

Conflict Framing of the News and Group Polarization

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*To my family*

## Abstract

Partisan polarization has been at the center of scholarly attention. Many studies on this topic have underscored *elite* polarization as a primary cause of mass polarization in American politics. Relatively little attention has been paid to the role of *mass media* in promoting polarization. This is partly because of the notion that news media largely reflect political reality. However, when it comes to news making, the role of journalists should not be underestimated: Journalists choose *what* to report among thousands events happening all over the world and *how* to report the event. This active role of journalists in the news reporting process is conceptualized as *framing*. *Conflict* is known as the most prevalent way American journalists frame their stories (de Vreese, 2012; Neuman, Just, & Crigler, 1992).

In this present dissertation, I argue that conflict framing—especially news media emphasis on partisan conflict in their coverage of political events—contributes to partisan polarization. Drawing on self-categorization theory of group polarization (Turner et al., 1987), I hypothesize that as a vicarious experience of partisan conflict, conflict-framed news will lead people to respond to the disputed issue as members of the Democratic or Republican Party instead of as unique individuals; this increased partisan self-categorization is a mechanism behind the news effect.

This group polarization hypothesis is tested with three experimental studies. Specifically, with a use of diverse samples of students and non-students, Studies 1 and 2 find supporting evidence that Democrats and Republicans exposed to partisan conflict-framed news adopt more polarized positions along party lines when news exposure elicits their partisan identity. To rule out a potential confounding effect of the so-called party

cue effects (Goren, Federico, & Kittilson, 2009), Study 3 retests the group polarization hypothesis in the context of *gender* polarization. The findings of Study 3 are robust. Exposure to gender conflict-framed news promotes attitude polarization between women and men; increased gender self-categorization accounts for the news effect.

The findings inform us that media reflection of elite polarization (Cohen, 2003; Druckman, Peterson, & Slothuus, 2013) and the growing popularity of partisan cable news channels (Bennett & Iyengar, 2008; Stroud, 2010) fail to paint a whole picture when it comes to the link between news media and polarization in American mass public. Many scholars have criticized the news media for transforming politics into a “strategic game” (Patterson, 1993) or “spectator sport” (Price, 2009) and are concerned about the potentially-negative influence of this style of coverage on deliberative democracy. By examining the polarizing effect of news coverage that *oversells* the competitive aspect of party politics, the present dissertation study provides some of the only evidence that speaks to these claims.

The second part of this dissertation examines whether self-categorization theory sheds new light on polarization research beyond and above current literature. To that end, I explore three possible mechanisms through which conflict framing may elicit group polarization of attitudes: (1) by increasing group *self-categorization*, (2) by increasing *motivated reasoning*, and (3) by increasing *intergroup animus*. Data from Studies 1, 2, and 3 provide promising but conflicting results: For partisan polarization, motivated reasoning is the most powerful explanatory mechanism behind the polarizing effect of the news. Yet, for gender polarization, self-categorization theory was the most powerful mechanism. Understanding of *how* conflict framing promotes partisan polarization is

critical because it paves the ways to combat the negative effects of the news. Implications and directions for future studies are discussed.

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## **Chapter 1**

### **Introduction**

In 1961 a Stanford graduate student, James Stoner, reported an intriguing finding of group influence. Specifically, Stoner asked participants what a fictional character, Henry, should do in a dilemma situation where he was thinking of quitting a job and pursuing his dream of becoming a novelist. Most of the participants advised Henry not to resign but to find something that could help him be more prepared to be a professional writer. Stunningly, however, after discussing the case with others, the participants retracted their initial caution and became more supportive of Henry's idea of leaving the current job (Stoner, 1961 cited in Myers & Lamm, 1976). This was the first evidence that group decisions were more extreme than individual decisions made in isolation.

The scope of the research on this topic has been expanded to various contexts such as jury deliberation (Myers & Kaplan, 1976), faculty evaluations (Andrews & Johnson, 1971), and bargaining (Lamm & Sauer, 1974). With great reliability for a wide range of discussion items and cultural contexts, research consistently found that people express more extreme opinions on a disputed issue after participating in group discussion (see Isenberg, 1986; Michener & Wasserman, 1995; Myers, 1982; Myers & Lamm, 1976 for review). The group influence of this sort was conceptualized as *group polarization* (Moscovici & Zavalloni, 1969). Research on group polarization was so popular that there was a time when "some journals were threatening a moratorium on publishing any more research on the topic" (Burke, 2003, p. 380).

However, this plethora of research has not reached a conclusion on *how* group discussion leads to polarized attitudes. Several theories have been proposed to explain the phenomenon of group polarization. Among all of these theoretical approaches, I find self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) particularly valuable because it does not require physical participation in group discussion as the prerequisite for group polarization of attitudes. Instead, the theory posits that it is not group discussion itself but the *salience of group identity*, elicited by group discussion, which is the real factor in group polarization.

This conceptualization of self-categorization theory allows me to address one notable oversight in the current literature—the role of mass media in exacerbating group polarization. Put another way, the theory suggests that mass media will promote polarization between two social groups if media exposure makes a relevant group identity salient. For example, when a news story on a mass shooting elicits partisan identity (i.e., myself as a Democrat or a Republican), Democrats will express stronger support for gun regulations and Republicans will express stronger opposition to gun control. If this polarization effect of the news is the case, self-categorization theory may shed new light on studies examining the role of mass media in the growing political polarization in the United States (Abramowitz, 2010; Pew Research, 2013, 2014b).

Therefore, in the present dissertation studies I address three pertinent questions about the relationship between news media and polarization in American politics. First, I ask whether news media can lead Democrats and Republicans to hold more polarized positions on a contentious issue. Second, I examine whether increased partisan self-categorization mediates this effect, consistent with the self-categorization theory of group

polarization. Third, I test whether the self-categorization theory approach enhances current understanding of how news media exacerbates partisan polarization. I address these questions in the four following chapters. Before introducing my hypotheses and study designs in each of these chapters, I review how self-categorization theory explains group polarization and how news media can be integrated into the given polarization process. I then discuss why I test the group polarization hypothesis in the context of American politics.

### **Self-categorization Theory of Group Polarization**

Self-categorization theory (Turner et al., 1987) conceptualizes group polarization as a three-step process: Group identity salience, exaggeration of in-group prototypes, and assimilation to the group prototype. In the first stage, when a particular group identity becomes *salient*, it means that people think of themselves as members of the group instead of as unique individuals (Hogg & Reid, 2006; Hogg, 2003; Oakes, 2002; Turner, Oakes, Haslam, & McGarty, 1994).

Importantly, such shift in a self-definition leads individuals to behave in a manner more consistent with group prototypes. Goren, Federico and Kittilson (2009), for example, found that after hearing that Democrats believe in equal opportunity and moral tolerance and Republicans believe in self-reliance and moral traditionalism, Democrats and Republicans expressed stronger support for those political values in accordance with their own party affiliation. Similarly, Onorato and Turner (2004) showed that when directed to think of themselves in terms of their gender, female participants described themselves as more dependent but male participants described themselves as more

independent; this gender split did not appear when participants were directed to think of themselves as an individual (see Cadinu & Galdi, 2012; Kuppens & Yzerbyt, 2012; Sinclair, Hardin, & Lowery, 2006; Steele & Aronson, 1995 for more examples).

What is noteworthy is that the presence of intergroup conflict makes group prototypes more distinctive from each other because group members are encouraged to make sense of a disputed issue by actively comparing and contrasting where their group (in-group) and the opposing group (out-group) stand (Abrams, Wetherell, Cochrane, Hogg, & Turner, 1990; Hogg, Turner, & Davidson, 1990; Hogg, 2003; Mackie & Cooper, 1984; Mackie, 1986). As a result, the contrast of the prototypes between the two groups becomes intensified; this is the second stage toward group polarization—namely, exaggeration of in-group prototypes. Taking Mackie's (1986) experiment as an example, when students were informed that their group was in conflict with another group, they indicated that the in-group position on a target issue (i.e., the abolition of standardized tests for university admission) was more extreme and more distinct from the out-group's.

In the third and last stage, when group members assimilate their own positions to this perceptually exaggerated in-group prototype, group polarization occurs: Group members adopt more extreme attitudes on a disputed issue in the direction of their group.

## **News and Partisan Polarization**

This brings me to a second question: How can news exposure be integrated into the group polarization phenomenon as grounded in self-categorization theory? The theory posits that group identity salience activates the subsequent processes of group polarization, such as exaggeration of in-group prototype and assimilation to the prototype

(Mackie & Cooper, 1984; Mackie, 1986; Turner et al., 1987). Therefore, if news exposure can make a partisan identity salient, it can ultimately promote polarization. This line of reasoning encapsulates the second question in how the news increases the level of partisan identity salience.

A considerable body of research on intergroup relations points out intergroup conflict as an effective facilitator of group identity salience (Riek, Mania, & Gaertner, 2006; Sherif, 1956; Tajfel, Billig, Bundy, & Flament, 1971; Tajfel & Turner, 1979, 1986/2004). Also, studies of political communication have frequently assumed that conflict-centered political messages would increase the salience of partisan identity. Building on this premise, the effect of news media has been tested on polarized policy attitudes (e.g., Arceneaux, Johnson, & Cryderman, 2013; Druckman, Peterson, & Slothuus, 2013; Levendusky, 2013a) and on intergroup animus between Democrats and Republicans (e.g., Iyengar, Sood, & Lelkes, 2012; Iyengar & Westwood, 2015). Outside of a political realm, Price (1989) further revealed that students' self-identification as humanities or hard-sciences majors increased after exposure to a news story about conflicts of opinion between the two student groups.

Thus, I argue that when news media emphasize partisan confrontation in their reporting of political events, news exposure can impart vicarious experience of intergroup conflict to the minds of news consumers and make their partisan identities salient. In turn, salient partisan identity will activate the chain of cognitive pathways toward group polarization along party lines.

## **Polarization In American Politics**

I am particularly interested in testing the group polarization hypothesis consistent with self-categorization theory in U.S. politics for three reasons. First, growing polarization between Democrats and Republicans is a continuing problem in American politics. Although scholars have debated whether this political divide is a “disappearing center” phenomenon (Abramowitz, 2010) or an extreme-partisans-to-be-more-extreme phenomenon (Fiorina & Abrams, 2008), there is clear evidence that individuals who actively identify with the Democratic or Republican Party now hold more divergent ideological positions and policy attitudes than in the past (e.g., Pew, 2013). Also, intergroup animus between Democrats and Republicans has grown to the extent that they see the other party as a threat to the nation (Pew, 2014b). Relatedly, recent research showed that partisans’ discrimination against opposing partisans outperformed discrimination based on race. Specifically, in Iyengar and Westwood’s (2015) study, when asked to chose a winner of a scholarship, between two equally competitive finalists participants more heavily relied on candidates’ party affiliation than their race. Such current states of partisan polarization in the United States give grounds for focus of the present dissertation studies.

Second, a two-party system characterizes American politics. The proposed group polarization hypothesis will operate best within a two-group paradigm (Abrams, Wetherell, Cochrane, Hogg, & Turner, 1990; Hogg, Turner, & Davidson, 1990; Hogg, 2003; Mackie & Cooper, 1984; Mackie, 1986). Thus, the two-party system of American politics offers a better natural setting for testing the theory than other countries that adopt multiparty systems.

Third and lastly, American news media are notorious for their level of attention to partisan conflict. Conflict is the most prevalent way in which media frames politics because it is a useful tool for drawing attention to and selling the news (de Vreese, 2012; Neuman, Just, & Crigler, 1992; Patterson, 1993; Price, 1989). As a stark example, when health care reform was one of the top news stories, twice as much news covered tactics and strategies used by the Democratic or Republican Party in the legislative fight (41%) as what the reform would actually do (23%). Only nine percent of the coverage noted the current state of the health care system (Project for Excellence in Journalism, 2012). Given the prevalence of conflict frames in U.S. media, it is important to examine the consequences of such news-media framing.

## **Dissertation Overview**

The objective of this dissertation project is to test the impact of news media on partisan polarization in the United States. Informed by self-categorization theory (Turner et al., 1987), I address questions about the role of media's conflict framing. First, I examine whether exposure to partisan conflict-framed coverage of a political issue leads Democrats and Republicans to hold more polarized positions on the issue in question. Second, I ask whether partisan polarization occurs via three cognitive stages—namely, partisan identity salience, exaggeration of in-party prototypes, and assimilation to the group prototype. Chapter 2 addresses these two focal questions with two experimental studies. To enhance external validity of the findings, Study 1 uses a student sample and Study 2 uses a non-student adult sample of U.S. citizen.

In Chapter 3, I retest the group polarization hypothesis beyond the political realm to explore *gender* polarization where group categories carry less prominent rivalry group schema. This replication is designed to address a potential confounding variable, namely party cue, that may also contribute to partisan polarization. That is, extant studies show that party cues associated with rivalry group schema can induce attitude polarization along party lines (e.g., G. Cohen, 2003; Druckman et al., 2013; Kahan, 2013). Retesting group polarization hypothesis in an apolitical context is thus expected to bolster internal validity of conflict framing.

In Chapters 4 and 5, I further examine whether the self-categorization theory approach enhances current understanding of the relationship between conflict framing and partisan polarization. By testing self-categorization theory against widely accepted theoretical frameworks—most prominently, motivated reasoning (G. Cohen, 2003) and intergroup animus (Iyengar, Sood, & Lelkes, 2012)—I aim to advocate the utility of group polarization literature in further theorizing the role of news media in the genesis of political polarization. Specifically, in Chapter 4 I directly test whether the *partisan* polarization effect of conflict framing is mediated by motivated reasoning, intergroup animus, and/or partisan self-categorization. In Chapter 5 the role of the three mediators are tested in the relationship between conflict framing and *gender* polarization.

In Chapter 6, a concluding section, I synthesize the findings and discuss their limitations and implications.

Lastly, the present dissertation study includes a review paper: A validity test of multiple measures of partisan identity salience (see *Appendix A*). Because self-categorization theory points out partisan identity salience as the most critical factor in

group polarization, I employ multiple salience measures—i.e., importance rating task (Nelson, Clawson, & Oxley, 1997), thought-listing (Price, 1989) and the Party Self-categorization Implicit Association Test (Cadinu & Galdi, 2012). With these measures, I test whether exposure to partisan conflict-framed news heightens the level of partisan identity salience. This review paper also shows the performance of each measure in a set of validity assessments including concurrent validity, convergence validity, and predictive validity. The findings of this review paper explain why thought-listing measure of partisan identity salience is used in the main analyses.

## **Chapter 2**

### **Conflict Framing and Partisan Polarization: A Self-categorization**

#### **Theory Approach**

Group polarization refers to group-induced increase in attitude extremity (Isenberg, 1986; Michener & Wasserman, 1995; Moscovici & Zavalloni, 1969; Myers, 1982). In this dissertation study, I argue that one-time news exposure can bring such a change. Drawing on self-categorization theory (Turner et al., 1987), I expect that conflict-framed news would impart vicarious experience of partisan conflict to the minds of news consumers, then people with a salient partisan identity would behave more consistently with their party prototypes, thus expressing more extreme positions in the direction of their parties.

Below, I begin with the definition of partisan conflict framing of the news and discuss how such news framing exacerbates partisan polarization. Relatedly, I elaborate a cognitive pathway toward group polarization—partisan identity salience, extremitization of in-party prototype, and assimilation—consistent with self-categorization theory. Next, I report two analyses showing (1) the main effect of partisan conflict framing on group polarization and (2) the indirect effect of partisan conflict framing via the proposed pathway. To increase external validity of the findings, the tests were performed with a student sample and an adult sample respectively.

## **Partisan Conflict Framing of the News**

In the most general sense of the term, conflict framing refers to an emphasis in news coverage on conflict between two individuals, groups, or institutions (Neuman et al., 1992; Price, Tewksbury, & Powers, 1997; Price, 1989; Valkenburg, Semetko, & de Vreese, 1999). Given the focus of the present study, I focus in particular on conflict between the two major political parties in the United States. Specifically, I use the terms *partisan conflict-framed news* or *partisan conflict framing* hereafter to refer to news-media emphasis on partisan confrontation between Democrats and Republicans.

The framing of stories about one of President Obama's major tax proposals illustrates this basic concept well. The proposal, which would have applied a minimum tax rate of 30 percent on households making an annual income over \$1 million, was presented differently by Democrats and Republicans. Specifically, Democrats called it a "Fair Share Tax" (Rusche, 2012), while Republicans dismissed the legitimacy of the tax proposal referring it to as a "class warfare" (Rusche, 2011).

Conventional studies of framing typically invoke two-sided disputes of this sort, exposing different groups of study participants to one frame or the other to gauge effects on the issue positions they subsequently express (Chong & Druckman, 2007).<sup>1</sup> In actual news media coverage, the real-world parallel to this kind of framing study can be found in the programming of overtly partisan cable channels (e.g., Fox News and MSNBC), which often select one party's issue frames and amplify it. Many studies have found that repeated exposure to such politically biased cable news channels exacerbates attitude

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<sup>1</sup> Examples include gain/loss frames (Kahneman & Tversky, 1984), episodic/thematic frames (Iyengar, 1991), free speech/public order frames (Nelson et al., 1997), conflict/human interest/consequence frames (Price et al., 1997), ethical/material frames (Shah, Domke, & Wackman, 1996), and conflict/human interest/economic consequence frames (Valkenburg et al., 1999).

polarization along party lines (e.g., Arceneaux, Johnson, & Cryderman, 2013; Hollander, 2008; Iyengar & Hahn, 2009; Jones, 2002; Levendusky, 2013a, 2013b; Stroud, 2008, 2010).

However, conventional news outlets, which prize balance, fairness and objectivity, typically seek to present both sides of an issue (Kovach & Rosenstiel, 2001; Schudson, 2001), setting the stage for conflict framing. Framing of this sort—rather than focusing on one side of an issue—describes policy differences between Democrats and Republicans in terms of overt conflict. Thus, in the present example, partisan conflict-framed news would describe tax policy as a “battleground” for Democrats and Republicans. Above all, it emphasizes opposite arguments from the two parties on an issue.

Despite their increased popularity, partisan cable news channels are taking up less than one-twentieth of the average viewership of conventional news channels, namely three networks, NBC, CBS, and ABC, which present both sides of arguments (Pew, 2014a). This statistic suggests that if there is an effect, conflict framing may be more influential than partisan bias in the news. In addition, partisan cable channels strongly emphasize partisan confrontation (e.g., Levendusky, 2013b; for empirical support see Project for Excellence in Journalism, 2012). It suggests that conflict framing may be a factor in the polarizing effects of partisan media. However, this conflict framing coexists with an even more-prominent feature of news coverage on partisan channels—namely, their political slant. This makes it difficult for extant research to distinguish the effect of partisan conflict framing from the effect of outright partisan bias.

Thus, I propose the first hypothesis referred to as *Hypothesis 1*: Exposure to partisan conflict framed-news would increase attitude polarization on that issue in the news coverage.

### **Partisan Identity Salience, Group prototypes, and Polarization**

This brings me to a next question: What explains the effect, if any, of partisan conflict-framed news on political polarization? Guided by self-categorization theory (Turner et al., 1987), exposure to partisan conflict-framed news should induce group polarization along party lines through three cognitive stages—i.e., partisan identity salience, exaggeration of in-party prototype, and assimilation to the group prototype. First, as a vicarious experience of intergroup conflict, exposure to partisan conflict-framed news should make Democrats and Republicans come to think about themselves as partisans to a greater degree (e.g., Arceneaux et al., 2013; Druckman et al., 2013; Iyengar, Sood, & Lelkes, 2012; Levendusky, 2013a).

Next, with such a salient partisan identity, people think, feel, and behave more consistently with the prototypical representation of their party (e.g., Goren, Federico, & Kittilson, 2009). This group influence is known as *self-stereotyping* (Hogg, 2003; Hogg & Turner, 1987; for empirical evidence, see Cadinu & Galdi, 2012; Kuppens & Yzerbyt, 2012; Onorato & Turner, 2004; Sinclair, Hardin, & Lowery, 2006; Steele & Aronson, 1995). In the discussion of self-stereotyping, a *prototype*—a stereotypical attribute of the group—holds paramount importance as it predicts people’s cognitive, affective, and behavioral responses as members of social groups. Some examples of partisan prototypes

include that Democrats support social welfare and Republicans advocate for small government.

In many cases, group prototypes are stored in memory, but they can also be constructed or modified at any time. When a group prototype is formed, it follows the principle of *metacontrast* (Hogg, 2003; Oakes, 2002; Oakes, Turner, & Haslam, 1991; Turner et al., 1987; Turner, Oakes, Haslam, & McGarty, 1994). By inflating the differences between groups (e.g., Democrats and Republicans) while deflating the differences within groups, characteristics of the groups in comparison become stereotypically exaggerated. Taken together, from the perspective of self-categorization theory, group polarization occurs when group members assimilate into this stereotypically exaggerated in-group prototype.

As a demonstration, Mackie and Cooper (1984, Experiment 2) found that student participants listening to a taped discussion “extremized” their group’s position (either support or opposition) on the abolishment of standardized tests for university admission. Consequently, they expressed more extreme positions on the given issue in the direction of their group. What is important is both extremization and polarization emerged among participants who were informed that they would join one of the groups prior to listening to the taped discussion, but not among participants having no such information (see Hogg, Turner, & Davidson, 1990; Mackie, 1986; Price, 1989 for more examples). This finding supports the idea that group identity salience, or a sense of group membership, activates the subsequent processes toward group polarization—i.e., extremization of in-group prototypes and assimilation to the in-group prototype.

Thus, I expect that when exposure to partisan conflict-framed news increases the level of partisan identity salience, Democrats and Republicans will exaggerate in-party prototypes in opposite directions—i.e., Democrats will think their party to be more supportive for, whereas Republicans will think their party to be more opposed to the issue at hand, or vice versa. Subsequently, Democrats and Republicans express more extreme positions in the direction of their party. I refer to this indirect effect of conflict framing on partisan polarization via partisan identity salience, extremization of in-party prototypes, and assimilation as *Hypothesis 2*.

### **The Present Study**

The objectives of the present study are two-fold. I first test whether exposure to partisan conflict-framed news induces attitude polarization along party lines. Next, consistent with self-categorization theory, I further test whether attitude polarization occurs when Democrats and Republicans with a salient partisan identity follow stereotypically exaggerated in-party prototypes. The questions were addressed in two studies; in order to increase external validity, Study 1 uses with a student sample and Study 2 uses an adult sample of US citizen.

#### **Study1**

##### **Method**

The hypotheses are tested by a between-subjects experiment (news exposure: partisan conflict-framed news vs. news without partisan conflict).

## Participants

A total of 259 college students were recruited campus-wide from the University of Minnesota. Twenty-four participants were excluded from all analyses, as they were not eligible to vote in the United States. Fifty-four participants who had no partisan identity as a Democrat or a Republican were also excluded because partisan identity is central to test self-categorization theory, leaving a sample size of 181<sup>2</sup> (65.2% Democrats). Party identification was measured by the items in the American National Election Study (ANES) and asked participants the question of whether they consider themselves as supporters of Democrats, Republicans, Independents, or other.<sup>3</sup> The sample consisted of 74.6% women and was 82.3% white. The average age of the participants was 20 years ( $SD = 2.70$ ) with a range from 18 to 45 years of age. Participants' areas of study were diverse: Natural sciences/engineering (21.5%), journalism and mass communication (19.9%), other social sciences (19.3%), humanities (12.7%), arts (10.5%), business (10.5%), and undeclared (5.5%). The median family income was between \$90,000 and \$99,999.

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<sup>2</sup> A statistical power analysis was performed for a sample size estimation. Based on data from pilot study ( $N = 45$ ), the effect size of conflict-framed news on partisan polarization (Cohen's  $f^2 = .118$ ) was quite small using J. Cohen's (1988) criteria. With an alpha = .05, and power = .80, the projected sample size with this effect size was 85. Thus, the total sample of 181 should be adequate for the main objectives of this study that involve potential mediating variables. The power analysis was performed using GPower 3.1 software.

<sup>3</sup> The ANES measure of party identification is multi-faceted. Depending on their first answer, a stem question further assesses the strength of party identification. To those first identifying themselves as an Independent or other, a stem question asks whether they think of themselves as closer to Democrats, Republicans, or neither. Extant literature reports that leaning Independents response similarly to partisans (e.g., Abramowitz, 2010). However, party identification, a form of group membership, is of paramount importance in testing self-categorization theory. The theory posits that a particular group identity becomes salient when a given situation interacts with a chronically assessable self-concept. Based on this theoretical argument, exposure to conflict-framed news is less likely to elicit partisan identities in the minds of Independents because partisan identity does not pertain to them. Therefore, the subject of the present study was restricted to participants who declared their partisanship.

## **Stimuli**

Two news stories were constructed with regard to the so-called “Buffett Tax” proposal<sup>4</sup>, which would require people making over \$1 million to pay a tax of at least thirty percent of their income. The news stories were based on factual information and had the appearance of day-to-day news stories in the American newspapers. The news topic was chosen due to its timeliness. President Obama included the Buffett Tax in his 2015 budget proposal. The data were collected in November 2014.

*Partisan conflict-framed news* emphasized partisan controversy about the Buffett Tax. That is, the ongoing partisan tax debate was directly spelled out in the headline (i.e., Partisan Tensions Flare in Tax Debate) and closing statement. In addition, repeated party cues, such as “Republican House Representative” or “Democratic Senator,” were utilized. Voices from the Democratic and Republican Parties were juxtaposed through direct quotations in an effort to make the news story unbiased. The number and length of quotations were kept consistent across Democratic and Republican sources (see the Measure section below for the exact wording of arguments from both sides).

On the other hand, *news without partisan conflict* simply referred to the fact that a new tax plan, the so-called Buffett Tax, was released. The news story mainly described what the Buffett Tax is without mentioning partisan debate on the tax proposal at all. As such, neither party cues nor any kinds of conflict were presented in the news story. The description of the Buffett Tax was the same as that in the partisan conflict-framed news.

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<sup>4</sup> The Obama administration has been called the tax plan the “Fair Share Tax” (Rusche, 2011b). However, the term itself carries an ideological implication, so I decided to use the Buffett Tax instead.

The news stimuli are formatted to be consistent with a typical news story layout comprised of a large headline, by-line, and several short paragraphs. The actual news stimuli are attached in *Appendix B*.

## **Procedure**

Participants completed an online questionnaire at the time of recruitment and a week later came to a lab at an assigned session time. In the online pre-test, personality traits (e.g., need for cognition), political knowledge, party identification, and demographics were asked. In the offline main study, participants were seated in a cubicle with a desktop computer and responded to another online questionnaire. They were first randomly assigned to one of the news stimuli and then responded to a series of questions beginning with their own positions on the Buffett Tax proposal followed by questions about in-party prototypes and partisan identity salience. After debriefing, participants received either extra credit or a \$5 gift card for their voluntary participation.

## **Measures**

**Partisan Identity Salience.** I utilized Price's (1989) thought-listing technique. Participants were asked to write down any thoughts or feelings that crossed their minds while reading the news story. Two trained coders counted the number of thoughts or feelings referencing Democrats (e.g., Democrats, liberals, left-wing) and/or Republicans (e.g., Republicans, conservatives, right-wing) in the written responses. Following Price (1989), the valence of the responses was also analyzed. Coders counted the number of

thoughts or feelings in the written responses that were (1) positive or supportive in overall tone, (2) negative or hostile in overall tone, and (3) neutral in overall tone.

After a series of training sessions, coders first analyzed all responses independently. Coders then discussed each coding inconsistency and tried to reach consensus counts. The inter-coder reliabilities, assessed by bivariate correlations, were 1.000 for the counts of references to Democrats and/or Republicans (i.e., refC), 0.937 for the counts of positive thoughts (i.e., posC), 0.941 for the counts of negative thoughts (i.e., negC), and 0.934 for the counts of neutral thoughts (i.e., neutC). Ultimately each count was computed by averaging coders' independent counts.

As with Price (1989), the thought-listing measure of partisan identity salience was computed as the weighted count of references with the percentage of the number of positive and negative thoughts. The exact equation was as follows:

$$\text{Partisan Identity Salience} = \text{refC} \times \left\{ 1 + \left( \frac{\text{posC} + \text{negC}}{\text{posC} + \text{negC} + \text{neutC}} \right) \right\}.$$

Greater scores in the thought-listing measure indicate that news exposure generated more thoughts and feelings related to their partisan identities, equivalent to higher level of partisan identity salience.

**In-party prototype.** Participants indicated to what extent they think the Democratic and Republican Party agree or disagree with the Buffett Tax proposal on a 9-point Likert scale (1 = *strongly disagree*, 9 = *strongly agree*) respectively. I used Democrats' estimated positions of the Democratic Party as Democrats' in-party prototype and Republicans' estimated positions of the Republican Party as Republicans' in-party prototype.

**Issue position.** Participants indicated to what extent they agree or disagree with the Buffett Tax proposal on a 9-point Likert scale (1 = *strongly disagree*, 9 = *strongly agree*).

Table 1 summarizes the bivariate correlations and descriptive statistics of the focal variables.

Table 1  
*Bivariate Correlations and Descriptive Statistics of Key Variables (N = 181 students)*

	Correlations		Descriptive Statistics	
	1	2	<i>M</i>	<i>SD</i>
1. Partisan identity salience	—		2.52	2.86
2. In-party prototype	.12	—	5.95	2.88
3. Issue position	-.004	.60***	6.57	1.81

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

Looking at Table 1, the bivariate correlations between partisan identity salience and the other variables were low and statistically insignificant. These low correlations were expected because both in-party prototype and issue position were measured with bipolar measures (ranging from *strongly disagree* to *strongly agree*) and should vary between Democrats and Republicans; conversely, the measure of partisan identity salience is unidimensional and should not vary based on participants' party identification.

## Results

### Manipulation Check

A pilot test confirmed that the news stories differed in terms of their focus on partisan conflict without noticeable political bias. Forty-five students completed a pencil and paper questionnaire as part of a class activity. Students were randomly exposed to partisan conflict-framed news ( $n = 22$ ) or news without partisan conflict ( $n = 23$ ). They then indicated to what extent they thought the news story that they just read (1) emphasized the partisan conflict between Democrats and Republicans on a 5-point scale (1 = *not at all emphasized conflict*, 5 = *very much emphasized conflict*) and (2) was more in favor of either Democrats or Republicans on a 5-point scale (1 = *Much more supportive of Democrats*, 3 = *Supportive of neither Democrats nor Republicans*, 5 = *Much more supportive of Republicans*).<sup>5</sup>

Participants indicated that partisan conflict-framed news put more emphasis on partisan conflict about the Buffett Tax proposal ( $M = 3.55$ ) than news without partisan conflict ( $M = 2.13$ ), mean difference = 1.42,  $t(43) = 5.331$ ,  $p = .000003$ , partial  $\eta^2 = .398$ . Also, they found both conflict-framed news ( $M = 3.14$ ) and news without conflict ( $M = 2.65$ ) politically unbiased, mean difference = .48,  $t(43) = 1.831$ ,  $p = .074$ , partial  $\eta^2 =$

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<sup>5</sup> Prior to a pilot test, I consulted with two professional reporters on the news stimuli. Christopher Ison and Scott Libin both have more than thirty years of experience as journalists. Mr. Ison served as the assistant editor at the *Star Tribune* and won a Pulitzer Prize for his investigative reporting in 1990. Mr. Libin has led newsrooms at various TV stations from Boston to Honolulu. I asked them to read the two news stimuli and respond to a pilot test questionnaire.

Both professionals confirmed that the content of the news stories were accurate and reliable. Although they pointed out that the names of public figures associated with a job title such as “Republican House Representative” or “Democratic Senator” were not authentic, it was my purpose to rule out potential leadership effect exerted by names of real politicians.

In response to the questionnaire, both Mr. Ison and Mr. Libin rated conflict-framed news as *very much emphasized conflict* and news without conflict as *not at all emphasized conflict*. In terms of political bias in the news, they described both news stories as *supportive of neither Democrats nor Republicans*.

.072. Additional 2 (news exposure)  $\times$  3 (party identification) between-subjects ANOVAs showed no interaction effect on both partisan conflict and political bias,  $p > .48$ . These findings were replicated in the main study.<sup>6</sup>

## Main Analyses

**Hypothesis 1: Polarization effect of partisan conflict framing.** To test the effect of partisan conflict-framed news on attitude polarization, I performed a 2 (news exposure)  $\times$  2 (party identification) between-subjects ANOVA on participants' issue positions. The two-way ANOVA found a significant interaction effect,  $F(1, 177) = 14.983, p = .0001$ , partial  $\eta^2 = .078$ . The results are summarized in Table 2.

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<sup>6</sup> Due to an ample sample size of the main study, a 2 (news exposure)  $\times$  2 (party identification) between-subjects multivariate analysis of variance (MANOVA) was formed on (1) news focus on partisan conflict and (2) political bias in the news.

The result of MANOVA showed no significant interaction effects between the two dependent variables, Wilks's  $\lambda = .996, F(2, 176) = .371, p = .691$ , partial  $\eta^2 = .004$ . This allows me to examine the main effects on the two dependent variables separately. First, the univariate  $F$  tests found that conflict-framed news put a greater emphasis on partisan conflict ( $M = 3.65, SD = .75$ ) than news without conflict ( $M = 2.69, SD = 1.17$ ), mean difference = .94,  $F(1, 177) = 38.644, p < .000001$ , partial  $\eta^2 = .179$ . Second, regarding political bias in the news, participants found no distinctive political bias between conflict-framed news ( $M = 2.52, SD = .93$ ) and news without conflict ( $M = 2.43, SD = 1.04$ ), mean difference = .09,  $F(1, 177) = .241, p = .624$ , partial  $\eta^2 = .001$ . Responses were not significantly different between Democrats and Republicans,  $p > .80$ .

These results confirm a clear difference in the emphasis of partisan conflict between the two news stories without a distinctive political bias.

Table 2

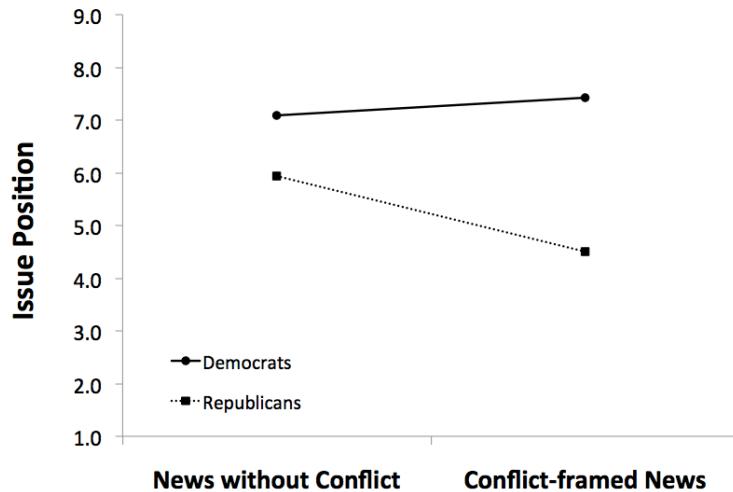
*Attitude Polarization as a Function of Partisan Conflict Framing and Party Identification (N=181 students)*

	News without conflict			Conflict-framed news		
	N	M	SD	N	M	SD
Republicans	31	5.94	1.61	32	4.50	2.08
Democrats	46	7.09	1.28	72	7.43	1.14
Source		SS	df	MS	F	$\eta_p^2$
News Exposure		12.026	1	12.026	5.644*	.031
PartyID		168.082	1	168.082	78.877***	.308
News Exp. $\times$ PartyID		31.927	1	31.927	14.983***	.078
Error		377.176	177	2.131		

Note.  $R^2 = .363$ . \*  $p < .05$    \*\*  $p < .01$    \*\*\*  $p < .001$ .

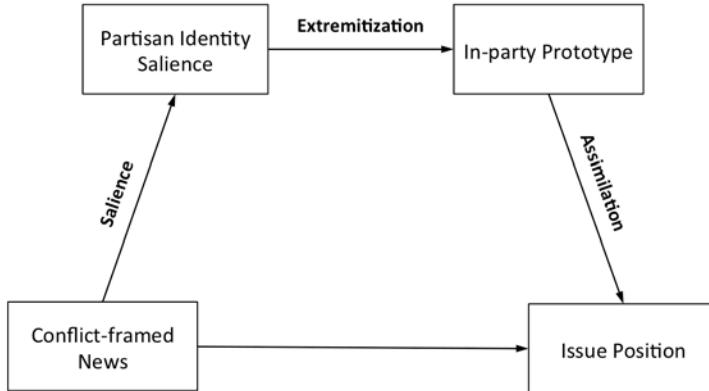
A post-hoc Bonferroni group comparison revealed that Democrats and Republicans held significantly different issue positions on the Buffett Tax proposal even after reading news without partisan conflict, mean difference = 1.151,  $F(1, 177) = 11.523$ ,  $p = .001$ , partial  $\eta^2 = .061$ . But the difference was greater after exposure to partisan conflict-framed news, mean difference = 2.931,  $F(1, 177) = 89.285$ ,  $p < .0000001$ , partial  $\eta^2 = .335$ . Given the larger effect size of polarization in response to partisan conflict framing, H1 was supported.

Figure 1 illustrates the results.



**Figure 1** Attitude polarization along party lines as a function of conflict-framed news ( $N=181$  students)

**Hypothesis 2: Indirect effect of partisan conflict framing.** Drawing on self-categorization theory, I hypothesized that conflict-framed news would induce partisan polarization via partisan identity salience, extremitization of in-party prototype, and assimilation. Figure 2 illustrates the proposed indirect effect. It is important to note that to account for polarization, the indirect effect should be moderated by party identification. That is, Democrats with a salient partisan identity would think their party more supportive for the Buffett Tax proposal and subsequently expressing stronger support for the given issue. Conversely, Republicans with a salient partisan identity would think their party more opposed to the Buffett Tax proposal and subsequently expressing stronger opposition to the given issue.



**Figure 2** A path model conceptualizing the indirect effect of conflict-framed news on partisan polarization.

To test moderation and mediation simultaneously, I used a multi-group structural equation modeling (SEM) with maximum likelihood estimation as recommended by Edwards and Lambert (2007). The proposed path model toward partisan polarization was assessed within each group of the moderating variable—i.e., party identification—and the path coefficients of the model were compared between Democrats and Republicans. In this analysis, the news exposure condition was dummy coded (1 = conflict-framed news, 0 = news without conflict). Before fitting the model, I first examined univariate distributions of endogenous variables in an effort to avoid estimation errors from violation of normality assumption. The analysis supported normal distributions of the endogenous variables in terms of skewness (ranged from  $-.02$  to  $1.17$ ) and kurtosis (ranged from  $-1.23$  to  $.91$ ). All estimates were computed by AMOS 18.0.

Fit indices suggested a poor fit with the data. The model chi-square test rejected the exact-fit hypothesis,  $\chi^2 = 15.437$ ,  $df = 5$ ,  $p = .009$ , although another absolute fit index, standardized root mean square residual (SRMR =  $.018$ ), was acceptable.

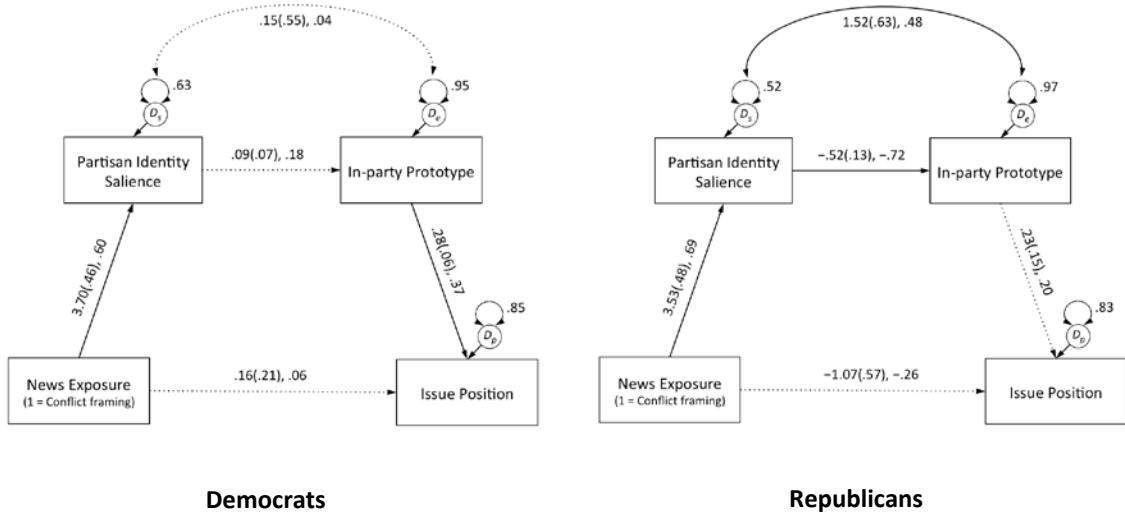
Regarding incremental fit of the model, comparative fit index ( $CFI = .923$ ) reported less than 95% improvement in fit compared to the null model, suggesting a poor fit. A parsimonious fit index, root mean squared error of approximation ( $RMSEA = .111$ ), also suggested a poor fit.

To better specify the model, I added a new parameter by correlating the disturbances of partisan identity salience ( $D_s$ ) and in-party prototypes ( $D_e$ ). According to self-categorization theory, the presence of partisan conflict should make (1) partisan identity salient and (2) partisans stereotypically exaggerate in-party prototypes following the principle of metacontrast. This suggests that partisan identity salience and extremitization of in-party prototypes may co-occur or at least occur within a very short period of time. Therefore, while this part of the theory is murky, I re-specified the model as described.

This re-specification improved model fit:  $\chi^2 = 7.375$ ,  $df = 3$ ,  $p = .061$ , SRMR = .016, CFI = .968, and RMSEA = .093 (Hu & Bentler, 1999).

To test whether the corresponding parameters varied between Democrats and Republicans, I created an alternative model in which all four-path parameters were constrained to be equal between Democrats and Republicans. The chi-square statistics of this constrained model ( $\chi^2 = 29.014$ ,  $df = 7$ ,  $p < .001$ ) was statistically worse than that of the unconstrained model,  $\chi^2$  difference = 13.639,  $df$  difference = 4,  $p = .008$ . The chi-square difference test supported the model parameters of Democrats diverged from those of Republicans.

The results of multi-group path analysis are summarized in Figure 3.



**Figure 3** A multi-group path analysis showing the indirect effect of conflict-framed news on partisan polarization. Estimates are reported as unstandardized (standard error), standardized. Standardized estimates for disturbances are proportions of unexplained variance. Solid lines indicate significant path coefficients at the alpha level of .05. Dashed lines indicate insignificant path coefficients.

First, I examined the path coefficients for the impact of conflict framing on partisan identity salience. Looking at the relevant paths in Figure 3, Democrats exposed to conflict-framed news showed a higher level of partisan identity salience than Democrats exposed to news without conflict ( $b = 3.70$ ,  $SE = .46$ ,  $p < .001$ ). The same was true of Republicans ( $b = 3.53$ ,  $SE = .48$ ,  $p < .001$ ). No difference was statistically significant, critical ratio for difference =  $-.253$ ,  $p = .800$ .

I then examined whether the level of partisan identity salience is associated with extremitization of in-party prototypes. The more salient partisan identity was, the more supportive Democrats thought their party for the Buffett Tax proposal ( $b = .09$ ,  $SE = .07$ ,  $p = .239$ ); but it did not reach statistical significance. For Republicans, however, the more salient partisan identity was, the more opposed they thought the Republican party to the

Buffett Tax proposal ( $b = -.52$   $SE = .13$ ,  $p < .001$ ). The difference between Democrats and Republicans was statistically significant, critical ratio for difference =  $-3.925$ ,  $p = .0001$ .

Democrats' positions on the Buffett Tax proposal positively correlated with the perceived in-party prototype ( $b = .28$ ,  $SE = .06$ ,  $p < .001$ ). The same was true of Republicans ( $b = .23$ ,  $SE = .15$ ,  $p = .143$ ), yet it did not reach statistical significance. The difference between Democrats and Republicans was not statistically significant, critical ratio for difference =  $-.339$ ,  $p = .734$ .

Lastly, I examined the indirect effect of conflict-framed news via partisan identity salience, extremization of in-party prototypes, and assimilation. A bootstrap re-sampling method, available at AMOS 18.0, provides a statistical significance test for indirect effects through multiple mediators. One advantage of this analytic strategy is that bootstrapping accounts for the potential non-normality of the sampling distribution of the indirect effects (Hayes, 2013; Imai, Keele, Tingley, & Yamamoto, 2011). The 95% bias-corrected confidence intervals using 5,000 samples found that the proposed indirect effect of conflict-framed news on attitude polarization was supported neither by Democrats, (*indirect effect = .09, bootstrap SE = .10*), CI [-.047 to .392] nor by Republicans (*indirect effect = -.42, bootstrap SE = .30*), CI [-1.135 to .084]. The confidence intervals excluding zero indicate no-mediation (Hayes, 2013; Imai et al., 2011). Thus, the indirect effect of conflict-framed news via partisan identity salience, extremization of in-party prototype, and assimilation (H2) was not supported.

While controlling for the indirect effect, there was no direct effect of conflict framing on attitude polarization was significant among Democrats ( $b = .16$ ,  $SE = .21$ ,  $p = .442$ ) and Republicans ( $b = -1.07$ ,  $SE = .57$ ,  $p = .062$ ).

## Discussion

In this dissertation study, I argue that partisan conflict-framed news can induce group polarization along party lines. Guided by self-categorization theory, I hypothesized that the news effect would occur through partisan identity salience, extremization of in-party prototypes, and assimilation to the party prototypes. My data showed limited but promising evidence for the hypotheses. First, I found that exposure to conflict-framed news made Democrats and Republicans hold more polarized positions on the issue under contention. Although the proposed indirect effect was not supported, the direct effect of partisan conflict framing on attitude polarization disappeared after controlling for the indirect effect. This strongly suggests that partisan identity salience and/or in-party prototypes to some extent mediated the effects of partisan conflict framing on attitude polarization of Democrats and Republicans.

Before drawing a conclusion, I retested Hypotheses 1 and 2 with a non-student adult sample. Student samples have been criticized for their lack of generalizability as college students are less interested in politics and have less established partisan identities than adults (Converse, 1969; Sears, 1986). Indeed, the news topic of Study 1—income tax rates—is more relevant to adults than students. This suggests two possibilities. First, given their higher interests, it is likely that adult partisans have more crystalized attitudes toward tax policies including the Buffett Tax proposal and are less likely to change their

positions after one time news exposure. Second, as stronger party identifiers than students, adult partisans may be more responsive to partisan conflict framing and show a stronger attitude polarization as members of a political party. To address these threats to the external validity, I decided to retest the group polarization hypotheses by using an adult sample of U.S. citizens.

## **Study 2**

### **Method**

This study replicated Study 1 with a modification. Study 2 was a one-time online study. Measures included in the pretest of Study 1 were assessed at the end of the questionnaire (note that none of these variables, except for demographics, were included in the analysis). Demographic questions were first asked. After randomly exposed to one of news stimuli, participants responded to the dependent variables of which measurements were the same as Study 1.

## **Participants**

A total of 196 participants were recruited from a diverse convenience sample of adult US citizens through the Qualtrics online survey panels. As with Study 1, self-identified independents were excluded, leaving a sample size of 130. The sample consisted of 56.9% were Democrats, 59.2% were women, and 80.0% were white. The average age of the participants was 49 ( $SD = 14$ ), with a range from 20 to 76 years of age. The median household income was between \$40,000 and \$49,999.

## Results

### Manipulation Check

To confirm that the manipulation works for the adult sample, manipulation check questions were asked at the end of the questionnaire. Participants indicated to what extent they thought the news story that they just read (1) emphasized the partisan conflict between Democrats and Republicans on a 5-point scale (1 = *not at all emphasized conflict*, 5 = *very much emphasized conflict*) and (2) was more in favor of either Democrats or Republicans on a 5-point scale (1 = *Much more supportive of Democrats*, 3 = *Supportive of neither Democrats nor Republicans*, 5 = *Much more supportive of Republicans*).

To test whether conflict-framed news and news without conflict are different in terms of their focus on partisan conflict but without noticeable political bias, a 2 (news exposure)  $\times$  2 (party identification) between-subjects multivariate analysis of variance (MANOVA) was performed on (1) news focus on partisan conflict and (2) political bias in the news. The result of MANOVA showed no significant interaction effects on the dependent variables, Wilks's  $\lambda = .980$ ,  $F(2, 121) = 1.230$ ,  $p = .296$ , partial  $\eta^2 = .020$ . This allows me to examine the main effects on the two dependent variables separately. First, the univariate  $F$  tests found that conflict-framed news put a greater emphasis on partisan conflict ( $M = 3.79$ ,  $SD = .87$ ) than news without conflict ( $M = 3.16$ ,  $SD = 1.05$ ), mean difference = .63,  $F(1, 122) = 12.603$ ,  $p = .001$ , partial  $\eta^2 = .094$ . Second, regarding political bias in the news, participants found no distinctive political bias between conflict-framed news ( $M = 2.40$ ,  $SD = .96$ ) and news without conflict ( $M = 2.66$ ,  $SD = 1.07$ ),

mean difference = .26,  $F(1, 122) = 2.026$ ,  $p = .157$ , partial  $\eta^2 = .016$ . Responses were not significantly different between Democrats and Republicans,  $p > .50$ .

## Main Analyses

**Hypothesis 1: Polarization effect of partisan conflict framing.** To test whether exposure to conflict-framed news produces group polarization along party lines, a 2 (news exposure)  $\times$  2 (party identification) ANOVA between-subjects was performed on participants' issue positions. The two-way ANOVA found a significant interaction effect,  $F(1, 126) = 3.978$ ,  $p = .048$ , partial  $\eta^2 = .031$ . The results are summarized in Table 3.

Table 3

*Attitude Polarization as a Function of Partisan Conflict Framing and Party Identification (N = 130 non-students)*

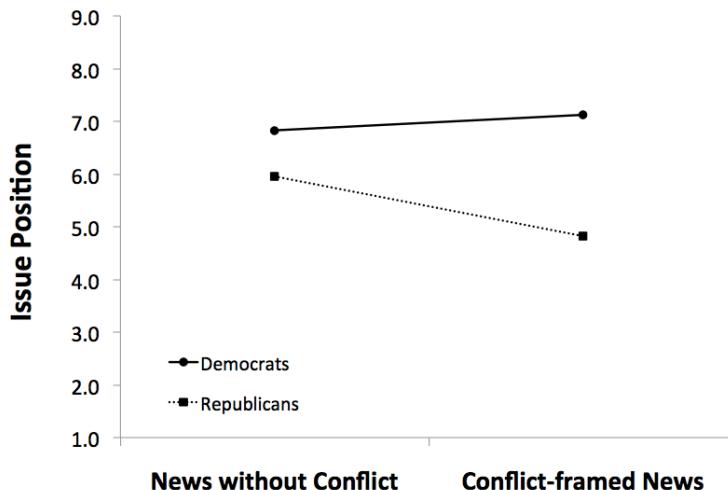
	News without conflict			Conflict-framed news		
	N	M	SD	N	M	SD
Republicans	23	5.96	2.03	33	4.82	2.43
Democrats	36	6.83	1.93	38	7.13	1.65
<i>Source</i>		<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	$\eta_p^2$
News exposure		5.519	1	5.519	1.360	.011
Party identification		79.589	1	79.589	19.617***	.135
Exposure $\times$ PartyID		16.139	1	16.139	3.978*	.031
Error		511.208	126	4.057		

*Note.*  $R^2 = .179$ . \*  $p < .05$    \*\*  $p < .01$    \*\*\*  $p < .001$ .

A post-hoc Bonferroni group comparison revealed that Democrats and Republicans did not hold significantly different issue positions on the Buffett Tax proposal after reading news without partisan conflict, mean difference = .877,  $F(1, 126) =$

$2.659, p = .105$ , partial  $\eta^2 = .021$ . But polarization emerged after exposure to partisan conflict-framed news, mean difference =  $2.382, F(1, 126) = 23.298, p = .000004$ , partial  $\eta^2 = .156$ . Thus, H1 was supported.

The results are graphed in Figure 4.



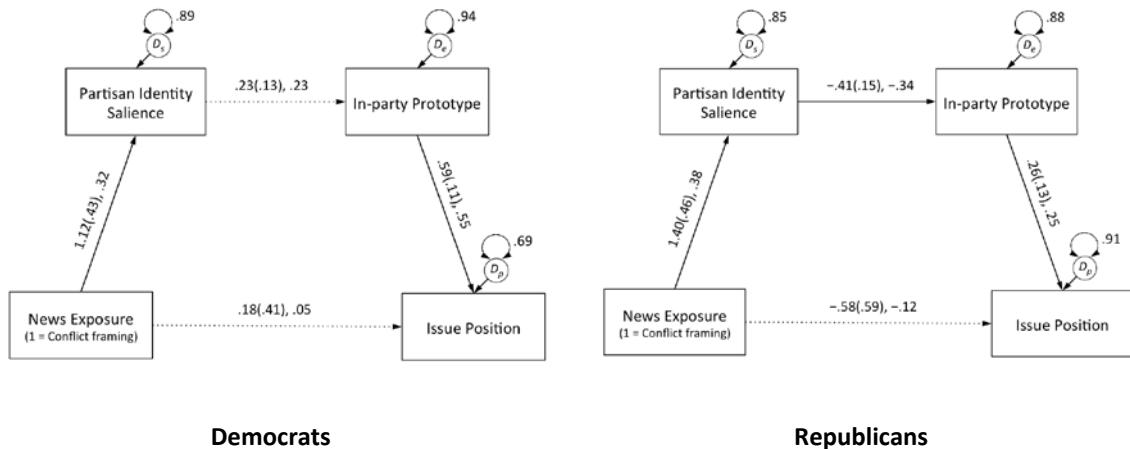
**Figure 4** Attitude polarization along party lines as a function of conflict-framed news ( $N = 130$  non-students)

**Hypothesis 2: Indirect effect of partisan conflict framing.** The indirect effect of conflict framing via partisan identity salience, extremization of in-party prototype, and assimilation was tested by a multi-group structural equation modeling (SEM) with maximum likelihood estimation. The proposed path model toward partisan polarization (see Figure 2) was assessed within each group of the moderating variable—i.e., party identification—and the path coefficients of the model were compared between Democrats and Republicans. In this analysis, the news exposure condition was dummy coded (1 = conflict-framed news, 0 = news without conflict). All estimates were computed by AMOS 18.0.

The model fit the data well:  $\chi^2 = 5.989$ ,  $df = 5$ ,  $p = .307$ , standardized root mean square residual (SRMR) = .016, comparative fit index (CFI) = .979, and root mean squared error of approximation (RMSEA) = .042 (Hu & Bentler, 1999).

To test whether the corresponding parameters varied between Democrats and Republicans, I created an alternative model in which all four-path parameters were constrained to be equal between Democrats and Republicans. The chi-square statistics of this constrained model ( $\chi^2 = 19.807, df = 9, p = .019$ ) was statistically worse than that of the unconstrained model,  $\chi^2$  difference = 13.818,  $df$  difference = 4,  $p = .007$ . The chi-square difference test supported the model parameters of Democrats diverged from those of Republicans.

The results of multi-group path analysis are summarized in Figure 5.



**Figure 5** A multi-group path analysis showing the indirect effect of conflict-framed news on partisan polarization. Estimates are reported as unstandardized (standard error), standardized. Standardized estimates for disturbances are proportions of unexplained variance. Solid lines indicate significant path coefficients at the alpha level of .05. Dashed lines indicate insignificant path coefficients.

First, I examined the path coefficients for the impact of conflict framing on partisan identity salience. Looking at the relevant paths in Figure 5, Democrats exposed to conflict-framed news showed a higher level of partisan identity salience than Democrats exposed to news without conflict ( $b = 1.12$ ,  $SE = .43$ ,  $p = .010$ ). The same was true of Republicans ( $b = 1.40$ ,  $SE = .46$ ,  $p = .003$ ); no difference was statistically significant, critical ratio for difference =  $.444$ ,  $p = .657$ .

I then examined whether the level of partisan identity salience is associated with extremitization of in-party prototypes on the Buffett Tax proposal. The relevant paths in Figure 5 show that the more salient partisan identity was, the more supportive Democrats thought their party for the Buffett Tax proposal ( $b = .23$ ,  $SE = .13$ ,  $p = .071$ ). Conversely, the more salient partisan identity was, the more opposed Republicans thought their party to the Buffet Tax proposal ( $b = -.41$ ,  $SE = .15$ ,  $p = .007$ ). The difference was statistically significant, critical ratio for difference =  $-3.240$ ,  $p = .001$ .

Democrats' positions positively correlated with their perceived in-party prototype ( $b = .59$ ,  $SE = .11$ ,  $p < .001$ ). The same was true of Republicans ( $b = .26$ ,  $SE = .13$ ,  $p = .050$ ). No difference was statistically significant between Democrats and Republicans, critical ratio for difference =  $-1.056$ ,  $p = .291$ .

Lastly, I examined the indirect effect of conflict-framed news via partisan identity salience, extremitization, and assimilation. The 95% bias-corrected confidence intervals using 5,000 samples supported the indirect effect of conflict-framed news on attitude polarization among Democrats, (*indirect effect = .15*, *bootstrap SE = .08*), CI [.026 to .383], but not among Republicans, (*indirect effect = -.15*, *bootstrap SE = .11*), CI [-.441

to .012]. The confidence intervals excluding zero indicate mediation (Hayes, 2013; Imai et al., 2011). Thus, H2 was supported by Democrats but not by Republicans.

While controlling for the indirect effects, there was no direct effect of conflict framing on attitude polarization among Democrats ( $b = .18$ ,  $SE = .41$ ,  $p = .655$ ) and Republicans ( $b = -.58$ ,  $SE = .59$ ,  $p = .329$ ); no difference was statistically significant, critical ratio for difference =  $-1.862$ ,  $p = .062$ .

## Discussion

This study with an adult sample yielded compelling support for my group polarization hypotheses. First, I found that exposure to partisan conflict-framed news made Democrats and Republicans hold more polarized positions on the issue under contention. Second and more importantly, a multi-group path analysis supported that the conflict framing effect on partisan polarization emerged through three cognitive processes: Partisan identity salience, extremization of in-party prototypes, and assimilation. That is, Democrats reading partisan conflict-framed news expressed stronger support for the Buffett Tax proposal than Democrats reading news without partisan conflict, because conflict-framed news made their partisan identity salient and subsequently made Democrats exaggerate an in-party position as opposed to Republicans (*indirect effect = .15*). Similarly, Republicans expressed stronger opposition to the Buffett Tax proposal after reading partisan conflict-framed news than news without partisan conflict (*indirect effect = -.15*). Although the indirect effect was not statistically supported in the case of Republicans, it is important to note that the magnitude of the indirect effect found among Republicans was as large as that found among Democrats.

## **General Discussion**

To enhance external validity, my group polarization hypotheses were tested across different samples. Studies 1 ( $N = 181$  students) and 2 ( $N = 130$  adults) produced both similar and conflicting findings. That is, in both studies exposure to partisan conflict-framed news exacerbated partisan polarization compared to exposure to news without partisan conflict; yet the magnitude of the conflict framing effect was larger in Study 1 (partial  $\eta^2 = .078$ ) than Study 2 (partial  $\eta^2 = .031$ ). Second, the indirect effect of conflict framing on polarization via partisan identity salience, extremization of in-party prototypes and assimilation was not supported in Study 1, but supported in Study 2. All in all, the adult sample of Study 2 provided more compelling support for the self-categorization theory approach than the student sample of Study 1.

Prior to discussing the divergent results, I analyzed how sample characteristics were different between Studies 1 and 2.

## **Sample Comparison**

In terms of demographics, the adult sample of Study 2 diverges from the student sample of Study 1. The adult sample includes more Republicans (44.1% vs. 34.8%) and more men (40.9% vs. 25.4%) than the student sample. Its mean age was more than two times higher (49 vs. 20). Its median household income was a lot lower than the student sample (between \$40,000 and \$49,999 vs. between \$99,000 and \$99,999).

Next, in an effort to verify the suggested sample differences in previous research (Converse, 1969; Sears, 1986), I further analyzed sample differences in terms of interest

in tax policies,<sup>7</sup> strength of party identification,<sup>8</sup> and political knowledge.<sup>9</sup> The analyses found that adult participants ( $M = 3.39$ ,  $SD = 1.07$ ) had greater interest in tax policies than student participants ( $M = 2.88$ ,  $SD = 1.06$ ), mean difference = .51,  $F(1, 306) = 17.008$ ,  $p = .00004$ , partial  $\eta^2 = .053$ . Adult participants were stronger party identifiers ( $M = 2.65$ ,  $SD = .76$ ) than student participants ( $M = 2.46$ ,  $SD = .84$ ), mean difference = .19,  $F(1, 306) = 4.187$ ,  $p = .042$ , partial  $\eta^2 = .013$ . In terms of political knowledge, however, no significant difference was found between adult ( $M = 5.10$ ,  $SD = 2.10$ ) and student ( $M = 5.28$ ,  $SD = 1.92$ ) partisans, mean difference = .18,  $F(1, 284) = .575$ ,  $p = .449$ , partial  $\eta^2 = .002$ . All in all, these results confirm the limitations of student samples that adults are stronger partisans and more interested in tax policies (Converse, 1969; Sears, 1986).

However, it was the adult sample that provided strong support for my group polarization hypothesis. Therefore, I argue that self-categorization theory can provide a new perspective to theorize the effect of the news on partisan polarization in the United States. Nonetheless, some might raise questions about the internal validity of my findings. For example, some might argue that instead of the conflict framing of the news, observed partisan polarization might be attributed to the preexisting rivalry group schema

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<sup>7</sup> Participants responded to a question of “To what extent are you interested in tax policies such as the Buffett Tax?” The answer was marked on a 5-point scale (1 = *not at all*, 5 = *extremely*).

<sup>8</sup> The strength of party identification was measured by the multi-faceted ANES measure of party identification. After participants identified themselves as Democrats or Republicans, a stem question further assesses the strength of party identification. The exact question is “To what extent would you call yourself a strong Democrat/Republican?” The answer was marked on a 4-point scale (1 = *not a strong Democrat/Republican*, 4 = *extremely strong Democrat/Republican*).

<sup>9</sup> Political knowledge was measured by eight factual questions. The questions include: “What job or political office does Joseph Biden currently hold?”, “Which political party currently has the most members in the Senate in Washington?”, “How long is the term of office for a US senator?”, and “Whose responsibility is it to nominate judges to the Federal Courts?” Multiple answer choices were provided. Correct answers were coded as 1 and incorrect ones as 0. The values were added and thus political knowledge variable ranged from 0 to 8. Higher numbers indicate more informed.

associated with party cues (e.g., G. Cohen, 2003; Druckman et al., 2013; Goren et al., 2009; Kahan, 2013). In order to disentangle the effect of conflict framing of the news and that of party cues, it is critical to show group polarization after exposure to conflict-framed news emerges beyond the political realm where group cues carry less prominent rivalry group schema. In the next chapter, I answer this potential threat to internal validity.

## **Chapter 3**

### **Is Group Polarization a Function of Conflict Framing of the News or a Pre-existing Rivalry Group Schema?**

Throughout this dissertation study, I argue that when the news frames a social issue in terms of conflict between two social groups, news exposure makes a relevant group identity salient and consequently people express more polarized positions in the direction of their group. Self-categorization theory posits that such group polarization emerges through three cognitive processes: Group identity salience, extremitization of in-group prototypes, and assimilation to the in-group prototypes (Mackie & Cooper, 1984; Mackie, 1986; Turner et al., 1987). In the previous chapter, I presented supporting evidence that exposure to partisan conflict-framed news lead to partisan polarization and the effect was mediated by partisan identity salience and in-party group prototype.

However, instead of conflict framing of the news, partisan polarization found in the previous chapter might be attributed to the preexisting rivalry group schema associated with party cues (see G. Cohen, 2003; Druckman, Peterson, & Slothuus, 2013; Goren, Federico, & Kittilson, 2009, for supporting evidence of party cue effects on polarization). To rule out this alternative explanation, I replicate the study of group polarization with gender groups where group cues entail a less prominent rivalry group

schema.<sup>10</sup> Given the focus of the present study—gender polarization—hereafter I use the terms *gender conflict-framed news* or *gender conflict framing* to refer to the news focus on conflict between women and men.

To review, consistent with self-categorization theory I first test whether exposure to gender conflict-framed news exacerbates attitude polarization along gender lines. I refer to this possibility as *Hypothesis 3*. I next examine whether the gender conflict framing effect of the news on polarization occurs via gender identity salience, extermitization of in-group prototypes, and assimilation to the in-group prototype. I refer to this possibility as *Hypothesis 4*.

## Method

The hypotheses are tested by a between-subjects experiment (news exposure: gender conflict-framed news vs. news without gender conflict).

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<sup>10</sup> Before designing this study, I measured preexisting rivalry group schemas of various social groups. The measures were included in the offline main study questionnaire of the first study ( $N = 180$ ). Specifically, participants were asked to indicate to what extent they think an “US against THEM” worldview is relevant to the relationship between (1) women and men, (2) Democrats and Republicans, (3) younger people and older people and (4) blacks and whites, on a 5-point scale (1 = *not at all*, 5 = *very much*).

The pre-existing rivalry group schema is the most prominent when participants think about the relationship between Democrats and Republicans ( $M = 4.07$ ,  $SD = .98$ ) than women and men ( $M = 2.70$ ,  $SD = 1.12$ ), than younger people and older people ( $M = 2.78$ ,  $SD = 1.09$ ), and than blacks and whites ( $M = 2.74$ ,  $SD = 1.23$ ). A paired t-test found that the rivalry group schema associated with political parties were stronger than the rivalry group schema associated with gender groups,  $t(179) = 12.602$ ,  $p < .001$ .

The findings were replicated with the data of the present study ( $N = 175$ ). Specifically, a paired t-test found that the rivalry group schema associated with political parties ( $M = 3.92$ ,  $SD = 1.22$ ) were stronger than the rivalry group schema associated with gender groups ( $M = 2.95$ ,  $SD = 1.15$ ),  $t(175) = 9.434$ ,  $p < .001$ .

## **Participants**

A total of 203 college students were recruited campus-wide from the University of Minnesota. As with previous study, participants who were not eligible to vote in the United States were excluded from all analyses, leaving a sample size of 176. The sample consisted of 70.5 % women, 86.4% white and 46% Democrats (22.7% Republicans, 24.4% Independents, and 6.8% Other). The average age of the participants was 20 ( $SD = 4.57$ ) with a range from 18 to 66 years of age. Participants' areas of study were diverse: Natural sciences/engineering (31.9%), journalism and mass communication (20.5%), other social sciences (18.2%), business (14.8%), humanities (6.3%), arts (4.5%), and undeclared (3.4%). The median family income was between \$80,000 and \$89,999.

## **Stimuli**

Two news stories (i.e., gender conflict-framed news and news without gender conflict) were constructed around the topic of Facebook and Apple's egg-freezing health benefit, which the companies pay female employees up to \$20,000 to help cover the cost of freezing their eggs. This news topic was selected because it is not only gender specific but also very timely. This new perk made its first headline on October 14, 2014, on NBC News (Friedman, 2014). The data were collected in February 2015.

As with previous study, the news stories mimic day-to-day news reporting in the American newspapers based on factual information. Following extant studies (e.g., Neuman et al., 1992; Price, 1989; Valkenburg et al., 1999), gender conflict framing was operationalized as the news focus on opinion differences between female and male employees about the new health perk. Specifically, *gender conflict-framed news*

emphasized the controversy throughout. The story made it clear that the implementation of the new health benefit “is controversial among some who believe that women should not receive benefits that are not available to men.” In addition, voices from female and male employees at Facebook or Apple were juxtaposed using direct quotations in an effort to make the news story unbiased. The number and length of quotations were kept consistent across female and male sources (see the Measure section below for the exact wording of arguments from both sides).

On the other hand, *news story without gender conflict* simply delivered the fact that Facebook and Apple newly added the egg-freezing health benefit. The news story mainly described the content of the new perk without mentioning any controversy around the issue at all. Contrary to conflict-framed news, news without conflict noted that the egg-freezing health benefit applies to all employees *including their spouses*.

The news stimuli are formatted to be consistent with a typical news story layout comprised of a large headline, by-line, and several short paragraphs. The actual news stimuli are attached in *Appendix C*.

## **Procedure**

The overall procedure was the same as the previous study. The wordings of the questionnaire were modified to address gender conflict. Specifically, participants completed a Web-based online questionnaire at the time of recruitment. In this pretest, they indicated a set of questions about personality traits (e.g., need for cognition and ambivalent sexism) and demographics. About a week later, participants came to a lab at an assigned session time. Upon arrival, they were seated in a cubicle with a desktop

computer and responded to another online questionnaire. In this offline main test, participants were randomly assigned to one of two news stimuli and then respond to questions beginning issue position on Facebook and Apple's egg-freezing health benefit followed by questions about in-group prototypes and gender identity salience. After debriefing participants received either course extra credit or a \$5 gift card for their voluntary participation.

## Measures

**Gender Identity Salience.** Price's (1989) thought-listing technique was used. Participants were asked to write down any thoughts or feelings that crossed their minds while reading the news story. Two trained coders counted the number of thoughts or feelings referenced to women (e.g., women, females, she/her/hers, and mother) and/or men (e.g., men, males, he/him/his, and father) in the written responses. Following Price (1989), the valence of the responses was also analyzed. Coders counted the number of thoughts or feelings in the written responses that were (1) positive or supportive in overall tone, (2) negative or hostile in overall tone, and (3) neutral in overall tone.

After a series of training sessions, coders first analyzed all responses independently. Coders then discussed each coding inconsistency and tried to reach consensus counts. The inter-coder reliabilities, assessed by bivariate correlations, were 1.000 for the counts of references to women and/or men (i.e., refC), .989 for the counts of positive thoughts (i.e., posC), .999 for the counts of negative thoughts (i.e., negC), and .996 for the counts of neutral thoughts (i.e., neutC). Ultimately each count was computed by averaging coders' independent counts.

As with Price (1989), the thought-listing measure of gender identity salience was computed as the weighted count of references with the percentage of the number of positive and negative thoughts. The exact equation was as follows:

$$\text{Gender Identity Salience} = \text{refC} \times \left\{ 1 + \left( \frac{\text{posC} + \text{negC}}{\text{posC} + \text{negC} + \text{neutC}} \right) \right\}.$$

Greater scores in the thought-listing measure indicate that news exposure generated more thoughts and feelings related to their gender identity, equivalent to the heightened salience of gender identity.

**In-group prototype.** Participants indicated to what extent they think women and men support or not support Facebook and Apple's egg-freezing health benefit on a 9-point Likert scale (1 = *strongly do not support*, 9 = *strongly support*) respectively. I used women's estimated positions of women as their in-group prototype and men's estimated positions of men as their in-group prototype.

**Issue position.** Participants indicated to what extent they support or not support Facebook and Apple's egg-freezing health benefit on a 9-point Likert scale (1 = *strongly do not support*, 9 = *strongly support*).

Table 4 summarizes the bivariate correlations and descriptive statistics of the focal variables.

Table 4

*Bivariate Correlations and Descriptive Statistics of Key Variables (N = 176)*

	Correlations		Descriptive Statistics	
	1	2	<i>M</i>	<i>SD</i>
1. Gender identity salience	—		3.56	1.81
2. In-group prototype	.06	—	6.41	1.70
3. Issue position		.18*	.53***	5.91
				1.99

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

Looking at Table 4, the bivariate correlations between gender identity salience and the other variables were low. These low correlations were expected because both in-party prototype and issue position were measured with bipolar measures (ranging from *strongly disagree* to *strongly agree*) and should vary based between women and men. Conversely, the measure of gender identity salience is unidimensional and should not vary based on participants' gender.

## Results

### Manipulation Check

A pilot test confirmed that the news stories differed in terms of their focus on gender conflict without noticeable gender bias. Thirty-four students completed a pencil and paper questionnaire as part of a class activity. In this pilot test, they were randomly exposed to conflict-framed news ( $n = 17$ ) or news without conflict ( $n = 17$ ). They then indicated to what extent they thought the news story that they just read (1) emphasized the conflict between men and women on a 5-point scale (1 = *not at all emphasized*

*conflict, 5 = very much emphasized conflict) and (2) was more in favor of either men or women on a 5-point scale (1 = Much more supportive of men, 3 = Supportive of neither men nor women, 5 = Much more supportive of women).<sup>11</sup>*

Participants found that conflict-framed news was more emphasized gender conflict ( $M = 3.23, SD = .90$ ) than the news without conflict ( $M = 1.65, SD = .93$ ), mean difference = 1.59. An independent group t-test showed the difference was statistically significant,  $t(32) = 5.047, p = .000008$  (one-tailed), partial  $\eta^2 = .443$ . In addition, participants found both conflict-framed news ( $M = 3.53, SD = .72$ ) and news without conflict ( $M = 3.41, SD = .87$ ) supportive of neither men nor women. An independent group t-test confirmed no difference between the two, mean difference = .12,  $t(32) = .430, p = .670$ , partial  $\eta^2 = .006$ . Additional 2 (news exposure)  $\times$  2 (gender) between-subjects ANOVAs showed no interaction effect on both gender conflict and gender bias,  $p > .20$ .<sup>12</sup>

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<sup>11</sup> Prior to a pilot test, I consulted with two professional reporters on the news stimuli. Christopher Ison and Scott Libin both have more than thirty years of experience as journalists. Mr. Ison served as the assistant editor at the *Star Tribune* and won a Pulitzer Prize for his investigative reporting in 1990. Mr. Libin has led newsrooms at various TV stations from Boston to Honolulu. I asked them to read the two news stimuli and respond to a pilot test questionnaire. In response to the questionnaire, both Mr. Ison and Mr. Libin rated conflict-framed news as *very much emphasized conflict* and news without conflict as *not at all emphasized conflict*. In terms of gender bias in the news, they described both news stories as *supportive of neither men nor women*.

<sup>12</sup> Due to an ample sample size of the main study, a 2 (news exposure)  $\times$  2 (gender) between-subjects multivariate analysis of variance (MANOVA) was formed on (1) news focus on gender conflict and (2) gender bias in the news. The result of MANOVA showed no significant interaction effects between the two dependent variables, Wilks's  $\lambda = .981, F(2, 171) = 1.634, p = .198$ , partial  $\eta^2 = .019$ . This allows me to examine the main effects on the two dependent variables separately. First, the univariate  $F$  tests found that conflict-framed news put greater emphasis on gender conflict ( $M = 2.75, SD = .87$ ) compared to news without partisan conflict ( $M = 1.79, SD = .91$ ), mean difference = .96,  $F(1, 172) = 51.667, p < .000001$ , partial  $\eta^2 = .231$ . Second, participants found no distinctive gender bias between conflict-framed news ( $M = 2.38, SD = .70$ ) and news without conflict ( $M = 2.38, SD = .76$ ), mean difference = .00,  $F(1, 172) = .224, p = .636$ , partial  $\eta^2 = .001$ .

## Main Analyses

**Hypothesis 3: Polarization effect of gender conflict framing.** To determine whether exposure to gender conflict-framed news produces attitude polarization along gender lines, I performed a 2 (news exposure)  $\times$  2 (gender) between-subjects ANOVA on participants' follow-up study scores of issue position. The two-way ANOVA found no significant interaction effect,  $F(1, 172) = 2.637, p = .106$ , partial  $\eta^2 = .015$ . No main effect was significant in terms of conflict framing,  $F(1, 172) = 1.744, p = .188$ , partial  $\eta^2 = .010$ , and gender,  $F(1, 172) = .602, p = .439$ , partial  $\eta^2 = .003$ . Thus, H3 was not supported.

The results are summarized in Table 5.

Table 5  
*Attitude Polarization as a Function of Gender Conflict Framing and Gender*

	News without conflict			Conflict-framed news		
	N	M	SD	N	M	SD
Men	21	5.81	2.25	31	5.71	2.10
Women	66	5.53	1.81	58	6.50	1.96
Source		SS	df	MS	F	$\eta_p^2$
News Exposure		6.739	1	6.739	1.744	.010
Gender		2.327	1	2.327	.602	.003
News Exp. $\times$ Gender		10.189	1	10.189	2.637	.015
Error		664.565	172	3.864		

Note.  $R^2 = .045$ . \*  $p < .05$    \*\*  $p < .01$    \*\*\*  $p < .001$ .

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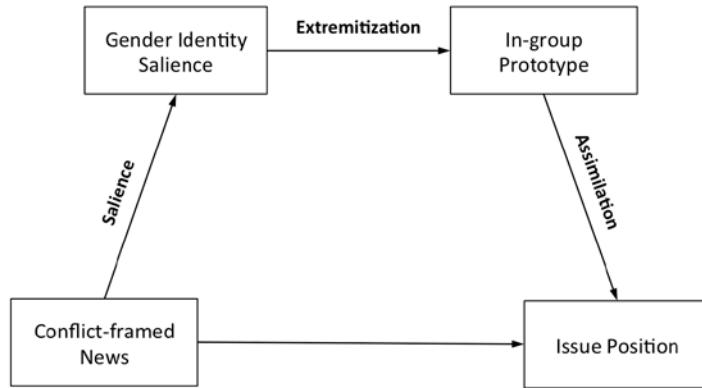
On average, female participants perceived greater conflict ( $M = 2.32, SD = 1.01$ ) than men ( $M = 2.17, SD = 1.08$ ), mean difference = .15,  $F(1, 172) = 4.037, p = .046$ , partial  $\eta^2 = .023$ . In terms of gender bias, however, no difference was found between women ( $M = 2.42, SD = .74$ ) and men ( $M = 2.29, SD = .69$ ), mean difference = .11,  $F(1, 172) = 2.095, p = .150$ , partial  $\eta^2 = .012$ .

The interaction effects on gender conflict framing and gender on attitude polarization are graphed in Figure 6.



**Figure 6** Attitude polarization along gender lines as a function of gender conflict-framed news ( $N=176$ )

**Hypothesis 4: Indirect effect of gender conflict framing.** Drawing on self-categorization theory, I hypothesized that conflict-framed news would induce attitude polarization via gender identity salience, extremitization of in-group prototype, and assimilation. Figure 7 illustrates the proposed indirect effect. It is important to note that to account for gender polarization, the indirect effect should be moderated by gender. That is, women with a salient gender identity would think their group more supportive for Apple and Facebook's egg-freezing health benefit and subsequently expressing stronger support for the given issue. Conversely, men with a salient gender identity would think their group more opposed to Apple and Facebook's egg-freezing health benefit and subsequently expressing stronger opposition to the given issue.



**Figure 7** A path model conceptualizing the indirect effect of conflict-framed news on gender polarization.

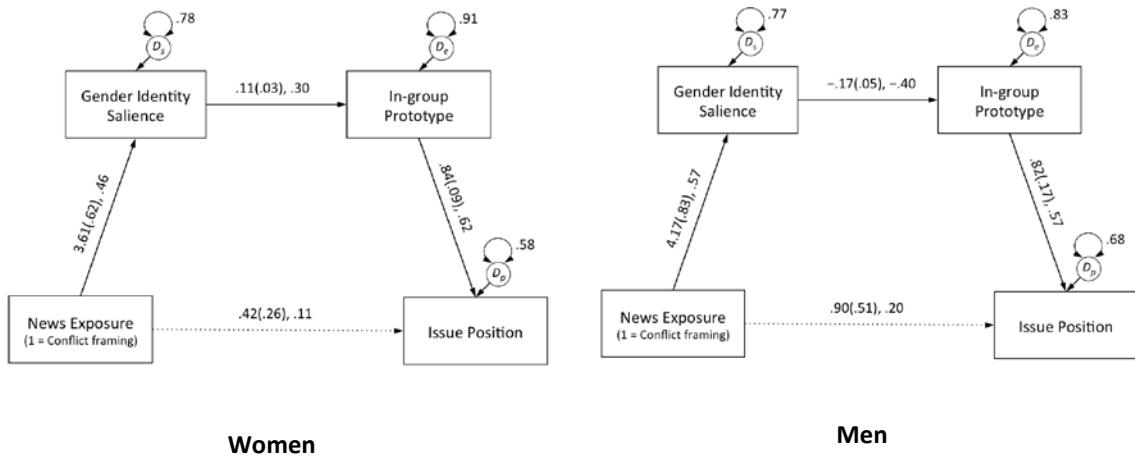
To test moderation and mediation simultaneously, I used a multi-group structural equation modeling (SEM) with maximum likelihood estimation as recommended by Edwards and Lambert (2007). Accordingly, the proposed path model toward gender polarization was assessed within each group of the moderating variable—i.e., gender—and the path coefficients of the model were compared between women and men. In this analysis, the news exposure condition was dummy coded (1 = gender conflict-framed news, 0 = news without gender conflict). All estimates were computed by AMOS 18.0.

The model fit the data well:  $\chi^2 = 6.056$ ,  $df = 5$ ,  $p = .301$ , standardized root mean square residual (SRMR) = .042, comparative fit index (CFI) = .993, and root mean squared error of approximation (RMSEA) = .035 (Hu & Bentler, 1999).

To test whether the corresponding parameters varied between women and men, I created an alternative model in which all four-path parameters were constrained to be equal between women and men. The chi-square statistics of this constrained model ( $\chi^2 = 25,119$ ,  $df = 9$ ,  $p = .019$ ) was statistically worse than that of the unconstrained model,  $\chi^2$

difference = 19.063,  $df$  difference = 4,  $p = .0007$ . The chi-square difference test supported the model parameters of women diverged from those of men.

The results of multi-group path analysis are summarized in Figure 8.



**Figure 8** A multi-group path analysis showing the indirect effect of conflict-framed news on gender polarization. Estimates are reported as unstandardized (standard error), standardized. Standardized estimates for disturbances are proportions of unexplained variance. Solid lines indicate significant path coefficients at the alpha level of .05.

First, I examined the path coefficients for the impact of conflict framing on gender identity salience. Looking at the relevant paths in Figure 8, women exposed to conflict-framed news showed a higher level of gender identity salience than women exposed to news without conflict ( $b = 3.61$ ,  $SE = .62$ ,  $p < .001$ ). The same was true of men ( $b = 4.17$ ,  $SE = .83$ ,  $p < .001$ ); no difference was statistically significant, critical ratio for difference = .543,  $p = .123$ .

I then examined whether the level of gender identity salience is associated with extremitization of in-group prototypes on the issue under contention. The more salient gender identity was, the more supportive women thought their group for Apple and

Facebook's egg-freezing health benefit ( $b = .11$ ,  $SE = .03$ ,  $p < .001$ ). Conversely, the more salient gender identity was, the more opposed men thought their group to the health benefit ( $b = -.17$ ,  $SE = .05$ ,  $p = .001$ ). The difference was statistically significant, critical ratio for difference =  $-4.507$ ,  $p = .0001$ .

Women' positions on Apple and Facebook's egg-freezing health benefit positively correlated with the perceived in-group prototype ( $b = .84$ ,  $SE = .09$ ,  $p < .001$ ). The same was true of men ( $b = .82$ ,  $SE = .17$ ,  $p < .001$ ). No difference was found between women and men, critical ratio for difference =  $-0.093$ ,  $p = .926$ .

Lastly, I examined the indirect effect of gender conflict-framed news on attitude polarization via gender identity salience, extremitization of in-group prototypes, and assimilation. A bootstrap re-sampling method, available at AMOS 18.0, provides a statistical significance test for indirect effects through multiple mediators. One advantage of this analytic strategy is that bootstrapping accounts for the potential non-normality of the sampling distribution of the indirect effects (Hayes, 2013; Imai et al., 2011). The 95% bias-corrected confidence intervals using 5,000 samples supported the proposed indirect effect of gender conflict-framed news on polarization among women, (*indirect effect* =  $.33$ , *bootstrap SE* =  $.11$ ), CI [.126 to .568], and men, (*indirect effect* =  $-.58$ , *bootstrap SE* =  $.17$ ), CI [-1.009 to  $-.297$ ]. The confidence intervals excluding zero indicate mediation (Hayes, 2013; Imai et al., 2011). Thus, H4 was supported.

While controlling for the indirect effects, there was no direct effect of conflict framing on attitude polarization among women ( $b = .42$ ,  $SE = .26$ ,  $p = .111$ ) and men ( $b = .90$ ,  $SE = .51$ ,  $p = .081$ ); no difference was statistically significant, critical ratio for difference =  $.816$ ,  $p = .414$ .

## **Discussion**

The present study examined the impact of conflict framing on gender polarization where group cues entail a less prominent rivalry group schema than party cues. By doing so, I aimed to disentangle the effect of new media's conflict framing from the effect of party cues on the partisan polarization. The present study successfully demonstrated that exposure to conflict-framed news could be an independent cause of group polarization.

The findings were robust. Although exposure to gender conflict-framed news did not directly produce attitude polarization along gender lines, a multi-group path analysis found that the polarization effect of conflict framing occurred through gender identity salience, extremization of in-group prototype, and assimilation. The result indicated that consistent with self-categorization theory, women reading gender conflict-framed news showed stronger support for Apple and Facebook's egg-freezing health benefit than women reading news without gender conflict (*indirect effect* = .33). Similarly, men expressed stronger opposition to Apple and Facebook's egg-freezing health benefit after reading gender conflict-framed news than news without gender conflict (*indirect effect* = -.58).

In summary, although participants did not view the opposing gender groups through the lens of *us versus them*, they held more extreme issue positions along gender lines after reading a news story emphasizing gender conflict about an issue. These findings support that conflict framing, without party cues, can be solely responsible for group polarization. However, I do not dismiss the possibility that party cues also contribute to exacerbating partisan polarization. Still, I underscore that such cue effects can be amplified by conflict framing of the news. Self-categorization theory elucidates

the underlying mechanism that explains such polarization.

## **Chapter 4**

### **Alternative Pathways to Polarization: Motivated Reasoning and Intergroup Animus**

The objective of this dissertation studies is to test attitude polarization along party lines in response to partisan conflict framing of the news. Informed by self-categorization theory (Turner et al., 1987), I argue that when the news frames political issues in terms of partisan confrontation, news exposure can induce group polarization at a societal level such as making Democrats and Republicans express more polarized policy attitudes; partisan identity salience and in-party prototype mediate the news effect. By testing such effects of conflict-framed news beyond the political realm—gender polarization—I strengthened the internal validity of my findings.

Extant research and theory suggest alternative explanations, however. First, drawing on theories of *motivated reasoning* (Kunda, 1990), scholars point out biased information processing as an explanatory mechanism of attitude polarization. That is, due to motivation to maintain their prior attitudes, people overly rely on congenial arguments while discrediting uncongenial arguments, consequently strengthening their desired conclusions. Such *defensive* motivated reasoning toward attitude polarization has been well-documented in various contexts such as candidate evaluation (Redlawsk, 2002), policy support (Druckman et al., 2013; Hart & Nisbet, 2011; Levendusky, 2013a; Lodge & Taber, 2013; Slothuus & de Vreese, 2010) and support for new technology (Druckman & Bolsen, 2011). Specifically, Druckman, Peterson, and Slothuus (2013) contended that the motivated reasoning approach exerts its best power in the co-presence of partisan

cues and polarization cues—information emphasizing the partisan divide over an issue (e.g., “Republicans… favor drilling and Democrats… oppose drilling. Moreover, the partisan divide is stark as the parties are far apart” (p.76)). These findings suggest an alternative hypothesis, referred to as *Hypothesis 5a*: Democrats and Republicans exposed to partisan conflict-framed news will evaluate in-party arguments as more valid while underestimating the validity of out-party arguments, thus holding more polarized issue positions along party lines.

Second, informed by social identity theory (Tajfel & Turner, 1979/2004; Tajfel, 1981),<sup>13</sup> recent studies begin to investigate the impact of intergroup animus on partisan polarization in the American mass public. That is, when conflict elicits partisan identities in the minds of Democrats and Republicans, the sense of party affiliation makes partisans

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<sup>13</sup> Social identity theory (SIT; Tajfel & Turner, 1979, 1986/2004; Tajfel, 1981) grew out of the same root of self-categorization theory (SCT; Turner et al., 1987). Both theories agree that perception generally involves an act of categorization (Allport, 1979) and placing an object or an event into a category is equivalent to giving it an identity (Bruner, 1957). Most importantly, both theories posit that the self can be defined in a social term. Depending on which identity is salient, people show different cognitive, affective, and behavioral responses. However, two theories quite significantly deviate from each other. In the early 1970s researchers found that mere in-group/out-group categorization is sufficient to generate intergroup discrimination. Specifically, Tajfel, Billig, Bundy, and Flament (1971) divided participants into two distinct groups based on a trivial criterion such as dot estimation or eye color, known as *minimal group paradigm*, and then asked them to allocate monetary resources to the in-group and out-group. Participants not only awarded more money to the in-group than out-group but also tended to maximize differences in the amount awarded between the two. That is, participants preferred the greatest differences between in-group profit and out-group profit (e.g., awarding in-group 7 and the out-group member 1) to a maximum in-group profit (e.g., giving the in-group 19 and the out-group 25). To explain this intergroup discrimination, Tajfel and Turner (1979, 1986/2004) developed SIT and underscored a motivation to differentiate their own group from others in a positive light as the primary cause of intergroup bias/discrimination.

In contrast to SIT, SCT, without such self-esteem prediction, posits that salient group identity encourages people to behave more like other in-group members—i.e., self-stereotyping. In this light, the notion of *prototypes*, the defining and stereotypical attributes of groups, is the heart of SCT (Hogg, 2003). Using SCT, Turner and his colleagues (1987) explained group polarization as the product of group members’ assimilation into the prototypical representation of the group. Although SIT was developed earlier than SCT, conceptually SCT precedes SIT (Fiske & Taylor, 2013).

evaluate their party (or in-party members) positively but the opposing party (or out-party members) negatively. In this vein, Iyengar, Sood, and Lelkes (2012) argued that negative political campaigns are responsible for increased intergroup animus between Democrats and Republicans. Using a nation-wide panel data, they showed that over the course of U.S. Presidential campaign in 2008, partisans' dislike toward their opponents significantly increased. The impact of negative political campaign was more pronounced in battleground states where intense campaigning was implemented. Moreover, Iyengar and Westwood (2015) found the spillover effect of intergroup animus into non-political judgments and decision-making. This leads to the second alternative hypothesis, referred to as *Hypothesis 5b*: Democrats and Republicans exposed to partisan conflict-framed news will evaluate in-party members more positively while expressing greater derogation toward out-party members, thus holding more polarized positions along party lines.

My interest is to examine whether the self-categorization theory approach adds more explanatory power above and beyond these alternative explanations. Self-categorization theory postulates that Democrats and Republicans exposed to partisan conflict-framed news will stereotypically exaggerate in-party positions on the issue at hand in opposite directions, thus holding more polarized issue positions along party lines. I refer to this possibility as *Hypothesis 5c*.

All three hypotheses propose that exposure to partisan conflict-framed news should enhance the level of partisan identity salience and subsequently escalate motivated reasoning, intergroup animus, or/and in-party prototype. Thus, for the sake of model parsimony I exclude the mediation effect of partisan identity salience from all hypotheses. I do not have an *a priori* prediction about which process should predominate.

Therefore, I test three potential mediators of partisan conflict framing—motivated reasoning, intergroup animus, and in-party prototype—against each other.

### **The Present Study**

The objective of the present study is to examine whether the self-categorization theory approach sheds new light on conflict framing effects on polarization above and beyond extant research and theory. To that end, using multi-group structural equation modeling (SEM), I test three mediators of conflict-framed news—*motivated reasoning*, *intergroup animus*, and *in-party prototypes*—simultaneously. For the analysis, the two data sets from Studies 1 and 2 in Chapter 2 were utilized. Study 1 used a student sample and Study 2 used an adult sample. Both studies were between-subjects experiments (news exposure: partisan conflict-framed news vs. news without partisan conflict). In each experiment, participants were randomly exposed to one of news stimuli and then responded to questions about (1) issue position, (2) in-party prototypes, (3) argument validity, and (4) feeling thermometers.

### **Study 1**

#### **Measures**

**Motivated reasoning.** Motivated reasoning was measured by a series of questions about argument validity from both sides of Democrats and Republicans on the Buffett Tax proposal. The partisan arguments were prefaced with the following instructions: “To what extent, do you think the following arguments are valid? For example, if you think the argument is true, it is valid.” The four arguments presented

were: (1) A lowered tax rate on capital gains is a loophole that benefits the very wealthiest Americans (Democratic argument), (2) Tax cuts on capital gains and dividends are necessary to keep capital from fleeing the United States to lower tax countries (Republican argument), (3) No millionaires should pay a lower income tax rate than their secretaries (Democratic argument), and (4) Tax hikes on the rich are an attack on job creators (Republican argument). All responses were completed on a 5-point scale (1 = *not at all valid*, 5 = *extremely valid*).

Motivated reasoning is defined as overestimating in-party arguments as more valid while underestimating out-party arguments as less valid. To construct a scale, these arguments were grouped as Democratic and Republican arguments and then averaged. Next, I created a difference measure of motivated reasoning by subtracting validity of Republican arguments from validity of Democratic arguments (see Cronbach & Furby, 1970 for the limitations of difference measures).

**Intergroup animus.** Intergroup animus was measured by feeling thermometers. Participants were asked to indicate their feelings toward Democrats and Republicans respectively on a thermometer scale, ranging from 0 (*very cold or unfavorable feeling*) to 100 (*very warm or favorable feeling*). *Intergroup animus* is defined as favorable feeling toward in-party and hostility toward out-party. Following Iyengar and his colleagues (2012), I created a difference measure of intergroup animus by subtracting the scores of feeling thermometer toward Republicans from the scores of feeling thermometer toward Democrats.

**In-party prototype.** Participants indicated to what extent they think the Democratic and Republican Party support or not support the Buffett Tax proposal on a 9-

point Likert scale (1 = *strongly do not support*, 9 = *strongly support*) respectively. I used Democrats' estimated positions of the Democratic Party as Democrats' in-party prototype and Republicans' estimated positions of the Republican Party as Republicans' in-party prototype.

**Issue position.** Participants indicated to what extent they support or not support the Buffett Tax proposal on a 9-point Likert scale (1 = *strongly do not support*, 9 = *strongly support*).

Table 6 presents the bivariate correlations and descriptive statistics of the focal variables.

**Table 6**  
*Bivariate Correlations and Descriptive Statistics of Focal Variables (N = 181 students)*

	Correlations			Descriptive Statistics	
	1	2	3	M	SD
1. Motivated reasoning	—			1.37	1.48
2. Intergroup animus	.63***	—		20.89	43.80
3. In-party prototype	.55***	.71***	—	5.95	2.88
4. Issue position	.70***	.62***	.60***	6.57	1.81

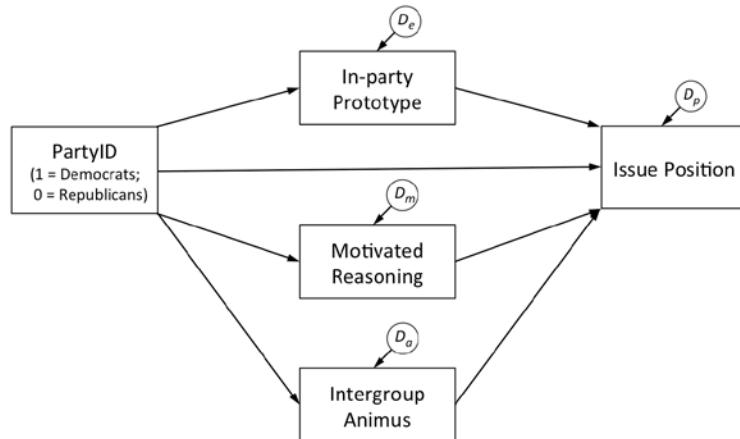
\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 6 shows strong bivariate correlations among the four focal variables. Specifically, the three potential mediators (i.e., motivated reasoning, intergroup animus, and in-party prototype) are highly correlated with each other ( $rs \geq .55$ ). This supports the theoretical idea that all the three mediators are partisan-identity based behavioral responses.

## Results

### Main Analyses

A multi-group path analysis of structural equation modeling (SEM) tested whether Democrats and Republicans show a greater attitude polarization along party lines through *motivated reasoning*, *intergroup animus*, and/or *in-party prototypes* as a function of partisan conflict framing. Figure 9 illustrates the path model. In this model, party identification was dummy coded ( $1 = \text{Democrats}$ ,  $0 = \text{Republicans}$ ); thus, the magnitude of partisan polarization was compared across the two news exposure conditions. The disturbances of three mediators ( $D_e$ ,  $D_m$ , and  $D_a$ ) were correlated because all three mediators are based on partisan identity and are not mutually exclusive. All estimates were computed by AMOS 18.0.

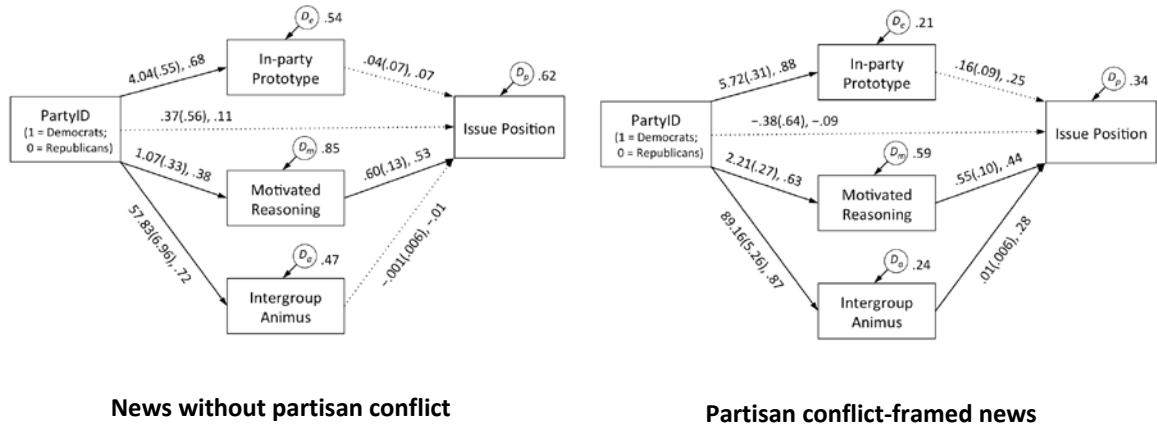


**Figure 9** A path model testing the self-categorization theory approach in comparison with alternative explanations. The magnitude of partisan polarization was compared across the two news exposure conditions.

The model fit the data well,  $\chi^2 = .198$ ,  $df = 1$ ,  $p = .656$ , SRMR = .005, comparative fit index (CFI) = 1.000, and root mean squared error of approximation (RMSEA) = .000 (Hu & Bentler, 1999).

To test whether the corresponding parameters varied across news exposure conditions, I created an alternative model in which all seven-path-parameters were constrained to be equal across conditions. The chi-square statistics of this constrained model ( $\chi^2 = 24.665$ ,  $df = 8$ ,  $p = .002$ ) was statistically worse than that of the unconstrained model,  $\chi^2$  difference = 24.467,  $df$  difference = 7,  $p = .0009$ . The chi-square difference test supported the model parameters of the conflict-framed news condition diverged from those of the news without conflict condition.

The results of multi-group path analysis are summarized in Figure 10.



**Figure 10** A multi-group path analysis showing the indirect effects of conflict-framed news on partisan polarization. Estimates are reported as unstandardized (standard error), standardized. Standardized estimates for disturbances are proportions of unexplained variance. Solid lines indicate significant path coefficients at the alpha level of .05. Dashed lines indicate insignificant path coefficients. The disturbances of three mediators ( $D_e$ ,  $D_m$ , and  $D_a$ ) were correlated, but they were not presented for the sake of simplicity.

**Hypothesis 5a: Polarization via motivated reasoning.** To test H5a, I first examined the relationship between party identification and motivated reasoning. Looking at relevant paths in Figure 10, Democrats and Republicans showed greater motivated reasoning in favor of their party after reading conflict-framed news ( $b = 2.21$ ,  $SE = .27$ ,  $p < .001$ ) than news without conflict ( $b = 1.07$ ,  $SE = .33$ ,  $p < .001$ ); the difference was statistically significant, critical ratio for difference =  $-2.620$   $p = .008$ . The result indicates that Democrats and Republicans evaluated in-party arguments as more valid while underestimate the validity of out-party arguments in response to partisan conflict-framed news.

Democrats and Republicans' biased information processing positively correlated with their issue positions in both conditions of conflict-framed news ( $b = .55$ ,  $SE = .10$ ,  $p < .001$ ) and news without conflict ( $b = .60$ ,  $SE = .13$ ,  $p < .001$ ); no difference was statistically significant, critical ratio for difference =  $.330$ ,  $p = .741$ .

To confirm the indirect effect of partisan conflict framing via motivated reasoning, I performed sobel tests. Although a bootstrap re-sampling method is available at AMOS 18.0, the bootstrap test only presents the *total* indirect effect that includes all mediation effects displayed in the model. Thus, to single out the indirect effect via motivated reasoning, sobel tests were instead implemented. Relative to a bootstrapping, sobel tests do not account for the potential non-normality of the sampling distributions of the indirect effects (Hayes, 2013; Imai et al., 2011).

Sobel tests found a mediation effect of motivated reasoning after exposure to news without partisan conflict (*indirect effect* =  $.64$ ,  $z = 2.65$ ,  $p = .008$ ). The magnitude of the indirect effect increased after exposure to partisan conflict-framed news (*indirect*

*effect* = 1.21,  $z$  = 4.56,  $p$  = .000005). This indicates that after controlling for intergroup animus and in-party prototypes, partisan conflict framing induces attitude polarization via motivated reasoning. Thus, H5a was supported.

**Hypothesis 5b: Polarization via intergroup animus.** Next, to test H5b, I examined the relationship between party identification and intergroup animus. Looking at relevant path coefficients in Figure 10, Democrats and Republicans showed greater intergroup animus after reading conflict-framed news ( $b$  = 89.16,  $SE$  = 5.62,  $p$  < .001) than news without conflict ( $b$  = 57.83,  $SE$  = 6.96,  $p$  < .001); the difference was statistically significant, critical ratio for difference = -3.592  $p$  = .0003. The result indicates that Democrats and Republicans felt more favorable emotions toward in-party members but negative emotions toward out-party members in response to partisan conflict-framed news.

Democrats and Republicans' intergroup animus positively correlated with their issue positions in the conflict-framed news condition ( $b$  = .01,  $SE$  = .006,  $p$  = .038), but not in the news without conflict conditions ( $b$  = -.001,  $SE$  = .006,  $p$  = .936). The difference was not statistically significant, though, critical ratio for difference = -1.446,  $p$  = .148.

Sobel tests found that no mediation effect of intergroup animus in both conditions of news without partisan conflict (*indirect effect* = -.05,  $z$  = -.16,  $p$  = .867) and partisan conflict-framed news (*indirect effect* = .89,  $z$  = 1.65,  $p$  = .097). This indicates that after controlling for motivated reasoning and in-party prototypes, partisan conflict framing did not induce attitude polarization via intergroup animus. Thus, H5b was not supported.

**Hypothesis 5c: Polarization via in-group prototype.** Lastly, to test H5c, I examined whether the self-categorization theory approach can explain the effect of conflict framing on partisan polarization above and beyond extant literature. First, looking at the relationship between party identification and in-party prototype in Figure 10, Democrats and Republicans showed a greater difference in their in-party prototypes after reading conflict-framed news ( $b = 5.72$ ,  $SE = .32$ ,  $p < .001$ ) than news without conflict ( $b = 4.04$ ,  $SE = .55$ ,  $p < .001$ ); the difference was statistically significant, critical ratio for difference =  $-2.646$   $p = .008$ . The result indicates that exposure to conflict-framed news made Democrats think their party more strongly supportive for and Republicans think their party more strongly opposed to the Buffett Tax proposal.

Democrats and Republicans' in-party prototypes positively correlated with their issue positions after exposure to conflict-framed news ( $b = .16$ ,  $SE = .09$ ,  $p = .074$ ); but it did not reach statistical significance. Assimilation did not occur after exposure to news without conflict ( $b = .04$ ,  $SE = .07$ ,  $p = .599$ ). No difference was statistically significant, critical ratio for difference =  $-1.066$   $p = .286$ .

Sobel tests found no mediation effect of in-party prototypes in both conditions of news without conflict (*indirect effect* =  $.16$ ,  $z = .57$ ,  $p = .568$ ) and conflict-framed news (*indirect effect* =  $.91$ ,  $z = 1.77$ ,  $p = .076$ ). The result indicates that the explanatory power of self-categorization theory do not outperform the extant approaches. Thus, H5c was not supported.

## Discussion

Among the three mediators of partisan conflict framing, motivated reasoning (*indirect effect* = 1.21) produced the most consistent and powerful effect toward partisan polarization than in-party prototypes (*indirect effect* = .91) and intergroup animus (*indirect effect* = .89). Although exposure to partisan conflict-framed news exaggerated in-party prototypes and increased intergroup animus, both did not show strong correlations with Democrats and Republicans' individual issue positions.

## Study 2

To enhance external validity, I replicated the analysis with an adult sample of US citizens. Table 7 presents the bivariate correlations and descriptive statistics of the focal variables in Study 2.

Table 7

*Bivariate Correlations and Descriptive Statistics of Focal Variables (N = 130 non-students)*

	Correlations			Descriptive Statistics	
	1	2	3	M	SD
1. Motivated reasoning	—			.77	1.78
2. Intergroup animus	.52***	—		5.19	52.77
3. In-party prototype	.40***	.59***	—	5.40	2.53
4. Issue position	.67***	.49***	.54***	6.25	2.19

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

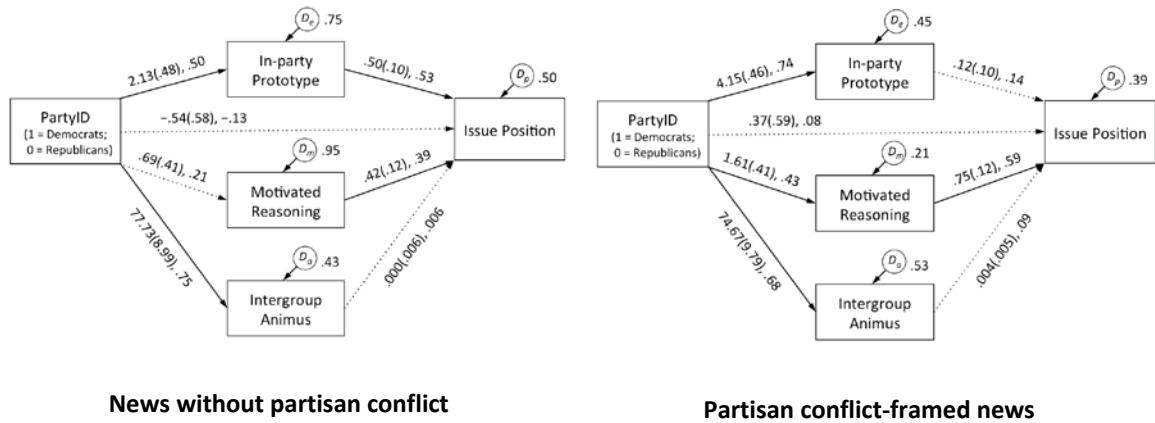
## Results

### Main Analyses

The model (see Figure 9) fit the data well,  $\chi^2 = .037$ ,  $df = 1$ ,  $p = .847$ , SRMR = .003, CFI = 1.000, RMSEA = .000, and AIC = 78.037 (Hu & Bentler, 1999).

To test whether the corresponding parameters varied across news exposure conditions, I created an alternative model in which all seven-path parameters were constrained to be equal across conditions. The chi-square statistics of this constrained model ( $\chi^2 = 20.321$ ,  $df = 8$ ,  $p = .009$ ) was statistically worse than that of the unconstrained model,  $\chi^2$  difference = 20.284,  $df$  difference = 7,  $p = .005$ . The chi-square difference test supported the model parameters of the partisan conflict framing condition diverged from that of the no partisan conflict framing condition.

The results of multi-group path analysis are summarized in Figure 11.



**Figure 11** A multi-group path analysis showing the indirect effects of conflict-framed news on partisan polarization. Estimates are reported as unstandardized (standard error), standardized. Standardized estimates for disturbances are proportions of unexplained variance. Solid lines indicate significant path coefficients at the alpha level of .05. Dashed lines indicate insignificant path coefficients. The disturbances of three mediators ( $D_e$ ,  $D_m$ , and  $D_a$ ) were correlated, but they were not presented for the sake of simplicity.

**Hypothesis 5a: Polarization via motivated reasoning.** To test H5a, I first examined the relationship between party identification and motivated reasoning. Looking at relevant paths in Figure 11, Democrats and Republicans showed greater biased information processing in favor of their party after reading conflict framed news ( $b = 1.61$ ,  $SE = .41$ ,  $p < .001$ ) than news without conflict ( $b = .69$ ,  $SE = .41$ ,  $p = .095$ ); the difference was not statistically significant, critical ratio for difference =  $-1.567$ ,  $p = .117$ .

The biased motivated reasoning positively correlated with Democrats and Republicans' positions on the Buffett Tax proposal more strongly in the conflict-framed news condition ( $b = .75$ ,  $SE = .12$ ,  $p < .001$ ) than in the news without conflict condition ( $b = .42$ ,  $SE = .12$ ,  $p < .001$ ); the difference was not statistically significant, critical ratio for difference =  $-1.543$ ,  $p = .122$ .

Sobel tests found a mediation effect via motivated reasoning after adult partisans read conflict-framed news (*indirect effect* =  $1.20$ ,  $z = 3.32$ ,  $p = .0008$ ), but not after they read news without conflict (*indirect effect* =  $.29$ ,  $z = 1.51$ ,  $p = .129$ ). This indicates that after controlling for intergroup animus and in-party prototypes, conflict framing induced attitude polarization via motivated. Thus, H5a was supported.

**Hypothesis 5b: Polarization via intergroup animus.** Next, to test H5b, I examined the relationship between party identification and intergroup animus. Looking at relevant paths coefficients in Figure 11, Democrats and Republicans showed intergroup animus in both conditions of conflict-framed news ( $b = 74.67$ ,  $SE = 9.79$ ,  $p < .001$ ) and news without conflict ( $b = 77.73$ ,  $SE = 8.99$ ,  $p < .001$ ); no difference was statistically significant, critical ratio for difference =  $.231$ ,  $p = .817$ .

Democrats and Republicans' intergroup animus did not correlate with their issue positions in both conditions of conflict-framed news ( $b = .004$ ,  $SE = .005$ ,  $p = .464$ ) and news without conflict ( $b = .000$ ,  $SE = .006$ ,  $p = .967$ ). The difference was not statistically significant, critical ratio for difference =  $-.453$ ,  $p = .650$ .

Sobel tests found no mediation effect of intergroup animus in both conditions of news without conflict (*indirect effect* =  $.00$ ,  $z = .00$ ,  $p = 1.000$ ) and conflict-framed news (*indirect effect* =  $.30$ ,  $z = .79$ ,  $p = .426$ ). This indicates that after controlling for motivated reasoning and in-party prototypes, no indirect effect of conflict framing via intergroup animus was significant on partisan polarization. Thus, H5b was not supported.

**Hypothesis 5c: Polarization via in-party prototype.** Lastly, to test H5c, I examined the relationship between party identification and their perceived in-party prototypes. Democrats and Republicans showed a greater difference in their in-party prototypes after reading conflict-framed news ( $b = 4.15$ ,  $SE = .46$ ,  $p < .001$ ) than news without conflict ( $b = 2.13$ ,  $SE = .48$ ,  $p < .001$ ); the difference was statistically significant, critical ratio for difference =  $-3.019$ ,  $p = .002$ . The result indicates that exposure to conflict-framed news made Democrats and Republicans exaggerate their party prototypes in opposite directions regarding the disputed issue.

Assimilation to in-party prototypes was found in the news without conflict condition ( $b = .50$ ,  $SE = .10$ ,  $p < .001$ ), but not conflict-framed news condition ( $b = .12$ ,  $SE = .10$ ,  $p = .229$ ). The difference was statistically significant, critical ratio for difference =  $2.589$ ,  $p = .0009$ .

Sobel tests found a mediation effect of in-party prototypes after adult partisans read news without conflict (*indirect effect* = 1.06,  $z = 3.31$ ,  $p = .0009$ ), but not after adult partisans read conflict-framed news (*indirect effect* = .50,  $z = 1.19$ ,  $p = .234$ ). The result was inconsistent with my prediction. Thus, H5c was not supported.

## Discussion

Among the three mediators of partisan conflict framing, motivated reasoning (*indirect effect* = 1.20) produced the most consistent and powerful effect toward attitude polarization than in-party prototypes (*indirect effect* = .50) and intergroup animus (*indirect effect* = .30). Although exposure to partisan conflict-framed news exaggerated in-party prototypes and also increased intergroup animus, both did not show strong correlations with adult partisans' individual issue positions.

In this regard, I note that the mediation role of in-party prototype was significant when adult partisans read news without partisan conflict (*indirect effect* = 1.06); yet the mediation effect disappeared after exposure to partisan conflict framed news due to adult partisans' weak assimilation to perceived in-party prototype (*indirect effect* = .50). This result suggests two things. First, adult partisans readily think tax-related issues in a political term and have somewhat stable positions on tax issues in alignment with their party identification. Second, when their views are challenged by a news story that overtly emphasizes partisan conflict over tax policies, adult partisans are actively engaged in defensive motivated reasoning instead of merely following their party prototypes.

## **General Discussion**

In this chapter, I attempted to show the utility of self-categorization theory above and beyond extant literature. However, both Studies 1 and 2 consistently show that self-categorization theory did not enhance current understanding of conflict framing effects on partisan polarization in addition to motivated reasoning and intergroup animus. Across Studies 1 and 2, motivated reasoning ( $indirect\ effect_{Study1} = 1.21$ ;  $indirect\ effect_{Study2} = 1.20$ ) was the most powerful explanatory mechanism that explains how conflict framing induces partisan polarization, relative to in-party prototypes ( $indirect\ effect_{Study1} = .91$ ;  $indirect\ effect_{Study2} = .50$ ) and intergroup animus ( $indirect\ effect_{Study1} = .89$ ;  $indirect\ effect_{Study2} = .30$ ). This is a discouragement for me to argue that self-categorization theory shed new light on the research of partisan polarization. Yet, I proceed with a next study and continue to examine whether self-categorization theory can be supplementary to extant research and theories in further theorizing the effect of conflict framing on gender polarization where group cues carry less prominent rivalry group schema.

## Chapter 5

### A New Perspective: Self-categorization Theory of Group Polarization

Throughout this dissertation, I am making three arguments: (1) Conflict framing of the news can cause group polarization at a societal level, such as Democrats and Republicans holding more polarized issue positions along party lines. (2) The impact of conflict-framed news occurs via partisan identity salience, extremitization of in-party prototype and assimilation to the group prototype. (3) Such self-categorization theory approach may provide a new perspective to explain the polarization effect of the news in the United States. In Chapter 2, with the use of diverse samples, I presented supporting evidence for the first two claims. By replicating the test with gender groups of which group cues carry a less prominent rivalry group schema, in Chapter 3 I demonstrated that conflict framing of the news alone could promote group polarization of attitudes. Furthermore, in Chapter 4 I attempted to show that the self-categorization theory approach could add more explanatory power to the extant theory and research. However, the motivated reasoning approach outperformed my group polarization approach. In this chapter, I continue to examine the utility of self-categorization theory beyond and above extant literature in testing conflict framing effects on gender polarization.

To review, consistent with motivated reasoning (Kunda, 1990), *Hypothesis 6a* asks whether women and men exposed to gender conflict-framed news will evaluate in-group arguments as more valid while underestimating the validity of out-group arguments, thus holding more polarized issue positions along gender lines. Next, guided by social identity theory (Tajfel & Turner, 1979, 1986/2004; Tajfel, 1981), *Hypothesis 6b*

asks whether women and men exposed to gender conflict-framed news will evaluate in-group more positively while expressing greater derogation toward out-group, thus more polarized along gender lines. Lastly, self-categorization theory (Turner et al., 1987) proposes *Hypothesis 6c*: Women and men exposed to gender conflict-framed news will extremitize in-party prototypes on the disputed issue in opposite directions, thus holding more polarized issue positions along party lines.

My interest is to explore whether the self-categorization theory approach adds more explanatory power to extant research. I do not have an *a priori* prediction about which process should predominate. Therefore, I test three mediators of gender conflict framing—i.e., motivated reasoning, intergroup animus, and in-group prototypes—against each other.

### **The Present Study**

The objective of the present study is to examine whether the self-categorization theory approach could explain conflict-framing effects on gender polarization above and beyond motivated reasoning and intergroup animus. To that end, using multigroup structural equation modeling (SEM), I test three mediators of gender conflict framing news—*motivated reasoning, intergroup animus, and in-group prototypes*—simultaneously. For the analysis, the data set from the previous study in Chapter 3 were utilized. The study was a between-subjects experiment (news exposure: gender conflict-framed news vs. news without gender conflict). In this experiment, participants were randomly exposed to one of news stimuli and then responded to questions: (1) issue position, (2) group prototypes, (3) argument validity, and (4) feeling thermometers.

## Measures

**Motivated reasoning.** Motivated reasoning was measured by a series of questions about argument validity from both sides of women and men on Facebook and Apple's egg-freezing health benefit. The gendered arguments were prefaced with the following instructions: "To what extent, do you think the following arguments are valid? For example, if you think the argument is true, it is valid." The four arguments presented were: (1) The new egg-freezing perk may give Apple and Facebook a leg up among the many women who devoted key childbearing years to building careers (women's argument), (2) Egg-freezing is also an issue of fairness (men's argument), (3) It would be better if we have benefits for people at Facebook or Apple instead of women-specific benefits (men's argument), and (4) Egg-freezing would support women in carving out the lives they want (women's argument). All responses were completed on a 5-point scale (1 = *not at all valid*, 5 = *extremely valid*).

Motivated reasoning is defined as overestimating in-group arguments as more valid while underestimating out-group arguments as less valid. To construct a scale, these arguments were grouped as women and men's arguments and then averaged. Next, I created a difference measure of motivated reasoning by subtracting validity of *men's arguments* from validity of *women's arguments* (see Cronbach & Furby, 1970 for the limitations of difference measures).

**Intergroup animus.** Intergroup animus was measured by feeling thermometers. Participants were asked to indicate their feelings toward women and men respectively on a thermometer scale, ranging from 0 (*very cold or unfavorable feeling*) to 100 (*very warm or favorable feeling*). Intergroup animus is defined as favorable feeling toward in-group

and hostility toward out-group. Following Iyengar and his colleagues (2012), I created a difference measure of intergroup animus by subtracting the scores of feeling thermometer toward men from the scores of feeling thermometer toward women.

**In-group prototype.** Participants indicated to what extent they think women and men support or not support Facebook and Apple's egg-freezing health benefit on a 9-point Likert scale (1 = *strongly do not support*, 9 = *strongly support*) respectively. I used women's estimated positions of women as their in-group prototype and men's estimated positions of men as their in-group prototypes.

**Issue position.** Participants indicated to what extent they support or not support Facebook and Apple's egg-freezing health benefit on a 9-point Likert scale (1 = *strongly do not support*, 9 = *strongly support*).

Table 8 presents the bivariate correlations and descriptive statistics of the focal variables.

Table 8  
*Bivariate Correlations and Descriptive Statistics of Focal Variables (N = 176)*

	Correlations			Descriptive Statistics	
	1	2	3	M	SD
1. Motivated reasoning	—			.63	1.29
2. Intergroup animus	.13	—		4.75	14.73
3. In-party prototype	.43***	.15	—	6.40	1.70
4. Issue position	.58***	.10	.53***	5.92	2.01

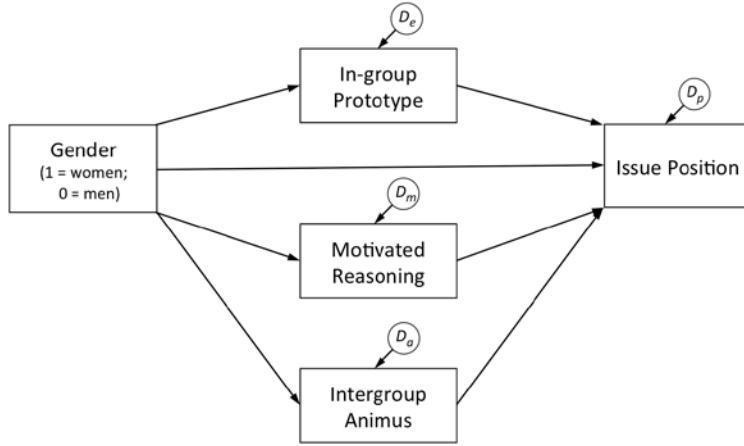
\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Looking at Table 8, intergroup animus between women and men showed low and statistically insignificant correlations with other focal variables ( $r_s \leq .15$ ). This pattern in bivariate correlations was not found in previous studies, which examined partisan polarization. Such a difference across studies support Iyengar and his colleagues' (2012) claim that affect polarization is a more diagnostic indicator of partisan polarization than ideology; but partisan affect is inconsistently related to policy attitudes.

## Results

### Main Analyses

A multi-group path analysis of structural equation modeling (SEM) tested whether women and men show a greater attitude polarization along gender lines via *motivated reasoning, intergroup animus*, and/or via *extremitized in-group prototypes* as a function of gender conflict framing. Figure 12 illustrates the path model. In this model, gender was dummy coded (1 = women, 0 = men). That said, the magnitude of gender polarization was compared across the two news exposure conditions. The disturbances of three mediators ( $D_e$ ,  $D_m$ , and  $D_a$ ) were correlated because all three approaches are based on partisan identity and thus are not mutually exclusive. All estimates were computed by AMOS 18.0.

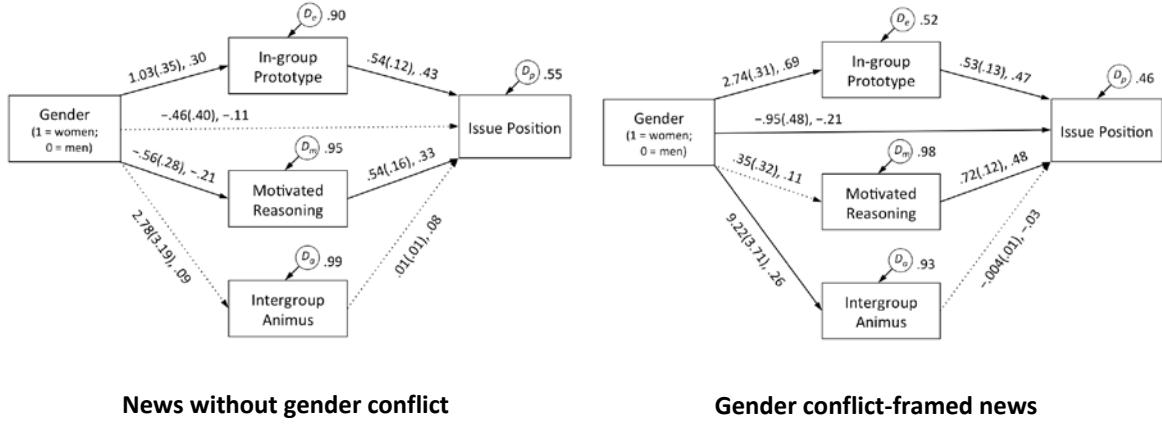


**Figure 12** A path model testing the self-categorization theory approach in comparison with alternative explanations. The magnitude of gender polarization was compared across the two news exposure conditions.

The model fit the data well:  $\chi^2 = 1.004$ ,  $df = 1$ ,  $p = .293$ , standardized root mean square residual (SRMR) = .007, comparative fit index (CFI) = 1.000, and root mean squared error of approximation (RMSEA) = .025 (Hu & Bentler, 1999).

To test whether the corresponding parameters varied across news exposure conditions, I created an alternative model in which all seven-path parameters were constrained to be equal across conditions. The chi-square statistics of this constrained model ( $\chi^2 = 17.720$ ,  $df = 8$ ,  $p = .023$ ) was statistically worse than that of the unconstrained model,  $\chi^2$  difference = 16.716,  $df$  difference = 7,  $p = .019$ . The chi-square difference test supported the model parameters of the conflict-framed news condition diverged from those of the news without conflict condition.

The results of multi-group path analysis are summarized in Figure 13.



**Figure 13** A multi-group path analysis showing the indirect effects of conflict-framed news on gender polarization. Estimates are reported as unstandardized (standard error), standardized. Standardized estimates for disturbances are proportions of unexplained variance. Solid lines indicate significant path coefficients at the alpha level of .05. Dashed lines indicate insignificant path coefficients. The disturbances of three mediators ( $D_e$ ,  $D_m$ , and  $D_a$ ) were correlated, but they were not presented for the sake of simplicity.

**Hypothesis 6a: Polarization via motivated reasoning.** To test H6a, I first looked at the relationship between gender and motivated reasoning. Looking at Figure 13, women and men showed biased information processing in favor of their group after reading conflict-framed news; but it did not reach statistical significance ( $b = .35$ ,  $SE = .32$ ,  $p = .284$ ). By contrast, after reading news without conflict, motivated reasoning emerged in favor of the opposing group ( $b = -.56$ ,  $SE = .28$ ,  $p = .046$ ). The difference was statistically significant, critical ratio for difference =  $-2.111$ ,  $p = .034$ . The result indicates that when women and men got to know about Apple and Facebook's egg-freezing health benefit without gender conflict, they were more open to arguments from out-groups. However, such tendency disappeared when the same issue was informed with an emphasis of gender conflict.

Next, women and men's biased information processing were positively correlated with their issue positions in both conditions of gender conflict-framed news ( $b = .72$ ,  $SE = .12$ ,  $p < .001$ ) and news without gender conflict ( $b = .54$ ,  $SE = .16$ ,  $p < .001$ ); no difference was not statistically significant, critical ratio for difference =  $-.862$ ,  $p = .388$ .

To determine the indirect effect of gender conflict framing via motivated reasoning, I performed sobel tests. Although a bootstrap re-sampling method is available at AMOS 18.0, the bootstrap test only presents the *total* indirect effect that includes all mediation effects displayed in the model. Thus, to single out the indirect effect via motivated reasoning, sobel tests were instead implemented. Relative to a bootstrapping, sobel tests do not account for the potential non-normality of the sampling distributions of the indirect effects (Hayes, 2013; Imai et al., 2011).

Sobel tests found no mediation effect of motivated reasoning after exposure to gender conflict-framed news (*indirect effect* =  $.25$ ,  $z = 1.07$ ,  $p = .282$ ) and news without gender conflict (*indirect effect* =  $-.30$ ,  $z = -1.72$ ,  $p = .085$ ). The result indicates that after controlling for intergroup animus and in-group prototypes, gender conflict framing did not induce gender polarization via motivated reasoning. Thus, H6a was not supported.

**Hypothesis 6b: Polarization via intergroup animus.** To test H6b, I examined the relationship between gender and intergroup animus. Looking at relevant paths in Figure 13, women and men showed greater intergroup animus after exposure to gender conflict-framed news ( $b = 9.22$ ,  $SE = 3.71$ ,  $p = .013$ ) than news without gender conflict ( $b = 2.78$ ,  $SE = 3.19$ ,  $p = .383$ ); the difference was not statistically significant, critical ratio for difference =  $-1.316$ ,  $p = .188$ .

Women and men's intergroup animus barely correlated with their issue positions in both conditions of gender conflict-framed news ( $b = -.004$ ,  $SE = .01$ ,  $p = .697$ ) and news without gender conflict ( $b = .01$ ,  $SE = .01$ ,  $p = .337$ ). No difference was significant across news exposure conditions, critical ratio for difference =  $.989$ ,  $p = .322$ .

Sobel tests found that no mediation effect of intergroup animus in both conditions of news without gender conflict (*indirect effect* =  $.26$ ,  $z = .65$ ,  $p = .511$ ) and gender conflict-framed news (*indirect effect* =  $-.03$ ,  $z = -.39$ ,  $p = .693$ ). This indicates that after controlling for motivated reasoning and in-party prototypes, the indirect effect of partisan conflict framing via intergroup animus was not significant on gender polarization. Thus, H6b was not supported.

**Hypothesis 6c: Polarization via in-group prototype.** Lastly, to test H6c, I examined the relationship between gender and in-party prototypes. Women and men showed a greater difference in their in-group prototypes after reading gender conflict-framed news ( $b = 2.74$ ,  $SE = .31$ ,  $p < .001$ ) than news without gender conflict ( $b = 1.03$ ,  $SE = .35$ ,  $p = .003$ ); the difference was statistically significant, critical ratio for difference =  $-3.596$   $p = .0003$ . The result indicates that exposure to gender conflict-framed news made women and men exaggerate in-group prototypes on the issue under contention in opposite directions.

Assimilation appeared in both conditions of gender conflict-framed news ( $b = .53$ ,  $SE = .13$ ,  $p < .001$ ) and news without gender conflict ( $b = .54$ ,  $SE = .12$ ,  $p < .001$ ); no difference was not statistically significant across news exposure conditions, critical ratio for difference =  $.068$ ,  $p = .945$ .

Sobel tests found a mediation effect of in-group prototype after exposure to news without gender conflict (*indirect effect* = .55,  $z = 2.46$ ,  $p = .017$ ). A stronger mediation effect was found after exposure to gender conflict-framed news (*indirect effect* = 1.45,  $z = 3.70$ ,  $p = .0002$ ). This indicates that after controlling for motivated reasoning and intergroup animus, gender conflict framing exacerbated group polarization along gender lines through in-party prototypes. Therefore, H6c was supported.

## Discussion

Among the three mediators of gender conflict framing, in-group prototype (*indirect effect* = 1.45) produced the most consistent and powerful effect toward gender polarization relative to motivated reasoning (*indirect effect* = .25) and intergroup animus (*indirect effect* = -.03). The result indicates that when the news framed an issue in terms of gender conflict, news exposure made women and men hold more polarized issue positions along gender lines; extremized in-group prototype mediated the conflict framing effect of the news. No mediation of motivated reasoning and intergroup animus was significant. This finding provides an important support for my idea that self-categorization theory can contribute to further theorizing the news effects on social divides beyond extant literature.

However, no such support was found in the previous studies testing partisan polarization: After controlling for motivated reasoning and intergroup animus, the mediation effect of in-party prototype did not account for partisan polarization. I speculate *motivation* as one possible explanation of this difference between gender and partisan polarization. From the perspective of motivated reasoning (Kunda, 1990), people

discriminate the validity of arguments based on the source (in-group vs. out-group) due to the motivation to defend their values and identities. Such defensive motivated reasoning becomes stronger when preexisting values and identities are challenged rather than supported (Arceneaux et al., 2013; Kunda, 1990; Levendusky, 2013a; Lodge & Taber, 2013; Lord et al., 1979; Miller, McHoskey, Bane, & Dowd, 1993; Slothuus & de Vreese, 2010). This suggests that the more intense intergroup conflict is conceived, the more motivated people are to defend their group. Thus, motivated reasoning played a more important role with regard to partisan polarization where intergroup relationship is characterized by *us versus them* worldview than gender polarization of which group categories lack such rivalry group schema.

Contrary to motivated reasoning, motivation is not a concern of self-categorization theory. The tenet of self-categorization theory is how a group identity becomes salient and how such salient group identity changes human behaviors in alignment with group prototypes (Hogg, 2003; Turner et al., 1987). This so-called self-stereotyping is a less deliberative but automatic cognitive reaction. In the lack of rivalry group schema, people may be more heavily rely on such an automatic reaction as a cognitive miser. Instead of actively thinking for their group, women and men reading gender conflict framing news might just think about the given issue in terms of where their group and the other group stands and simply follow a stereotypically exaggerated in-group prototype.

On a related note, I also speculate the topic of news stories as another reason for a stronger motivated reasoning in partisan polarization than gender polarization. The Buffett Tax proposal, the news topic of the partisan polarization studies, has made its

headlines since 2011 at the latest and been an important policy agenda of the Democratic Party. By contrast, Apple and Facebook's egg-freezing health benefit, the news topic of the gender polarization study, made its first headline in October 2014, only three month prior to the data collection. During the three-month time gap, not much follow-up news reports had been published. This suggests very little chance of people having had an invested issue positions on Apple and Facebook's egg-freezing health benefit. No preexisting position implies weak defensive motivation. It adds an interesting layer in comparing the explanatory power of motivated reasoning and self-categorization theory.

## **Chapter 6**

### **Conclusion**

At least for the last three decades the rise in political polarization in the United States has been at the center of scholarly attention. Although it is inconclusive whether this political divide is a “disappearing center” phenomenon (Abramowitz, 2010) or an extreme-partisans-to-be-more-extreme phenomenon (Fiorina & Abrams, 2008), a clear trend has emerged such that strong party identifiers now hold more distinctive ideological positions than in the past (Pew, 2014b).

This dissertation study launched based on a simple idea that when the news provides a vicarious experience of partisan conflict, news exposure should induce group polarization along party lines. Specifically, I asked whether partisan conflict framing in the reporting of political news could promote attitude polarization in the American mass public. Guided by the self-categorization theory of group polarization (Turner et al., 1987), I further examined the underlying mechanism that explains such an effect of news media. My study found that exposure to partisan conflict-framed news reified self-categorization as members of the Democratic and Republican Party and made partisans follow a cognitively exaggerated in-party prototype. Thus, Democrats and Republicans adopted more polarized positions in opposite directions. I then asked whether the self-categorization theory approach contributes to a better understanding of the role of news media above and beyond extant literature. To that end, I tested the mediating role of exaggerated in-group prototypes against other potential mediators such as motivated reasoning and intergroup animus.

These three main questions were addressed in a series of experimental studies. To increase generalizability, the questions were tested with diverse samples. By replicating the same experiment in the context of gender polarization, I also attempted to disentangle the role of conflict framing from the role of party cues and strengthen the internal validity. The findings of these experimental studies and their implications are discussed below.

### **Conflict Framing of the News: An Independent Cause of Polarization**

In Chapter 2, I showed that after exposure to partisan conflict-framed news, Democrats and Republicans held more extreme positions on a disputed issue along party lines. The finding was consistent across different samples of college students (Study 1) and adults (Study 2). Also, this polarization effect of conflict framing was mediated by increased partisan self-categorization, though less consistently. To elaborate, in contrast to the adult partisans in Study 2, the student partisans examined in Study 1 did not show attitude polarization via partisan identity salience and exaggerated in-party prototype. The varying mediating results may be attributed to different sample characteristics. That is, adult Democrats and Republicans as stronger party identifiers than students were more responsive to partisan conflict framing and showed stronger attitude polarization.

The present dissertation study attempts to fill a gap in the extant literature by focusing on the role of mass media in the genesis of partisan polarization. To date, most of the research on this topic points out the overt divide between partisan elites—most prominently, each party’s elected officials—as the primary cause of polarization in the American mass public (Druckman et al., 2013). That is, because party leaders present

highly distinctive stances on almost every social issue, partisans who follow their party leaders accordingly become more polarized from each other. To rule out the confounding effect of party leadership, I decided to test the impact of conflict framing in the context of gender polarization where a divided leadership does not characterize the intergroup relationship. An experiment in Chapter 3 provided robust support for the polarization effect of conflict framing. Both women and men exposed to gender conflict-framed news expressed more polarized positions about Facebook and Apple's egg-freezing health benefit. This effect occurred through gender identity salience and exaggerated in-group prototypes. These findings suggest that conflict framing of the news can be an independent cause of group polarization.

Taken together, the findings of my dissertation studies shed new light on how news coverage can affect group polarization at a societal level—particularly, partisan polarization. Although extant research typically focuses on elite polarization as a primary factor in partisan polarization and although there are some studies understating polarization in connection to the news media, to my knowledge all of these studies underscore the recent rise of partisan cable news channels (e.g., *Fox News* and *MSNBC*). According to this literature, recurring exposure to politically congenial messages—such as Democrats tuning in liberal media and Republicans tuning in conservative media—reinforces preexisting political attitudes (e.g., Hollander, 2008; Iyengar & Hahn, 2009; Jones, 2002; Levendusky, 2013a; Stroud, 2008, 2010; Webster, 2005). However influential these channels may be, this is not the whole story when it comes to polarization. Despite their increased popularity, partisan cable news channels have less than one-twentieth of the average viewership of the three non-partisan networks, NBC,

CBS, and ABC (Pew, 2014a). Furthermore, given that partisan conflict framing prevails in news coverage of political events even in these non-partisan news outlets (Cappella & Jamieson, 1997; Neuman et al., 1992; Patterson, 1993), my findings strongly suggest that conflict framing of the news can be a potentially more important way in which the news media may contribute to polarization. Therefore, I invite future studies to investigate how the news media may exacerbate attitude polarization beyond the role of partisan cable news channels.

## **Two Mediators of Polarization: Exaggerated In-group Prototype vs. Motivated Reasoning**

In an effort to test whether the self-categorization theory approach enhances current understanding of the relationship between conflict framing and polarization, I also offered three hypotheses about the mediating processes of the relationship. First, based on theories of motivated reasoning (Kunda, 1990), I predicted that partisan conflict-framed news might lead Democrats and Republicans to process information in favor of the in-party, increasing attitude polarization. Second, based on social identity theory (Tajfel & Turner, 1979, 1986/2004; Tajfel, 1981), I hypothesized that conflict framing might increase intergroup animus between Democrats and Republicans, thus resulting in greater partisan polarization in policy attitudes. Third, consistent with self-categorization theory (Turner et al., 1987), I hypothesized that conflict-framed news might inflate the difference between the two parties' positions on a disputed issue and lead partisans to assimilate to the exaggerated in-party prototypes, thus showing attitude polarization along party lines.

The results of three experimental studies—Study 1 testing partisan polarization with a student sample, Study 2 testing partisan polarization with an adult sample, and Study 3 testing gender polarization—found no support for the mediating effect of intergroup animus. On the other hand, mixed support was found with regard to motivated reasoning and exaggerated in-party prototype. Specifically, Studies 1 and 2 in Chapter 4 showed that the effect of conflict framing on partisan polarization was consistently mediated by motivated reasoning, whereas Study 3 in Chapter 5 identified exaggerated in-group prototype as the most powerful mediator that explained the impact of conflict framing on gender polarization.

One possible explanation of the varying mediating effect of motivated reasoning and in-group prototypes across studies of partisan polarization and gender polarization could be the different topics of the news stimuli—the Buffett Tax proposal and egg-freezing health benefit at Facebook and Apple. As noted previously, in contrast to the Buffett Tax proposal which has been a part of President Obama’s tax plan since 2011, Facebook and Apple’s egg-freezing health benefit made its first headline in 2014 only three months before the data collection. Such a difference in issue familiarity may affect the level of defensive motivation: The more novel the issue is, the less likely it is to be that people have prior attitudes about the issue; thus, they are less likely to be engaged in defensive motivated reasoning. To substantiate this idea, an interesting follow-up study would be a test of whether the motivated reasoning approach still outperforms self-categorization theory even when a news story frames a non-partisan issue such as Facebook and Apple’s egg-freezing health benefit in terms of partisan conflict.

Such scholarly efforts to identify the mechanism behind conflict framing effects are important for practical reasons. In particular, the findings of this sort encourage political communication scholars to further explore ways to counteract the negative effects of conflict framing. On one hand, if the exaggeration of in-party prototypes associated with partisan self-categorization is the primary force behind attitude polarization, additional time to think thoroughly may deter polarization. In this vein, Blair and Banaji (1996) noted that the automatic activation of stereotypes can be easily offset when people have a chance to think further and consciously correct initial stereotypical associations. In contrast, if biased information processing—which tends to bolster existing political attitudes—is the cause, offering additional time to think thoroughly about the target issue may simply exacerbate polarization. Once processes of motivated reasoning are engaged, additional cognitive elaboration should merely deepen the protection of one's initial preferences (Kunda, 1990; Lodge & Taber, 2013). Again, I invite future studies on this topic.

On a last note, I underscore that the findings of the present dissertation study partly substantiates normative claims about the detrimental impact of *horse race journalism* in coverage of U.S. politics. Many scholars have criticized the news media for transforming politics into a “strategic game” (Patterson, 1993) or “spectator sport” (Price, 2009) and are concerned about the potentially-negative influence of this style of coverage on deliberative democracy. Few studies, however, have tested hypotheses relevant to this claim. By examining the polarizing impact of news coverage that dwells on the competitive aspects of party politics, the present dissertation study provides some of the

only evidence that speaks to these claims. As such, my findings may enhance journalism professionals' understanding of the consequences of partisan conflict framing, a news strategy they have often adopted in an effort to draw attention to and “sell” their stories. I hope that my findings inform professional debates about better ways to provide news coverage of political events.

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## *Appendix A*

### **A Validation Test of Multiple Measures of Partisan Identity Salience**

In this dissertation studies I argue that one-time news exposure can promote group polarization along party lines. Based on self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), this polarization effect of the news is highly likely when news exposure can make a partisan identity salient. Despite its importance, however, the measures of partisan identity salience have been underdeveloped and thus political communication scholarship does not know much about how to best measure this important concept of partisan identity salience. To fill this gap in the literature, I introduce multiple measures of partisan identity salience and evaluate the measures against a set of validity criteria including concurrent validity, convergence validity, and predictive validity. Based on this validity test, I aim to suggest which measures of partisan identity salience may be most useful for political communication scholarship to explore the role of salient partisan identity in mass political behavior.

#### **Partisan Identity Salience**

Prior to discussing its potential measures, I define partisan identity salience as the heightened accessibility of partisan identity. As a “top-of-the-head” phenomenon (Zaller, 1992), when a particular concept is *salient*, it indicates that the concept is highly accessible in the associative memory system that it is more likely to be used in future judgments, decisions, and inferences (Higgins, Bargh, & Lombardi, 1985). Because many studies emphasizing the role of partisan identity in political communication draw on the

literature of social identity (e.g., Iyengar et al., 2012; Iyengar & Westwood, 2015; Lavine, Johnston, & Steenbergen, 2012; Levendusky, 2013), I also define *partisan identity* consistent with this literature. The tenet of social identity theory is that the self-concept can be derived from the social groups and categories that people belong to and thus people define themselves in a group term (Abrams & Hogg, 1988; Hogg & Reid, 2006; Hogg, 2003; Tajfel & Turner, 1979). Accordingly, in the context of American politics where bipartisanship characterizes its political system, partisan identity is defined as an individual's self-concept as a Democrat or a Republican.

In addition, it is important to note that social identity theorists contend that the self-concept is fluid rather than stable across various social contexts (Hogg & Reid, 2006; Oakes, 1987, 2002; Onorato & Turner, 2004; Tajfel & Turner, 1986/2004; Turner, Oakes, Haslam, & McGarty, 1994). For example, when a female American watches the Men's ice hockey semifinal between the USA and Canada at the Winter Olympics, the competitive situation elicits her national identity. By contrast, when the same person watches the news coverage of street crimes targeting women, her gender identity becomes salient instead. These examples of fluid self-concepts correspond to the basic concept of identity salience well. Taken together, when partisan identity is salient, it indicates that people primarily think of themselves as a Democrat or a Republican.

## **Measures of Partisan Identity Salience**

Although the impact of partisan identity salience on shaping political behavior has been extensively examined, scholarly attention has been very limited with regard to measuring salience. However, outside of the field of political communication, there are

measures available. First, Nelson et al. (1997) assessed salience of particular values by asking participants to indicate how important the value of free speech or of public order was to them when they think about the question of whether or not the Ku Klux Klan should hold demonstrations in public. To test whether the salience of the values increased, this salience measure was presented after participants read either a free speech-framed news story or a public order-framed news story.

Second, Price (1989) used a thought-listing technique to measure group identity salience. After participants read a news story on a campus conflict between engineering majors and humanities majors, Price (1989) asked them to write down any thoughts or feelings that crossed their minds while reading the news story. The number of thoughts referencing either engineering majors or humanities majors was used as an indication of group identity salience. In the associative memory system, this is an important sign of the heightened salience of group identity: The more salient a group identity, the more likely it is to be used to process information in terms of the group identity (Higgins et al., 1985).

Third and lastly, Implicit Association Test (IAT). For example, Cadinu and Galdi (2012) used the Gender Self-categorization IAT to measure the strength of automatic association between gender (i.e., *Women* and *Men*) and self (i.e., *I* and *Others*). To elaborate, participants were asked to respond rapidly to words representing one concept and one attribute (e.g., *I* and *Women*) with a right-hand key press and to words from the remaining two categories (e.g., *Others* and *Men*) with a left-hand key press. Participants repeat the task in which the key assignments for the previous pairs are switched (e.g., *I* and *Men* share the same response key while *Others* and *Women* share the other response

key). The IAT builds on the principle that it should be easier to pair concepts with congenial attributes rather than with uncongenial attributes. For example, if a person identified herself as a woman, it should be easier for her to pair the concept *I* and *Women* (and *Others* and *Men*) than the opposite pairs *I* and *Men* (and *Others* and *Women*), (Greenwald, McGhee, & Schwartz, 1998; Greenwald, Nosek, & Banaji, 2003; Nosek, Banaji, & Greenwald, 2002). Stronger association thus indicates stronger accessibility of gender identity to a person's self-concept.

None of these salience measures focused on partisan identity in particular. However, I modify the measures in order to capture the level of partisan identity salience and test the validity of the three measures against a set of criteria including concurrent validity, convergence validity, and predictive validity.

### **Construct Validity and Research Questions**

Trochim (2006) provides a useful framework for testing construct validity of the three candidate measures. By construct validity, Trochim (2006) means assessing how well a theoretical concept is translated into an actual measurement. He thus uses the term more broadly and claims all of the other measurement validity should fall beneath it. I follow Trochim (2006) and examine the performance of the measures of partisan identity salience against a set of validity criteria as follows:

1. Concurrent validity: the degree to which the measurement distinguishes between groups that it should theoretically be able to distinguish.

2. Convergence validity: the degree to which the measurement is similar to other measurement that is theoretically should be similar to.
3. Predictive validity: the degree to which the measurement predicts something it should theoretically be able to predict.

To assess concurrent validity, I test whether the three candidate measures detect the heightened salience of partisan identity in response to partisan conflict-framed news. From the perspective of theories of social identity, a particular group identity is easily elicited when a situational feature *fits* an in-group/out-group categorization (Hogg & Reid, 2006; Oakes, 1987, 2002; Turner et al., 1994). For example, when a female boards an elevator filled with males, the comparative situation triggers her gender identity. Similarly, when the news highlights Democrats fighting against Republicans or vice versa, news exposure provides a situation where partisan identity can be salient. Although it has not been directly measured, many studies in the field of political communication have assumed that exposure to conflict-oriented political messages would increase partisan identity salience (e.g., Druckman et al., 2013; Iyengar et al., 2012; Levendusky, 2013). Taken together, I expect that Democrats and Republicans exposed to partisan conflict-framed news will show a higher level of partisan identity salience than Democrats and Republicans exposed to news without partisan conflict.

To assess convergence validity, I examine the extent to which the candidate measures correlate with the importance of partisan identity to one's self-concept. According to theories of social identity (Hogg, 2003; Oakes, 2002; Turner et al., 1987), the importance of partisan identity to one's self-concept should affect the level of partisan

identity salience. That is, a comparative contextual feature works only for people whose identity pertains to the given situation. For example, exposure to news focusing on partisan conflict is likely to elicit partisan identities in the minds of Democrats and Republicans, but less likely to do so in the minds of Independents because partisan identity is not relevant to Independents' self-concepts. Moreover, Democrats and Republicans whose partisan identities carry greater importance to their self-concepts will show greater level of partisan identity salience after exposure to partisan conflict-framed news. The identity subscale from the Collective Self-esteem Scale (Luhtanen & Crocker, 1992) was particularly developed to capture such subjective importance of a social identity to a person's self-concept. Also, strength of party identification has been widely used as the proxy for importance of a partisan identity (e.g., Iyengar et al., 2012; Lavine et al., 2012). Therefore, I expect that the three candidate measures of partisan identity salience will correlate with the importance of partisan identity and the strength of party identification.

Lastly, to examine predictive validity, I test whether the level of partisan identity salience can predict attitude polarization along party lines via biased information processing toward their own party. In the field of political communication, partisan identity salience has been discussed as a predictor of attitude polarization (Cohen, 2003; Druckman et al., 2013; Kahan, 2013; Levendusky, 2013; Lodge & Taber, 2013). Drawing on motivated reasoning (Kunda, 1990), these studies tested and showed people with a salient partisan identity evaluate arguments from their own party (in-party) as more valid while evaluating arguments from the opposing party (out-party) as less valid, resulting in more extreme positions in the direction of their party. Therefore, the measures of partisan

identity salience should predict the three variables as follows: (1) higher perceived validity of in-party arguments, (2) lower perceived validity of out-party arguments, and (3) ultimately more extreme issue positions in the direction of their party.

## Method

The salience measures were included in Study 1. So the study design, stimuli and participants were the same as Study 1. To review, participants completed an online questionnaire at the time of recruitment. Importance of partisan identity was measured in this pretest. After a week later, participants came to a lab and responded to another online questionnaire. Participants were first received one of news stimuli (partisan conflict-framed news vs. news without partisan conflict) and then rated their position on the Buffett Tax proposal. Three measures of partisan identity salience followed and the measures of argument validity were then presented.

## Measures

**Partisan identity salience.** Three measures were used to capture the salience of partisan identity as follows:

*Importance Rating Task.* Partisan identity salience was measured by modified versions of Nelson et al.'s (1997) importance rating task. Participants indicated to what extent partisan identity (i.e., myself as a Democrat or a Republican) is important in shaping their positions on the Buffett Tax proposal. The response was completed on a 5-point Likert scale (1 = *not at all important*, 5 = *very much important*).

*Thought-listing technique.* Following Price (1989), participants were also asked to write down any thoughts or feelings that crossed their minds while reading the news story. Two trained coders counted the number of thoughts or feelings referencing Democrats (e.g., Democrats, liberals, left-wing) and/or Republicans (e.g., Republicans, conservatives, right-wing) in the written responses. The valence of the responses was also analyzed. Coders counted the number of thoughts or feelings in the written responses that were (1) positive or supportive in overall tone, (2) negative or hostile in overall tone, and (3) neutral in overall tone.

After a series of training sessions, coders first analyzed all responses independently. Coders then discussed each coding inconsistency and tried to reach consensus counts. The inter-coder reliabilities, assessed by bivariate correlations, were 1.000 for the counts of references to Democrats and/or Republicans (i.e., refC), .937 for the counts of positive thoughts (i.e., posC), .941 for the counts of negative thoughts (i.e., negC), and .934 for the counts of neutral thoughts (i.e., neutC). Ultimately each count was computed by averaging coders' independent counts.

As with Price (1989), the thought-listing measure of partisan identity salience was computed as the weighted count of references with the percentage of the number of positive and negative thoughts:

$$\text{Partisan Identity Salience} = \text{refC} \times \left\{ 1 + \left( \frac{\text{posC} + \text{negC}}{\text{posC} + \text{negC} + \text{neutC}} \right) \right\}.$$

Greater scores on the thought-listing measure indicate that news exposure generated more thoughts and feelings related to their partisan identities, equivalent to higher level of partisan identity salience.

*Party Self-categorization IAT.* With the use of modified version of Cadinu and Galdi's (2012) Gender Self-categorization IAT, we measured the strength of automatic associations between self-concepts (i.e., *us* or *them*) and attributes (i.e., Democrats or Republicans). Note that as the present study examined partisan identity salience from the perspective of social identity theories, we utilized self-categorization between *us* and *them* rather than *me* and *others*. To elaborate, participants were asked to respond rapidly to words representing one concept and one attribute (e.g., *us* and *Democrats*) with a right-hand key press and to words from the remaining two categories (e.g., *them* and *Republicans*) with a left-hand key press. Participants then performed a second task in which the key assignments for the previous pairs are switched (e.g., *us* and *Republican* share the same response key while *them* and *Democrats* share the other response key). The order of the two tasks was counterbalanced to avoid order effects (Greenwald et al., 1998).

The IAT scores were computed based on the differences in mean response latency between these two tasks (Greenwald et al., 2003). Democrats were expected to respond faster to compatible pairs (e.g., *us/Democrats* or *them/Republicans*) than incompatible pairs (e.g., *them/Democrats* or *us/Republicans*). The same would be true of Republicans. Thus, greater Party Self-categorization IAT scores indicate stronger association between *us/Democrats* (or *us/Republicans*) and *them/Republicans* (or *them/Democrats*), equivalent to higher level of partisan identity salience.

**Importance of Partisan Identity to a Person's Self-concept.** Two measures separately accessed importance of partisan identity to a person's self-concept. Specifically, participants first answered the four-item identity subscale from the

Collective Self-esteem Scale (Luhtanen & Crocker, 1992). This measure was developed to capture the subjective importance of a social identity to a person's self-concept. The wording of the scale was modified to measure partisan identity, the particular group identity we focused on, as follows: "The political party I identify with is an important reflection of who I am"; "Overall, my political party has very little to do with how I feel about myself" (reverse scored); "The political party I identify with is unimportant to my sense of what kind of a person I am" (reverse scored); and "In general, identifying with a political party is an important part of my self image." All responses were completed on a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*) and then averaged.

Because of its wide use, the American National Election Studies (ANES) measure of the strength of party identification was also employed as a proxy for the importance self-concept measure (e.g., Iyengar et al., 2012; Lavine et al., 2012). Depending on their answer to the question of party identification a Democrat or a Republican, participants were asked to indicate to what extent they call themselves a strong Democrat or a strong Republican (1 = *not a strong Democrat/Republican*, 4 = *Extremely strong Democrat/Republican*).

**Argument validity.** Participants rated the validity of four partisan arguments. The questions were: "To what extent, do you think the following arguments are valid? For example, if you think the argument is true, it is valid." The four arguments presented were: (1) A lowered tax rate on capital gains is a loophole that benefits the very wealthiest Americans (Democratic argument), (2) Tax cuts on capital gains and dividends are necessary to keep capital from fleeing the United States to lower tax countries (Republican argument), (3) No millionaires should pay a lower income tax rate than their

secretaries (Democratic argument), and (4) Tax hikes on the rich are an attack on job creators (Republican argument). All responses were completed on a 5-point scale (1 = *not at all valid*, 5 = *extremely valid*). To construct validity scales, these arguments were grouped as Democratic and Republican arguments and then averaged. As for *validity of in-party arguments* (i.e., INValidity), we used Democrats' evaluation of Democratic arguments and Republicans' evaluation of Republican arguments ( $M = 3.71$ ,  $SD = .99$ ). As for *validity of out-party arguments* (i.e., OUTValidity), the opposite was the case.

**Attitude extremity.** Participants indicated to what extent they agree or disagree with the Buffett Tax proposal on a 9-point Likert scale (1 = *strongly disagree*, 9 = *strongly agree*). This measure was then folded at the mid point 5. By doing so, regardless of party identification, higher scores indicate more extreme positions on the Buffett Tax proposal.

## Results

### Main Analyses

I first examined the descriptive statistics and bivariate correlations among key variables. Looking at Table 1, the means, standard deviations, and range of each variable suggest considerable variations in the focal variables. Also, the analysis supported normal distributions of the focal variables in terms of skewness (ranged from  $-.18$  to  $1.17$ ) and kurtosis (ranged from  $-82$  to  $.91$ ). Importantly, I found low inter-item correlations among the three measures of partisan identity salience. The importance rating task and thought-listing showed a significant correlation ( $r = .28$ ,  $p = .0002$ ); however, the Party Self-categorization IAT correlated neither with the importance rating task ( $r = .08$ ,  $p = .263$ )

Table 1

*Descriptive Statistics and Bivariate Correlations among Key Variables*

	Correlations							Descriptive Statistics			
	1	2	3	4	5	6	7	range	M	SD	skewness
1. Importance rating task	—							1 to 5	2.88	1.06	-.02
2. Thought-listing technique	.28***	—						0 to 13	2.52	2.86	1.17
3. Self-categorization IAT	.08	.10	—					-2 to 2	.27	.38	-.18
4. Identity subscale	.37***	.15*	-.01	—				1 to 7	3.71	1.46	.06
5. Strength of party ID	.32***	.17*	.10	.50***	—			1 to 4	2.46	.76	-.10
6. INValidity	.19**	.26***	.14	.09	.36***	—		1 to 5	3.71	.99	-.45
7. OUTValidity	-.20**	-.26***	-.04	-.18*	-.24***	-.34***	—	1 to 5	2.54	1.02	.50
8. Attitude extremity	.21***	.20**	.10	.22**	.32***	.30***	-.37***	0 to 4	2.13	1.09	.22

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

nor with the thought-listing ( $r = .10$ ,  $p = .176$ ). Although the performance of each measurement has not yet examined in terms of construct validity, the inter-item correlations already suggest that the three measures cannot be used interchangeably.

**Concurrent Validity.** To test whether the three measures capture the heightened salience of partisan identity in response to partisan conflict-framed news, I performed a one-way multivariate analysis of variance (MANOVA). The result showed a significant difference in partisan identity salience based on news exposure, Wilk's  $\lambda = .595$ ,  $F(3, 165) = 37.388$ ,  $p < .000001$ , partial  $\eta^2 = .405$ . The univariate  $F$  tests found significant differences between participants reading partisan conflict-framed news or news without partisan conflict for the thought-listing, mean difference = 3.68,  $F(1, 167) = 110.844$ ,  $p < .000001$ , partial  $\eta^2 = .399$ , but not for the importance-rating task, mean difference = .27,  $F(1, 167) = 3.065$ ,  $p = .101$ , partial  $\eta^2 = .016$ , and the Party Self-categorization IAT, mean difference = .01,  $F(1, 167) = .032$ ,  $p = .858$ , partial  $\eta^2 = .00002$ . On the concurrent validity criterion, therefore, the thought-listing performed best.

Table 2 summarizes the descriptive statistics and bivariate correlations of the three salience-measures as a function of conflict framing.

Table 2

*Bivariate Correlations and Descriptive Statistics of Multiple Measures of Partisan Identity Salience by Experimental Conditions*

	Correlations		Descriptive Statistics	
	1	2	M	SD
News without partisan conflict				
1. Importance rating task	—		2.72	1.01
2. Thought-listing technique	.44***	—	.31	.96
3. Party self-categorization IAT	.15	.13	.27	.37
News focusing on partisan conflict				
1. Importance rating task	—		3.00	1.07
2. Thought-listing technique	.24*	—	4.01	2.76
3. Party self-categorization IAT	.04	.14	.27	.39

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

**Convergent Validity.** The convergent validity was examined by the extent to which the salience measures correlate with theoretically relevant variables—i.e., importance of partisan identity to a person’s self-concept measured by the identity subscale from the Collective Self-esteem Scale and strength of party identification. Based on Cohen’s (1992) suggestion for magnitude of effect sizes, correlations equal to .10, .30, and .50 are interpreted as small, medium, and large effect sizes.

Looking at the bivariate correlations in Table 1, the importance rating of partisan identity moderately correlated with the identity subscale ( $r = .37, p < .000001$ ) and the strength of party identification ( $r = .32, p = .00001$ ). The thought-listing measure also showed weak but statistically significant correlations with the identity subscale ( $r = .15, p = .042$ ) and the strength of party identification ( $r = .17, p = .022$ ). The Party Self-

categorization IAT, in contrast, correlated neither with the identity subscale ( $r = -.01, p = .159$ ) nor with the strength of party identification ( $r = .10, p = .182$ ). Thus, the importance rating task is the winner on the convergence validity criterion.

**Predictive validity.** I tested whether the candidate measures of partisan identity salience predicted high perceived validity of in-party arguments, low perceived validity of out-party arguments, and extreme issue positions along party lines. A set of linear regression models showed strong performance of the thought-listing in the predictive validity assessment. Moreover, Baron and Kenny's (1986) causal step approach supported the indirect effect of partisan identity salience on polarization. The results were also confirmed by a non-parametric bootstrap re-sampling method (Hayes, 2013). One advantage of bootstrapping is that the analytic strategy accounts for the potential non-normality of the sampling distribution of the indirect effects (Hayes, 2013; Imai, Keele, Tingley, & Yamamoto, 2011).

Table 3 summarizes the regression results.

Looking at Table 3, the first model showed a significant and positive main effect of partisan identity salience on the perceived validity of in-party arguments (INValidity). Specifically, the main effect was supported by the thought-listing ( $b = .07, SE = .02, p = .006$ ), but not by the importance rating ( $b = .11, SE = .07, p = .112$ ) and the Party Self-categorization IAT ( $b = .24, SE = .19, p = .211$ ).

Table 3

## Regression Analyses for Testing Predictive Validity of Partisan Identity Salience Measures

	INValidity		OUTValidity		Attitude extremity	
	b	SE	b	SE	b	SE
Constant	3.16***	.21	3.16***	.22	1.38***	.17
Salience 1 (importance rating)	.11	.07	-.13	.07	.12*	.06
Salience 2 (thought-listing)	.07**	.02	-.08**	.03	.06**	.02
Salience 3 (self-categorization IAT)	.24	.19	-.10	.20	.08	.15
Validity of inparty arguments (INValidity)					.08	.06
Validity of outparty arguments (OUTValidity)					-.17**	.06
R <sup>2</sup>	.093		.091		.096	.161

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

The second model showed a significant and negative main effect of partisan identity salience on the perceived validity of out-party arguments (OUTvalidity). Specifically, the main effect was again supported by the thought-listing ( $b = -.08$ ,  $SE = .02$ ,  $p = .005$ ), but not by the importance rating ( $b = -.13$ ,  $SE = .07$ ,  $p = .071$ ) and the Party Self-categorization IAT ( $b = -.10$ ,  $SE = .20$ ,  $p = .619$ ).

The third model showed a significant and positive main effect of partisan identity salience on attitude extremity. Except for the Party Self-categorization IAT ( $b = .08$ ,  $SE = .15$ ,  $p = .602$ ), both measures of the importance rating ( $b = .12$ ,  $SE = .06$ ,  $p = .039$ ) and the thought-listing ( $b = .06$ ,  $SE = .02$ ,  $p = .006$ ) supported the main effect.

Adding the hypothesized mediators—i.e., perceived validity of in-party arguments (INValidity) and out-party arguments (OUTvalidity)—to the third model significantly increased the variance explained,  $R^2$  change = .065,  $p = .002$ . Moreover, the addition reduced the effect of partisan identity salience assessed by the thought-listing ( $b = .04$ ,  $SE = .02$ ,  $p = .066$ ) as well as the importance rating ( $b = .09$ ,  $SE = .05$ ,  $p = .122$ ) and the Party Self-categorization IAT ( $b = .04$ ,  $SE = .15$ ,  $p = .771$ ). Equally important, perceived validity of out-party arguments ( $b = -.17$ ,  $SE = .06$ ,  $p = .008$ ) had a significant main effect on attitude extremity. But this is not the case of perceived validity of in-party arguments ( $b = .08$ ,  $SE = .06$ ,  $p = .188$ ). The results indicate that the salience of partisan identity induces attitude polarization by discrediting out-party arguments.

The indirect effect was retested by a bootstrap re-sampling analysis with Hayes' (2013) MEDIATE macro. The 95% bias-corrected confidence intervals using 5,000 samples supported the indirect effect of partisan identity salience via low perceived validity of out-party arguments (OUTvalidity) in the case of the thought-listing, *indirect*

*effect = .01, bootstrap SE = .007, CI [.0030 to .0320],* but not in the case of the importance rating task, *indirect effect = .02, bootstrap SE = .02, CI [-.0012 to .0709]*, and the Party Self-categorization IAT, *indirect effect = .02, bootstrap SE = .04, CI [-.0520 to .1061]*. The confidence intervals excluding zero indicate significant indirect effects (Hayes, 2013).

The indirect effect of partisan identity salience via high perceived validity of in-party arguments (INvalidity) was not support in any case of the importance rating task, *indirect effect = .01, bootstrap SE = .01, CI [-.0037 to .0507]*, the thought-listing, *indirect effect = .006, bootstrap SE = .006, CI [-.0027 to .0223]*, and the Party Self-categorization IAT, *indirect effect = .02, bootstrap SE = .03, CI [-.0097 to .1169]*. Confidence intervals including zero indicate insignificant indirect effects (Hayes, 2013).

All in all, the results suggest strong performances of the thought-listing measure in the predictive validity assessment. The measure predicted high argument validity of in-party arguments, low argument validity of out-party arguments, and attitude polarization. In addition, the mediation analyses showed that the predictive validity of the measure was strong enough to test the indirect effect of partisan identity salience on attitude polarization.

## Discussion

Although a burgeoning body of research underscores the importance of partisan identity salience in the highly conflict-centered media environment, little is known about its measurement. The objectives of this review paper were to introduce multiple ways to assess partisan identity salience and evaluate these measures against a set of construct validity criteria. In doing so, extant salience measures —i.e., Nelson et al.'s (1997)

importance rating task, Price's (1989) thought-listing technique, and Cadinu and Galdi's (2012) Gender Self-categorization IAT—were modified to assess partisan identity salience. To my knowledge, the present study is the first to develop and evaluate the measures of partisan identity salience.

Overall, the thought-listing consistently exhibited strong performances across all construct validity criteria. It was successful in detecting the increased level of partisan identity salience after exposure to partisan conflict-framed news than news without partisan conflict; the large effect size (partial  $\eta^2 = .399$ ) bolsters the measure's strength on the concurrent validity criterion. It also significantly correlated with a conceptually similar concept, namely importance of partisan identity to one's self-concept. Lastly, higher scores in the thought-listing predicted extreme issue positions along party lines. Furthermore, parametric and non-parametric analyses supported that the polarization effect of partisan identity salience was mediated by biased information processing which evaluated arguments from the opposing party as less valid.

The results of the validity test find the thought-listing a better measurement of partisan identity salience than the importance rating task and Party Self-categorization IAT. With this regard, an interesting note to make is that the three measures hang together better after exposure to news without partisan conflict (ranging from .13 to .44) than partisan conflict-framed news (ranging from .04 to .24, see Table 2). Taking the higher mean scores of partisan identity salience in the condition of conflict framing into consideration, this lack of convergence in the correlations strongly suggests that partisan identity salience was galvanized as a function of conflict framing of the news. Yet, the measures were not equally successful in measuring the change.

One possibility concerns the varying dimensionality of the three candidate measures in their operationalizations of partisan identity salience. For example, the importance rating task is an explicit measure, which directly asks participants the role of partisan identity in shaping their issue positions. Despite high content validity, any explicit measure can be impaired by socially desirable self-presentation (Nederhof, 1985). In addition, researchers have documented mounting evidence of information processing that occurs outside of people's awareness but can also exert influences on behaviors (Fazio & Olson, 2003). The thought-listing and Party self-categorization IAT combat such limitations of self-report measures. However, the two implicit measures tap into different dimensions of partisan identity salience in the associative memory system. The thought-listing technique posits that the more accessible self-concept is the more likely to be used to organize and process self-related information (Higgins et al., 1985). By contrast, despite utilizing the notion of spreading activation in the associative memory system, what the Party Self-categorization IAT actually measures is the automatic association between party categories (Democrats/Republicans) and one's self-concept as a social being (us/them).

Regarding the poor performance of the Party Self-categorization IAT, I note that the IAT could be less susceptible to contextual influences because automatic associations of interest have been developed over past experiences (e.g., Dovidio, Kawakami, & Beach, 2001). Recent studies provide evidence of the malleability of the IAT in response to prime stimulus (e.g., Mitchell, Nosek, & Banaji, 2003). However, the findings of Gawronski and Bodenhausen's (2005) study show that the variations of IATs were affected by *subjective feelings* pertaining to the ease of retrieving relevant information

from memory, not by *knowledge activation* in the associative memory system. With this regard, Gawronski and Bodenhausen (2005) shed light on the dichotomy-based structure of the IAT, which depends on the relative strength of two competing response latencies between compatible and incompatible pairs. The clearer the dichotomy of the attributes (e.g., men/women), the more reliable the IAT (Nosek et al., 2002). This finding suggests the lack of susceptibility of the IAT using dichotomized attributes such as Democrats and Republicans.

### ***Implications for Political Communication Literature***

The findings of this review paper contribute to the current understanding of partisan identity salience in two important ways. First, with multiple measures of partisan identity salience, I found that one-time exposure to partisan conflict-framed news increased the level of partisan identity salience. Although this is a widely accepted premise, and although many studies in the field of political communication build on such a premise, scholarship has not yet directly tested it. Thus, my findings substantiate the grounding assumption of many preceding studies, claiming partisan identity salience as a result of exposure to conflict-centered political messages.

Second, my finding also showed that partisan identity salience is an important predictor of attitude polarization. The more salient partisan identity, the more likely it is to make people express more extreme positions in the direction of their party. On a related note, Iyengar et al. (2012) argued that the heightened salience of partisan identity would induce negative sentiments between Democrats and Republicans. Their time series data illustrated growing affective polarization along party lines over the last 35 years. The

antagonistic rhetoric in political campaigns was pointed to as the contributing factor to such increasing loathing of their counterparts. My data showing that even one-time exposure to partisan conflict-framed news was effective in increasing partisan identity salience strengthen Iyengar et al.'s (2012) claim about media effects on affective polarization.

I hope that the present validity test of partisan identity salience measures provides a useful tool for political communication scholarship to more systematically examine the role of media in mass political behavior.

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## *Appendix B*

# ***Partisan Tensions Flare in Tax Debate***

**By JASON VAN STEENWYK**

WASHINGTON — President Obama released on Wednesday a tax reform proposal, the so-called Buffett Tax plan, which would apply a minimum tax rate of 30 percent on households making more than \$1 million a year.

Republican Rep. Paul Ryan immediately accused President Obama of "class warfare." Mr. Ryan added, "Class warfare may make for good politics, but it makes for rotten economics."

President Obama's tax proposal is named after billionaire investor Warren Buffett, who argues no millionaires should pay a lower income tax rate than their secretaries.

Compared to the effective rate of 35 percent paid by his secretary, Mr. Buffet

has paid about 17 percent of his income in federal taxes. His income is largely made up of stock dividends and capital gains, which are taxed at only 15 percent.

Democrats emphasize that the new plan sets tax rates on capital gains at the same level as the rates on earned income among the rich.

"Lowered tax rate on capital gains is a loophole that benefits the very wealthiest Americans," said Democratic Sen. Bruce Morrison to reporters. "Republicans have been giving tax breaks to the rich for years, and it's time to scale that back."

The White House estimates that the Buffett Tax could raise \$53 billion over a decade. "About 0.3 percent of taxpayers would directly be affected by the tax hike but it would be earmarked for deficit reduction," said Democratic Rep.

David Barnes in an interview with NBC's Meet the Press.

However, raising the tax rate is anathema to Republicans. Thousands of Tea Party members congregated on the west side of the Capitol in opposition to raising tax rates. "Democrats are trying to tax the money that will create jobs and boost the economy," said organizer Sarah Ervin. Supporters erupted into cheers and applause.

"Tax cuts on capital gains are necessary to keep capital from fleeing to lower tax countries," said Republican Sen. Ben Pershing to Bloomberg.

The Buffett Tax will be the latest battleground for Republicans and Democrats as they gearing up for next year's election, and is likely to be an increasingly contentious fight over how to support the United States' struggling economic recovery.

# ***Buffett Rule Guides New Tax Plan***

**By JASON VAN STEENWYK**

WASHINGTON — A new tax plan, the so-called Buffett Tax plan, was released on Wednesday. The proposed tax code would apply a minimum tax rate of 30 percent on households making more than \$1 million a year.

The new tax plan is named after billionaire investor Warren Buffett, who argues that no millionaires should pay a lower income tax rate than their secretaries.

Compared to the effective rate of 35 percent paid by his secretary, Mr. Buffet has paid about 17 percent of his income in federal taxes. His income is largely made up of stock dividends and capital gains, which are taxed at 15 percent.

The Buffett Tax plan sets tax rates on capital gains and stock dividends at the same level as the rates on ordinary income like salaries and wages among households making more than \$1 million a year.

The federal government implemented an income tax in 1861 to pay for the Civil War. It levied a flat tax of three percent on all incomes above \$800. A year later, Congress changed the system, creating the first progressive tax structure. That is, the more money an individual made, the higher the percentage he or she paid in taxes.

The tax rate in the highest tax bracket rapidly increased during World War I — up to 67 percent in 1917 and 77 percent in 1918. During World War II, the maximum tax rate was 81 percent in 1940 and 94 percent in 1944.

In 1986, the top marginal rate fell to under 30 percent for the first time since 1931 before slowly rising to the 39.5 percent it is now.

During the 1990s, the tax rates on capital gains and earned income were uncoupled. Currently the tax rates on capital gains and most stock dividends have been lowered to a high of 15 percent, less than half the 35 percent top rate on ordinary income.

## ***Facebook and Apple Add New Benefit For Women: Egg-Freezing***

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**By ALEX JOHNSON**

SAN FRANCISCO — Two Silicon Valley giants now offer women a game-changing perk: Facebook and Apple will pay female employees up to \$20,000 to help cover the cost of freezing their eggs. Facebook has been offering the egg-freezing health benefit since the start of this year, and Apple will start in January 2015.

The decision is controversial among some who believe that women should not receive benefits that are not available to men. But with notoriously male-dominated Silicon Valley firms competing to attract top female talent, the new perk may give Apple and

Facebook a leg up among the many women who devote key childbearing years to building careers. Spokespeople for the companies told NBC News on Tuesday that the goal is to empower women and support them in carving out the lives they want.

"I have insurance policies in every other area of my life: my condo, my car and work insurance. Why not my eggs? And if your boss is offering it up to you for free, what do you have to lose?" said a 37-year-old Facebook employee who underwent the egg freezing procedure using the new policy this year.

However, egg freezing is also an issue of fairness. "It would be better if we have benefits for people at

Facebook instead of women-specific benefits," said another Facebook employee who asked not to be named. He continued, "Men also feel pulled by the competing demands of work and family. But it is \$20,000 per woman to freeze their eggs and store them. What about paying the money to employees who have a newborn baby instead so they can hire a full-time baby nurse for four to five months? We need a more inclusive approach."

Silicon Valley firms are hardly alone in offering generous benefits to attract and keep talent, but they appear to be leading the way with egg-freezing. This latest gift to their female employees has rekindled debate on gender inequality in the workplace.

## ***Facebook and Apple Add New Health Benefit: Egg-Freezing***

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**By ALEX JOHNSON**

SAN FRANCISCO — Facebook and Apple will pay up to \$20,000 for their employees to freeze their eggs. This new perk applies to all employees including their spouses. Facebook has been offering the egg freezing health benefit since the start of this year, and Apple will start in January 2015.

Silicon Valley firms are hardly alone in offering generous benefits package to attract and keep talent including family-related costs—fertility treatment, surrogacy, and adoption fees. But they appear to be the first major employers to offer egg-

freezing coverage for non-medical reasons.

Known as oocyte cryopreservation, egg freezing allows people to put their fertility on ice, so to speak, until they are ready to become parents. But the procedure comes at a steep price. Costs typically add up to at least \$10,000 per egg retrieval, \$3,000 for the self-delivered hormone injections, \$1,500 for the anesthesia, plus around \$500 annually for storage. Doctors often recommend freezing at least 20 eggs, which can require two retrieval rounds.

"It takes about two weeks for one cycle of egg-freezing," said Christopher Westphal, senior director

at Stanford University Reproductive Medical Center. Once a decision is made, there are several tests done to evaluate ovarian functions and to screen for infectious diseases. After about 10 or 12 days of fertility drug injections, a final hormone is administered to mature the eggs. Next, the patients undergo a relatively short outpatient procedure.

A majority of patients who froze their eggs reported feeling "empowered" in a 2013 survey published in the journal *Fertility and Sterility*. The American Society for Reproductive Medicine declared in 2012 that freezing eggs was no longer an experimental procedure.