90	-3.97	-4.58	-3.78
HMP4	-1.03	-1.87	-0.64	-2.63	-3.57	-1.98



	C1	C2	C3	C4	C5	C6
LibCons	-1.60	0.94	-0.24	-0.80	-1.63	-1.89
DemRep	1.83	0.90	0.06	-0.83	-0.34	0.78
Journ	-4.73	6.44	1.16	1.38	-0.36	-1.62
Gender	0.53	0.45	0.19	1.19	1.97	0.42
Age	28.10	-9.47	-2.26	-4.58	3.76	-2.95
Edu	4.44	3.67	0.45	1.67	1.17	0.63
White	-2.10	1.83	0.71	0.68	-1.15	-1.33
Income	2.51	-1.03	0.05	1.01	-1.29	-0.96
H1	-0.47	-2.07	-0.21	-0.60	-0.61	-1.51
H2	4.93	0.03	0.37	-0.06	-0.41	2.43
H3	1.97	-0.67	0.11	-0.21	0.06	4.03
H4	2.01	0.22	0.13	0.75	0.90	1.78
H5	-1.79	0.99	0.13	-0.15	0.62	-0.47
	HMP1	HMP2	HMP3	HMP4	LibCons	DemRep
HMP1	3.38					
HMP2	1.97	3.02				
HMP3	2.00	2.65	3.80			
HMP4	1.39	2.10	2.69	3.19		
LibCons	-0.08	-0.05	-0.04	0.08	1.15	
DemRep	-0.17	-0.12	0.03	0.15	0.88	1.57
Journ	0.02	0.18	0.11	0.29	-0.12	-0.12
Gender	-0.01	0.37	0.27	0.36	-0.10	0.03
Age	3.50	3.39	2.80	3.12	0.71	-0.85
Edu	0.07	0.22	0.11	0.29	0.19	0.15
White	-0.51	-0.44	0.01	-0.03	0.12	0.26
Income	0.17	0.49	0.23	0.25	-0.13	-0.14
H1	0.36	0.08	0.34	-0.05	-0.08	-0.17
H2	-0.33	0.01	-0.28	-0.23	0.09	-0.13
H3	-0.67	-0.10	-0.51	-0.29	-0.22	-0.20
H4	-0.01	0.01	-0.17	-0.14	-0.26	-0.38
H5	0.58	0.39	0.28	0.15	0.00	-0.30

	Journ	Gender	Age	Edu	White	Income
	-----	-----	-----	-----	-----	-----
Journ	1.00					
Gender	0.13	1.00				
Age	-2.38	1.24	130.85			
Edu	0.18	0.04	2.56	1.52		
White	0.38	0.03	-1.21	-0.07	1.00	
Income	0.09	0.03	0.07	0.53	0.37	3.68
M1	-0.16	-0.18	0.00	-0.09	-0.22	0.09
M2	-0.10	-0.04	6.69	0.25	-0.17	0.28
M3	-0.13	-0.07	0.70	-0.05	-0.32	0.01
M4	0.05	-0.05	0.62	-0.11	-0.16	0.12
M5	0.15	0.11	4.72	0.21	-0.03	0.59

	M1	M2	M3	M4	M5
	-----	-----	-----	-----	-----
M1	1.17				
M2	0.13	2.42			
M3	-0.11	1.64	2.41		
M4	-0.08	0.41	0.49	1.28	
M5	0.33	0.55	0.14	0.28	1.93

Taxes, Experiment 3, All Opponents

	HMP1	HMP2	HMP3	HMP4	TR1	TR2
	-----	-----	-----	-----	-----	-----
HMP1	3.36					
HMP2	2.48	3.60				
HMP3	1.98	2.48	3.70			
HMP4	1.32	1.69	2.42	3.91		
TR1	-1.06	-1.10	-0.81	-0.49	9.93	
TR2	-0.95	-1.00	-0.78	-0.33	9.80	11.17
TR3	-1.27	-1.42	-0.77	-0.33	8.78	9.52
TR4	-1.24	-1.35	-0.91	-0.28	10.92	11.72
TR5	-1.09	-1.06	-0.96	-0.48	11.42	12.42
TR6	-1.04	-1.04	-1.00	-0.38	12.12	13.27
GW1	-0.27	-0.01	-0.17	0.03	5.11	5.49
GW2	-0.73	-0.63	-0.79	-0.38	6.51	7.23
GW3	-0.72	-0.71	-0.76	-0.58	6.09	6.77
GW4	-0.82	-0.79	-0.80	-0.56	6.26	6.98
GW5	-0.69	-0.67	-0.61	-0.51	5.54	5.84
GW6	-0.85	-0.83	-0.67	-0.54	6.27	6.79
OutG	0.22	0.37	0.27	0.13	-2.10	-2.19
Gender	-0.01	0.08	-0.04	-0.01	0.22	0.24
Age	-1.54	-1.50	-0.90	0.75	3.16	2.44
Income	-0.17	-0.06	0.18	0.09	0.10	0.31
Edu	0.03	0.04	0.08	-0.21	0.08	0.10
Race	0.01	0.12	-0.17	0.19	0.15	0.38
Ethn	-0.04	-0.05	-0.23	-0.15	0.36	0.60
Prof	0.03	0.11	0.07	-0.02	-0.28	0.22
M1	-0.07	-0.05	0.00	-0.05	0.20	0.16
M2	-0.12	-0.12	0.15	0.22	0.50	0.48
M3	-0.02	0.14	0.36	0.23	0.75	0.61
M4	0.11	0.09	0.05	0.05	0.24	0.24
M5	-0.20	-0.16	-0.42	-0.40	0.07	0.13
PolV	0.02	0.10	0.05	0.16	0.25	0.13
PolA	0.18	0.34	0.24	0.37	-0.12	-0.09
Beh1	1.80	1.51	1.29	1.16	-0.72	-0.55
IAC1	-0.23	0.08	-0.06	0.18	1.84	2.08
IAC2	-0.17	0.10	0.07	0.19	1.73	1.96
IAC3	-0.28	-0.03	-0.09	0.15	1.78	2.13
IAC4	-0.14	0.12	-0.02	0.25	1.77	2.00
Int	0.09	0.19	0.14	0.21	0.19	0.32

	TR3	TR4	TR5	TR6	GW1	GW2
	-----	-----	-----	-----	-----	-----
TR3	10.31					
TR4	11.80	17.49				
TR5	11.94	16.46	19.00			
TR6	12.24	16.04	16.93	20.95		
GW1	5.27	6.60	6.96	7.37	5.16	
GW2	6.22	8.00	8.74	10.07	4.33	8.16
GW3	6.17	7.80	8.52	9.20	4.20	6.84
GW4	6.65	8.11	8.67	9.39	4.26	6.80
GW5	5.71	7.07	7.95	8.05	3.89	5.00
GW6	6.56	8.24	8.92	9.44	4.49	6.17
OutG	-1.76	-2.27	-2.50	-2.67	-1.16	-2.06
Gender	0.20	0.45	0.40	0.17	0.01	0.14
Age	1.81	2.85	4.18	5.36	2.83	1.26
Income	-0.03	0.34	0.01	0.08	-0.10	0.20
Edu	0.04	0.29	0.30	-0.02	0.10	0.05
Race	0.12	0.34	0.36	0.61	0.30	0.33
Ethn	0.50	0.16	0.37	0.51	0.20	0.49
Prof	-0.11	-0.04	0.06	-0.08	0.13	-0.17
H1	0.27	0.44	0.31	0.15	0.14	0.03
H2	0.55	0.36	0.30	0.53	0.41	0.26
H3	0.72	0.70	0.96	0.97	0.32	0.45
H4	0.36	0.43	0.34	0.22	0.10	0.22
H5	0.17	-0.01	0.09	0.26	0.09	0.22
PolV	0.16	0.24	0.29	0.24	0.32	0.20
PolA	-0.01	0.02	0.02	-0.24	0.36	-0.06
Beh1	-0.06	-0.46	0.10	1.59	0.10	1.63
IAC1	2.10	2.69	2.60	2.93	1.24	1.94
IAC2	1.94	2.33	2.44	2.82	1.07	1.76
IAC3	2.13	2.56	2.50	3.14	1.18	1.82
IAC4	2.02	2.61	2.37	2.86	1.16	1.77
Int	0.28	0.50	0.47	0.45	0.15	0.40

	GW3	GW4	GW5	GW6	OutG	Gender
	-----	-----	-----	-----	-----	-----
GW3	7.81					
GW4	7.62	8.27				
GW5	4.80	4.89	5.96			
GW6	6.00	6.12	5.56	7.17		
OutG	-1.92	-1.89	-1.33	-1.66	1.00	
Gender	0.20	0.25	-0.06	0.08	-0.13	1.00
Age	0.34	0.50	3.80	1.54	0.59	-1.23
Income	0.12	0.07	-0.21	-0.23	-0.14	0.55
Edu	0.13	0.11	0.11	0.05	-0.12	0.17
Race	0.21	0.26	0.16	0.14	-0.04	0.22
Ethn	0.49	0.36	0.30	0.27	-0.26	0.13
Prof	-0.14	-0.26	-0.06	0.01	0.07	0.04
H1	0.10	0.13	0.14	0.15	-0.12	0.22

	GW3	GW4	GW5	GW6	OutG	Gender
M2	0.14	0.03	0.46	0.29	-0.01	-0.08
M3	0.42	0.37	0.56	0.41	-0.05	0.02
M4	0.19	0.16	0.12	0.02	-0.02	-0.06
M5	0.02	0.00	0.16	0.07	-0.16	0.01
PolV	0.17	0.17	0.14	0.29	-0.06	0.23
PolA	-0.07	-0.08	-0.14	0.05	0.01	0.46
Beh1	1.19	0.56	-0.01	1.40	0.52	0.46
IAC1	1.91	1.86	1.34	1.74	-0.36	-0.15
IAC2	1.82	1.78	1.13	1.65	-0.32	-0.17
IAC3	1.79	1.72	1.24	1.71	-0.34	-0.18
IAC4	1.75	1.67	1.30	1.75	-0.26	-0.18
Int	0.39	0.30	0.13	0.39	-0.20	0.03
	Age	Income	Edu	Race	Ethn	Prof
Age	172.30					
Income	0.79	4.64				
Edu	1.49	0.63	1.71			
Race	4.72	0.29	-0.11	1.00		
Ethn	-3.48	-0.11	-0.12	-0.37	1.00	
Prof	-1.06	-0.40	-	0.10	0.11	1.00
M1	-0.26	0.31	0.07	0.07	-0.14	0.02
M2	5.61	0.07	-0.09	0.12	-0.01	-0.12
M3	3.54	0.22	-0.04	0.11	-0.06	-0.18
M4	2.45	0.17	-0.07	0.06	-0.13	-0.05
M5	1.63	0.55	0.36	0.07	0.11	0.18
PolV	3.14	0.42	0.09	0.30	-0.13	-0.07
PolA	4.56	0.90	0.09	0.71	-0.36	-0.05
Beh1	-8.17	-2.29	-0.97	0.16	0.20	-0.17
IAC1	-1.65	0.12	-0.04	-0.02	0.07	-0.24
IAC2	0.99	-0.11	-0.08	0.14	0.05	-0.32
IAC3	0.61	0.10	0.07	0.10	0.05	-0.07
IAC4	0.06	-0.06	-0.02	-0.08	0.05	-0.14
Int	-0.16	-0.03	0.12	-0.07	0.03	0.04
	M1	M2	M3	M4	M5	PolV
M1	1.01					
M2	0.05	2.27				
M3	0.32	1.29	2.32			
M4	0.08	0.59	0.50	1.46		
M5	0.25	0.68	0.45	0.61	2.23	
PolV	-0.05	0.14	0.11	0.08	0.25	1.41
PolA	-0.05	0.21	0.05	0.19	0.34	1.93
Beh1	0.44	0.11	-0.02	0.59	-0.48	-1.21
IAC1	0.13	0.37	0.51	0.36	0.25	0.01
IAC2	0.03	0.35	0.67	0.43	0.18	0.07
IAC3	0.05	0.38	0.51	0.39	0.25	0.11
IAC4	0.04	0.56	0.59	0.37	0.21	0.09
Int	0.03	0.25	0.23	0.24	0.22	0.14

	Po1A	Beh1	IAC1	IAC2	IAC3	IAC4
	-----	-----	-----	-----	-----	-----
Po1A	3.87					
Beh1	-1.17	57.70				
IAC1	-0.03	-0.35	3.85			
IAC2	0.15	-0.09	3.20	3.91		
IAC3	0.09	0.06	3.35	3.37	3.93	
IAC4	0.03	0.25	3.41	3.13	3.25	3.72
Int	0.20	0.00	1.48	1.47	1.56	1.48
	Int					
	-----					
Int	1.48					

Taxes, Experiment 3, All Supporters

	HMP1	HMP2	HMP3	HMP4	TR1	TR2
	-----	-----	-----	-----	-----	-----
HMP1	3.91					
HMP2	2.97	4.05				
HMP3	2.64	2.79	4.31			
HMP4	1.22	1.43	1.61	3.65		
TR1	-1.29	-1.72	-2.22	-0.20	10.21	
TR2	-1.39	-2.20	-2.54	-0.45	9.97	11.91
TR3	-0.90	-1.55	-2.08	0.08	8.63	9.35
TR4	-1.67	-2.18	-3.08	-0.45	11.59	12.45
TR5	-1.96	-2.62	-3.37	-0.93	12.14	13.03
TR6	-2.03	-3.05	-3.25	-0.89	12.09	13.81
GW1	-1.04	-1.62	-1.56	-0.11	5.36	6.05
GW2	-1.32	-2.02	-1.92	-0.42	6.83	7.92
GW3	-1.48	-1.97	-2.08	-0.47	6.32	7.41
GW4	-1.35	-2.00	-1.95	-0.39	6.12	7.16
GW5	-0.96	-1.43	-1.56	-0.34	4.76	5.64
GW6	-1.05	-1.58	-1.59	-0.24	5.94	7.02
OutG	0.39	0.62	0.69	0.27	-2.26	-2.80
Gender	0.25	0.28	0.26	0.23	-0.27	-0.27
Age	-1.37	-0.17	-0.42	0.89	4.30	2.60
Income	-0.24	0.18	0.07	-0.15	-0.31	-0.64
Edu	0.28	0.29	0.45	0.27	-0.57	-0.47
Race	0.50	0.52	0.63	0.08	-0.56	-0.52
Ethn	0.06	0.10	0.06	0.24	0.35	0.10
Prof	0.27	0.34	0.23	0.18	0.22	-0.09
H1	0.08	0.20	-0.10	0.07	-0.04	0.14
H2	-0.34	-0.14	-0.30	0.04	0.47	0.45
H3	-0.20	0.07	-0.18	0.39	0.47	0.37
H4	-0.20	0.09	-0.05	0.26	0.54	0.41
H5	-0.15	0.08	0.10	0.11	-0.05	-0.29
PolV	-0.30	-0.25	-0.17	-0.05	0.15	0.30
PolA	-0.58	-0.46	-0.56	-0.28	0.50	0.68
Beh1	0.08	0.09	-0.90	-1.25	-0.13	-0.18
IAC1	-0.20	-0.08	0.02	0.61	0.37	0.22
IAC2	-0.33	-0.32	-0.23	0.42	0.69	0.52
IAC3	-0.16	-0.02	0.13	0.66	0.18	0.01
IAC4	-0.07	0.00	0.15	0.49	0.16	-0.12
Int	-0.26	-0.27	-0.10	0.25	-0.29	-0.44

	TR3	TR4	TR5	TR6	GW1	GW2
	-----	-----	-----	-----	-----	-----
TR3	10.10					
TR4	12.28	19.38				
TR5	12.29	18.13	20.02			
TR6	12.33	17.49	18.78	21.81		
GW1	5.58	7.15	7.78	8.03	6.04	
GW2	6.41	8.25	9.19	9.93	5.83	8.90
GW3	5.99	8.17	8.88	9.41	5.42	7.57
GW4	5.87	7.71	8.47	9.30	5.32	7.57
GW5	4.75	6.48	7.00	7.49	4.30	5.20
GW6	6.06	7.96	8.89	9.27	5.37	6.71
OutG	-2.02	-2.73	-2.95	-3.16	-1.34	-2.31
Gender	-0.22	-0.12	-0.41	-0.54	-0.27	-0.13
Age	2.35	2.00	1.77	1.21	2.30	2.54
Income	-0.40	-0.60	-0.65	-1.18	-0.05	-0.01
Edu	-0.27	-0.52	-0.67	-0.78	-0.12	-0.13
Race	-0.46	-0.95	-0.84	-1.06	-0.54	-0.38
Ethn	0.24	0.36	0.15	0.30	-0.19	-0.15
Prof	0.14	0.67	0.39	-0.05	0.14	-0.09
H1	0.10	0.33	-0.01	0.03	0.15	0.30
H2	0.46	0.75	0.82	0.51	0.44	0.38
H3	0.64	1.09	0.61	0.47	0.48	0.18
H4	0.59	0.76	0.64	0.72	0.56	0.47
H5	0.13	0.23	0.29	0.13	0.18	0.20
PolV	-0.09	-0.04	0.02	0.11	0.08	0.27
PolA	0.22	0.18	0.35	0.38	0.09	0.54
Beh1	-0.37	0.05	0.18	-0.54	-0.14	-0.08
IAC1	0.52	0.81	0.38	0.37	0.25	0.14
IAC2	0.58	0.68	0.44	0.52	0.39	0.46
IAC3	0.29	0.44	0.06	0.05	0.26	0.13
IAC4	0.19	0.23	-0.07	-0.16	0.04	0.01
Int	-0.22	-0.29	-0.56	-0.47	-0.31	-0.42

	GW3	GW4	GW5	GW6	OutG	Gender
	-----	-----	-----	-----	-----	-----
GW3	6.00					
GW4	7.38	7.74				
GW5	4.97	4.91	7.01			
GW6	6.15	6.21	5.07	7.17		
OutG	-2.04	-1.98	-1.29	-1.80	1.00	
Gender	-0.16	-0.07	-0.36	-0.32	0.11	1.00
Age	2.21	1.23	2.30	1.12	0.11	-0.82
Income	-0.21	-0.22	-0.13	-0.14	0.17	0.17
Edu	-0.34	-0.23	-0.28	-0.34	0.15	0.08
Race	-0.38	-0.57	-0.46	-0.45	0.03	0.06
Ethn	-0.20	-0.21	-0.02	-	-0.06	0.24
Prof	0.18	0.12	-0.50	0.25	-0.01	-0.03



	GW3	GW4	GW5	GW6	OutG	Gender
M1	0.22	0.21	0.20	0.32	0.03	0.16
M2	0.32	0.20	0.38	0.35	0.02	-0.19
M3	0.13	0.04	0.40	0.44	0.08	0.04
M4	0.43	0.42	0.51	0.66	0.10	0.00
M5	0.19	0.11	-0.27	0.05	0.07	0.17
PolV	0.22	0.23	0.19	0.19	-0.05	-0.07
PolA	0.47	0.57	0.33	0.53	-0.17	-0.01
Beh1	-0.25	-0.61	-0.48	-0.15	-0.03	1.19
IAC1	0.23	0.17	0.19	0.14	0.19	-0.20
IAC2	0.49	0.49	0.50	0.28	0.14	-0.22
IAC3	0.06	0.11	-0.03	0.11	0.24	-0.29
IAC4	-0.06	-0.02	-0.05	-0.12	0.26	-0.20
Int	-0.42	-0.35	-0.44	-0.44	0.15	-0.07

	Age	Income	Edu	Race	Ethn	Prof
Age	140.99					
Income	3.74	4.98				
Edu	2.63	1.13	1.89			
Race	2.61	0.26	0.16	1.00		
Ethn	-0.28	-0.47	-0.25	0.01	1.00	
Prof	-1.81	-0.27	-0.06	0.06	0.33	1.00
M1	1.07	0.35	0.07	0.09	-0.10	0.05
M2	2.90	0.02	-0.15	-0.18	-0.13	0.03
M3	3.33	-0.17	-0.22	-0.08	0.05	-0.01
M4	0.44	0.15	-0.05	-0.03	0.19	0.04
M5	2.13	0.68	0.32	0.10	-0.19	-0.04
PolV	1.56	0.24	-0.24	0.12	-0.27	-0.13
PolA	0.76	0.38	-0.36	0.34	-0.39	-0.25
Beh1	-3.52	-0.11	-0.45	0.41	-0.51	-0.43
IAC1	2.76	-0.16	-0.03	-0.17	0.03	0.04
IAC2	2.82	-0.33	-0.11	-0.18	-0.04	0.25
IAC3	2.31	-0.18	-0.12	-0.30	-0.13	0.12
IAC4	3.11	-0.05	-0.01	-0.22	0.11	-0.05
Int	1.76	0.06	-0.01	-0.22	0.06	0.10

	M1	M2	M3	M4	M5	PolV
	-----	-----	-----	-----	-----	-----
M1	1.06					
M2	0.29	2.26				
M3	0.17	1.39	2.36			
M4	0.21	0.42	0.45	1.35		
M5	0.25	0.46	0.36	0.31	2.02	
PolV	0.07	0.19	0.13	0.05	0.06	0.96
PolA	0.17	0.07	-0.01	-0.10	0.06	1.27
Beh1	-0.04	0.16	0.66	0.10	0.35	0.36
IAC1	0.26	0.51	0.57	0.36	0.29	-0.05
IAC2	0.20	0.61	0.65	0.42	0.16	-0.02
IAC3	0.29	0.63	0.75	0.36	0.24	0.04
IAC4	0.33	0.69	0.61	0.29	0.35	-0.10
Int	0.13	0.30	0.41	0.17	0.12	-0.03

	PolA	Beh1	IAC1	IAC2	IAC3	IAC4
	-----	-----	-----	-----	-----	-----
PolA	2.73					
Beh1	0.55	21.19				
IAC1	-0.33	-0.66	3.34			
IAC2	-0.22	-0.54	2.77	3.66		
IAC3	-0.26	-0.67	3.03	2.96	3.66	
IAC4	-0.32	-0.41	2.91	2.66	2.95	3.32
Int	-0.22	-0.19	1.66	1.66	1.74	1.66

	Int
	-----
Int	1.66

Taxes, Experiment 3, More Extreme Opponents

	HMP1	HMP2	HMP3	HMP4	TR1	TR2
HMP1	3.46					
HMP2	2.63	3.91				
HMP3	1.93	2.65	3.92			
HMP4	1.20	1.79	2.49	4.16		
TR1	-1.39	-1.55	-1.21	-0.63	10.65	
TR2	-1.31	-1.39	-1.16	-0.43	10.46	11.78
TR3	-1.66	-1.81	-1.17	-0.42	9.64	10.32
TR4	-1.60	-1.63	-1.42	-0.40	11.62	12.43
TR5	-1.59	-1.58	-1.58	-0.76	12.18	13.11
TR6	-1.64	-1.59	-1.62	-0.69	13.18	14.04
GW1	-0.41	-0.30	-0.42	-0.10	5.63	6.01
GW2	-1.01	-0.96	-1.13	-0.53	7.02	7.63
GW3	-1.09	-1.08	-1.13	-0.81	6.47	7.09
GW4	-1.24	-1.27	-1.22	-0.77	6.59	7.30
GW5	-0.86	-0.97	-0.99	-0.72	6.14	6.29
GW6	-1.14	-1.19	-1.08	-0.75	6.86	7.21
OutG	0.27	0.44	0.31	0.21	-2.25	-2.34
Gender	-0.13	-0.04	-0.14	-0.03	0.15	0.22
Age	-1.55	-0.96	-1.59	0.29	4.33	2.87
Income	-0.38	-0.12	0.06	0.02	0.12	0.28
Edu	-0.01	0.07	0.03	-0.30	0.00	-0.02
Race	0.04	0.22	-0.15	0.25	0.15	0.46
Prof	0.00	0.17	0.11	0.01	-0.32	0.26
M1	-0.08	-0.08	0.06	-0.02	0.26	0.26
M2	-0.10	-0.14	0.18	0.23	0.44	0.47
M3	-0.03	0.10	0.36	0.20	0.73	0.60
M4	0.09	0.11	0.03	0.06	0.20	0.20
M5	-0.20	-0.20	-0.44	-0.45	0.06	0.12
PolV	0.05	0.12	-0.04	0.07	0.15	0.09
PolA	0.23	0.43	0.14	0.29	-0.27	-0.11
Beh1	2.02	1.62	1.58	1.58	-0.62	-0.94
IAC1	-0.31	-0.03	-0.22	0.21	1.81	2.08
IAC2	-0.25	0.02	-0.08	0.21	1.66	1.87
IAC3	-0.35	-0.08	-0.26	0.13	1.78	2.12
IAC4	-0.22	0.05	-0.23	0.26	1.72	1.93

	TR3	TR4	TR5	TR6	GW1	GW2
TR3	11.18					
TR4	12.79	18.74				
TR5	12.99	17.54	20.20			
TR6	13.35	17.26	18.19	22.23		
GW1	5.96	7.67	7.70	7.91	5.39	
GW2	6.69	8.74	9.52	10.80	4.62	8.77
GW3	6.78	8.36	9.18	9.85	4.55	7.36
GW4	7.23	8.67	9.31	10.05	4.64	7.32
GW5	6.27	7.83	8.73	8.86	4.33	5.49
GW6	7.29	9.05	9.89	10.24	4.94	6.71
OutG	-2.00	-2.50	-2.69	-2.94	-1.26	-2.17
Gender	0.23	0.38	0.31	0.13	0.00	0.13
Age	2.67	3.45	5.00	5.07	2.87	1.34
Income	-0.23	0.02	-0.10	0.02	0.02	0.27
Edu	-0.05	0.15	0.19	-0.24	0.05	0.00
Race	0.16	0.27	0.30	0.67	0.40	0.38
Prof	-0.10	0.10	0.20	-0.15	0.13	-0.20
H1	0.38	0.49	0.33	0.33	0.27	0.08
H2	0.50	0.31	0.20	0.41	0.34	0.24
H3	0.73	0.62	0.95	0.85	0.31	0.45
H4	0.22	0.33	0.25	0.19	0.16	0.25
H5	0.12	-0.09	0.18	0.24	0.08	0.15
PolV	0.21	0.21	0.28	0.24	0.26	0.19
PolA	0.01	-0.10	-0.02	-0.26	0.34	-0.06
Beh1	-0.19	-0.59	0.10	1.58	0.12	1.78
IAC1	2.22	2.85	2.63	2.93	1.24	2.08
IAC2	2.01	2.33	2.39	2.64	1.06	1.88
IAC3	2.23	2.66	2.47	3.07	1.12	1.89
IAC4	2.03	2.64	2.32	2.78	1.17	1.83

	GW3	GW4	GW5	GW6	OutG	Gender
GW3	8.45					
GW4	8.27	8.79				
GW5	5.35	5.41	6.56			
GW6	6.58	6.71	6.14	7.82		
OutG	-2.04	-2.01	-1.47	-1.86	1.00	
Gender	0.12	0.07	-0.08	0.09	-0.12	1.00
Age	0.69	1.73	4.74	1.35	0.30	-1.39
Income	0.12	0.07	-0.26	-0.36	-0.33	0.56
Edu	0.12	0.13	0.06	-0.03	-0.11	0.22
Race	0.21	0.29	0.25	0.24	-0.06	0.20
Prof	-0.16	-0.23	-0.07	-0.01	0.16	0.07

	GW3	GW4	GW5	GW6	OutG	Gender
-----	-----	-----	-----	-----	-----	-----
M1	0.14	0.18	0.19	0.23	-0.09	0.21
M2	0.14	0.11	0.51	0.31	-0.04	-0.06
M3	0.47	0.48	0.60	0.39	-0.07	0.04
M4	0.23	0.15	0.11	0.02	-0.04	-0.07
M5	0.00	-0.04	0.13	-0.01	-0.22	0.05
PolV	0.14	0.12	0.13	0.26	-0.06	0.21
PolA	-0.11	-0.18	-0.18	0.02	0.01	0.42
Beh1	0.88	0.28	-0.13	1.40	0.89	0.22
IAC1	2.04	2.02	1.45	1.84	-0.46	-0.22
IAC2	1.88	1.89	1.20	1.65	-0.42	-0.28
IAC3	1.89	1.88	1.30	1.78	-0.44	-0.23
IAC4	1.80	1.75	1.35	1.75	-0.36	-0.24

	Age	Income	Edu	Race	Prof	M1
-----	-----	-----	-----	-----	-----	-----
Age	176.32					
Income	-0.41	4.65				
Edu	0.95	0.66	1.85			
Race	5.21	0.21	-0.09	1.00		
Prof	-2.44	-0.36	-0.11	0.16	1.00	
M1	0.60	0.39	0.09	0.11	-0.03	0.98
M2	5.03	-0.07	-0.12	0.12	-0.21	0.05
M3	2.75	0.06	-0.06	0.10	-0.22	0.32
M4	2.97	0.19	-0.10	0.16	-0.03	0.10
M5	1.65	0.56	0.33	0.11	0.14	0.18
PolV	2.94	0.46	0.11	0.31	-0.04	-0.02
PolA	4.42	0.88	0.08	0.80	0.02	-0.04
Beh1	-7.78	-2.60	-1.03	0.18	-0.40	0.35
IAC1	-2.16	0.20	-0.10	-0.04	-0.27	0.09
IAC2	0.67	-0.11	-0.09	0.18	-0.34	0.01
IAC3	-0.57	0.20	0.01	0.11	-0.09	0.08
IAC4	-0.82	-0.07	-0.10	-0.10	-0.17	0.00
	M2	M3	M4	M5	PolV	PolA
-----	-----	-----	-----	-----	-----	-----
M2	2.24					
M3	1.17	2.26				
M4	0.63	0.62	1.54			
M5	0.67	0.43	0.66	2.19		
PolV	0.07	0.01	0.10	0.27	1.45	
PolA	0.19	-0.09	0.28	0.41	2.02	4.05
Beh1	0.48	0.19	0.94	-0.36	-0.89	-0.96
IAC1	0.35	0.44	0.44	0.22	-0.07	-0.07
IAC2	0.30	0.56	0.56	0.22	-0.01	0.14
IAC3	0.27	0.39	0.50	0.28	0.04	0.10
IAC4	0.51	0.48	0.45	0.15	0.01	-0.03

	Beh1	IAC1	IAC2	IAC3	IAC4
Beh1	63.15				
IAC1	-0.46	3.90			
IAC2	-0.62	3.26	4.01		
IAC3	0.23	3.42	3.48	4.04	
IAC4	0.16	3.51	3.19	3.31	3.83

Taxes, Experiment 3, More Extreme Supporters

	HMP1	HMP2	HMP3	HMP4	TR1	TR2
HMP1	3.64					
HMP2	2.80	3.94				
HMP3	2.31	2.56	4.41			
HMP4	1.26	1.44	2.09	3.76		
TR1	-1.10	-1.69	-1.53	-0.22	9.21	
TR2	-0.99	-1.63	-1.58	-0.23	8.92	10.15
TR3	-1.08	-1.72	-1.24	0.16	7.43	7.82
TR4	-1.36	-2.14	-1.84	-0.16	9.72	10.12
TR5	-1.39	-1.91	-1.98	-0.44	10.27	10.78
TR6	-1.15	-1.86	-1.55	-0.08	10.68	11.63
GW1	-0.23	-0.23	-0.46	0.39	4.26	4.49
GW2	-0.39	-0.73	-1.12	-0.02	5.82	6.47
GW3	-0.54	-0.93	-1.19	-0.14	5.16	5.81
GW4	-0.58	-1.02	-1.08	-0.12	5.20	5.77
GW5	-0.16	-0.20	-0.31	0.12	3.90	4.15
GW6	-0.49	-0.80	-0.87	-0.03	5.16	5.81
OutG	0.18	0.52	0.45	0.22	-1.85	-2.09
Gender	0.22	0.24	0.15	0.16	0.16	0.30
Age	-0.02	-0.41	1.76	1.31	1.20	-1.04
Income	-0.15	0.02	-0.12	-0.45	-0.47	-0.46
Edu	0.34	0.19	0.42	0.06	-0.17	-0.10
Race	0.24	0.43	0.24	0.22	-0.61	-0.43
Prof	0.01	0.05	-0.04	0.16	0.56	1.04
M1	0.07	0.09	-0.04	-0.08	0.04	0.12
M2	-0.08	-0.02	0.21	0.13	0.18	0.19
M3	-0.12	0.03	0.23	0.35	-0.01	-0.16
M4	0.02	0.07	-0.14	0.10	0.10	0.14
M5	-0.07	-0.03	-0.31	-0.26	-0.29	-0.39
PolV	-0.10	0.08	0.13	0.29	0.09	-0.02
PolA	-0.11	0.17	-0.08	0.32	-0.43	-0.51
Beh1	1.15	0.94	-0.34	0.58	-1.12	-0.72
IAC1	-0.31	0.00	-0.07	0.42	0.52	0.58
IAC2	-0.32	-0.13	-0.17	0.34	0.49	0.65
IAC3	-0.30	-0.05	0.03	0.44	0.35	0.54
IAC4	-0.19	0.07	0.01	0.22	0.54	0.64

	TR3	TR4	TR5	TR6	GW1	GW2
TR3	8.91					
TR4	10.52	17.01				
TR5	10.37	15.32	18.08			
TR6	10.13	14.63	15.36	19.55		
GW1	4.28	5.78	6.10	6.03	4.81	
GW2	4.84	6.75	7.61	8.45	3.94	7.35
GW3	4.93	6.61	7.29	7.35	3.75	6.02
GW4	5.14	6.55	7.09	7.48	3.85	5.80
GW5	3.90	5.11	5.81	5.78	2.81	3.29
GW6	5.15	6.80	7.57	7.81	4.05	5.11
OutG	-1.30	-1.85	-2.17	-2.23	-0.65	-1.66
Gender	0.21	0.61	0.30	0.26	0.30	0.28
Age	-1.97	-3.03	-1.43	-1.01	0.67	-0.70
Income	-0.52	-0.60	-0.47	-0.81	-0.13	0.14
Edu	-0.16	-0.10	0.03	-0.55	0.08	-0.03
Race	-0.44	-0.61	-0.53	-0.77	0.19	0.04
Prof	0.53	1.09	1.06	0.69	0.69	0.49
H1	0.22	0.49	0.17	0.13	0.22	0.12
H2	0.33	0.21	0.18	0.22	0.34	0.11
H3	0.15	0.13	0.06	-0.08	0.13	-0.19
H4	0.43	0.49	0.37	0.07	0.30	0.23
H5	-0.15	-0.06	0.00	-0.32	0.20	-0.03
PolV	0.08	0.10	0.15	0.04	0.37	-0.06
PolA	-0.19	-0.27	-0.27	-0.67	0.41	-0.42
Beh1	-0.43	0.04	-0.60	0.33	0.38	0.98
IAC1	1.16	1.49	1.29	1.20	0.68	0.87
IAC2	1.03	1.25	1.03	1.01	0.71	1.02
IAC3	1.05	1.11	1.02	1.08	0.63	0.94
IAC4	1.14	1.43	1.16	1.28	0.60	0.91

	GW3	GW4	GW5	GW6	OutG	Gender
GW3	6.72					
GW4	6.33	7.04				
GW5	3.29	3.38	5.59			
GW6	4.80	4.92	4.04	6.17		
OutG	-1.44	-1.46	-0.80	-1.24	1.00	
Gender	0.44	0.51	0.15	0.26	-0.12	1.00
Age	-1.59	-2.06	0.96	-1.79	0.30	-1.63
Income	-0.06	-0.17	-0.19	-0.35	0.03	0.57
Edu	-0.04	-0.09	-0.34	-0.19	-0.07	0.23
Race	0.00	-0.14	0.03	-0.01	0.23	0.15
Prof	0.72	0.40	0.33	0.53	-0.15	-0.01



	GW3	GW4	GW5	GW6	OutG	Gender
M1	0.16	0.14	0.15	0.22	-0.08	0.37
M2	-0.07	-0.32	0.47	0.24	0.02	-0.08
M3	-0.19	-0.33	0.31	0.00	0.09	-0.01
M4	0.38	0.26	0.22	0.31	0.03	-0.12
M5	-0.04	-0.15	-0.13	-0.09	-0.03	0.11
PolV	0.09	0.01	0.21	0.12	0.03	0.06
PolA	-0.16	-0.33	0.12	-0.11	0.09	0.14
Beh1	0.34	-0.42	-0.15	0.88	-0.35	1.26
IAC1	0.84	0.71	0.70	0.76	0.06	-0.19
IAC2	1.14	1.05	0.63	0.86	-0.02	-0.16
IAC3	0.92	0.78	0.56	0.82	-0.07	-0.32
IAC4	0.77	0.65	0.65	0.83	0.00	-0.23

	Age	Income	Edu	Race	Prof	M1
Age	162.71					
Income	1.25	4.93				
Edu	1.38	0.83	2.02			
Race	3.77	0.17	0.11	1.00		
Prof	-0.78	-0.32	0.11	-0.06	1.00	
M1	0.11	0.36	0.10	0.00	-0.16	1.21
M2	7.23	-0.03	-0.12	0.26	-0.08	0.11
M3	4.87	0.15	-0.02	0.13	-0.14	0.26
M4	2.23	-0.20	-0.09	0.05	-0.09	0.09
M5	3.11	0.61	0.50	0.01	0.09	0.26
PolV	4.49	0.03	-0.11	0.31	-0.03	0.00
PolA	5.17	0.23	-0.12	0.63	-0.01	0.07
Beh1	-5.06	-0.36	-1.50	1.22	-1.87	0.59
IAC1	-0.58	-0.10	-0.18	0.14	-0.24	0.10
IAC2	0.77	-0.21	-0.14	0.23	-0.29	-0.01
IAC3	0.73	-0.09	-0.17	0.31	-0.13	0.02
IAC4	1.24	-0.19	-0.19	0.10	-0.30	0.09

	M2	M3	M4	M5	PolV	PolA
M2	2.29					
M3	1.43	2.31				
M4	0.50	0.32	1.24			
M5	0.72	0.58	0.31	2.18		
PolV	0.37	0.07	0.17	0.25	1.37	
PolA	0.41	-0.15	0.17	0.26	1.61	3.12
Beh1	0.12	-0.56	0.39	-0.20	-0.24	0.65
IAC1	0.55	0.37	0.30	0.35	0.19	0.26
IAC2	0.57	0.46	0.35	0.23	0.13	0.11
IAC3	0.64	0.30	0.33	0.29	0.22	0.24
IAC4	0.74	0.43	0.25	0.35	0.20	0.27

	Beh1	IAC1	IAC2	IAC3	IAC4
Beh1	49.42				
IAC1	-0.32	3.32			
IAC2	-0.43	2.97	3.42		
IAC3	-0.22	2.89	3.00	3.41	
IAC4	-0.06	2.94	2.83	2.83	3.34

HPV, Experiment 3, All Supporters

	HMP1	HMP2	HMP3	HMP4	TR1	TR2
HMP1	3.29					
HMP2	2.37	3.56				
HMP3	2.34	2.55	3.36			
HMP4	1.21	1.71	1.79	3.25		
TR1	-0.69	-0.55	-0.54	0.65	18.10	
TR2	-0.68	-0.79	-0.69	0.02	12.92	12.12
TR3	-0.43	-0.74	-0.64	0.04	15.61	13.09
TR4	0.16	-0.26	0.19	1.23	19.46	15.57
TR5	0.23	-0.10	0.08	0.90	15.62	12.80
TR6	-0.11	-0.26	-0.17	0.31	16.01	13.22
GW1	-0.16	-0.27	-0.21	0.11	7.57	6.37
GW2	-0.39	-0.52	-0.33	0.18	9.73	8.27
GW3	-0.27	-0.38	-0.27	0.13	8.89	7.40
GW4	-0.25	-0.34	-0.44	0.03	8.91	7.49
GW5	0.08	0.01	-0.15	0.03	7.83	6.48
GW6	-0.28	-0.38	-0.27	0.24	9.09	7.39
OutG	0.39	0.42	0.44	0.34	-0.82	-0.72
Gender	-0.02	-0.14	0.16	-0.07	-0.32	-0.26
Age	2.19	1.52	0.67	0.97	-5.98	-2.84
Income	0.32	0.34	0.24	0.12	0.80	0.52
Edu	0.24	0.38	0.12	0.08	-0.39	-0.43
Race	0.11	0.19	0.15	0.03	-0.05	-0.16
M1	0.13	0.12	0.05	0.13	0.18	-0.04
M2	0.01	0.11	0.00	-0.03	-0.12	-0.06
M3	-0.09	-0.16	0.03	-0.07	-0.05	-0.01
M4	-0.06	-0.13	0.03	0.12	0.41	0.48
M5	-0.05	-0.05	-0.04	0.21	0.02	0.22
PolV	-0.08	-0.18	-0.19	-0.21	0.02	0.11
PolA	-0.31	-0.23	-0.17	-0.10	-0.05	0.09
IAC1	-0.37	-0.22	-0.23	-0.21	0.26	0.29
IAC2	-0.19	-0.31	-0.26	0.18	0.52	0.22
IAC3	-0.08	-0.22	-0.35	0.02	0.74	0.52
IAC4	-0.10	-0.28	-0.32	0.01	0.42	0.19
Int	-0.22	-0.42	-0.41	-0.03	1.04	0.74

	TR3	TR4	TR5	TR6	GW1	GW2
TR3	18.76					
TR4	21.01	32.73				
TR5	16.70	23.86	20.74			
TR6	16.08	20.75	17.41	22.26		
GW1	7.83	9.79	8.40	8.46	6.28	
GW2	9.79	11.86	9.96	10.17	6.00	9.56
GW3	8.85	10.71	8.87	8.98	5.42	8.20
GW4	9.15	10.94	9.17	9.17	5.44	8.11
GW5	7.75	9.66	8.36	8.72	4.81	5.96
GW6	8.96	11.42	9.34	9.45	5.56	7.24
OutG	-0.86	-0.94	-0.87	-0.77	-0.45	-0.91
Gender	-0.41	-0.36	-0.50	-0.42	-0.32	-0.25
Age	-4.19	-5.38	-3.47	-3.06	-2.79	-2.73
Income	0.74	0.57	0.57	1.28	0.30	0.32
Edu	-0.73	-0.66	-0.38	-0.44	-0.12	-0.36
Race	0.02	0.29	-0.01	0.00	-0.16	0.14
H1	-0.19	-0.13	-0.58	0.20	-0.03	0.18
H2	-0.04	0.05	-0.03	-0.05	-0.06	-0.14
H3	-0.13	-0.32	-0.31	-0.15	-0.09	-0.16
H4	0.32	0.33	0.16	0.47	0.07	-0.07
H5	0.20	0.28	0.22	0.18	0.09	0.11
PolV	-0.03	0.01	0.01	0.14	0.22	0.13
PolA	-0.15	-0.30	-0.25	-0.08	-0.07	-0.08
IAC1	0.16	0.12	0.15	0.24	0.04	0.22
IAC2	0.25	-0.02	0.06	0.08	0.05	0.10
IAC3	0.60	0.46	0.32	0.41	0.27	0.48
IAC4	0.04	-0.07	0.12	-0.01	0.20	0.04
Int	0.85	0.85	0.66	0.42	0.40	0.54

	GW3	GW4	GW5	GW6	OutG	Gender
GW3	8.31					
GW4	7.94	8.38				
GW5	5.61	5.79	7.12			
GW6	6.70	6.60	6.04	7.75		
OutG	-0.80	-0.87	-0.60	-0.61	1.00	
Gender	-0.31	-0.22	-0.12	-0.32	0.00	1.00
Age	-2.84	-2.03	-0.86	-2.91	1.00	2.88
Income	0.28	0.39	0.45	0.39	0.23	-0.06
Edu	-0.25	-0.19	-0.16	-0.20	0.15	0.18
Race	0.11	0.15	0.13	0.02	-0.10	-0.04

	GW3	GW4	GW5	GW6	OutG	Gender
M1	0.14	0.13	0.01	0.21	-0.02	0.09
M2	-0.15	-0.12	-0.13	-0.08	0.05	-0.14
M3	-0.12	-0.16	0.04	-0.09	-0.09	0.14
M4	0.03	-0.04	-0.06	-0.05	0.00	0.04
M5	-0.02	0.08	0.02	-0.01	-0.06	0.04
PolV	0.07	0.18	0.03	0.17	0.07	-0.02
PolA	-0.02	-0.02	-0.16	-0.12	-0.02	-0.07
IAC1	0.27	0.35	0.05	0.10	-0.16	-0.22
IAC2	0.13	0.21	-0.13	0.10	0.11	0.35
IAC3	0.53	0.66	0.25	0.51	0.09	0.28
IAC4	0.16	0.28	0.14	0.26	0.10	0.36
Int	0.64	0.68	0.39	0.59	-0.01	0.31

	Age	Income	Edu	Race	M1	M2
Age	143.84					
Income	2.89	5.22				
Edu	1.49	0.89	2.13			
Race	1.19	0.45	0.25	1.00		
M1	1.92	-0.27	0.19	0.42	1.00	
M2	0.72	0.17	0.08	0.17	0.25	0.92
M3	4.45	0.15	-0.13	-0.10	-0.26	0.09
M4	3.77	0.09	-0.12	0.04	-0.05	0.16
M5	2.80	0.15	0.04	0.07	0.22	0.13
PolV	0.71	0.36	0.20	-0.02	-0.09	0.28
PolA	-0.20	0.32	-0.20	-0.12	-0.21	-0.13
IAC1	-0.60	0.46	-0.30	0.14	-0.31	-0.04
IAC2	3.22	-0.19	0.04	-0.19	0.24	0.22
IAC3	2.40	-0.14	0.01	-0.18	0.31	0.23
IAC4	2.57	-0.43	0.05	-0.22	0.43	0.23
Int	2.22	-0.23	-0.07	-0.12	0.33	0.24

	M3	M4	M5	PolV	PolA	IAC1
M3	2.23					
M4	1.21	2.14				
M5	0.47	0.49	1.55			
PolV	0.46	0.39	0.26	2.06		
PolA	0.08	0.12	0.11	0.13	0.98	
IAC1	0.09	0.20	-0.01	0.25	1.04	2.50
IAC2	0.40	0.31	0.29	0.05	-0.18	-0.54
IAC3	0.40	0.27	0.20	0.04	-0.25	-0.53
IAC4	0.29	0.43	0.25	0.00	-0.31	-0.74
Int	0.45	0.41	0.32	0.17	-0.15	-0.52

	IAC2	IAC3	IAC4	Int
	-----	-----	-----	-----
IAC2	3.19			
IAC3	2.77	3.26		
IAC4	2.48	2.57	3.74	
Int	2.69	2.85	2.85	3.70

HPV, Experiment 3, All Opponents

	HMP1	HMP2	HMP3	HMP4	TR1	TR2
HMP1	4.00					
HMP2	3.10	4.29				
HMP3	2.36	2.18	3.82			
HMP4	2.59	2.28	2.44	3.66		
TR1	0.03	0.14	-0.05	-0.37	14.47	
TR2	-0.22	-0.10	-0.39	-0.61	11.16	10.13
TR3	-0.32	-0.32	-0.71	-0.70	13.13	10.79
TR4	-0.62	-0.35	-0.62	-1.38	16.32	13.43
TR5	-0.12	0.16	-0.28	-0.84	13.71	11.70
TR6	-0.13	0.33	-0.41	-1.07	14.13	11.72
GW1	-0.15	0.11	-0.22	-0.28	5.97	4.67
GW2	-0.22	0.12	-0.40	-0.84	7.54	6.71
GW3	-0.13	0.03	-0.27	-0.69	7.03	6.27
GW4	-0.31	-0.17	-0.32	-0.74	7.09	6.38
GW5	0.07	0.20	-0.16	-0.17	6.44	5.05
GW6	0.27	0.44	0.05	-0.03	6.84	5.67
OutG	0.23	0.31	0.22	0.37	-0.49	-0.47
Gender	0.06	-0.10	0.14	0.19	-0.01	0.03
Age	-0.92	-1.76	0.93	-1.36	1.03	-1.38
Income	0.49	0.49	-0.24	0.10	-1.03	-0.88
Edu	-0.15	-0.14	0.02	0.14	-0.29	-0.42
Race	0.19	0.27	-0.15	0.21	-0.32	-0.29
M1	-0.17	-0.15	0.17	0.15	0.11	0.21
M2	-0.16	0.02	-0.08	0.00	-0.26	-0.31
M3	0.15	0.49	-0.01	0.17	0.17	0.24
M4	0.06	0.21	-0.09	-0.05	0.01	0.15
M5	0.13	0.35	-0.03	0.13	-0.15	-0.30
PolV	0.17	0.40	-0.02	0.03	-0.06	-0.06
PolA	0.03	-0.08	0.05	0.10	-0.46	-0.41
IAC1	0.18	0.00	0.28	0.39	-1.21	-1.00
IAC2	0.04	0.26	0.30	0.01	0.77	0.39
IAC3	-0.21	-0.02	0.26	-0.03	0.52	0.27
IAC4	-0.09	0.22	0.22	-0.08	0.85	0.71
Int	-0.14	0.10	0.22	-0.06	0.81	0.67

	TR3	TR4	TR5	TR6	GW1	GW2
TR3	14.81					
TR4	17.84	26.93				
TR5	14.83	20.08	18.34			
TR6	14.40	18.93	16.80	19.01		
GW1	5.81	7.26	6.22	6.70	4.90	
GW2	7.41	9.27	8.45	8.54	4.59	8.60
GW3	7.02	8.96	7.96	7.91	4.37	6.90
GW4	7.04	8.83	7.90	7.97	4.51	7.05
GW5	6.14	7.75	6.45	7.03	3.69	3.92
GW6	6.72	8.54	7.20	7.32	4.20	5.26
OutG	-0.55	-0.26	-0.36	-0.36	-0.28	-0.66
Gender	0.32	0.50	0.31	0.23	-0.09	-0.18
Age	0.43	3.36	0.24	0.72	2.14	-2.68
Income	-0.76	-0.86	-1.29	-1.35	-0.14	-0.58
Edu	-0.03	-0.20	-0.32	-0.09	-0.08	-0.67
Race	-0.30	-0.77	-0.52	-0.28	-0.24	-0.07
H1	-0.04	-0.22	0.13	0.31	-0.04	-0.08
H2	-0.32	0.14	-0.42	-0.41	-0.06	-0.20
H3	-0.10	-0.20	-0.01	-0.04	0.12	-0.02
H4	-0.36	-0.16	-0.52	-0.10	-0.09	0.11
H5	-0.31	-0.59	-0.36	-0.32	0.04	0.26
PolV	-0.45	-0.46	-0.55	-0.76	-0.24	0.05
PolA	-0.15	-0.28	-0.16	-0.54	-0.04	-0.27
IAC1	-0.46	-1.20	-0.62	-1.24	-0.15	-0.63
IAC2	0.57	0.91	0.80	0.85	0.19	0.46
IAC3	0.40	0.32	0.47	0.43	-0.24	0.04
IAC4	0.86	0.93	0.92	0.75	0.10	0.79
Int	0.60	0.83	0.91	0.73	-0.01	0.58
	GW3	GW4	GW5	GW6	OutG	Gender
GW3	7.35					
GW4	7.31	7.83				
GW5	4.19	4.46	5.38			
GW6	5.26	5.51	4.28	6.12		
OutG	-0.35	-0.41	0.09	-0.30	1.00	
Gender	0.15	0.16	0.02	-0.12	0.10	1.00
Age	0.09	0.36	0.34	0.86	1.71	-0.76
Income	-0.74	-0.72	-0.11	-0.58	-0.06	-0.39
Edu	-0.43	-0.39	-0.11	-0.07	-0.06	-0.22
Race	-0.22	-0.20	0.17	0.00	-0.02	-0.16



	GW3	GW4	GW5	GW6	OutG	Gender
M1	0.06	0.12	0.07	0.03	0.09	0.09
M2	-0.27	-0.33	-0.09	-0.24	-0.03	-0.29
M3	0.19	0.22	-0.03	0.07	0.02	-0.07
M4	0.12	0.14	0.04	-0.13	0.10	-0.06
M5	0.10	0.15	0.10	0.09	0.10	-0.01
PolV	-0.01	-0.05	-0.11	0.00	-0.23	-0.15
PolA	-0.25	-0.21	-0.05	-0.17	-0.04	-0.06
IAC1	-0.34	-0.50	-0.45	-0.40	-0.17	0.11
IAC2	0.47	0.41	-0.03	0.13	0.14	0.14
IAC3	-0.01	-0.11	-0.26	-0.24	0.06	0.26
IAC4	0.65	0.60	0.07	0.19	0.05	0.05
Int	0.39	0.30	-0.02	0.10	0.22	0.17

	Age	Income	Edu	Race	M1	M2
Age	155.36					
Income	0.64	4.13				
Edu	3.99	0.42	2.02			
Race	-1.57	0.29	-0.13	1.00		
M1	-0.03	-0.17	0.21	-0.20	1.00	
M2	-0.06	0.12	0.00	0.20	-0.06	1.20
M3	3.67	-0.02	0.16	-0.20	-0.22	0.17
M4	0.61	-0.13	-0.04	-0.20	-0.29	0.13
M5	1.78	0.11	-0.10	0.22	-0.27	0.07
PolV	-0.58	0.02	-0.05	0.05	-0.09	0.13
PolA	1.09	0.21	-0.09	0.38	-0.29	0.00
IAC1	-0.02	0.41	-0.03	1.01	-0.02	-0.01
IAC2	0.06	-0.83	-0.29	-0.18	-0.55	0.05
IAC3	-2.87	-0.90	-0.35	-0.15	-0.50	-0.08
IAC4	-3.15	-0.69	-0.51	-0.32	-0.88	-0.10
Int	-2.35	-0.90	-0.59	-0.15	-0.69	0.05

	M3	M4	M5	PolV	PolA	IAC1
M3	2.20					
M4	1.02	2.03				
M5	0.42	0.19	1.28			
PolV	0.51	0.56	0.38	1.92		
PolA	0.01	-0.16	0.15	-0.23	1.45	
IAC1	-0.22	-0.55	0.25	-0.36	1.64	3.93
IAC2	0.17	0.23	0.12	-0.14	-0.14	-0.17
IAC3	0.03	0.29	-0.04	-0.22	-0.23	-0.53
IAC4	0.06	0.37	0.20	-0.03	0.01	-0.25
Int	0.25	0.31	0.10	0.04	-0.30	-0.57

	IAC2	IAC3	IAC4	Int
	-----	-----	-----	-----
IAC2	3.31			
IAC3	2.91	3.67		
IAC4	2.89	3.05	3.95	
Int	2.85	3.14	3.11	3.77

HPV, Experiment 3, More Extreme Supporters

	HMP1	HMP2	HMP3	HMP4	TR1	TR2
HMP1	3.46					
HMP2	2.43	3.78				
HMP3	2.50	2.75	3.59			
HMP4	1.51	2.04	2.10	3.31		
TR1	-0.63	-0.65	-0.59	0.30	16.54	
TR2	-0.78	-0.97	-0.74	-0.07	11.66	11.06
TR3	-0.51	-0.91	-0.58	0.03	14.12	11.71
TR4	0.15	-0.34	0.30	1.21	17.10	13.56
TR5	0.19	-0.24	0.21	0.97	13.87	11.29
TR6	-0.21	-0.40	-0.20	0.16	14.01	11.58
GW1	-0.22	-0.44	-0.22	-0.01	6.57	5.39
GW2	-0.33	-0.50	-0.38	-0.04	8.81	7.71
GW3	-0.15	-0.35	-0.27	-0.07	8.00	6.87
GW4	-0.13	-0.33	-0.40	-0.06	8.07	6.95
GW5	0.03	-0.17	-0.23	0.06	7.11	5.83
GW6	-0.15	-0.34	-0.30	0.01	8.41	6.99
H1	0.03	0.17	0.03	0.00	-0.21	-0.14
H2	-0.05	-0.11	0.04	-0.09	-0.18	-0.14
H3	-0.05	-0.09	0.06	0.08	0.33	0.51
H4	0.04	0.01	0.06	0.20	0.00	0.18
H5	-0.07	-0.18	-0.18	-0.30	-0.10	0.09
IAC1	-0.15	-0.34	-0.26	0.12	0.60	0.43
IAC2	-0.09	-0.25	-0.41	0.02	0.84	0.69
IAC3	-0.02	-0.35	-0.36	-0.05	0.51	0.37
IAC4	-0.16	-0.49	-0.45	-0.10	1.32	1.02
	TR3	TR4	TR5	TR6	GW1	GW2
TR3	17.19					
TR4	18.83	30.39				
TR5	14.73	21.86	19.16			
TR6	14.05	18.11	15.09	20.21		
GW1	6.74	8.46	7.30	7.14	5.82	
GW2	9.23	10.89	9.27	9.18	5.66	9.19
GW3	8.31	9.86	8.31	8.08	5.16	7.82
GW4	8.39	9.98	8.39	8.24	5.17	7.99
GW5	6.93	8.83	7.70	7.92	4.38	5.76
GW6	8.60	10.90	8.96	8.90	5.44	6.97

	TR3	TR4	TR5	TR6	GW1	GW2
	-----	-----	-----	-----	-----	-----
M1	-0.11	0.04	-0.04	-0.13	-0.12	-0.20
M2	-0.30	-0.55	-0.55	-0.41	-0.20	-0.34
M3	0.35	0.25	0.08	0.23	0.05	-0.15
M4	0.17	0.19	0.20	0.18	-0.02	0.11
M5	-0.12	-0.09	0.02	0.16	0.27	0.11
IAC1	0.44	0.03	0.11	0.16	0.12	0.16
IAC2	0.75	0.44	0.34	0.46	0.33	0.53
IAC3	0.24	0.02	0.36	0.23	0.29	0.16
IAC4	1.26	1.21	1.07	0.74	0.57	0.73

	GW3	GW4	GW5	GW6	M1	M2
	-----	-----	-----	-----	-----	-----
GW3	7.97					
GW4	7.87	8.27				
GW5	5.44	5.71	6.61			
GW6	6.42	6.57	5.89	7.60		
M1	-0.25	-0.20	-0.23	-0.16	0.83	
M2	-0.29	-0.34	-0.07	-0.30	0.08	2.32
M3	-0.07	-0.14	-0.02	-0.06	0.13	1.33
M4	0.02	0.06	0.00	-0.02	0.15	0.51
M5	-0.03	0.09	0.06	0.11	0.23	0.54
IAC1	0.17	0.21	-0.13	0.00	0.21	0.41
IAC2	0.58	0.66	0.27	0.46	0.21	0.36
IAC3	0.21	0.29	0.14	0.19	0.16	0.20
IAC4	0.79	0.81	0.43	0.58	0.20	0.40

	M3	M4	M5	IAC1	IAC2	IAC3
	-----	-----	-----	-----	-----	-----
M3	2.23					
M4	0.52	1.51				
M5	0.36	0.32	2.09			
IAC1	0.33	0.38	-0.07	3.25		
IAC2	0.27	0.30	-0.04	2.83	3.35	
IAC3	0.49	0.28	-0.10	2.50	2.58	3.83
IAC4	0.46	0.44	0.11	2.75	2.90	2.84

	IAC4
	-----
IAC4	3.79

HPV, Experiment 3, More Extreme Opponents

	HMP1	HMP2	HMP3	HMP4	TR1	TR2
	-----	-----	-----	-----	-----	-----
HMP1	4.00					
HMP2	3.52	4.28				
HMP3	2.49	2.68	3.78			
HMP4	2.39	2.56	2.61	3.61		
TR1	0.49	-0.26	-0.19	-0.19	15.68	
TR2	0.22	-0.34	-0.40	-0.27	12.16	11.04
TR3	-0.18	-1.07	-0.60	-0.59	14.27	11.48
TR4	-0.80	-1.43	-0.70	-1.58	17.79	14.45
TR5	0.30	-0.29	0.05	-0.69	14.74	12.29
TR6	0.12	-0.24	-0.40	-1.25	15.03	12.47
GW1	0.24	0.14	-0.27	0.00	6.30	4.99
GW2	0.06	-0.03	-0.54	-0.72	7.70	6.81
GW3	0.18	0.05	-0.40	-0.59	7.21	6.50
GW4	0.03	-0.15	-0.51	-0.56	7.22	6.61
GW5	0.23	0.00	-0.32	-0.04	6.63	5.18
GW6	0.38	0.21	-0.12	-0.13	6.80	5.83
H1	-0.10	-0.03	-0.01	0.11	-0.22	-0.29
H2	0.18	0.50	0.11	0.32	0.40	0.43
H3	0.03	0.02	-0.10	-	-0.04	0.18
H4	0.11	0.27	0.05	0.09	-0.17	-0.37
H5	0.27	0.33	-0.02	0.19	-0.18	-0.04
IAC1	0.19	0.30	0.33	-0.01	0.56	0.25
IAC2	-0.07	0.01	0.21	0.00	0.18	-0.06
IAC3	0.12	0.24	0.43	0.12	0.53	0.39
IAC4	0.08	0.24	0.31	0.04	0.61	0.46

	TR3	TR4	TR5	TR6	GW1	GW2
	-----	-----	-----	-----	-----	-----
TR3	15.62					
TR4	19.12	29.25				
TR5	15.45	21.35	19.29			
TR6	15.02	20.50	17.66	19.71		
GW1	6.35	8.24	6.81	7.14	5.35	
GW2	7.72	10.13	8.82	8.51	5.09	8.74
GW3	7.31	9.63	8.35	8.10	4.79	7.33
GW4	7.30	9.44	8.18	7.99	4.69	7.64
GW5	6.27	7.90	6.52	7.25	3.95	4.20
GW6	6.65	8.60	7.13	7.19	4.57	5.71

	TR3	TR4	TR5	TR6	GW1	GW2
	-----	-----	-----	-----	-----	-----
M1	-0.19	0.23	-0.27	-0.23	0.08	-0.23
M2	-0.01	-0.19	0.10	0.22	0.22	0.01
M3	-0.42	-0.12	-0.60	0.07	-0.18	-0.06
M4	-0.40	-0.79	-0.45	-0.30	0.10	0.29
M5	-0.56	-0.79	-0.68	-0.97	-0.36	0.15
IAC1	0.50	1.23	0.90	0.72	-0.06	0.15
IAC2	0.07	0.41	0.37	0.19	-0.67	-0.77
IAC3	0.48	0.84	0.63	0.35	-0.14	0.30
IAC4	0.35	0.92	0.84	0.40	-0.27	0.15

	GW3	GW4	GW5	GW6	M1	M2
	-----	-----	-----	-----	-----	-----
GW3	7.90					
GW4	7.88	8.46				
GW5	4.34	4.71	5.85			
GW6	5.60	5.89	4.49	6.44		
M1	-0.21	-0.21	-0.01	-0.16	1.27	
M2	0.37	0.44	0.11	0.22	0.13	2.23
M3	0.09	0.20	0.03	-0.14	0.12	0.89
M4	0.06	0.21	0.13	0.10	0.03	0.39
M5	-0.07	-0.06	-0.27	-0.06	0.05	0.46
IAC1	0.26	0.11	-0.33	-0.21	0.06	0.29
IAC2	-0.64	-0.77	-0.62	-0.75	-0.07	0.22
IAC3	0.17	0.09	-0.27	-0.28	-0.01	0.25
IAC4	0.08	-0.05	-0.34	-0.19	0.09	0.49

	M3	M4	M5	IAC1	IAC2	IAC3
	-----	-----	-----	-----	-----	-----
M3	2.02					
M4	0.12	1.35				
M5	0.54	0.32	1.93			
IAC1	0.10	0.20	-0.10	3.52		
IAC2	0.19	0.00	-0.15	3.03	3.76	
IAC3	0.27	0.33	0.05	3.11	3.10	3.96
IAC4	0.25	0.28	0.21	3.02	3.25	3.30

	IAC4
	-----
IAC4	4.00

## References

- Aaker, J., Vohs, K., & Mogilner, C. (2010). Non-profits are seen as warm and for-profits as competent: Firm stereotypes matter. *Journal of Consumer Research*, 37, 126-130. doi:10.2139/ssrn.1540134
- Akin, S. (2013). NJ's 2002 smart-gun law could take effect soon, limit supply. *The Record*. Retrieved June 1, 2014 from <http://www.northjersey.com/help>
- Allen, J. L., & Post, D. J. (2009). Source valence in assessing candidate image in a local election. *Communication Research Reports*, 21, 174-187. doi:10.1080/08824090409359979
- Allport, G. (1954). *The Nature of Prejudice*. Reading, MA: Addison-Wesley.
- Andersen K., & Clevenger, T. Jr. (1963). A summary of experimental research in ethos. *Speech Monographs*, 30, 59-78. doi:10.1080/03637756309375361
- Aristotle. (1954). *Rhetoric* (W. R. Roberts, Trans). New York, NY: The Modern Library.
- Ariyanto, A., Hornsey, M. J., & Gallois, C. (2007). Group allegiances and perceptions of media bias: Taking into account both the perceiver and the source. *Group Processes & Intergroup Relations*, 10, 266-279. doi:10.1111/j.1467-839X.2006.00186.x
- Arpan, L. M., & Raney, A. A. (2003). An experimental investigation of news source and hostile media effect. *Journalism & Mass Communication Quarterly*, 80, 265-281. doi:10.1177/107769900308000203
- Bentler, P. M., & Cho, C.-P. (1987). Practical issues in structural modeling. *Sociological Methods & Research*, 16, 78-117. doi:10.1177/0049124187016001004
- Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2011). Evaluating online labor markets for

- experimental research: Amazon.com's Mechanical Turk. *Political Analysis*, 20, 351-368. doi:10.1093/pan/mpr057
- Berlo, D. K., Lemert, J. B., & Mertz, R. J. (1969). Dimensions for evaluating the acceptability of message sources. *Public Opinion Quarterly*, 33, 238-244. doi:10.1086/267745
- Bochner, S., & Insko, C. (1966). Communication discrepancy, source credibility, and opinion change. *Journal of Personality and Social Psychology*, 4, 614-621. doi:10.1037/h0021192
- Bock, D., & Saine, T. (1975). The impact of source credibility, attitude valence, and task sensitization on trait errors in speech evaluation. *Speech Monographs*, 42, 229-236. doi:10.1080/03637757509375898
- Bohner, G., Chaiken, S., & Hunyadi, P. (1994). The role of mood and message ambiguity in the interplay of heuristic and systematic processing. *European Journal of Social Psychology*, 24, 207-221.
- Bohner, G., Moskowitz, G., & Chaiken, S. (1995). The interplay of heuristic and systematic processing of social information. *European Review of Social Psychology*, 6, 33-68. doi:10.1080/14792779443000003
- Bohner, G., Ruder, M., & Erb, H.-P. (2002). When expertise backfires: Contrast and assimilation effects in persuasion. *British Journal of Social Psychology*, 41, 495-519. doi:10.1348/014466602321149858
- Boykoff, M. T. (2008). Lost in translation?: United States television news coverage of anthropogenic climate change, 1995-2004. *Climate Change*, 86, 1-11. doi:10.1007/s10584-007-9299-3



- Boysen, G. A., & Vogel, D. L. (2008). Education and mental health stigma: The effects of attribution, biased assimilation, and attitude polarization. *Journal of Social and Clinical Psychology, 27*, 447-470. doi:10.1521/jscp.2008.27.5.447
- Brann, M., & Himes, K. L. (2010). Perceived credibility of male versus female television newscasters. *Communication Research Reports, 27*, 243-252. doi:10.1080/08824091003737869
- Brewer, M. B. (1999). The psychology of prejudice: Ingroup love or outgroup hate? *Journal of Social Issues, 55*, 429-444. doi:10.1111/0022-4537.00126
- Brewer, M. B. (2005). The rise of partisanship and the expansion of partisan conflict within the American electorate. *Political Research Quarterly, 58*, 219-225. doi:10.2307/3595624
- Brewer, M. B., & Campbell, D. T. (1976). *Ethnocentrism and intergroup attitudes: East African evidence*. Beverly Hills, CA: Sage.
- Brewer, M. B., & Gardner, W. (1996). Who is this “we”? Levels of collective identity and self representations. *Journal of Personality and Social Psychology, 71*, 83-93. doi:10.1037/0022-3514.71.1.83
- Briñol, P., Petty, R. E., & Tormala, Z. L. (2004). The self-validation of cognitive responses to advertisements. *Journal of Consumer Research, 30*, 559-573. doi:10.1086/380289
- Brownell, K. D., & Frieden, T. R. (2009). Ounces of prevention – The public policy case for taxes on sugared beverage. *The New England Journal of Medicine, 360*, 1805-1808. doi:10.1056/NEJMp0902392
- Buhrmester, M. D., Kwang, T., & Gosling, S. D. (2011). Amazon’s Mechanical Turk: A

- new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science* 6, 3-5. doi:10.1177/1745691610393980
- Calderón, J. L., & Beltrán, R. A. (2004). Pitfalls in health communication: Healthcare policy, institution, structure, and process. *Medscape General Medicine*, 6, 9-14.
- Chaiken, S., Liberman, A., & Eagly, A. H. (1989). Heuristic and systematic information processing within and beyond the persuasion context. In J. S. Uleman & J. A. Bargh (Eds.), *Unintended thought* (pp. 212–252). New York, NY: Guilford.
- Chaiken, S., & Maheswaran, D. (1994). Heuristic processing can bias systematic processing: Effects of source credibility, argument ambiguity, and task importance on attitude judgment. *Journal of Personality and Social Psychology*, 66, 460-473. doi:10.1037/0022-3514.66.3.460
- Chaiken, S., Wood, W., & Eagly, A. H. (1996). Principles of persuasion. In E. T. Higgins and A.W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 702-742). New York, NY: Guilford Press.
- Chambers, J. R. Baron, R. S., & Inman, M. L. (2006). Misperceptions in intergroup conflict: Disagreeing about what we disagree about. *Psychological Science*, 17, 38-45. doi:10.1111/j.1467-9280.2005.01662.x
- Cheung, M. (2007). Comparison of approaches to constructing confidence intervals for mediating effects using structural equation models. *Structural Equation Modeling*, 14, 227-246. doi:10.1080/10705510709336745
- Choi, J., Yang, M., & Chang, J. C. (2009). Elaboration of the hostile media phenomenon: The roles of involvement, media skepticism, congruency of perceived media influence, and perceived opinion climate. *Communication Research*, 3, 54-75.

doi:10.1177/0093650208326462

- Christen, C. T., & Gunther, A. C. (2003). The influence of mass media and other culprits on the projection of personal opinion. *Communication Research*, 30, 414-431.
- Christen, C. T., Kannaovakun, P., & Gunther, A. C. (2002). Hostile media perceptions: Partisan assessments of press and public during the 1997 United Parcel Service Strike. *Political Communication*, 19, 423-436. doi:10.1080/10584600290109988
- Chung, S., Fink, E. L., & Kaplowitz, S. A. (2008). The comparative statics and dynamics of beliefs: The effect of message discrepancy and source credibility. *Communication Monographs*, 75, 158-189. doi: 10.1080/03637750802082060
- Clark, R. D., & Maass, A. (1988). The role of social categorization and perceived source credibility in minority influence. *European Journal of Social Psychology*, 18, 381-394. doi:10.1002/ejsp.2420180502
- Corso, R. (2012). Americans have broad trust in media in general. *Harris Interactive*. Retrieved January 15, 2014 from <http://www.harrisinteractive.com/NewsRoom/HarrisPolls/tabid/447/ctl/ReadCustom%20Default/mid/1508/ArticleId/961/Default.aspx>
- Cortina, J. M., Chen, G., & Dunlap, W. P. (2001). Testing interaction effects in LISREL: Examination and illustration of available procedures. *Organizational Research Methods*, 4, 324-360.
- Cozby, P., & Bates, S. (2011). *Methods in behavioral research* (11th ed.). New York, NY: McGraw-Hill.
- Crano, W. D. (1970). Effect of sex, response order, and expertise in conformity: A dispositional approach. *Sociometry*, 33, 239-252.

- Crisci, R., & Kassinove, H. (1973). Effect of perceived expertise, strength of advice, and environmental setting on parental compliance. *Journal of Social Psychology*, 89, 245-250. doi:10.1080/00224545.1973.9922597
- Cronkhite, G., & Liska, J. (1976). A critique of factor-analytic approaches to the study of credibility. *Communication Monographs*, 43, 91-107.  
doi:10.1080/03637757609375920
- Cunningham, B. (2003). Rethinking objectivity. *Columbia Journalism Review*, 2, 24-32.
- Dalton, R. J., Beck, P. A., & Huckfeldt, R. (1998). Partisan cues and the media: Information flows in the 1992 presidential election. *American Political Science Review*, 92, 111-126. doi:10.2307/2585932
- Dionne, E. J. (1996). *They only look dead: Why progressives will dominate the next political era*. New York, NY: Simon & Schuster.
- Druckman, J. N. (2001). On the limits of framing effects: Who can frame? *Journal of Politics*, 63, 1041-1066. doi:10.1111/0022-3816.00100
- Dumdum, O. O., & Garcia, M. C. A. (2011). Casting credibility: Patterns of audience assessment of TV news programs. *Plaridel*, 8, 51-70.
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. New York, NY: Harcourt College Publishers.
- Eagly, A. H., Wood, W., & Chaiken, S. (1978). Causal inferences about communicators and their effect on opinion change. *Journal of Personality and Social Psychology*, 36, 424-435. doi: 10.1037/0022-3514.36.4.424
- Ellemers, N., Spears, R., & Doosje, B. (2002). Self and social identity. *Annual Review of Psychology*, 53, 161-186. doi:10.1146/annurev.psych.53.100901.135228

- Erb, H.-P., Bohner, G., Schmälzle, K., & Rank, S. (1998). Beyond conflict and discrepancy: Cognitive bias in minority and majority influence. *Personality and Social Psychology Bulletin*, 24, 396-409.
- Eriksson, K., & Simpson, B. (2010). Emotional reactions to losing explain gender differences in entering a risky lottery. *Judgment and Decision Making*, 5, 159-163.
- Eveland, W. P., Jr., & Shah, D. V. (2003). The impact of individual and interpersonal factors on perceived media bias. *Political Psychology*, 24, 101-117.  
doi:10.1111/0162-895X.00318
- Fico, F., & Soffin, S. (1995). Fairness and balance of selected newspaper coverage of controversial national, state, and local issues. *Journalism & Mass Communication Quarterly*, 72, 621-633. doi:10.1177/107769909507200312
- Field, A. (2013). *Discovering statistics using IBM SPSS Statistics* (4<sup>th</sup> ed.). London: Sage Publications.
- Finney, S. J., & DiStefano, C. (2006). Non-normal and categorical data in structural equation modeling. In G. R. Hancock & R. O. Mueller (Eds.), *Structural equation modeling: A second course* (2<sup>nd</sup> ed., pp. 269-314). Greenwich, CT; Information Age Publishing.
- Fireworker, R. B., & Friedman, H. H. (1977). The effects of endorsements on product evaluation. *Decision Sciences*, 8, 576-583. doi:10.1111/j.1540-5915.1977.tb01104.x
- Fowler, J. H., & Cam, C. D. (2007). Beyond the self: Social identity, altruism, and political participation. *The Journal of Politics*, 69, 813-827. doi:10.1111/j.1468-

- Friedman, H. H., & Friedman, L. (1979). Endorser effectiveness by product type. *Journal of Advertising Research, 19*, 63-71.
- Gardner, R. M., Brown, D. L., & Boice, R. (2012). Using Amazon's Mechanical Turk website to measure accuracy of body size estimation and body dissatisfaction. *Body Image, 9*, 532-534. doi:10.1016/j.bodyim.2012.06.006
- Gaziano, C., & McGrath, K. (1986). Measuring the concept of credibility. *Journalism Quarterly, 63*, 451-462. doi:10.1177/107769908606300301
- Giles, H., & Giles, J. (2013). Chapter 7: Ingroups and outgroups. In A. Kurylo (Ed.), *Inter/Cultural Communication*. Thousand Oaks, CA; Sage.
- Giner-Sorolla, R., & Chaiken, S. (1994). The causes of hostile media judgment. *Journal of Experimental Social Psychology, 30*, 165-180. doi:10.1006/jesp.1994.1008
- Godler, Y., & Reich, Z. (2012). How journalists think about facts: Theorizing the social conditions behind epistemological beliefs. *Journalism Studies, 14*, 94-112. doi:10.1080/1461670X.2012.689489
- Gollust, S. E., Lantz, P. M., & Ubel, P. A. (2010). Images of illness: How causal claims and racial associations influence public preferences toward diabetes research spending. *Journal of Health Politics, Policy and Law, 35*, 921-959. doi:10.1215/03616878-2010-034
- Green-Pedersen, C., & Wilkerson J. (2006). How agenda-setting attributes shape politics: Basic dilemmas, problem attention and health politics developments in Denmark and the US. *Journal of European Public Policy, 13*, 1039-1052. doi: 10.1080/1350176060924092

- Gunther, A. C., & Chia, S. C. (2001). Predicting pluralistic ignorance: The hostile media perception and its consequences. *Journalism & Mass Communication Quarterly*, 78, 688–701. doi: 10.1177/107769900107800405
- Gunther, A. C., & Christen, C. T. (2002). Projection or persuasive press? Contrary effects of personal opinion and perceived news coverage on estimates of public opinion. *Journal of Communication*, 52, 177-195. doi:10.1037//0021-9010.61.1.85
- Gunther, A. C., Christen, C. T., Liebhart, J. L., & Chia, S. C.-Y. (2001). Congenial public, contrary press and biased estimates of the climate of opinion. *Public Opinion Quarterly*, 65, 295-320. doi:10.1086/322846
- Gunther, A. C., & Liebhart, J. L. (2006). Broad reach or biased source? Decomposing the hostile media effect. *Journal of Communication*, 56, 449-466. doi:10.1111/j.1460-2466.2006.00295.x
- Gunther, A. C., McLaughlin, B., Gotlieb, M. R., & Wise, D. A. (2013, June). Motivated evaluation of mediated information: The role of content and source affiliation in the hostile media effect. *Paper presented at the annual meeting of the International Communication Association, London, UK.*
- Gunther, A. C., & Schmitt, K. M. (2004). Mapping boundaries of the hostile media effect. *Journal of Communication*, 54, 55-70. doi:10.1093/joc/54.1.55
- Hackel, L. M., Looser, C. E., & Van Basel, J. J. (2014). Group membership alters the threshold for mind perception: The role of social identity, collective identification, and intergroup threat. *Journal of Experimental Social Psychology*, 52, 15-23. doi: 10.1016/j.jesp.2013.12.001
- Halperin, K., Snyder, C. R., Shenkel, R. J., & Houston, B. K. (1976). Effects of source

- status and message favorability on acceptance of personality feedback. *Journal of Applied Psychology*, 61, 85-88. doi:10.1037/0021-9010.61.1.85
- Hansen, G. J., & Kim, H. (2011). Is the media biased against me? A meta-analysis of the hostile media effect research. *Communication Research Reports*, 28, 169-179. doi:10.1080/08824096.2011.565280
- Harris Interactive. (2012). Many Americans ambivalent over laws aimed at healthy living: Poll. Retrieved June 10, 2013 from <http://www.harrisinteractive.com/NewsRoom/PressReleases/tabid/446/ctl/ReadCustom%20Default/mid/1506/ArticleId/986/Default.aspx>
- Hartmann, T., & Tanis, M. (2013). Examining the hostile media effect as an intergroup phenomenon: The role of group identification and status. *Journal of Communication*, 63, 535-555. doi: 10.1111/jcom.12031
- Hayes, A. F. (2013). *An introduction to mediation, moderation, and conditional process analysis*. New York, NY: The Guilford Press.
- Holbert, R. L. (2005). Intramedia mediation: The cumulative and complementary effects of news media use. *Political Communication*, 22, 447-462. doi: 10.1080/10584600500311378
- Holbert, R. L., & Stephenson, M. T. (2003). The importance of analyzing indirect effects in media effects research: Testing for mediation in structural equation modeling. *Journal of Broadcasting & Electronic Media*, 47, 553-569. doi: 10.1207/s15506878jobem4704\_5
- Horai, J. M., Naccari, N., & Fatoullah, E. (1974). Effects of expertise and physical attractiveness upon opinion agreement and liking. *Sociometry*, 37, 601-606.



doi:10.2307/2786431

Horton, J. J., Rand, D. G., & Zeckhauser, R. J. (2011). The online laboratory: Conducting experiments in a real labor market. *Experimental Economics*, 14, 399-425.

doi:10.1007/s1068301192739

Hovland, C. I., Janis, I. L., & Kelley, H. H. (1953). *Communication and persuasion: Psychological studies of opinion change*. New Haven, CT: Yale University Press.

Hovland, C., & Mandell, W. (1952). An experimental comparison of conclusion-drawing by the communicator and by the audience. *Journal of Abnormal and Social Psychology*, 47, 581-588. doi:10.1007/BF02716997

Hovland, C. I., & Weiss, W. (1951). Source credibility and effective communication. *Public Opinion Quarterly*, 16, 635-650. doi:10.1086/266350

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55. doi:10.1080/10705519909540118

Huckfeldt, R., & Sprague, J. (1995). *Citizens, politics, and social communication*. Cambridge, UK: Cambridge University Press.

Hunt, J. M., Dozmal, T. J., Kernan, J. B. (1982). Casual attributions and persuasion: The case of disconfirmed expectancies. *Advances in Consumer Research*, 9, 287-292.

Ipeirotis, P. G. (2010). Analyzing the Amazon Mechanical Turk marketplace. *XRDS: Crossroads*, 17, 16-21. doi:10.1145/1869086.1869094

Iyengar, S., & Kinder, D. (1987). *News that matters: Television and American opinion*. Chicago, IL: University of Chicago Press.

Johnson, H. H., & Izzett, R. (1969). Relationship between authoritarianism and attitude

- change as a function of source credibility and type of communication. *Journal of Personality and Social Psychology*, 13, 317-321. doi:10.1037/h0028440
- Johnson, H. H., Torvicia, J., & Poprick, M. (1968). Effects of source credibility on the relationship between authoritarianism and attitude change. *Journal of Personality and Social Psychology*, 9, 179-183. doi:10.1037/h0021250
- Kam, C. D., Wilking, J. R., & Zechmeister, E. J. (2007). Beyond the “narrow data base”: Another convenience sample for experimental research. *Political Behavior*, 29, 415-440. doi:10.1007/s11109-007-9037-6
- Kaplowitz, S. A., & McCright, A. M. (2014). *Quality of data of Mechanical Turk vs. Knowledge Networks samples on two similar gasoline tax surveys*. East Lansing, MI: Department of Sociology, Michigan State University.
- Kata, A. (2010). A postmodern Pandora’s box: Anti-vaccination misinformation on the Internet. *Vaccine*, 28, 1709-1716. doi: 10.1016/j.vaccine.2009.12.022
- Kelman, H., & Hovland, C. (1953). “Reinstatement” of the communicator in delayed measurement of opinion. *Journal of Abnormal and Social Psychology*, 48, 327-335. doi: 10.1037/h0061861
- King, T. R. (1966). An experimental study of the effects of ethos under the immediate and delayed recall of information. *Central States Speech Journal*, 17, 22-28. doi:10.1080/10510976609362812
- Lacy, S., Fico, F., & Simon, T. F. (1991). Fairness and balance in the prestige press. *Journalism Quarterly*, 68, 363-370. doi:10.1177/107769909106800306
- Ladd, J. M. (2010). The role of media distrust in partisan voting. *Political Behavior*, 32, 567-585. doi:10.1007/s11109-010-9123-z

- Lawrence, R. G. (2004). Framing obesity: The evolution of news discourse on a public health issue. *International Journal of Press/Politics*, 9, 56-75.  
doi:10.1177/1081180X04266581
- Lee, T.-T. (2010). The liberal media myth revisited: An examination of factors influencing perceptions of media bias. *Journal of Broadcasting & Electronic Media*, 49, 43-64. doi:10.1207/s15506878jobem4901\_4
- Leer, M. (2013). HPV: Vaccination rates increase and infection rate decreases. *The Council of State Governments Knowledge Center*. Retrieved May 25, 2014 from <http://knowledgecenter.csg.org/kc/content/hpv-vaccination-rates-increase-and-infection-rate-decreases>
- Levine, B. A., Moss, K. C., Ramsey, P. H., & Fleishman, R. A. (1978). Patient compliance with advice as a function of communicator expertise. *Journal of Social Psychology*, 104, 309-310. doi:10.1177/1081180X04266581
- Lirtzman, S. I., & Shuv-Ami, A. (1986). Credibility of source of communication on products' safety hazards. *Psychological Reports*, 58, 707-718.  
doi:10.2466/pr0.1986.58.3.707
- Lord, C. G., Ross, L., & Lepper, M. R. (1979). Biased assimilation and attitude polarization: The effects of prior theories on subsequently considered evidence. *Journal of Personality and Social Psychology*, 37, 2098-2109. doi:10.1037//0022-3514.37.11.2098
- Lord, C. G., & Taylor, C. A. (2009). Biased assimilation: Effects of assumptions and expectations on the interpretation of new evidence. *Social and Personality Psychology Compass*, 3, 827-841. doi:10.1111/j.1751-9004.2009.00203.x

- Maddux, J. E., & Rogers, R. W. (1980). Effects of source expertness, physical attractiveness, and supporting arguments on persuasion: A case of brains over beauty. *Journal of Personality and Social Psychology*, 39, 235-244.  
doi:10.1037/0022-3514.39.2.235
- Mason, W., & Suri, S. (2012). Conducting behavioral research on Amazon's Mechanical Turk. *Behavioral Research Methods*, 44, 1-23. doi:10.3758/s13428-011-0124-6
- Mastro, D. E. (2003). A social identity approach to understanding the impact of television messages. *Communication Monographs*, 70, 98-113. doi: 10.1080/0363775032000133764
- Mastro, D., & Atwell Seate, A. (2012). Group membership in race-related media processes and effects. In H. Giles (Ed.), *The Handbook of Intergroup Communication* (pp. 357-369). New York: Routledge.
- Mastro, D., Behm-Morawitz, E., & Kopacz, M. (2008). Exposure to TV portrayals of Latinos: The implications of aversive racism and social identity theory. *Human Communication Research*, 34, 1-27. doi:10.1111/j.1468-2958.2007.00311.x
- Matheson, K., & Dursun, S. (2001). Social identity precursors to the hostile media phenomenon: Partisan perceptions of coverage of the Bosnian conflict. *Group Processes & Intergroup Relations*, 4, 116-125.  
doi:10.1177/1368430201004002003
- McCroskey, J. C. (1966). Scales for the measurement of ethos. *Speech Monographs*, 33, 65-72. doi:10.1080/03637756609375482
- McCroskey, J. C. (1992). *An introduction to communication in the classroom*. Edina, MN: Burgess International Group.

- McCroskey, J. C., Holdridge, W., & Toomb, J. K. (1974). An instrument for measuring the source credibility of basic speech communication instructors. *Speech Teacher*, 23, 26–33. doi:10.1080/03634527409378053
- McCroskey, J. C., & Jenson, T. A. (1975). Image of mass media news sources. *Journal of Broadcasting* 19, 69-181. doi:10.1080/08838157509363777
- McCroskey, J. C., & Richmond, V. P. (1996). *Fundamentals of human communication: An interpersonal perspective*. Prospect Heights, IL: Waveland Press.
- McCroskey, J. C., & Teven, J. J. (1999). Goodwill: A reexamination of the construct and its measurement. *Communication Monographs*, 66, 90-103. doi:10.1080/03637759909376464
- McCroskey, J. C. & Young, T. J. (1981). Ethos and credibility: The construct and its measurement after three decades. *Central States Speech Journal*, 32, 24-34. doi:10.1080/10510978109368075
- McGinnies, E. (1973). Initial attitude, source credibility, and involvement as factors in persuasion. *Journal of Experimental Social Psychology*, 9, 285-296. doi:10.1016/0022-1031(73)90066-8
- McGinnies, E., & Ward, C. (1974). Persuasibility as a function of source credibility and locus of control: Five cross-cultural experiments. *Journal of Personality*, 42, 360-371. doi:10.1111/j.1467-6494.1974.tb00680.x
- Miller, G., & Baseheart, J. (1969). Source trustworthiness, opinionated statements, and response to persuasive communication. *Speech Monographs*, 36, 1-7. doi: 10.1080/03637756909375602
- Miller, J. M., & Krosnick, J. A. (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, 301-315.  
doi:10.2307/2669312
- Nan, X. (2009). The influence of source credibility on attitude certainty: Exploring the moderating effects of timing of source identification and individual need for cognition. *Psychology and Marketing*, 26, 321-332. doi:10.1002/mar.20275
- National Conference of State Legislators (2014). *HPV vaccine*. Retrieved March 17, 2014 from <http://www.ncsl.org/research/health/hpv-vaccine-state-legislation-and-statutes.aspx>
- Niederdeppe, J., Gollust, S., Jarlenski, M., Nathanson, A., & Barry, C. (2013). News coverage of sugar-sweetened beverage taxes: Pro- and anti-tax arguments in public discourse. *American Journal of Public Health*, 103, e92-e98.
- Niederdeppe, J., Porticella, N., & Shapiro, M. A. (2012). Using theory to identify beliefs associated with support for policies to raise the price of high-fat and high-sugar foods. *Journal of Health Communication*, 17, 90-104.  
doi:10.1080/10810730.2011.585694
- Oakes, P., Haslam, S. A., & Turner, J. C. (1994). *Stereotypes and social reality*. Oxford, UK: Basil Blackwell.
- Ohanian, R. (1991). The impact of celebrity spokesperson's perceived image on consumers' intention to purchase. *Journal of Advertising Research*, 31, 46-52.
- O'Hara, B., Netemeyer, R., & Burton, S. (1991). An examination of the relative effects of source expertise, trustworthiness, and likability. *Social Behavior & Personality*, 19, 305-314. doi:10.2224/sbp.1991.19.4.305

- O'Keefe, D. J. (2002). *Persuasion: Theory and research* (2nd ed.). Thousand Oaks, CA: Sage.
- Oliver, J. E., & Lee, T. (2005). Public opinion and the politics of obesity in America. *Journal of Health Politics*, 30, 923-954. doi: 10.1215/03616878-30-5-923
- Perloff, R. M. (1989). Ego-involvement and the third-person effect of televised news coverage. *Communication Research*, 16, 236-262.  
doi:10.1177/009365089016002004
- Perloff, R. M. (2003). *The dynamics of persuasion: Communication and attitudes in the 21st century* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Petty, R. E., & Cacioppo, J. T. (1986). *Communication and persuasion: Central and peripheral routes to attitude change*. New York, NY: Springer-Verlag.
- Petty, R. E., Cacioppo, J. T., & Goldman, R. (1981). Personal involvement as a determinant of argument-based persuasion. *Journal of Personality and Social Psychology*, 41, 847-855.
- Petty, R. E., & Wegener, D. T. (1999). The elaboration likelihood model: Current status and controversies. In S. Chaiken & Y. Trope (Eds.), *Dual process theories in social psychology* (pp. 41–72). New York, NY: Guilford Press.
- Petty, R. E., Wegener, D. T., & Fabrigar, L. R. (1997). Attitudes and attitude change. *Annual Review of Psychology*, 48, 609-647.  
doi:10.1146/annurev.psych.121208.131609
- Pew Research Center for the People and the Press. (2013, August 8). Amid criticism, media's watchdog role stands out. Retrieved March 4, 2013 from <http://www.people-press.org/2013/08/08/amid-criticism-support-for-medias->

watchdog-role-stands-out/

Pornpitakpan, C. (2004). The persuasiveness of source credibility: A critical review of five decades' evidence. *Journal of Applied Social Psychology*, 34, 243-281.

doi:10.1111/j.1559-1816.2004.tb02547.x

Powell, F. (1965). Source credibility and behavioral compliance as determinants of attitude change. *Journal of Personality and Social Psychology*, 2, 669-676.

doi:10.1037/h0022724

Priester, J. R., & Petty, R. E. (1995). Source attributions and persuasion: Perceived honesty as a determinant of message scrutiny. *Personality and Social Psychology Bulletin*, 21, 637-654. doi:10.1177/0146167295216010

Public Policy Polling. (2013). 2013 Archive. Retrieved June 1, 2014 from

<http://www.publicpolicypolling.com/main/2013-archive.html>

Reed, J. R., & Schwarz, H. (2014, February 13). Harp proposes CT soda tax. *Yale Daily News*. Retrieved May 15, 2014, from

<http://yaledailynews.com/blog/2014/02/13/harp-proposes-ct-soda-tax/>

Reid, S. (2012). A self-categorization explanation for the hostile media effect. *Journal of Communication*, 62, 381-399. doi:10.1111/j.1460-2466.2012.01647.x

Robinson, R. J., Keltner, D., Ward, A., & Ross, L. (1995). Actual versus assumed differences in construal: "Naive realism" in intergroup perception and conflict.

*Journal of Personality and Sociology*, 68, 404-417.

Schulman, G., & Worrall, C. (1970). Salience patterns, source credibility, and the sleeper effect. *Public Opinion Quarterly*, 34, 371-382. doi:10.1086/267813

Simon, T. F., Fico, F., & Lacy, S. (1989). Covering conflict and controversy: Measuring



- balance, fairness, defamation. *Journalism Quarterly*, 66, 427-434.  
doi:10.1177/107769908906600223
- Simons, T. (2002). Behavioral integrity: The perceived alignment between managers' words and deeds as a research focus. *Organization Science*, 13, 13-35.  
doi:10.1287/orsc.13.1.18.543
- Skitka, L. J., Bauman, C. W., & Sargis, E. G. (2005). Moral conviction: Another contributor to attitude strength or something more? *Journal of Personality and Social Psychology*, 88, 895-917. doi:10.1037/0022-3514.88.6.895
- Slater, M. D., & Rouner, D. (1996). Value affirmative and value protective processing of alcohol education messages that include statistics or anecdotes. *Communication Research*, 23, 210-235. doi:10.1177/009365096023002003
- Smith, E. R., Seger, C. R., & Mackie, D. M. (2014). Can emotions be truly group level? Evidence regarding four conceptual criteria. *Journal of Personality and Social Psychology*, 93, 431-446. doi:10.1037/0022-3514.93.3.431
- Smith, K. C., Wakefield, M., & Edsall, E. (2006). The good news about smoking: How do U.S. newspapers cover tobacco issues? *Journal of Public Health Policy*, 27, 166-181. doi: 10.1057/palgrave.jphp.3200079
- Steinberg, J. (2014). Why you should be concerned about the new 'smart guns' (whether you love or hate guns). *Forbes*. Retrieved July 31, 2014, from <http://www.forbes.com/sites/josephsteinberg/2014/05/04/smartguns/>
- Steinmetz, K. (2014). Soda wars bubble up across the country. *TIME*. Retrieved May 15, 2014 from <http://time.com/8758/soda-wars-bubble-up-across-the-country/>

- Sternthal, B., Dholakia, R., & Leavitt, C. (1978). The persuasive effects of source credibility: Tests of cognitive response. *Journal of Consumer Research*, 4, 252-260.
- Sternthal, B., Phillips, L., & Dholakia, R. R. (1978). The persuasive effect of source credibility: A situational analysis. *Public Opinion Quarterly*, 42, 285-314.  
doi:10.1086/268454
- Sullum, J. (2014). Survey shows adults who use e-cigarettes to quit smoking supposedly prefer juvenile flavor. *Forbes*. Retrieved July 31, 2014, from <http://www.forbes.com/sites/jacobsullum/2014/07/17/survey-shows-adults-who-use-e-cigarettes-to-quit-smoking-prefer-allegedly-juvenile-flavors/>
- Sun, Y. & Hwang, H. (2013). Biased media with “discrepant” effects: Mediated sociotropic perceptions and political participatory behaviors. *Paper presented at the annual meeting of the International Communication Association, London, England*.
- Suri, S., & Watts, D. J. (2011). Cooperation and contagion in Web-based, networked public goods experiments. *PLoS One*, 6, e16836.
- Tavernise, S. (2013). FDA ruling would all but eliminate trans fats. *The New York Times*. Retrieved June 1, 2014 from [http://www.nytimes.com/2013/11/08/health/fda-trans-fats.html?pagewanted=all&\\_r=0](http://www.nytimes.com/2013/11/08/health/fda-trans-fats.html?pagewanted=all&_r=0)
- Teven, J. J. (2008). An examination of the perceived credibility of the 2008 presidential candidates: Relationships with believability, likeability, and deceptiveness. *Human Communication*, 11, 383-400.
- Teven, J. J., & McCroskey, J. C. (1997). The relationship of perceived teacher caring

- with student learning and teacher evaluation. *Communication Education*, 46, 1-9.  
doi:10.1080/03634529709379069
- Tormala, Z. L., Briñol, P., & Petty, R. E. (2007). Multiple roles for source credibility under high elaboration: It's all in the timing. *Social Cognition*, 25, 536-552.  
doi:10.1521/soco.2007.25.4.536
- Tsfati, Y. (2002). *The consequences of mistrust in the news media: Media skepticism as a moderator in media effects and as a factor influencing news media exposure*. (Doctoral dissertation). Retrieved from UMI Digital Dissertations database. (AAT 3043970)
- Tsfati, Y. (2003). Does audience skepticism of the media matter in agenda setting? *Journal of Broadcasting and Electronic Media*, 47, 157-176.
- Vallone, R. P., Ross, L., & Lepper, M. R. (1985). The hostile media phenomenon: Biased perception and perceptions of media bias in coverage of the Beirut massacre. *Journal of Personality and Social Psychology*, 49, 577-585. doi:10.1037/0022-3514.49.3.577
- Vamos, C. A., McDermott, R. J., & Daley, E. M. (2008). The HPV vaccine: Framing the arguments for and against mandatory vaccination of all middle school girls. *Journal of School Health*, 78, 302-309. doi:10.1111/j.1746-1561.2008.00306.x
- Wei, R., Chia, S. C., & Lo, V.-H. (2011). Third-person effect and hostile media perception influences on voter attitudes toward polls in the 2008 U.S. presidential election. *International Journal of Public Opinion Research*, 23, 169-190.  
doi:10.1093/ijpor/edq044
- Weiner, J. L., & Mowen, J. C. (1986). Source credibility: On the independent effects of

- trust and expertise. *Advances in Consumer Research*, 13, 306-310.
- Woodside, A. G., & Davenport, J. W. (1974). The effect of salesman similarity and expertise on consumer purchasing behavior. *Journal of Marketing Research*, 11, 198-202. doi:10.2307/3150562
- Yale Rudd Center. (2014). Sugar-sweetened beverages/taxes. Retrieved June 1, 2014 from [http://www.yaleruddcenter.org/what\\_we\\_do.aspx?id=271](http://www.yaleruddcenter.org/what_we_do.aspx?id=271)
- Zelizer, B. (2004). When facts, truth, and reality are God-terms. On journalism's uneasy place in cultural studies. *Communication and Critical/Cultural Studies*, 1, 100-199.
- Ziegler, R. (2010). Mood, source characteristics, and message processing: A mood-congruent expectancies approach. *Journal of Experimental Social Psychology*, 46, 743-752. doi:10.1016/j.jesp.2010.04.014