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## The Role of Thought Confidence in Resistance to Social Norms

Benjamin Howard Walker

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The role of thought confidence in resistance to social norms

By

Benjamin Howard Walker

A Thesis  
Submitted to the Faculty of  
Mississippi State University  
in Partial Fulfillment of the Requirements  
for the Degree of Master of Science  
in Experimental Psychology  
in the Department of Psychology

Mississippi State, Mississippi

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2012

The role of thought confidence in resistance to social norms

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The current study employed the self-validation hypothesis (Petty, Brinol, & Tormala, 2002) to test how thought confidence affects individuals' responses to social norms regarding gay rights. After measuring their gay rights attitudes and thought confidence, participants took part in a discussion where they faced groups that either opposed their position on gay rights unanimously or non-unanimously (i.e., 4 opposing confederates vs. 3 opposing confederates and one supporting confederate). Those who were anti-gay rights conformed more than those pro, particularly when facing unanimous opposition. Thought confidence reduced the effects of normative pressure on conformity, but only in those who were anti-gay rights. Attitude change was reduced for anti-gay rights people with high thought confidence, but only when a supporting confederate was present. These results suggest that thought confidence affects resistance to social norms in people who are anti-gay rights whereas pro-gay rights people resist regardless of their level of thought confidence.

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## CHAPTER I

### INTRODUCTION

#### **Overview**

In his text, *The Nature of Prejudice*, Allport (1954) argued that much of the etiology of prejudice could be accounted for by conformity to social norms. In the time since Allport presented his argument, research has consistently demonstrated that social influence plays an important role in the development and expression of prejudicial attitudes (see Crandall & Stangor, 2005 for a review). Research has also shown that the expression of such prejudicial attitudes is often manifested in the symbolic form of resistance to distributive social justice policies (see Fiske, 1998). Accordingly, it stands to reason that one's willingness to endorse certain social policies (e.g., affirmative action, hate crime legislation) may be influenced by social norms. Given the pervasive power of social influence, it begs the question: who resists? In the present study I examined why certain individuals are more resistant than others to the influence of social norms on one's willingness to adopt the normative position on social justice policies.

Compared to our understanding of the reasons why individuals succumb to the persuasive power of social influence, the extent to which certain individuals may be resistant to it is less understood. One possible reason why individuals have varying levels of resistance to persuasion is the self-validation hypothesis (Petty, Brinol, & Tormala, 2002). The self-validation hypothesis posits that thought confidence, or the

degree of validity that individuals perceive their thoughts to possess, affects their resistance to persuasion. Specifically, research has shown thought confidence to play an important role in determining susceptibility to persuasive messages. High confidence in the validity of one's thoughts about the persuasive message can increase susceptibility when response to the message is viewed as positive or can increase resistance when response to the message is viewed as negative (Petty, Brinol, & Tormala, 2002; Tormala, Rucker & Seger, 2008). A goal of the present study is to extend this research and examine how thought confidence affects people's resistance to group norms regarding social policy issues.

### **The Expression of Prejudice and Social Policy**

Prejudice is defined as a negative attitude toward a group or members of the group (Stangor, 2009). Though the expression of prejudice takes many forms in today's culture, the prevailing expression of prejudice has changed. In particular, overt expressions of prejudice have become increasingly socially unacceptable (Sniderman & Carmines, 1997). Although this trend may seem encouraging, research in social psychology has shown that many subtle forms of prejudice (e.g., symbolic, subtle, and aversive racism) persist (Fiske, 1998). One way that prejudiced beliefs are voiced in a social climate that is intolerant of overt prejudice is via resistance to distributive social justice policies (e.g., gay marriage, hate crime legislation, and anti-discrimination laws). With several salient policy issues concerning homosexuals in the current U.S. political climate it would appear that examining gay rights would have particular relevance when studying sexual prejudice. As such, the current study focused on social justice policies concerning gay men and lesbians.

Investigating sexual prejudice in terms of social policy attitudes provides an important advantage over only looking at biases in terms of attitudes towards groups or members of groups. Although individuals are reluctant to report overtly biased attitudes, they are likely more willing to express biased attitudes under the guise of a socially acceptable principled objection to a political issue. Therefore, in the interest of uncovering prejudicial attitudes in their subtle form, that I will examine prejudice in terms of social policy attitudes.

### **Social Norms and Social Justice**

Allport (1954) has identified social norms as a key contributor in the development and expression of prejudice. A small but strong body of research supports the role of social norms in the expression of prejudice by showing that individuals will inhibit the expression of prejudice if the prevailing social norm conveys that prejudice is unacceptable (see Crandall & Stangor, 2005 for review). For example, Crandall, Eshleman, and O' Brien (2002) found that the extent to which an individual expressed a prejudicial or tolerant view of a particular group (e.g., African Americans, homosexuals) was closely linked to their perceptions of what others felt was appropriate. Social norms can be also used to change beliefs about social policies by conveying normative support for a given social policy (Shultz, Tabanico, & Rendon, 2008). Furthermore, a study by Pitman (2008) showed that the strongest predictor for the reported willingness to engage in social justice behaviors (e.g., challenging others on derogatory comments, taking political action, and facilitating intergroup dialogue) was the perception that the social norm endorsed engaging in social justice behavior.

In addition to correlations between norms and the expression of prejudice—in both overt and covert (social justice policies) forms—we can also see the causal function of norms and prejudice in experimental research where the social norm is manipulated. In one such study, Clark and Maass (1990) recruited individuals who held neutral attitudes on the issue of gay rights and subjected them to varying levels of majority influence. When the majority against gay rights increased in number, the influence of the minority for gay rights decreased such that individuals' gay rights attitudes became more reflective of the majority position (i.e., against gay rights).

Furthermore, this social influence effect—whereby individuals' policy attitudes are disproportionately influenced by the majority position—has been found to be even more prevalent when the position being advocated was either consistent with the larger population's norm or was perceived as potentially becoming the more popular opinion (Clark & Maass, 1990; Glynn, Hayes, & Shanahan, 1997; Shamir, 1997). Pro-gay rights attitudes fit these conditions, as according to Gallup polls, Americans' acceptance of homosexuality as an acceptable lifestyle has now crossed the 50% mark. Thus, given that holding pro-gay rights attitudes is becoming a larger part of the societal norm, adherence to social norms regarding the expression of prejudice may depend on the position – in favor versus opposed to gay rights – which is being advocated. Specifically, the position which is perceived to be more consistent with the larger societal norm should be more influential.

In addition to the perceived societal support that those in favor of gay rights are garnering, it is also possible that a nonprejudiced norm simply exerts more social influence than a prejudiced norm. For instance, a two-part study looking at both racial

and sexual bias respectively showed that the act of priming a nonprejudiced norm decreased the amount of racial bias in reported opinions and increased support for gay rights initiatives (Monteith, Deneen, & Tooman, 1996). Specific to sexual prejudice, when those opposed to gay rights were assigned to conditions where they were told the majority was pro-gay rights they expressed more positive attitudes towards homosexuals when anticipating discussion about the topic. Notably, the presentation of a prejudiced norm did not decrease support for gay rights. This finding suggests that social norms that oppose prejudice are stronger than social norms favoring prejudice in getting individuals to conform to the norm. Presumably, a nonprejudiced norm activates the larger societal norm that expressing prejudice is a disapproved behavior. Therefore, it could be argued that individuals who are in favor of gay rights may be more resistant to changing their attitudes in response to a norm opposing their beliefs than those who oppose gay rights.

### **Thought Confidence and Persuasion**

In addition to situational factors like exposure to the norms governing the expression of prejudice and policy attitudes, certain aspects of the individual may be important in explaining whether individuals might adopt or revise certain policy attitudes when exposed to social influence. Recent research in persuasion has produced a new determinant of susceptibility to persuasion called *thought confidence*. The self-validation hypothesis posits that the amount of confidence that one has in his or her thoughts is a determinant of whether or not one's thoughts about a given issue will yield attitudes strong enough to guide behavior (Petty, Tormala, & Brinol, 2002).

Conceptually, thoughts can be differentiated from attitudes by understanding that thoughts are in essence the cognitive outcome of a process (thinking), and can be the

cognitive rationale behind an attitude, whereas an attitude is a specific orientation (including cognition and affect, and potentially guiding behavior) that one holds or expresses towards an object. Therefore, one's thoughts may support one's attitudes. In fact, Petty et al. (2002) showed that individuals with higher thought confidence exhibited a greater thought-attitude relationship, meaning that their thoughts were more integral in forming their attitude.

Petty's research also provided the preliminary evidence for the potential of thought confidence in predicting persuadability. Petty et al. (2002) showed that thought confidence is an important determinant of one's susceptibility to persuasion such that a high confidence in the validity of one's thoughts can either increase or decrease the likelihood that one is persuaded. However, the impact of thought confidence on persuasion was moderated by how positively or negatively individuals responded to the persuasive message. When individuals reported higher confidence in their thoughts but had a negative valence in their thoughts about the persuasive message, they showed decreased susceptibility to the persuasive message compared to those who had low confidence in their thoughts. When individuals had a high level of confidence in their thoughts but reported a positive valence in their thoughts generated in response to a persuasive message, they showed an increased susceptibility to the persuasive message. The combined effects of thought confidence and valence of response to a persuasive message was termed the self-validation hypothesis.

Since the self-validation hypothesis was initially presented, the basic effect of thought confidence as a determinant of susceptibility to persuasion has been replicated (Brinol & Petty, 2003; Brinol, Petty, & Tormala, 2008). However, research on thought

confidence has largely been confined to issues such as attitudes about advertising or comprehensive exit exams (Brinol & Petty, 2009). Although maintaining a narrow focus on the topic of the persuasive message likely has several benefits, doing so presents several limitations. The role of thought confidence in the development of affect-laden attitudes has yet to be determined. Research has shown that affect-laden attitudes are more resistant to change and are more predictive of behavior (see Fiske, 1998, for review). Gay rights attitudes are one such example of affect-laden attitudes (Herek, 2009). As such, I am interested in understanding what role thought confidence might play when affect-laden political attitudes are involved.

An additional limitation of previous research on thought confidence is that a relatively limited number of social influence sources (e.g., university Board of Trustees and advertisements) have been studied. One of the most potent sources of social influence identified by social psychological research is social norms (Goldstein & Cialdini, 2007). Although social norms have been used in the past to manipulate thought confidence, it has yet to be determined how thought confidence affects the way in which people navigate persuasive social norms. As such, in the current study I sought to apply the self-validation hypothesis to the question of why some individuals respond differently to the persuasiveness of social norms. Although very little research has been conducted on the role of thought confidence in social norms, some conjecture can be offered on this issue. To the extent individuals' thought confidence is high, those who are in favor of gay rights might show an increased resistance to a persuasive message opposing gay rights as they are likely to produce negative valence in their thoughts in response to a persuasive anti-gay rights message if they perceive such a message to be discriminatory.

Conversely, individuals who are opposed to gay rights might produce a positive valence to a norm that is contrary to their position on gay rights if they view the pro-gay rights persuasive message to endorse norms of egalitarianism. Thus, valence may be another factor which might explain why those in favor of gay rights are more resistant to changing the direction of their attitudes about gay rights than those who are opposed to gay rights, as was shown in the study by Monteith, Deneen, and Tooman (1996).

An additional limitation of previous work on thought confidence has been that it involved issues about which individuals may or may not have pre-existing attitudes. Thus, it has yet to be determined what role one's pre-existing thought confidence (perceived validity of thoughts generated about an issue prior to a persuasive attempt) might play in affecting individuals' resolve when it comes to conforming to a persuasive group norm and subsequently changing one's attitude to match that norm.

Examining the role of pre-existing thought confidence is particularly important here as, presumably, individuals have periodically engaged in the self-validation processes for their thoughts on the policy issues relevant to our study [i.e., have encountered messages on political positions (through the media, classes, peers, family) which trigger thought generation and affective responses to those messages] and thus may carry a trait level thought confidence on any given issue. In the interest of ecological validity, I sought to expand research on thought confidence by examining thought confidence prior to a persuasive message. The role of pre-existing thought confidence in resistance to persuasion on affect-laden issues like social policies about gay rights has yet to be examined. Therefore, I sought to explore how individuals might use

self-validation to respond to persuasive social policy messages about gay rights and the social influences that often dictate these policy attitudes.

### **The Current Study**

The purpose of this study was to evaluate the effect of social norms on the public and private expression of gay rights policy attitudes. The current study also sought to examine how people's level of confidence in their thoughts about several gay rights issues would influence their susceptibility to conforming to the group or changing their pre-existing attitudes. To examine this, participants were assigned to conditions with a high, medium, or low thought confidence manipulation. Following thought confidence manipulations, participants were placed into discussion groups that either unanimously opposed their position on gay rights or a non-unanimous opposition condition where a confederate advocated the participants' position but with the majority still on the opposite side of the issue. Following the group discussion participants were given private post-discussion measures of valence towards the group discussion and gay rights attitudes. Dependent measures included the participants voting responses in the group discussion and their private post-discussion self-reported attitudes.

My hypotheses were as follows:

H1: Consistent with literature highlighting that non-prejudiced norms are more influential than prejudiced norms (Monteith, Deneen, & Tooman, 1996), those who are initially anti-gay rights were expected to show more public conformity and norm consistent attitude change than those who were initially pro-gay rights.

H2: Consistent with literature showing that a larger group majority is more effective in changing gay rights attitudes than a smaller majority (Clark & Maass, 1990),

those who were placed in the unanimous opposition condition were expected to show more public conformity to the group and norm consistent attitude change than those in non-unanimous opposition condition.

H3: Individuals with lower confidence in their thoughts about gay rights policies were expected to show more public conformity and norm consistent attitude change than those with higher confidence in their thoughts about gay rights policies, especially in the unanimous opposition condition. However, research by Petty, Brinol, and Tormala (2002) has shown that when facing a persuasive message, high confidence in one's thoughts opposing the message paired with a negative valence in these thoughts leads to decreased persuasion. As such, people who are high in thought confidence and experience negative valence in their thoughts about the arguments of the group may be particularly resistant to changing their attitudes. Finally, given that those anti-gay rights are expected to show higher conformity than those who are pro-gay rights it is expected that the most overall conformity and attitude change will be shown by anti-gay rights people facing the most challenging conditions (i.e., low thought confidence and unanimous group opposition). In contrast, the least overall conformity and attitude change should be shown by pro-gay rights people facing the least challenging conditions (i.e., high thought confidence and non-unanimous group opposition).

## CHAPTER II

### METHODS

#### **Participants and Design**

A sample of 283 students from Mississippi State University volunteered for a study called the “Political Psychology Project” in exchange for course credit. Of the initial 283 participants, 191 participants completed both Parts 1 and 2 of the study, the remainder choosing not to attend Part 2<sup>1</sup>. The majority of participants were female (57.2%) and either Caucasian (61.1%) or African American (29.7%). Participants ranged in age from 18-32, with an average age of 18.90 ( $SD = 1.48$ ). The three most common political affiliations were Republican (46.6%), Democrat (27.9%), and Independent (12.7%). Participants were identified in the screening survey as being for ( $n = 140$ ) or against gay rights ( $n = 143$ ) and were randomly assigned to conditions inside of a 2 (Pre-existing Position: Pro vs. Anti)  $\times$  3 (Thought Confidence manipulation: high, medium, and low)  $\times$  2 (Normative Pressure: Unanimous opposition vs. Non unanimous opposition)  $P \times E$  quasi-experimental factorial design.

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<sup>1</sup> No statistically significant differences were found for attitude extremity, initial gay rights attitudes, and demographic variables in choosing to return to Part 2.

## Materials and Procedure

This study employed a two-part methodology. Part 1 consisted of a screening survey used to classify participants as either being *pro* or *anti* gay rights. Part 2 occurred approximately two weeks after Part 1 and began with participants receiving a thought confidence manipulation and manipulation check in private. Participants were then placed in a group discussion which consisted of an initial public practice vote about local campus policies, followed by a public voting session about gay rights, an open-ended group discussion about gay rights, a revote on the pre-discussion gay rights voting topics, and finally a private post-discussion measures of participants' valence towards the group discussion and a "final word" attitude change measure. Each component will be reviewed in turn.

### Part 1: Screening Survey

In Part 1, participants were given a consent form and survey (see Appendices B & C). The initial portion of the survey assessed a variety of demographics including the participants' religion, race, gender, age, political affiliation, and voting behavior.

**Political position.** Next, participants completed the Political Beliefs Inventory, an 87-item questionnaire assessing their views on, among other topics, gay rights (refer to Appendix C). Political Position was a group classification variable based on the participants' initial attitudes on gay rights. This variable was determined using a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree) which included 6 items. Participants responded to the following questions:

- Homosexuals should be able to marry, legally. (reverse scored)
- Sexual orientation should be included as a protected class in anti-discrimination policies. (reverse scored)
- Sexual orientation should be included as a protected class in anti-hate crime laws. (reverse scored)
- Homosexuals should be able to adopt children. (reverse scored)
- The armed forces are right to exclude homosexuals from military service.
- Employers should provide health care benefits to the partners of their gay and lesbian employees. (reverse scored)

These six items were averaged to compute a total gay rights score with higher scores representing more anti-gay rights attitudes and lower scores representing more pro. Reliability of this scale was strong ( $\alpha = .86$ ). For the purpose of identification for discussion assignment (i.e., either being assigned to a pro- or anti-gay rights majority), participants who scored above a “5” were “anti” gay rights ( $n = 94$ ) and those who scored below a “3” were “pro” ( $n = 95$ ). Participants who scored in the range of 3-5 were considered “neutral” with those below “4” considered “neutral-for” ( $n = 47$ ) and those above “4” considered “neutral-against” ( $n = 39$ ). For the purpose of condition assignment of neutral persons, adjustments were made by including scores on items from four general gay rights policy items which included: “Gays and Lesbians who adopt children need to be monitored more closely than heterosexual parents”, “Homosexuals should have the same rights as heterosexuals”, “Homosexuals still need to protest for equal rights”, and “Homosexuals do not have all the rights they need.” If still “neutral”, participant responses to the Raja and Stokes Modern Homophobia Scale (1998) were used for further adjustment.

**Thought listing task.** Following the completion of the Political Positions Inventory, participants were instructed to briefly provide their reasoning behind their

responses on questions about policies about the environment, immigration, and gay rights. Participants were asked to write about each issue separately in the space provided to them for each item. These open ended responses served as the basis of the false feedback received in Part 2.

## Part 2: Experiment

Upon completion of the survey in Part 1, participants were told to come back to the lab at a later date for Part 2 of the experiment in which they would participate in a discussion of a political topic with other MSU students. Thus, approximately two weeks after completing the screening survey, participants returned to the lab to participate in the discussion portion of the study. Participants were first separated into individual rooms to receive an experimental thought confidence false feedback manipulation and manipulation check. After completing the manipulation check participants were then moved to a conference room where they participated in a group discussion about gay rights that involved a series of pre-discussion voting sets, a 20 minute open ended discussion, and a post-discussion revote before receiving post-discussion measures of valence and attitude change. The experimental process is shown in Figure 1.

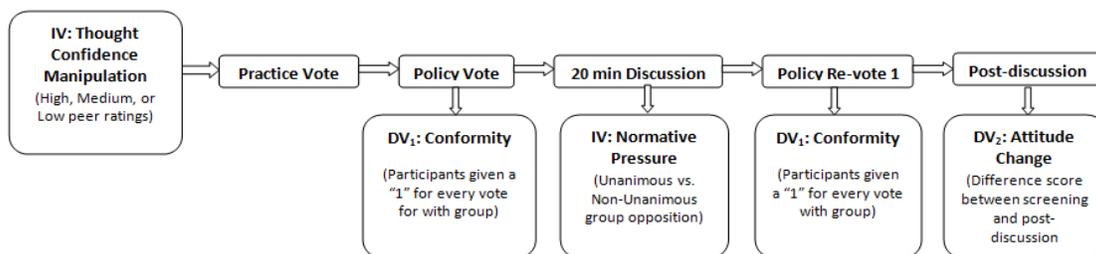


Figure 1. Experimental Process

## **Independent Variables**

**Thought confidence manipulation.** At the beginning of Part 2 of the study participants were separated into individual pod rooms to receive a packet of pre-discussion measures which included a false feedback thought confidence manipulation and an argument rating filler task, and a manipulation check inventory (see Appendices D, E, and F respectively). At this time participants were told by an experimenter that we were interested in examining the nature and quality of the thoughts that people have about political policies. The experimenter further elaborated that we were interested in evaluating the quality of arguments before and after the discussion and that each participant was being asked to provide an evaluation of written peer arguments from prior surveys. Participants were then informed that allegedly, in advance of their arrival, two other randomly selected students participating in an earlier session had read their arguments anonymously, and rated the quality of those arguments.

Thought confidence was manipulated by providing the false feedback to participants about the arguments they provided in the open-ended portion of the screening survey. False feedback was provided on immigration, environmental, and gay rights issues by two anonymous raters shown as “Rater 1” and “Rater 2.” The false feedback was provided on 7- point semantic differential scales for three separate dimensions (i.e., validity, effectiveness, and overall strength) with three anchors (poor, average, excellent). As can be seen in Appendix D, participants received an X on each dimension for each set of arguments which varied in quality depending on whether they were placed in the high, medium, or low condition. Participants received marks near the extreme high range of the scale in the high thought confidence condition, just above average in the medium

thought confidence condition, and at the extreme low end of scale in the low thought confidence condition.

**Thought confidence manipulation check.** The effectiveness of the manipulation was checked by administering the “Response Inventory” to participants. All items were reversed scored. Reliability of the scale was acceptable ( $\alpha = .79$ ). Using a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree), participants were asked to respond to the following 6 items:

- I’m not certain that I am able to produce valid arguments about political issues.
- I’m not very confident in my thoughts about political issues.
- I do not believe that my thoughts about politics are as valid as other individuals.
- I am not confident that my thoughts can help me overcome challenges to my political beliefs.
- I am not sure that my thoughts about the issues like the environment, gay rights, and immigration are accurate.
- I don’t have many valid thoughts to contribute to political issues.

In order to increase the plausibility of the feedback manipulation participants were asked to complete a rating of a false participant’s arguments on the exact same topics and dimensions on which they were rated to be provided as feedback for a future participant (refer to Appendix F). These arguments were specifically constructed to be of moderate quality and position. They were told that their own rated arguments were being provided to them as an example of how to perform the task. Participants were also advised that because all raters have been asked to rate the arguments as objectively based on their quality and not their position, that they likewise should make their judgments independent of their own leanings on the issue.

**Normative pressure manipulation.** Upon completion of the pre-discussion measures, the participant was asked to join the four trained confederates in a conference room for the political discussion. Prior to their arrival participants were randomly assigned to be placed into discussion groups that either unanimously opposed their position on gay rights or a control condition with one confederate advocating the participants' position but the majority still on the opposite side of the issue. Participants were always positioned in the 4th seat at the conference table. Once seated, the experimenter informed the group of the guidelines and format of the discussion. Participants were informed that there would be a 3 voting sets and were instructed to vote in the order of their seat (1-5). Participants were instructed to respond "yes," "no," or "undecided."

The first public voting section "MSU policies" was announced. Consistent with the methodology employed by Asch (1956), the MSU policies voting set was designed such that all of the members of the group should agree. This allowed the participants to feel that they were a part of the group and served as a practice vote. Items included: "Mississippi State University should initiate programs (like textbook rental, electronic textbooks) to reduce the costs of textbooks," "Mississippi State University needs to make a concerted effort to increase the availability of parking on campus," "Participation in the University meal plan should be optional," "The MSU library should increase the availability of collections online," and "The frequency and hours for the University shuttle system needs to be increased."

Next, a vote was taken on six gay rights issues to see if participants would conform outright before even hearing the arguments of the confederates (Vote 1). Thus

votes on Vote 1 cannot be said to be a product of persuasion because there had not been any attempt to offer arguments to persuade the participant. These voting issues mirrored the 6 policy items assessed in the Political Positions Inventory with half worded pro-gay rights and the other half worded anti-gay rights. The voting set included the following items:

- Sexual orientation should be included in anti-discrimination laws (for instance, it should be illegal to deny housing/ a job to someone based on their sexual orientation).
- Sexual orientation should be included as a protected class in hate crime legislation.
- There should be a law prohibiting same-sex marriage.
- There should be laws restricting homosexuals from adopting.
- Homosexuals should be prohibited from serving openly in the military.
- Same-sex couples should be afforded the same benefits as heterosexual couples (such as coverage under health insurance, hospital visitation rights normally restricted to family, etc).

A 20-minute discussion on gay rights followed the first voting set. During the discussion, confederates took positions advocating against the participants' stance on gay rights. The confederates were previously trained and rehearsed with a piloted list of arguments for and against gay rights. After the discussion, the participant and the confederates had a second public vote on the same six gay rights votes (Vote 2) to see if participants conformed to the group norm after given the chance to defend their beliefs. After the final vote participants were escorted to a private room where they were asked to complete post discussion measures of valence and a "Final Word" attitude change measure.

**Post discussion valence of thoughts.** Consistent with Petty, Brinol, and Tormala (2002), the valence of thoughts generated in response to the group's persuasive message

was measured to order evaluate the moderating influence of valence on thought confidence and persuasion. Because the group discussion collectively served as the persuasive argument in our study, participants were asked post-discussion to rate the valence of their reactions to the arguments they were presented with in the group discussion. The valence of participants' thoughts about the discussion was measured using four items found in the "Your Reactions" post-discussion questionnaire (refer to Appendix G). Using a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree) participants responded to the following items: "Overall, I had a positive reaction to the points others raised in the group," "I felt good about the opinions expressed by the group," and "I found I felt negatively about what the group was saying," "More often than not I disliked what others in the group had to say," which were reversed scored. Reliability was good ( $\alpha = .89$ ).

### **Dependent Variables**

**Public indices: Conformity.** Public conformity was determined by how often the participant voted with the group on Vote 1 and Vote 2. A vote contrary to the participant's initial position was coded as active conformity. Thus, for every vote, of which there were 12 (6 in Vote 1 + 6 in Vote 2), if participants voted with the group they were assigned a score of "1" and a score of "0" if they voted against the group. If participants indicated they were undecided they were assigned a score of ".5." In the present study, votes pre and post-discussion were correlated at  $r = .83$  and were therefore combined and averaged as overall scale of conformity.

**Attitude change.** Private attitude change was assessed using the "final word"

questionnaire (refer to Appendix H). Direction of attitude change (DAC) was determined by computing the difference between participants' score on the 6 gay rights policy items in the screening survey (Part 1) and their score on those same items completed post-discussion (Part 2) in private. The post-test reliability of these items was good ( $\alpha = .84$ ). Scores from Part 2 were subtracted from Part 1. Thus, a positive score indicates that the participant became more pro-gay rights and a negative score indicates that the participant became more anti-gay rights in their beliefs. A score of 0 = no attitude change. Scores ranged from -5.33 to 5.17.

**Debriefing.** After completing the post-discussion measures, the experimenter debriefed the participant to explain the experiment and answer any questions they may have. Techniques adapted from Edlund, Sagarin, Skowronski, Johnson, and Kutter (2009) were used to reduce and detect cross-talk.

**Participant knowledge check.** To test for participants' knowledge of the experiment a crosstalk test adapted from Edlund et al. (2009) was used. Participants were presented with large jar of coins and were given the opportunity to guess how much money was inside. They were told exact guesses would win them the contents. After guessing, the experimenter informed them of the exact amount of money in the jar (\$148.13).

In the event that the participant did guess the amount exactly, the experimenter altered the "correct" amount slightly and made a note of the correct guess on the participant's paperwork. If a future participant "guessed" the correct amount this indicated a high probability of prior knowledge about the experiment and the data from

the participant was discarded. No participant guessed the correct amount so no data was discarded from this experiment.

## CHAPTER III

### RESULTS

#### **Analysis Procedure**

The current study consisted of two parts. In Part 1, the participant's initial attitudes on gay rights were assessed using the Political Position Inventory. These attitudes were then used to determine the participant's initial position on gay rights (pro-gay rights or anti-gay rights). In Part 2, thought confidence (high, medium, and low) and normative pressure (unanimous or non-unanimous group opposition) were manipulated. The dependent variables included conformity and directional attitude change. Conformity rates were measured from public voting responses before and after a discussion about gay rights and were combined and averaged for a total proportion of conformity<sup>2</sup>. Direction of attitude change was measured by computing a difference score in attitudes from the Political Positions Inventory and "Final Word" attitude change measure consisting of the same items.

It was hypothesized that participants who were initially anti-gay rights would show more conformity and attitude change than those who were initially pro-gay rights.

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<sup>2</sup> A combined proportion of conformity scores were used because voting sets 1 and 2 were highly correlated,  $r = .83$ . Separate regression analyses were run for voting sets 1 and 2 as voting set 1 was considered a measure of pure conformity whereas voting set 2 can be said to contain aspects of persuasion due to the arguments voiced during the discussion. However, the regression analyses were identical in terms of the significant effects that emerged therefore conformity total was used as the final dependent variable.

It was also hypothesized that participants faced with unanimous group opposition would show more conformity and norm consistent attitude change than participants who faced non-unanimous group opposition (i.e., when a dissenting confederate is present). Finally, it was hypothesized that people with lower confidence in their thoughts about gay rights policies would show more public conformity and norm consistent attitude change than those with higher confidence in their thoughts about gay rights policies, particularly when they were initially anti-gay rights and facing unanimous group opposition. However, participants' valence in response to the group should moderate the effects of thought confidence to the extent that where valence was negative and thought confidence was high, conformity and attitude change would be reduced compared to when valence was positive.

### **Manipulation Check**

A one-way ANOVA failed to reveal any significant differences among the means of the thought confidence manipulation groups [high ( $M = 5.32$ ,  $SD = 1.23$ ,  $n = 46$ ), medium ( $M = 4.90$ ,  $SD = 1.26$ ,  $n = 45$ ) and low ( $M = 4.80$ ,  $SD = 1.23$ ,  $n = 45$ )],  $F(2, 133) = 2.234$ ,  $p = .111$ . Because the thought confidence manipulation failed to significantly affect people's self-reported thought confidence, the manipulation check items were averaged and used as a continuous measure of thought confidence for hypothesis testing.

### **Preliminary Analyses**

Descriptive statistics were generated to provide an overall assessment of where participants stood on the dependent variables. Conformity scores could range from 0 (no

conformity) to 1 (complete conformity). I found that, on average, participants conformed 50% of the time across voting sets 1 and 2.

Direction of attitude change scores could range from -6 to +6. A score of -6 represented maximum change from being pro-gay rights on the Political Positions Inventory (e.g., “1”), to being anti-gay rights in post-test attitudes. A score of +6 represented maximum change from being anti-gay rights on the Political Positions Inventory (e.g., “6”), to being pro-gay rights in post-test attitudes. A score of 0 represented no change. The mean direction of attitude change was slightly positive ( $M = .38$ ,  $SD = 1.72$ ), indicating a slight shift toward pro-gay rights attitudes in the overall sample. The analyses revealed no significant effects of gender or age and therefore these demographic variables were excluded from subsequent analyses.

Because any differences in conformity or attitude change between those pro- and anti-gay rights could be potentially attributed to differences in attitude extremity, a  $t$  test was conducted to test for any differences in attitude extremity between those pro- and anti-gay rights. Those who were initially pro-gay rights ( $M = 5.69$ ,  $SD = .68$ ) were not significantly different in attitude extremity than those who were initially anti-gay rights ( $M = 5.55$ ,  $SD = .69$ ),  $t(187) = 1.33$ ,  $p = .186$ .

### **Hypothesis Testing**

Hierarchical regression analyses were used to test how well participants' gay rights attitudes, normative pressure (unanimous opposition vs. non-unanimous opposition), thought confidence, and valence predicted conformity and attitude change. Separate regression analyses were run for each dependent variable. Although political position was used dichotomously for condition assignment, participants' initial gay rights

attitudes were used as a continuous measure for hypothesis testing. Initial gay rights attitudes, thought confidence, and valence scores were centered at the mean and normative pressure was dummy coded (0 = non-unanimous opposition, 1 = unanimous opposition). As recommended by Aiken and West (1991), individual predictors were entered at Step 1, 2-way interactions at Step 2, 3-way interactions at Step 3, and 4-way interactions at Step 4. For the regression analysis on conformity, no significant 4-way interactions were found, thus step 4 was omitted from the final report. For the regression analysis on attitude change, no significant 3 or 4-way interactions emerged, thus Steps 3 and 4 were omitted from the final report.

### **Conformity**

The first dependent variable, conformity, was measured by how often participants voted with the group, as opposed to voting according to their initial attitudes. After step 1, with individual predictors in the equation,  $R^2 = .45$ . After step 2, with individual predictors and 2-way interactions in the equation,  $R^2 = .47$ . The change in variance accounted for in step 2 ( $\Delta R^2 = .020$ ) was not significantly different than zero,  $F(4, 126) = .016, p = .431$ . After step 3, with individual predictors, 2-way interactions, and 3-way interactions in the equation,  $R^2 = .50, F(11,123) = 11.22, p < .001$ . The change in variance accounted for in step 3 ( $\Delta R^2 = .036$ ) was significantly different than zero,  $F(3, 123) = 2.987, p = .034$ . In the final regression model, significant effects of initial attitude, normative pressure, thought confidence, and valence were found. A significant initial attitude  $\times$  thought confidence interaction was also found. Finally, a significant 3-way initial attitude  $\times$  normative pressure  $\times$  thought confidence interaction was found. The estimated unstandardized regression coefficients ( $b$ ) and intercept, standard errors ( $SE$ ),

and estimated standardized regression coefficients ( $\beta$ ) for the full regression model on conformity are displayed in Table 1.

Table 1

*Summary of Hierarchical Regression Analysis for Variables Predicting Conformity*

VARIABLE	STEP ONE			STEP TWO			STEP THREE		
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$
Initial Attitude (IA)	.084	.015	.384***	.088	.021	.403***	.101	.033	.460***
Normative Pressure (NP)	.234	.043	.355***	.235	.043	.356***	.200	.044	.303***
Thought Confidence (TC)	-.052	.018	-.198**	-.057	.025	-.217*	-.068	.024	-.259**
Valence	.098	.014	.456***	.095	.014	.442***	.103	.014	.480***
IA x NP				.013	.030	.038	-.013	.031	-.038
IA x TC				-.022	.013	-.119	-.051	.017	-.275*
IA x TC				-.009	.036	-.022	.025	.037	.064
TC x Valence				.009	.010	.054	.006	.014	.039
IA x TC x Valence							-.010	.008	-.088
NP x TC x Valence							-.006	.021	-.028
IA x NP x TC							.072	.027	.236*

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

$R^2 = .45$  for Step 1;  $\Delta R^2 = .02$  for Step 2; [ $F(4,126) = .016$ ,  $p = .431$ ,  $R^2 = .47$ ];  $\Delta R^2 = .036$  for Step 3 [ $F(3, 123) = 2.987$ ,  $p = .034$ ,  $R^2 = .50$ ].

Consistent with my first hypothesis, initial attitudes that were more anti-gay rights were associated with greater conformity, ( $b = .101$ ,  $SE = .033$ ,  $\beta = .460$ ). In fact, analyzing conformity by participants' initial position shows that, on average, pro-gay rights participants conformed 39% of the time and anti-gay rights participants conformed 61% of the time. Consistent with hypothesis two, those who were placed into groups where they faced unanimous opposition instead of non-unanimous opposition toward their position on gay rights also showed increased public conformity, ( $b = .200$ ,  $SE = .044$ ,  $\beta = .303$ ). Those in the unanimous opposition group conformed 60% of the time and those in the nonunanimous opposition group conformed 40% of the time. This supports hypothesis two, which predicted that those facing unanimous normative pressure would show more conformity.

As expected, lower levels of thought confidence were associated with greater conformity, ( $b = -.068$ ,  $SE = .024$ ,  $\beta = -.259$ ). The results also showed that to the extent that participants had more positive reactions to what the group was saying, they showed more conformity, ( $b = .103$ ,  $SE = .014$ ,  $\beta = .480$ ). As indicated by the standardized coefficients, valence had the strongest effect of any predictor (see Table 1). However, contrary to expectations, participants' valence in response to the group failed to moderate the effects of thought confidence. Rather, there was simply a main effect of valence, such that the more positive the reaction to the persuasive message, the higher the conformity.

An initial attitude  $\times$  thought confidence interaction emerged but was ultimately qualified by a thought confidence  $\times$  initial attitude  $\times$  normative pressure interaction. In order to demonstrate whether thought confidence moderated the effects of normative

pressure in both pro- and anti-gay rights people, separate regression analyses on conformity were run for those pro- and anti-gay rights. A thought confidence  $\times$  normative pressure interaction ( $b = .048$ ,  $SE = .050$ ,  $\beta = .132$ ,  $p = .015$ ), emerged in the regression model for those who were anti-gay rights, but was non-significant in the regression model for those who were pro-gay rights, ( $b = -.016$ ,  $SE = .118$ ,  $\beta = -.044$ ,  $p = .892$ ). Values of the interaction term were plotted at  $+1/-1$  SD and the means were substituted in a simple linear regression equation (see Aiken & West, 1991). These were then plotted to display the interaction. For those who were pro-gay rights in their initial attitudes, unanimous normative pressure predicted higher levels of conformity but failed to significantly interact with thought confidence (refer to Figure 2). In contrast, for those who were anti-gay rights in their initial attitudes, higher levels of thought confidence were associated with decreased conformity, particularly when exposed to unanimous group opposition (refer to Figure 3).

Figure 2 indicates that, consistent with hypothesis 3, increased conformity was shown in those who were initially more anti-gay rights, lower in thought confidence, and facing unanimous normative pressure.

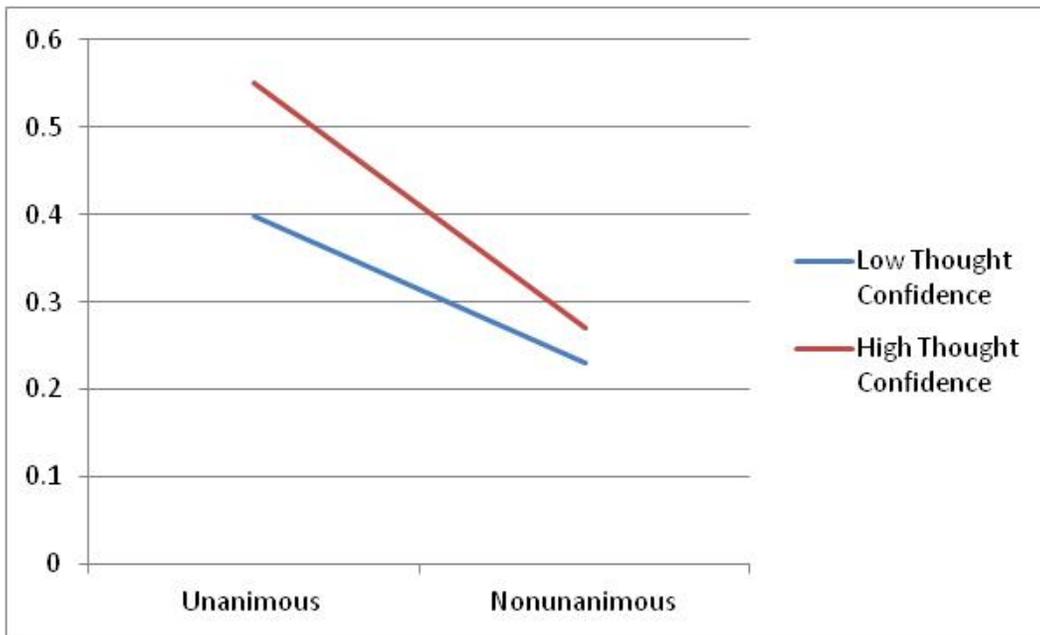


Figure 2. Non-significant Interaction Plot of Normative Pressure and Thought Confidence on Conformity for Pro-Gay Rights Participants

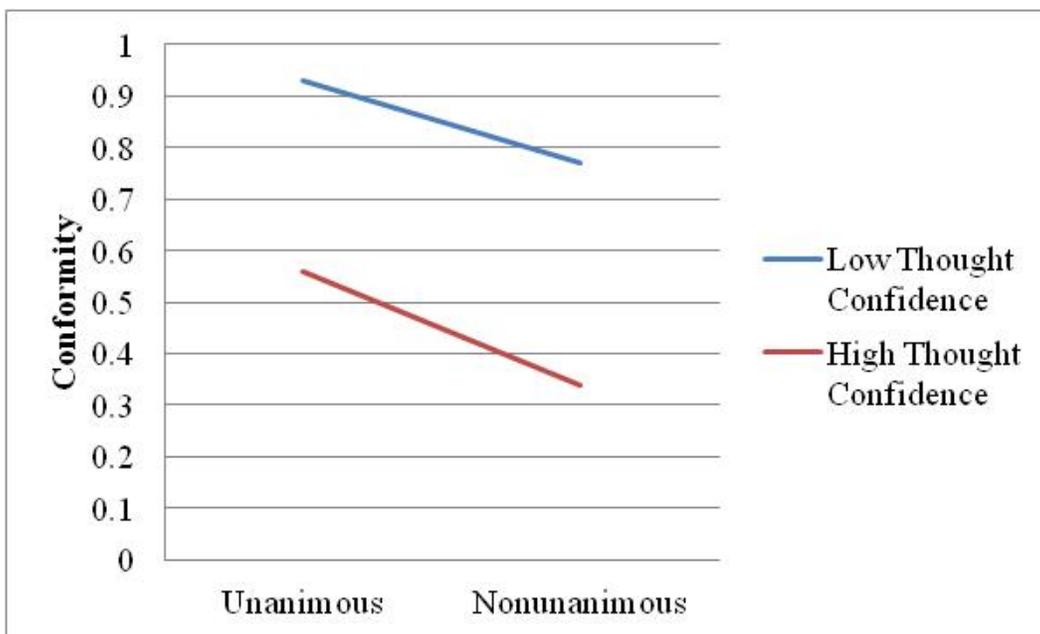


Figure 3. Significant Interaction Plot of Normative Pressure and Thought Confidence for Anti-Gay Rights Participants on Conformity

## Attitude Change

My second dependent variable, attitude change, was assessed by computing a difference score between participants' pre-discussion responses to gay rights policies in the screening survey with their response to the same items completed privately post-discussion. For the analysis of attitude change, the effects of any variable beside participants' initial attitudes were expected to take the form of interactions due to the expectation that pro- and anti-gay rights participants would change their attitudes in opposite directions.

After step 1, with individual predictors in the equation,  $R^2 = .13$ ,  $F(4, 130) = 5.249$ ,  $p < .001$ . A significant effect of initial attitudes was found in step 1. After step 2, with individual predictors and 2-way interactions in the equation,  $R^2 = .20$ ,  $F(8, 126) = 3.96$ ,  $p < .001$ . The change in variance explained between steps 1 and 2 was significant,  $F(4, 126) = 2.432$ ,  $p = .05$ . In the final regression model there was a significant effect of initial attitudes and a significant thought confidence  $\times$  group interaction. No other effects or interactions emerged (refer to Table 2).

Table 2

*Summary of Hierarchical Regression Analysis for Variables Predicting Attitude Change*

VARIABLE	STEP ONE			STEP TWO		
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$
Initial Attitudes (IA)	.336	.096	.294*	.308	.134	.269*
Normative Pressure (NP)	.163	.282	.047	.178	.277	.052
Thought Confidence (TC)	.228	.116	.166	-.050	.157	-.037
Valence	.065	.091	.058	.061	.090	.054
IA x NP				.101	.193	.058
IA x TC				-.016	.086	-.016
NP x TC				.583	.229	.287*
TC x Valence				.070	.066	.085

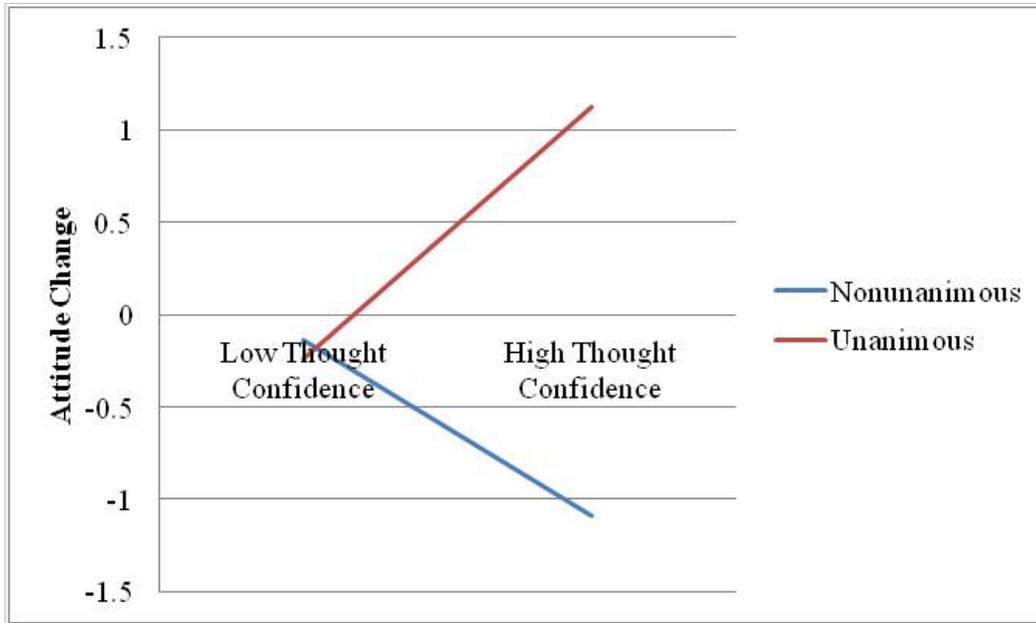
\* $p < .05$

$R^2 = .14$  for Step 1;  $\Delta R^2 = .062$  for Step 2; [ $F(4,126) = 2.432$ ,  $p = .05$ ,  $R^2 = .20$ ].

Initial attitudes significantly predicted direction of attitude change, ( $b = .308$ ,  $SE = .134$ ,  $\beta = .269$ ). A  $t$  test was conducted to follow up on the significant effect of initial attitudes in order to test whether the absolute value of attitude change scores were significantly different for those pro- and anti-gay rights. Contrary to my first hypothesis, those who were initially anti-gay rights ( $M = 1.43$ ,  $SD = 1.16$ ) did not show significantly greater attitude change than those who were initially pro-gay rights ( $M = 1.20$ ,  $SD = 1.12$ ),  $t(186) = 1.43$ ,  $p = .156$ . Returning to the results of the regression, no main effects of thought confidence or normative pressure were found due to diverging directions of attitude change between those pro- and anti-gay rights. Consistent with the results for conformity, valence did not moderate any significant interactions involving thought

confidence. The predicted thought confidence  $\times$  position  $\times$  normative pressure interaction was also non-significant. However, a thought confidence  $\times$  normative pressure interaction emerged in the final regression model. Because the effects of directional attitude change are contingent upon position for interpretation, separate regressions were run for those who were pro- and anti-gay rights. Results of these regressions showed that a significant thought confidence  $\times$  normative pressure interaction ( $b = .958, SE = .377, \beta = .408, p = .014$ ), emerged in the final regression model for anti-gay rights people,  $F(8, 56) = 3.219, p = .004$ , but was non-significant in the regression using only pro-gay rights people ( $b = .309, SE = .682, \beta = .184, p = .653$ ). As in the previous analysis, I plotted values of the interaction term at  $+1/-1$  SD and substituted the means in a simple linear regression equation. These were then plotted to display the interaction. Figure 4 shows that for those who were initially anti-gay rights, higher levels of thought confidence led to more pro-gay rights attitudes when in the unanimous opposition normative pressure condition but more anti-gay rights attitudes when in the non-unanimous normative pressure condition. For those with lower levels of thought confidence, rates of attitude change less affected by whether they were in unanimous or non-unanimous opposition groups.

These results indicate that despite those low in thought confidence being more likely to conform to the group, this greater conformity did not lead greater attitude change post-discussion. Rather, increases in norm-consistent attitude change were associated with higher levels of thought confidence, but only when facing unanimous opposition. In contrast, when people with higher levels of thought confidence had an ally to support their position, their attitudes polarized to further defy the group norm.



*Figure 4.* Interaction of Thought Confidence and Normative Pressure on Attitude Change for Anti-Gay Rights Participants

Note: Figure represents attitude change in those anti-gay rights only. A negative Direction of Attitude Change score represents an increase in anti-gay rights attitudes from the Political Positions Inventory to the post-discussion. A positive Direction of Attitude Change score represented change from being anti-gay rights on the Political Positions Inventory to being pro-gay rights post-discussion. A Direction of Attitude Change score of 0 represents no change in gay rights attitudes from Political Positions Inventory to post-discussion.

## CHAPTER IV

### DISCUSSION

#### **Overview of Research**

The purpose of this study was to examine the role of social influence in shaping people's attitudes about gay rights policies. I first sought to replicate previous research showing that social norms can affect both the public and private expression of policy attitudes. In the current study, these social norms were operationalized as a unanimous group norm which opposed the participant's own position on gay rights. I was interested in investigating whether different political policy orientations (i.e., for vs. against gay rights) held different implications for their owners' response to the opposing group. Specifically, I was interested in whether those expressing anti-gay rights policy attitudes to an egalitarian group would show less resistance than those expressing pro-gay rights attitudes to a non-egalitarian group.

I was also interested in examining how individual differences at the meta-cognitive level of thinking (i.e., assessment of one's thoughts) could provide an increased understanding of why individuals respond differently to the pressures of social influence. In the current study I was particularly interested in whether individuals' confidence in the validity of their thoughts about gay rights would lead more or less susceptibility to conformity and norm consistent attitude change when exposed to a group norm in opposition of their stance on gay rights.

## **Summary of Hypotheses and Results**

**Initial position.** Hypothesis 1 predicted that participants who were initially against gay rights would show more conformity and norm-consistent attitude change than those who were initially pro-gay rights. Consistent with hypothesis 1, I found that people who were more anti-gay rights tended to conform more than those who were more pro-gay rights in their initial attitudes. In regards to conformity, I found that overall, those who were initially categorized as anti-gay rights conformed 61% of the time compared to 39% of the time for those who were initially categorized as pro-gay rights. On the other hand, participants' initial attitudes did not significantly affect norm-consistent attitude change. Rather, people in current study, whether pro-and anti-gay rights, tended to shift their attitudes in the direction of the opposing group.

**Normative pressure.** Hypothesis 2 predicted that participants exposed to group norms with unanimous opposition would show more conformity to the group norm and more norm consistent attitude change. Consistent with hypothesis 2, results showed that participants were who placed in a discussion group with complete solidarity, as opposed to a group with a single dissenter, showed increased public conformity. However, as will be described next, the effect of normative pressure on attitude change was moderated by the participants' initial position and thought confidence.

**Thought confidence.** My third hypothesis predicted that people with low thought confidence would show more conformity and norm consistent attitude change. I also expected that thought confidence would moderate the effect of position and normative pressure such that those anti-gay rights and/or facing unanimous normative pressure

would be particularly susceptible to conformity and attitude change when low in thought confidence. Further, I expected that the inclusion of participants' valence (positive or negative) of thoughts in response to the discussion might moderate certain effects of thought confidence. This prediction was based on research showing that positive valence in response to a persuasive message weakens the resistance to persuasion of thought confidence. However, in the current study valence failed to interact with thought confidence. Therefore, participants' valence in response to the group, whether positive or negative, was not needed to observe the effects of thought confidence. However, participants' valence in response to the group proved to be a significant predictor of whether or not people conformed to the group with more positive valence predicting increased conformity to the opposing group.

Consistent with hypothesis three, I found that lower thought confidence was associated with increased conformity whereas higher thought confidence was associated with decreased conformity, particularly when people were more anti-gay rights in their initial attitudes. These effects were qualified by a significant 3-way interaction between political position, thought confidence, and normative pressure, but only in those who were anti-gay rights. For people who were anti-gay rights, lower thought confidence was associated with increased conformity, particularly when placed in the unanimous normative pressure condition.

Regarding directional attitude change, thought confidence better predicted attitude change in those who were initially anti-gay rights and in who thought confidence was higher. For those who were more anti-gay rights but lower in thought confidence, they actually maintained their original attitudes, regardless of whether normative pressure was

unanimous or non-unanimous. Furthermore, the effects of thought confidence varied depending on the amount of normative pressure present in the voting sets and discussion. Higher thought confidence resulted in polarized attitudes for anti-gay rights people placed in groups with non-unanimous opposition. In contrast, higher thought confidence predicted more norm consistent attitude change when anti-gay rights people faced non-unanimous group opposition. Thus, the results of attitude change partially support hypothesis three. In general, high thought confidence was expected to provide greater resistance compared to low thought confidence. High thought confidence only reduced attitude change when normative pressure was non-unanimous. When normative pressure was unanimous, anti-gay rights people with higher thought confidence actually showed norm consistent attitude change whereas anti-gay rights people with lower thought confidence maintained their original attitudes.

To summarize, those who were lower in thought confidence showed increased conformity compared to those higher in thought confidence, particularly when their attitudes were more anti-gay rights. However, higher conformity for those lower in thought confidence did not translate into greater attitude change as those with lower thought confidence tended to maintain their initial attitudes, regardless of normative pressure. Instead, higher levels of thought confidence were associated with norm consistent attitude change, particularly when initial attitudes were more anti-gay rights. Anti-gay rights attitudes were associated with norm-consistent attitude change when the opposition of the group was unanimous. However, when the group featured an anti-gay rights ally, anti-gay rights attitudes were associated with attitude polarization (i.e., attitudes became even more anti-gay rights).

## **Limitations**

Before providing broader interpretations of my results I will first acknowledge the potential caveats of my study. My study was conducted at Mississippi State University, in a state that may be perceived to have a state level norm that is largely anti-gay rights. Although the anti-gay rights position was actually a slight minority (48%) in the current sample, it would be interesting to conduct this experiment in a political climate that was overwhelmingly pro-gay rights. In my study, pro-gay rights individuals may have more easily adhered to their beliefs because they are accustomed to perceiving themselves as a holding a minority position, and may have developed counter-arguments to inoculate themselves against persuasion attempts (see McGuire, 1964). However, the different rates of conformity and attitude changes for those pro- and anti-gay rights might also be explained by one of the underlying theoretical assumptions of the current study, namely that the egalitarian group norm is stronger than the non-egalitarian norm.

The failure to successfully manipulate thought confidence is also a limitation of the current study. Given that I was only able to use thought confidence measured post-manipulation in my analyses I am unable to claim a causal impact of thought confidence on conformity and attitude change. However, Petty, Brinol, and Tormala (2002) found the same effects for thought confidence regardless of whether thought confidence was measured or manipulated. Nonetheless, it is recognized that the greatest possible control over the thought confidence variable would be the most desirable situation. In order to more systematically establish the role of thought confidence in resistance to social norms, particularly as it pertains to policy relevant social norms, it is recommended that a stronger manipulation of thought confidence be developed.

Although thought confidence predicted resistance and susceptibility to conformity in certain cases, its effects on attitude change were not entirely as expected. The lack of any effects of valence and thought confidence together makes interpretation of thought confidence in the current study somewhat difficult. Research on the self-validation hypothesis would seem to suggest that high thought confidence would reduce the effect that normative pressure had on increasing persuasion. A positive valence in response to the pro-gay rights message would have helped explain why an anti-gay rights participant would change their attitudes in the direction of the group, despite having confidence in their own thoughts about gay rights. However, valence proved not to be a deciding factor in the effects of thought confidence.

In the current study the effects of thought confidence functioned somewhat differently than in previous research as it pertained to private attitudes. Perhaps these differences highlight the importance of studying thought confidence in a variety of situations. The results suggest that thought confidence might function differently in a dynamic and challenging social situation. When normative pressure was strongest, high thought confidence seemed to provide an over assurance of one's abilities that only increased susceptibility to persuasion. Under weaker normative pressure and with a peer example of how to withstand persuasion, high thought confidence seemed to behave as expected when it came to attitudes.

### **Social Norms and Intergroup Policy Attitudes**

Research has found that that people readily adhere to social norms when expressing prejudice. In fact, Crandall, Eshleman, & O' Brien (2002) found a .96 correlation between people's reported level of prejudice and their perceptions of the

normative acceptability of prejudice. If biased policy attitudes have become a vessel for the expression of prejudice, then people should be reluctant to report them when the social norm is egalitarian. In the current study, when faced with a social norm that opposed their position, those who were anti-gay rights showed more conformity whereas those pro-gay rights more readily expressed their genuine beliefs. The group norm seemed to convey to anti-gay rights people that the expression of negative intergroup attitudes was not acceptable.

The effects of initial attitudes may also indicate that the strength of social norms advocating for or against gay rights might vary. Several researchers have argued that social influence is more powerful when the position being advocated is perceived as being consistent with the larger norm or potentially becoming the more popular opinion (Clark & Maass, 1990; Glynn et al., 1997; Shamir, 1997). The pro-gay rights position fits the larger societal norm. National polling shows that advocates for certain gay rights initiatives – e.g., benefits (74%), equal employment (88%), and gays in the military (69%) – are now in the national majority and attitude towards homosexuals have become less negative over the last three decades (see Gallup.com). The momentum that tolerance seems to have over intolerance could help to explain why the United States continues to move toward more egalitarian policy attitudes. If the power of pro-and anti-gay rights messages were equivalent then one would expect gay rights attitudes to show little change as it would be difficult for any given group to gain any ground. Instead, there seems to be indications that acceptance of gay rights will win out as those who endorse egalitarian values hold their ground while swaying the opinions of those who are opposed.

## **Majority vs. Minority Influence**

Although it appears that social norms may be more effective when confronting social injustices than when maintaining or fostering them, it is important to consider how interrupting the solidarity of these social norms can decrease their efficacy. When participants were placed in groups that featured a confederate acting as a dissenter voting and arguing consistently pro- or anti-gay rights, participants were more likely to vote consistent with their pre-existing attitudes. One possible explanation why the dissenter confederate bolstered the participants' resistance to conformity is that it reduced the numerical size of the majority (from 4 to 3) and thereby reduced the group's ability to exert as much social influence on the participant. This is consistent with mathematical models of majority influence forwarded by Clark and Maass (1990). However, it seems unlikely that effects of normative pressure are simply due to the numerical size of the majority. The confederate acting as a dissenter may have reduced participants' perception of group solidarity by disrupting the sequence of unanimous voting opposite the participants' position. Another consideration is that the dissenting confederate may have served as an example of non-conformity to the participant. Essentially, the presence of a dissenter not only reminds people that standing up to the group permissible but emboldens them to do so themselves.

The minority dissenter might have been particularly effective in reducing the influence of the majority because she/he was forwarding arguments largely consistent with that of the participant. Thus, the dissenter not only disrupts the social norm but brings into focus arguments that are consistent with the participant's initial position. The presence of a likeminded individual in the group may have given participants the

opportunity to engage in confirmation bias, or the tendency to favor arguments that are consistent with one's own beliefs (Nickerson, 1998). In the current study participants were given the opportunity to selectively attend to validating arguments voiced by the minority dissenter in the non-unanimous normative pressure condition. Therefore it is not surprising that the minority dissenter reduced the social influence of the majority.

However, the effects of normative pressure alone did not have a significant effect on people's private attitudes. It is important to note that this is consistent with expectations that, due to the use of directional attitude change, main-effects other than initial position would not be detectable. As I will discuss in the next section, whether or not individuals changed their attitudes based on the level of normative pressure present in the discussion depended on their amount of thought confidence.

### **Thought Confidence and Resistance to Social Norms**

People who had low levels of confidence in their thoughts about gay rights showed more conformity to the group than those who had high thought confidence. Unexpectedly, when accounting for initial attitudes, thought confidence didn't appear to affect rates of conformity in those who were more pro-gay rights. For those who were more anti-gay rights, however, the highest rates of conformity were found in those with lower thought confidence. As predicted, having higher thought confidence significantly decreased conformity rates in both the unanimous and non-unanimous opposition groups. This suggests that having higher confidence in one's thoughts behind one's anti-gay rights attitudes provides some degree of increased resistance to going along with the group. However, people who lack confidence in the validity of these thoughts appear more likely to go along with the group.

These findings merit discussion about what thought confidence might represent. As operationalized in the present study, it was manipulated by providing validation or invalidation through peer feedback. In other thought confidence research, confidence has been manipulated by telling people whether their beliefs are consistent or inconsistent with a majority (Petty, Brinol, & Tormala, 2002). It seems likely that thought confidence has significant overlap with the perceived social acceptance of one's beliefs. Consistent with the sociometer hypothesis (Leary, Tambor, Terdal, & Downs, 1995), self-confidence is argued to be a barometer of social acceptance of the self. In the experimental portion of the current study, participants were basically in one of three primary conditions. In one, they received feedback conveying that their thoughts were rejected by all or most of their peers (low thought confidence conditions, either normative pressure condition). In another, they were in a situation where a group of peers directly challenged, probably unexpectedly, their pre-discussion peer-validation their thoughts (in the high confidence, unanimous condition). Otherwise, they were in a situation where three peers rejected their thoughts and one reinforced the validation of the pre-discussion peer evaluations, potentially reminding them only minutes ago they'd had the endorsement of an additional two peers (in the high confidence, non-unanimous confidence). In essence, the ally in the discussion made the peer breakdown 3 vs. 3 because the false feedback featured two endorsers. Accordingly, thought confidence may in part serve as a metric of social acceptance of one's beliefs. However, high confidence is needed for change in beliefs to occur when one learns that one's thoughts are rejected. When confidence in one's thoughts is depleted, it may mean that individuals don't know what to believe and don't have sufficient confidence validity in their thoughts to take a stance either side of the

issue. Similar findings exist within self-esteem literature with regard to resiliency in the face of adversity (Spencer, Josephs, & Steele, 1993).

As for valence, it did not interact with confidence in a way that had been found previously. Participants' valence in response to the group proved to be the most robust correlate of conformity in the current study. Although valence by itself was not of primary theoretical interest in the current study, the large effect size found of valence merits a further interpretation. People who reported more positive valence in their thoughts about the arguments of the opposing group tended to show increased conformity. Essentially, people who like what was said by the opposing group tended to vote in line with the group in public. However, because valence was assessed post-discussion, it could also be said that to the extent that people showed increased conformity, they tended to report more positive valence in their thoughts about the group. This makes the causal role of valence difficult to parse and raises the question of whether valence predicts conformity or conformity predicts liking.

It is important to note that the relationship between valence and conformity was found in both sets of conformity scores. In the initial vote on gay rights, which can be said to be a pure measure of conformity, no arguments were voiced on the part of the confederates. Therefore, rates of conformity should be unaffected by valence in the initial voting set. Because a significant relationship was found for valence and conformity, it could be that increases in conformity during the voting sets were associated with an increase in positive valence. One reason for that conformity may result in more positive valence is cognitive dissonance. Cognitive dissonance is an aversive state that arises when one holds two or more inconsistent cognitions. In order to reduce this

aversive state, people change their attitudes or behaviors to achieve a state of cognitive consistency (Festinger, 1957). In current study, people who conformed may have experienced cognitive dissonance by voting contrary to their private attitudes. In order to reduce the dissonance created by conforming, they may have shifted their attitudes about the other members in the group become more positive. By reporting a positive valence in their thoughts about the group, they may have been able to justify voting with the group by giving positive evaluations of what was said by others in the discussion.

As with conformity, thought confidence only predicted attitude change in those who were initially more anti-gay rights in their attitudes. The relationship between thought confidence and normative pressure for attitudes was more complex than that of conformity in that attitudes only changed among those allegedly confident in their thoughts. The results suggest that depending on the strength of the normative pressure, high thought confidence can either increase or decrease norm-consistent attitude change. When normative pressure was non-unanimous, higher thought confidence actually made anti-gay rights individuals' more extreme in their post discussion attitudes. When normative pressure was unanimous, people with higher thought confidence became more pro-gay rights, changing with the norm.

This is inconsistent with expectations that, in general, high thought confidence should result in decreased norm-consistent attitude change. Yet, it is also inconsistent with expectations that conformity should predict subsequent attitudes. After all, the group who showed the highest rates of conformity (anti-gay rights and low in thought confidence) showed no attitude change whereas those with high thought confidence resisted conforming yet changed their attitudes under high normative pressure. One

possible explanation is that, for those with high thought confidence, the unanimous normative pressure resulted in a violation of their expectations regarding social support. It is possible that these individuals had higher expectations of social support regarding their beliefs prior to the discussion and having these expectations violated might have lead to increased attitude change.

Research on vicarious dissonance theory has demonstrated that when people view a fellow in-group member behavior counter-attitudinally they experience vicarious cognitive dissonance and change their attitudes (Monin, Norton, Cooper, & Hogg, 2004; Norton, Monin, Cooper, & Hogg, 2003). Anti-gay rights people in the high thought confidence conditions may have experienced vicarious dissonance by observing pro-gay rights attitudes in a group that they expected to be largely anti-gay rights. Thus, shifting their own attitudes to match ingroup may have been the easiest way for these individuals to reduce any dissonance resulting from the discussion. In contrast, it appeared that when at least one ally was present, anti-gay rights people were able to use the dissenting group member as a buffer to any vicarious cognitive dissonance. Thus, depending on the solidarity of the opposing majority, high thought confidence can either reverse or enhance the effects of social influence. When participants find that the high confidence behind their thoughts is unjustified, it may be that the higher their confidence the harder they fall.

### **Directions for Further Research**

The results of this study clearly demonstrated that those who are pro-gay rights are more resistant to conforming in the face of an opposing social norm. It is important to better understand why individuals who were pro-gay rights were less sensitive to social

influence than those who were anti-gay rights. In the future, certain individual differences might be considered (e.g., need for cognition, right-wing authoritarianism, social dominance orientation) which might account for any inherent individual differences between those pro- and anti-gay rights.

There are likely certain aspects about the situation presented in the current study that are important in understanding why pro and anti people differed. The perception that the larger social norm is pro-gay rights might have made it easier for pro-gay rights participants to avoid conformity. Measuring the extent to which participants perceive a stance on gay rights as being consistent with larger societal norm could be an important step in understanding why anti-gay rights were more susceptible to the group pressure in this study. It is important to consider how the consequences of non-conformity might differ for those who are pro- and anti-gay rights. Deviance Regulation Theory (DRT; Blanton & Christie, 2003) posits that people engage in conformity to avoid negative consequences of non-conformity. However, it is also posited that when positive consequences of non-conformity exist, people engage in uniqueness striving. It seems reasonable that given the larger societal norm is becoming more egalitarian in regards to gay rights, pro-gay rights people can frame non-conformity to an anti-gay rights norm in a more positive way than the converse. Employing theoretical frame works like DRT might help future research demonstrate whether any differences in the social motives for non-conformity exist for those pro- and anti-gay rights.

In the current study, it was expected that thought confidence would assist in explaining why pro- and anti-gay rights individuals conformed less to social influence. Although thought confidence proved to be useful in understanding how people respond

differently to social influence, the effects of thought confidence were less comprehensive than hoped. For those who were pro-gay rights, thought confidence did not appear to alter their response to the strength of the normative pressure of the group. This does not necessarily mean that thought confidence does not play a role in the attitudes of those who are pro-gay rights. Rather, it is possible that to the extent that they are more pro-gay rights, the perceived validity of their own thoughts about their political attitudes might be less relevant when navigating social norms than for people who are more anti-gay rights. In fact, Graham, Haidt, and Nosek (2009) have demonstrated that conservatives are more likely to endorse group binding moral foundations (i.e., morality based on ingroup and authority) than liberals. If thought confidence is a metric of social acceptance of beliefs, then pro people may be more accustomed to disregarding information about the social acceptance of their beliefs due to differing moral values. Therefore, understanding the role of meta-cognitive processes such as thought confidence across different types of individuals and in various social domains is an important task for future research. This is particularly true given past research on thought confidence has been conducted in a narrow range of situations.

### **Conclusion**

The current study demonstrates how expressions of negative intergroup attitudes and privately held policy beliefs can be altered through social influence. Contrary to the perception of intractability between liberal and conservative viewpoints, this study demonstrated that even a small group can alter attitudes towards social justice policies. It appears that the egalitarian social norm may have a greater degree of efficacy in initiating conformity than the biased norm. Most importantly, confidence in the thoughts that

underlie anti-gay rights attitudes may not necessarily be a barrier achieving egalitarian attitudes on gay rights, particularly when challenges to these beliefs are leveraged with a social norm that is high in solidarity.

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APPENDIX A  
IRB APPORVAL LETTER



**MISSISSIPPI STATE  
UNIVERSITY**

**Compliance Division**  
Administrative Offices  
Animal Care and Use (IACUC)  
Human Research Protection  
Program (IRB)  
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Hazardous Waste  
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(662) 325-8776 - fax

<http://www.orc.msstate.edu>  
[compliance@research.msstate.edu](mailto:compliance@research.msstate.edu)  
(662) 325-3294

October 6, 2010

Benjamin Walker  
Mailstop 9514  
MS State, MS 39762

RE: IRB Study #10-230: The Role of Thought Confidence in Resistance to Prejudicial Norms  
(SONA System Title: Political Psychology Project)

Dear Mr. Walker:

The above referenced project was reviewed and approved via expedited review for a period of 10/6/2010 through 9/15/2011 in accordance with 45 CFR 46.110 #7. Please note the expiration date for approval of this project is 9/15/2011. If additional time is needed to complete the project, you will need to submit a Continuing Review Request form 30 days prior to the date of expiration. Any modifications made to this project must be submitted for approval prior to implementation. Forms for both Continuing Review and Modifications are located on our website at <http://www.orc.msstate.edu>.

Any failure to adhere to the approved protocol could result in suspension or termination of your project. Please note that the IRB reserves the right, at anytime, to observe you and any associated researchers as they conduct the project and audit research records associated with this project.

**Please note that the MSU IRB is in the process of seeking accreditation for our human subjects protection program. As a result of these efforts, you will likely notice many changes in the IRB's policies and procedures in the coming months. These changes will be posted online at <http://www.orc.msstate.edu/human/aahrpp.php>. The first of these changes is the implementation of an approval stamp for consent forms. The approval stamp will assist in ensuring the IRB approved version of the consent form is used in the actual conduct of research. You must use copies of the stamped consent form for obtaining consent from participants.**

Please refer to your docket number (#10-230) when contacting our office regarding this project.

We wish you the very best of luck in your research and look forward to working with you again. If you have questions or concerns, please contact Christine Williams at [cwilliams@research.msstate.edu](mailto:cwilliams@research.msstate.edu) or call 662-325-5220.

Sincerely,

[For use with electronic submissions]

Christine Williams  
IRB Compliance Administrator

cc: H. Colleen Sinclair (Advisor)  
Kristine Jacquin (SONA)

Office of Regulatory Compliance & Safety • Post Office Box 6223 • Mississippi State, MS 39762

APPENDIX B  
CONSENT FORM

## **Political Psychology Project Consent Form**

You are invited to participate in a research study examining the syntax and style of political discussions. Please read this form and ask any questions you may have before participating in this study.

### **Background Information:**

This study focuses on the subjects and styles of political discussions. Current knowledge on group discussions centers on face-to-face contact and this study hopes to expand on that knowledge by using a variety of topics. This is a preliminary survey that will narrow future possible topics for later testing on political views. We are interested in your personal views, your reasons for these views, and your reactions to others' views.

### **Procedure:**

If you agree to this study, you will first be asked to complete a survey including questionnaires assessing your feelings towards different political beliefs, personality, and values (e.g., religious, moral, American). The survey usually takes 60 minutes to complete. You are encouraged to ask any questions you might have. After completing the survey, you will be asked to return to the lab within 2 months to participate in a face-to-face group political discussion. This discussion will take between approximately 85 minutes, depending on topic and discussion.

### **Risks of Participating:**

In this study, you may be exposed to topics or viewpoints that you disagree with or make you feel uncomfortable. Although these topics are frequently discussed in the media and within political debates, you might wish to avoid these possibly controversial subjects. You may elect to skip any item in the survey and you are welcome to withdraw from this study at any time, including during the discussion, without incurring a penalty (e.g., you will be awarded your point as if you had completed that part of the research study). We cannot guarantee whether you will get along or even like the people with whom you are having a discussion. If, at any time, the discussion makes you feel uncomfortable, please notify the discussion moderator and you can withdraw. If any unpleasant feelings are raised during this study, you are encouraged to contact the University Counseling Center at 662-325-2091.

### **Compensation:**

You will receive one credit for completing the survey and 1.5 credits in the Psychology Research Program for participating in the political discussion.

### **Confidentiality:**

The records of this study will be kept private and only researchers will have access to these records. If any portion of this study is published, no identifying information about the participants will be included. Participants will be assigned a code number to facilitate tracking across separate parts of the study. This code number will be written on an appointment card at the conclusion of part one of the study. Participants should bring that card with them to the lab upon their return for part two at which point appointment cards will be discarded. During the discussion, the conversation will be recorded for later coding. At no time will you be identified (and it is recommended that you do not provide identifying information to your co-discussants) other than with an identification of "Participant#\_." For the face-to-face discussion, the session will be audio-recorded, your voice and seat number are the only identifiers, and these recordings will be destroyed after transcription (or within a period of 5 years).

**Voluntary Nature of the Study:**

Your decision whether or not to participate in this study is voluntary and will not affect your current or future relationship with Mississippi State University or any person associated with the university. Even if you decide to participate, you are free to withdraw at anytime with no penalty.

**Contact and Questions:**

The researchers conducting this study are Dr. Colleen Sinclair and Benjamin Walker. You may ask any questions you have now. If you have questions later, you may contact them at (662) 325-5108. For additional information regarding human participation in research, please feel free to contact the MSU Regulatory Compliance Office at (662) 325-3994. You will be given a copy of this form to keep for your records.

**Statement of Consent:**

I have read and understand the above information. I acknowledge I am at least 18 years of age and I consent to my participation in this study. By signing here, I further acknowledge that am aware that my participation in this study will earn me credits in the Psychology Research Program. I am also aware that there are alternative ways of earning class credit.

Signature \_\_\_\_\_ Date \_\_\_\_\_

Signature of Investigator \_\_\_\_\_ Date \_\_\_\_\_

APPENDIX C  
POLITICAL POSITION INVENTORY



If yes, how often do you use instant messaging?

- a. More than once a day
- b. Daily
- c. Every other day
- d. Weekly
- e. Monthly
- f. Bi-monthly
- g. Every few months or so
- h. Yearly

**Political Positions Inventory:** Please use the scale provided to respond to the following items

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree

- |  |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|
| 1. Restrictions on American businesses in the name of “protecting the environment” are harming/inhibiting the nation’s economy.  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. Building a stronger military should be a national priority.   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Homosexuals use their sexual orientation so they can obtain special privileges  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. The United States should attempt to retrieve oil wherever it can.   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. A woman should have the right to choose whether or not to receive an abortion.  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. Homosexuals seem to focus on the ways in which they differ from heterosexuals, and ignore the ways in which they are the same | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. Legislation like Arizona’s immigration reform law should be adopted throughout the country.                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. The death penalty is a fair consequence of extreme criminal action.   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. Homosexuals do not have all the rights they need  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. The United States should not be involved in “nation building” in other countries.  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. Many illegal drugs should be made legal.   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. People make too much of a big deal global warming.   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. The government needs to make a concerted effort to protect our border from illegal immigrants.                               | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. Homosexuals should be allowed to marry, legally.   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15. The media devotes far too much attention to the topic of homosexuality.  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. Giving immigrants increased rights will only increase illegal immigration.   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

17. Celebrations such as “Gay Pride Day” are ridiculous because they assume that an individual’s sexual orientation should constitute a source of pride  
1            2            3            4            5            6            7
18. Certain areas should be protected from oil exploration.  
1            2            3            4            5            6            7
19. Homosexuals still need to protest for equal rights  
1            2            3            4            5            6            7
20. The government should lower military spending.  
1            2            3            4            5            6            7
21. The recent tax cuts have only benefited upper-class citizens.  
1            2            3            4            5            6            7
22. Homosexuals should stop shoving their lifestyle down other people’s throats  
1            2            3            4            5            6            7
23. Hiring minorities in order to increase diversity is a ridiculous idea.  
1            2            3            4            5            6            7
24. Sexual orientation should be included as a protected class in anti-discrimination policies.  
1            2            3            4            5            6            7
25. Individuals wrongly sentenced to death should receive financial reparations.  
1            2            3            4            5            6            7
26. If homosexuals want to be treated like everybody else, then they need to stop making such a fuss about their sexuality/culture.  
1            2            3            4            5            6            7
27. The United States should focus more money on finding renewable energy sources.  
1            2            3            4            5            6            7
28. Just because a person is a homosexual, it *does not* mean that person has a mental disorder.  
1            2            3            4            5            6            7
29. The war in Iraq was necessary and justified.  
1            2            3            4            5            6            7
30. Homosexuals should have the same rights as heterosexuals.  
1            2            3            4            5            6            7
31. Abstinence-only sex education programs are really the only sex education we need.  
1            2            3            4            5            6            7
32. The United States desperately needs stricter gun control laws.  
1            2            3            4            5            6            7
33. Sexual orientation should be included as a protected class in anti-hate crime laws.  
1            2            3            4            5            6            7
34. The United States should have never declared war on Iraq.  
1            2            3            4            5            6            7
35. Affirmative Action is a positive step towards ending discrimination against minorities.  
1            2            3            4            5            6            7
36. Homosexuals should stop complaining about the way they are treated and simply get on with their lives.  
1            2            3            4            5            6            7
37. The Patriot Act helps protect Americans from future terrorist attacks.  
1            2            3            4            5            6            7
38. We should remove the Supreme Court restrictions prohibiting the execution of individuals with impaired decision-making abilities (e.g., those with lower IQs, those with mental illnesses, and persons 18 and under).  
1            2            3            4            5            6            7
39. Marijuana use should be illegal.  
1            2            3            4            5            6            7

40. Homosexuals should be able to adopt children.  
1            2            3            4            5            6            7
41. The death penalty should be outlawed, as it is never right to take a life.  
1            2            3            4            5            6            7
42. The government should control health care, not private companies.  
1            2            3            4            5            6            7
43. The armed forces are right to exclude homosexuals from military service.  
1            2            3            4            5            6            7
44. We should reduce the number of appeals (and thus the cost) that a death row inmate is permitted before execution.  
1            2            3            4            5            6            7
45. Abortion should always be illegal, regardless of the circumstances of the conception.  
1            2            3            4            5            6            7
46. Homosexuals have become confrontational in their demand for rights  
1            2            3            4            5            6            7
47. Feminists are making unreasonable demands of men.  
1            2            3            4            5            6            7
48. Assisted suicide for terminally ill patients should be legalized.  
1            2            3            4            5            6            7
49. Anti-discrimination policies give certain groups special rights and advantages over others.  
1            2            3            4            5            6            7
50. All Americans should receive affordable healthcare.  
1            2            3            4            5            6            7
51. Policies addressing sex discrimination are unnecessary in this day and age.  
1            2            3            4            5            6            7
52. When women lose to men in a fair competition, they typically complain about being discriminated against.  
1            2            3            4            5            6            7
53. Illegal immigration is a serious threat to our national security.  
1            2            3            4            5            6            7
54. Racial profiling is an acceptable practice.  
1            2            3            4            5            6            7
55. Feminists are seeking for women to have more power than men.  
1            2            3            4            5            6            7
56. It is important to conserve energy.  
1            2            3            4            5            6            7
57. Pregnant women who endanger the lives of their babies by smoking or drinking while pregnant should be prosecuted.  
1            2            3            4            5            6            7
58. Employers should provide health care benefits to the partners of their gay and lesbian employees.  
1            2            3            4            5            6            7
59. The separation of church and state has resulted in a moral decline in our society.  
1            2            3            4            5            6            7
60. More restrictions need to be set up to protect the environment.  
1            2            3            4            5            6            7
61. Gays and lesbians who adopt children need to be monitored more closely than heterosexual parents.  
1            2            3            4            5            6            7
62. Under current sexual harassment policies, most women interpret innocent remarks or acts as being sexist.  
1            2            3            4            5            6            7

63. I would vote for an openly homosexual candidate.  
1            2            3            4            5            6            7
64. Anti-discrimination policies are not really needed nowadays.  
1            2            3            4            5            6            7
65. Abortions during the third trimester should be banned.  
1            2            3            4            5            6            7
66. Welfare should be abolished.  
1            2            3            4            5            6            7
67. Birth control means - such as the pill and condoms - should be made freely available to people in clinics.  
1            2            3            4            5            6            7
68. Small family farms should receive more federal financial support.  
1            2            3            4            5            6            7
69. Given many American businesses (e.g., farms, fisheries) depend on seasonal labor, we should increase the number of seasonal work visas we grant to immigrants (currently limited to 50,000 for the entire United States).  
1            2            3            4            5            6            7
70. The death penalty, if used at all, should only be used in murder cases where DNA evidence confirms defendant responsibility.  
1            2            3            4            5            6            7
71. More money should be invested into groups like "The Innocence Project" that works to free the wrongly convicted.  
1            2            3            4            5            6            7
72. The exporting of American jobs to foreign countries is a big problem in the U.S.  
1            2            3            4            5            6            7
73. The recently passed immigration law in Arizona, which allows police officers to demand proof of citizenship from those they suspect are illegal immigrants, is a form of racial profiling.  
1            2            3            4            5            6            7
74. The government extends too many benefits to big businesses.  
1            2            3            4            5            6            7
75. Many people do not do enough to conserve energy.  
1            2            3            4            5            6            7
76. There are too many restrictions on businesses all done in the name of "protecting the environment."  
1            2            3            4            5            6            7
77. Including a public option allowing any American to opt-into Federal health insurance programs (like Medicare) is a bad idea.  
1            2            3            4            5            6            7
78. The Freedom of Access to Abortion Clinics Act prohibiting protesters from "harassing" or blocking entrance to abortion clinics should be repealed.  
1            2            3            4            5            6            7
79. We need to expand the means for immigrants to be able to enter the country legally.  
1            2            3            4            5            6            7
80. The decision to end a life supported by life support equipment should be allowed to be made by one's family.  
1            2            3            4            5            6            7
81. The FDA approval of over-the-counter sale of the Morning After pill is a positive move.  
1            2            3            4            5            6            7
82. The best way to increase the health of the economy is to allow corporations to operate without the intrusion of the government.  
1            2            3            4            5            6            7

83. The rape of a child should be punishable by death.  
1            2            3            4            5            6            7
84. The recent healthcare reform was a big mistake.  
1            2            3            4            5            6            7
85. Government bailouts of large corporations are ultimately in the best interest of the economy.  
1            2            3            4            5            6            7
86. Every American child should have access to Medicare, like the elderly, if not otherwise insured.  
1            2            3            4            5            6            7
87. Children born in the United States to illegal immigrants should not be recognized as U.S. citizens.  
1            2            3            4            5            6            7

APPENDIX D  
THOUGHT CONFIDENCE MANIPULATION

This form contains ratings of the written thoughts you provided in part 1 of this study. Ratings were provided by randomly chosen participant coders and rated on the following three dimensions.

- **Validity** is the degree to which an argument is free from logical flaws, compelling, rational, and well reasoned.
- **Effectiveness** is meant to reflect the degree to which the rater found the arguments convincing, persuading them to potentially agree.
- Finally, raters were asked to rate the **overall strength** of the arguments which is meant to convey how strong the argument is using all of the previous criteria and any other criteria the rater deemed relevant.

<b>Rater 1</b>				<b>Rater 2</b>			
<b>THE ENVIRONMENT</b>				<b>THE ENVIRONMENT</b>			
<i>Validity</i>				<i>Validity</i>			
$\frac{x}{\text{Poor}}$	---	---	$\frac{\text{Average}}{e}$	---	$\frac{x}{\text{Poor}}$	---	$\frac{\text{Excellent}}{nt}$
<i>Effectiveness</i>				<i>Effectiveness</i>			
$\frac{\text{Poor}}{r}$	$x$	---	$\frac{\text{Average}}{e}$	---	$\frac{x}{\text{Poor}}$	---	$\frac{\text{Excellent}}{nt}$
<i>Overall Strength</i>				<i>Overall Strength</i>			
$\frac{x}{\text{Poor}}$	---	---	$\frac{\text{Average}}{e}$	---	$\frac{x}{\text{Poor}}$	---	$\frac{\text{Excellent}}{nt}$
<b>GAY RIGHTS</b>				<b>GAY RIGHTS</b>			
<i>Validity</i>				<i>Validity</i>			
$\frac{x}{\text{Poor}}$	---	---	$\frac{\text{Average}}{e}$	---	$\frac{x}{\text{Poor}}$	---	$\frac{\text{Excellent}}{nt}$
<i>Effectiveness</i>				<i>Effectiveness</i>			
$\frac{x}{\text{Poor}}$	---	---	$\frac{\text{Average}}{e}$	---	$\frac{x}{\text{Poor}}$	---	$\frac{\text{Excellent}}{nt}$
<i>Overall Strength</i>				<i>Overall Strength</i>			
$\frac{x}{\text{Poor}}$	---	---	$\frac{\text{Average}}{e}$	---	$\frac{x}{\text{Poor}}$	---	$\frac{\text{Excellent}}{nt}$
<b>IMMIGRATION</b>				<b>IMMIGRATION</b>			
<i>Validity</i>				<i>Validity</i>			
$\frac{\text{Poor}}{r}$	---	$x$	$\frac{\text{Average}}{e}$	---	$\frac{x}{\text{Poor}}$	---	$\frac{\text{Excellent}}{nt}$
<i>Effectiveness</i>				<i>Effectiveness</i>			
$\frac{\text{Poor}}{r}$	$x$	---	$\frac{\text{Average}}{e}$	---	$\frac{x}{\text{Poor}}$	---	$\frac{\text{Excellent}}{nt}$
<i>Overall Strength</i>				<i>Overall Strength</i>			
$\frac{x}{\text{Poor}}$	---	---	$\frac{\text{Average}}{e}$	---	$\frac{x}{\text{Poor}}$	$x$	$\frac{\text{Excellent}}{nt}$

APPENDIX E  
THOUGHT CONFIDENCE MANIPULATION CHECK

### Response Inventory

Sometimes, in discussions, we find the different personalities are related to different types sets of beliefs. If you could please take a moment to complete the following questions, we'd appreciate it. Thank you. Using the scale provided, please indicate the degree to which you agree with the following statement:

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Strongly Disagree			Unsure			Strongly Agree

1. I'm not certain that I am able produce valid arguments about political issues.  

1	2	3	4	5	6	7
---	---	---	---	---	---	---
2. At times I think I'm no good at all.  

1	2	3	4	5	6	7
---	---	---	---	---	---	---
3. I'm not very confident in my thoughts about political issues.  

1	2	3	4	5	6	7
---	---	---	---	---	---	---
4. I am able to do things as well as most other people.  

1	2	3	4	5	6	7
---	---	---	---	---	---	---
5. I've been pretty successful in debates and political discussions.  

1	2	3	4	5	6	7
---	---	---	---	---	---	---
6. I do not believe that my thoughts about politics are as valid as others individuals.  

1	2	3	4	5	6	7
---	---	---	---	---	---	---
7. I am not confident that my thoughts can help me overcome challenges to my political beliefs.  

1	2	3	4	5	6	7
---	---	---	---	---	---	---
8. Even when others get discouraged, I know I can find a way to solve the problem.  

1	2	3	4	5	6	7
---	---	---	---	---	---	---
9. I am not sure that my thoughts about the issues like the environment, gay rights, and immigration are accurate.  

1	2	3	4	5	6	7
---	---	---	---	---	---	---
10. I am easily defeated in an argument.  

1	2	3	4	5	6	7
---	---	---	---	---	---	---
11. When my beliefs are tested, I lose confidence in my thoughts.  

1	2	3	4	5	6	7
---	---	---	---	---	---	---
12. On the whole, I am satisfied with myself.  

1	2	3	4	5	6	7
---	---	---	---	---	---	---
13. I don't have many valid thoughts to contribute to political issues.  

1	2	3	4	5	6	7
---	---	---	---	---	---	---

APPENDIX F  
ARGUMENT RATING DISTRACTOR TASK

This part of the experiment will have you acting as a participant coder. The following form is a randomly selected transcription of a participant's written responses from part 1 of this study. We are interested in how people might evaluate spoken arguments differently than written arguments. Please evaluate the participant's responses on the following dimensions.

- **Validity** is the degree to which an argument is free from logical flaws, compelling, rational, and well reasoned.
- **Effectiveness** is meant to reflect the degree to which the rater found the arguments convincing, persuading them to potentially agree.
- Finally, raters were asked to rate the **overall strength** of the arguments which is meant to convey how strong the argument is using all of the previous criteria and any other criteria the rater deemed relevant.

**GAY RIGHTS**

**Transcript**

[I don't really have anything to say about this topic. I have mixed feelings and am not sure I know enough about all angles on this topic to comment. ]

<b>Validity</b>	Poor	_____	_____	_____	_____	_____	_____	Excellent
				Average				
<b>Effectiveness</b>	Poor	_____	_____	_____	_____	_____	_____	Excellent
				Average				
<b>Overall</b>	Poor	_____	_____	_____	_____	_____	_____	Excellent
				Average				

**To what extent do you believe that THIS PARTICIPANT will able to make valid arguments about this issue in a discussion.**

	1	2	3	4	5	6	7
	Not at all						Definitely Able

**THE ENVIRONMENT**

**Transcript**

[I think that a law that requires manufacturers to increase fuel economy is unfair. I don't think the government should be able to tell car companies how to run their business. If consumers want fuel efficient cars then the manufacturers can compete to make the most fuel efficient car in order to meet this demand. The same is true for recycling. I think energy conservation is important, but it shouldn't be mandated. ]

<b>Validity</b>	Poor	_____	_____	_____	_____	_____	_____	Excellent
				Average				
<b>Effectiveness</b>	Poor	_____	_____	_____	_____	_____	_____	Excellent
				Average				
<b>Overall Strength</b>	Poor	_____	_____	_____	_____	_____	_____	Excellent
				Average				

**To what extent do you believe that this participant will be able to make valid arguments about this issue in a discussion.**

	1	2	3	4	5	6	7
	Not at all						Definitely Able



APPENDIX G  
POST DISCUSSION MEASURE OF VALENCE

**YOUR REACTIONS:**

*Please indicate your degree of agreement with each of the following statements:*

<b>1</b> Strongly Disagree	<b>2</b> Disagree	<b>3</b> Slightly Disagree	<b>4</b> Neutra 1	<b>5</b> Slightly Agree	<b>6</b> Agree	<b>7</b> Strongly Agree
----------------------------------	----------------------	----------------------------------	-------------------------	-------------------------------	-------------------	-------------------------------

1. Overall, I had a positive reaction to the points others raised in the discussion.  
1            2            3            4            5            6            7
2. More often than not, I disliked what others in the group had to say.  
1            2            3            4            5            6            7
3. I felt good about the opinions expressed by the group.  
1            2            3            4            5            6            7
4. I found that I felt negatively about what the group was saying.  
1            2            3            4            5            6            7
5. I believe I made strong arguments in favor of my position.  
1            2            3            4            5            6            7
6. I believe that I learned things that made me reconsider my position.  
1            2            3            4            5            6            7
7. I believe the experience made me stronger in my original position.  
1            2            3            4            5            6            7
8. I felt pressure to go along with the group.  
1            2            3            4            5            6            7
9. Most of the students from MSU are not open minded enough to appreciate my position.  
1            2            3            4            5            6            7
10. I didn't want to upset anyone.  
1            2            3            4            5            6            7
11. It's important to me that other people did not think I was biased.  
1            2            3            4            5            6            7
12. I didn't worry about offending people in the group.  
1            2            3            4            5            6            7
13. I felt uncomfortable in the group.  
1            2            3            4            5            6            7
14. I felt others knew more about the issue than I did.  
1            2            3            4            5            6            7
15. It was important to me to get along with people in the group.  
1            2            3            4            5            6            7
16. I just didn't really care about the issue enough to really get involved.  
1            2            3            4            5            6            7
17. I felt like I didn't belong in the discussion/group.  
1            2            3            4            5            6            7
18. I felt I was able to produce valid arguments in the discussion.  
1            2            3            4            5            6            7
19. I was not confident in my thoughts during the discussion.  
1            2            3            4            5            6            7

20. I was confident that my thoughts were accurate.

1            2            3            4            5            6            7

21. I felt like I lost some confidence in my thoughts about the issue that was discussed.

1            2            3            4            5            6            7

APPENDIX H  
POST DISCUSSION ATTITUDE CHANGE MEASURE

Participant #: \_\_\_\_\_

**YOUR FINAL WORD:**

*Please indicate your degree of agreement with each of the following statements*

<b>1</b> Strongly Disagree	<b>2</b> Disagree	<b>3</b> Slightly Disagree	<b>4</b> Neutral	<b>5</b> Slightly Agree	<b>6</b> Agree	<b>7</b> Strongly Agree
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1. Homosexuals should be allowed to marry, legally.  
1            2            3            4            5            6            7
2. Sexual orientation should be included as a protected class in anti-discrimination policies  
1            2            3            4            5            6            7
3. Sexual orientation should be included as a protected class in anti-hate crime laws.  
1            2            3            4            5            6            7
4. Homosexuals should be able to adopt children  
1            2            3            4            5            6            7
5. The armed forces are right to exclude homosexuals from military service.  
1            2            3            4            5            6            7
6. Employers should provide health care benefits to the partners of their gay and lesbian employees.  
1            2            3            4            5            6            7