

Implicit Measures of Homophobia and Stigmatization of Same-Sex Couples

by

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A Thesis Presented in Partial Fulfillment
of the Requirements for the Degree
Master of Science

Approved June 2013 by the
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ARIZONA STATE UNIVERSITY

August 2013

ABSTRACT

While acceptance towards same-sex marriage is gradually increasing, same-sex marriage is banned in many states within the United States. Laws that prohibit same-sex couples from marrying have been shown to increase feelings of depression, exclusion, and stigma for same-sex attracted individuals. The intention of this study was to explore the effect both pro- and anti-same-sex marriage advertisements have on heterosexual individuals' implicit attitudes towards same-sex couples. It was predicted that exposure to anti-same-sex advertisements would lead to viewing same-sex couples as more unpleasant and heterosexual couples as being more pleasant. However, heterosexual participants who viewed anti-same-sex marriage ads were more likely to rate heterosexual couples as being unpleasant and same-sex couples as pleasant. It is theorized that viewing anti-same-sex marriage advertisements led heterosexual individuals to report heterosexual stimuli as being more unpleasant compared to same-sex stimuli as a form of defensive processing.

Keywords: *Same-sex, heterosexual, political advertisements, affect misattribution procedure, same-sex marriage, Proposition 8, sexual stigma*

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INTRODUCTION

As of May 2013, a total of twelve states (Connecticut, Delaware, Iowa, Maine, Maryland, Massachusetts, Minnesota, New Hampshire, New York, Rhode Island, Vermont, and Washington), as well as the District of Columbia and three Native American tribes (the Coquille Indian Tribe, the Suquamish tribe, and the Little Traverse Bay Bands of Odawa Indians) recognize same-sex marriage (Williams, 2012). However, 38 other states have constitutional amendments that ban same-sex marriages (Stein, 2012). Laws that ban same-sex marriages have been shown to increase feelings of stigma, depression, and anxiety for members of the LGBTQ community (Herek, 2006; Rostosky, Riggle, Horne, & Miller, 2009).

While prejudice towards same-sex couples and the LGBTQ community is decreasing and the approval of same-sex marriage gradually increasing, same-sex marriage remains a controversial topic (Herek, 2006). Furthermore, while explicit prejudice towards marginalized group may not be considered socially acceptable, implicit biases and prejudice, occurring unintentionally without consciousness, still exist and may be more resistant to alterations (Brauer, Wasel, & Niedenthal, 2000; Devine, 2001; Karpinski, Steinman, & Hilton, 2005). Studying implicit prejudice may become increasingly important, as it can reflect underlying attitudes and beliefs. As public opinion becomes more explicitly favorable towards same-sex couples, people may become less likely to explicitly express or state sexual prejudice. Therefore, exploring implicit sexual prejudice may become more important in studying implicit sexual prejudice and biases. One useful way to explore implicit biases and attitudes using implicit measurements can be done via tests such as the Implicit Associations Test (IAT)

or the Affect Misattribution Procedure (AMP) (Greenwald, McGhee, & Schwartz; Payne, Cheng, Govorun, & Stewart 2005). The intention of this study was to determine whether exposure to relatively “minor” instances of prejudice, in the form of same-sex marriage political advertisements, influenced implicit attitudes towards same-sex couples. It was predicted that viewing anti-same-sex marriage advertisements would lead to greater ratings of same-sex stimuli as being unpleasant and ratings of heterosexual stimuli as being more pleasant.

REVIEW OF LITERATURE

Marriage Laws

Intended to protect its constituents, laws restricting marriage and sexual acts in the United States date back to the 1700s (Cantor, Cantor, Black, & Barrett, 2006). The origins of sodomy laws and bans on “sexually deviant” behavior stem from the rise of Christianity in Western society. Homosexuality was considered to be one of the worst religious sins. According to the Old Testament book of Leviticus, sexually deviant acts included homosexual acts as well as incest, sexual activities with animals, and extra-marital affairs, all of which were said to be punishable by death (Cantor, et al., 2006). A further reflection of the role of religious morality can be seen via laws that banned interracial marriage – the intention being to keep races pure and promote the superiority of the white race (Ferguson, 2000). While interracial marriage was not legalized until 1967, sodomy, defined as the act of “any sexual act involving the sex organs of one person and the mouth or anus of another,” (p. 7) was classified as felony in all fifty states of the United States until 1962 (Cantor, et al., 2006).

Gradually, states began either repealing their bans of sodomitic acts or reducing the punishment, leaving only thirteen states still banning sodomitic acts by 2003 (Cantor, et al., 2006; Stein, 2012). Of those thirteen, *four* states specifically banned same-sex sodomy exclusively (Stein, 2102). However, it was not until the *Lawerence v. Texas* trial in 2003 when sodomy laws were completely overturned throughout the entire United States. Considered a groundbreaking case, the June 26, 2003 verdict by the United States Supreme Court struck down the sodomy law in Texas with a 6-3 vote. The verdict repealed sodomy laws and by extension legalized same-sex sexual activity in the U.S (Cantor, et al., 2006). It was argued that state sodomy laws criminalizing private sexual acts between consenting adults was a violation of the privacy rights outlined by the due process clause of the Fourteenth Amendment of the U.S. constitution (Cantor, et al., 2006; Stein, 2012).

The same due process clause of the Fourteenth Amendment was also used to repeal laws that banned interracial marriage (Cantor, et al, 2006; Eskridge, 1993; Stein, 2012). While supporters of same-sex marriage and LGBTQ rights often draw from and compare the LGBTQ movement to that of the Civil Rights movement in the United States, this is not necessarily an equal comparison (Somerville, 2000; Stein, 2012). The LGBTQ rights movement and the Civil Rights movement are two inherently different movements. In particular, it is important to note that the LGBTQ rights movement has historically been led by privileged, middle class, white men (Somerville, 2000; Stein, 2012).

By legally defining marriage to include only heterosexual couples, opponents of same-sex marriages have been legally allowed to refuse same-sex marriages. Restricting

marriage to heterosexual couples is not legally considered to be discriminatory in the way as the restriction of interracial marriage. The argument is that same-sex couples were not being restricted from marriage because of their sex, but because of the state definition of marriage (Eskridge, 1993). Opponents of same-sex marriage use three types of arguments against same-sex marriage: 1) same-sex marriage contradicts nature and the history/essence of marriage (e.g., lack of procreation), 2) same-sex marriage contradicts community and traditional moral values (e.g., the traditional two-parent family), and 3) same-sex marriage would disrupt the status quo (Eskridge, 1993).

Passed by Congress in 1996, the Defense of Marriage Act (DOMA) defines marriage as the union of one man and one woman, denying federal recognition of same-sex marriage. However, since Vermont became the first state to legalize same-sex unions in 2000 a total of twelve states recognize same-sex marriage (Cantor, et al., 2006; Stein, 2012). Therefore, while same-sex couples living in one of the twelve states may reap the benefits of marriage at a state level, they are still denied more than 1000 federal benefits granted to married couples. Federal benefits granted to married heterosexual couples include: immigration, Social Security benefits, inheritance, Medicaid, veteran's benefits, healthcare and insurance benefits granted to people serving in the military or working in federal government jobs (Cantor, et al., 2006; Herek, 2006; Sherman, 2013; Stein, 2012).

Presently, there are two court cases regarding same-sex marriage waiting to be heard by the United States Supreme Court - *Hollingsworth v. Perry* and *the U.S. v. Windsor*. *Hollingsworth v. Perry* is arguing the constitutionality of California's ban on same-sex marriage that was passed via Proposition 8 in 2008, while *the U.S. v. Windsor*

concerns the legality of DOMA and the lack of federal recognition of same-sex couples. Both cases are currently scheduled to be heard in June of 2013 (Sherman, 2013).

Marriage Laws and Sexual Stigma and Prejudice

Sexual stigma is defined as “society’s shared belief system through which homosexuality is denigrated, discredited, and constructed as invalid relative to heterosexuality” (Herek, Chopp, & Strohl, 2007). Sexual prejudice is defined as “negative judgments directed at sexual minorities, their communities, and their relationships” (Rotosky, Riggle, Horne, Denton, Huellemeier, 2010). Minority stress is defined as “the chronic stress that results from an individual’s continual efforts to cope with and manage a stigmatized social status” (Rotosky, et al, 2010).

In addition to experiencing minority stress, unmarried same-sex couples face an increased amount of financial stress (Herek, 2006). Compared to married heterosexual couples, unmarried same-sex couples are provided limited or no job benefits including family leave, health insurance, pension plans, etc. (Herek, 2006).

While there are twelve states that recognize same-sex marriage, those states are the exception, not the rule. Marriage is defined as a union between one man and one woman in a total of 38 states, with a total of 32 states having amendments in their state constitutions banning same-sex marriage (Cantor, et al, 2006; Sherman, 2013; Stein, 2012). Same-sex couples living in states that have passed laws defining marriage as a union between a man and a woman report increased feelings of alienation, anger, and sense of betrayal (Rotosky, et al, 2009).

Laws that ban same-sex marriage have been shown to increase feelings of stigma as well as higher rates of depression among the lesbian, gay, bisexual, transsexual, and

queer/questioning (LGBTQ) community (Rotosky, et al, 2009). While Vermont was the first state to recognize same-sex couples, it is important to note that Vermont grants *civil unions* and not marriages (Cantor, et al., 2006; Stein, 2012). While civil unions grant same-sex couples all of the same benefits of marriage that heterosexual couples have, it can be argued that denying same-sex couples the label of marriage devalues and delegitimizes same-sex relationships (Herek, 2006). The implication of allowing same-sex couples “civil unions” instead of “marriages” implies that same-sex couples are inferior to heterosexual couples; this further perpetuates differences in power and status between heterosexual and same-sex couples (Halberstam, 2012; Herek, 2006; Stein, 2012). This also leads to feelings of sexual stigma for same-sex couples (Herek, 2006).

Political campaigns that promote bans on same-sex marriage utilize false stereotypes and misinformation to create negative messages about same-sex couples; for example, the stereotype that gay men are pedophiles or that same-sex marriage will corrupt or confuse children are often portrayed in anti-same-sex marriage ads (Rotosky, et al, 2009; Rotosky, et al, 2010; Stone, 2011). These messages have been shown to both reinforce and amplify sexual prejudice, particularly activating and perpetuating the belief that gay men are pedophiles (Bosson, Haymovitz, & Pinel, 2004; Rotosky, et al, 2009; Rotosky, et al., 2010).

Implicit and Explicit Prejudice and Biases

Explicit and implicit prejudice are considered to be parallel to explicit and implicit cognitive processes; explicit cognitive processing is conscious, effortful, intentional, and demanding of cognitive resources, while implicit cognitive processes are unconscious, effortless, unintentional, and do demand cognitive resources (Brauer, et al.,

2000). However, these distinctions between explicit and implicit processes do not mean that the two are not related or connected to one another.

When an issue is considered important, people are likely to seek out relevant information and actively think about the issue. This creates a more stable and more accessible attitude, which is more likely to be activated when the people encounter the important issue. Thus for important issues, implicit and explicit measures may be assessing the same evaluative information. For issues that are deemed less important, evaluations are less accessible. When constructing their explicit attitudes about a less important topic, people may be more influenced by the context and situation they are in, rather than critically thinking about the issue at hand. Therefore, when people are more motivated and are given the chance to report their evaluations of a topic explicitly, there will be a greater resemblance between implicit and explicit attitudes for important issues than for unimportant issues (Karpinski, et al., 2005).

While it may be less socially acceptable to explicitly express prejudice against minority groups, prejudice towards minority group members still exists. Research exploring prejudice has concluded that explicit and implicit attitudes are both related to behavior, but to different kinds of behavior. Tests that explore implicit attitudes are better than explicit measurements because they are able to explore automatic attitude; therefore, it is more useful to use implicit tests to gain a greater understanding of underlying, unconscious attitudes and prejudices towards minority groups (Lambert, Payne, Ramsey, Shaffer, 2005).

Specifically, scales directly asking participants about their attitudes towards a particular group (e.g., the Modern Racism Scale) may not yield accurate reflections of

participants' attitudes and biases (Brauer, et al., 2000). One study found that participants' responses were influenced by the race of the experimenter who administered the questionnaire; White participants completing the scale in the presence of a Black experimenter reported lower prejudice scores, compared to White participants completing the scale in the presences of a White experimenter (Brauer, et al., 2000). Scales that explicitly measure participants' levels of prejudice and biases are more vulnerable to reflecting socially desirable results as well as situational pressures. Therefore, psychologists have begun to explore automatic processing of information using implicit measures to explore levels of prejudice (Brauer, et al., 2000; Lambert, et al., 2005; Payne, et al., 2005).

When exploring implicit measures of prejudice, researchers strive to evaluate automatic responses to a particular stimulus. If a negative response is automatically activated when a participant is exposed to a member of a target group, this is considered to be an indication of prejudice (Brauer, et al., 2000). In order to properly assess automatic responses, the target stimulus is presented outside of the participants' conscious awareness. In order to avoid responses based on social desirability or self-presentation concerns, participants must be unaware of the purpose of the task as well as the presentation of the target stimuli (Brauer, et al., 2000; Karpinski, et al., 2005; Payne, et al., 2005).

The implicit associations test (IAT) has become one of the most widely used measurements of implicit attitudes and biases (Karpinski, et al., 2005). The IAT measures the associations of two targets with a particular attribute; for example, the targets may be flowers and insects, with the attribute of either pleasant or unpleasant. Participants are

instructed to associate each target with an attribute (e.g., a flower with pleasant, an insect with unpleasant). When highly associated targets and attributes are matched (e.g. a flower with pleasant), performance increases compared to when less associated targets and attributes are paired (e.g., an insect and pleasant) (Greenwald, et al., 1998). The IAT factors response time as well as error rates when determining levels of implicit biases.

The IAT suggests that individuals who have greater implicit prejudices or biases are more likely to associate stereotypically related pairs with a faster response time and less error than with unrelated pairs. For example, when an image of an African American is paired with the word “bad,” an individual who has an implicit bias against African Americans will be faster to associate the pair together than when the image is associated with the word “good” (Greenwald, et al., 1998). The IAT has been shown to be a valid and reliable reflection of implicit biases and attitudes (Brauer, et al., 2000; Greenwald, et al., 1998; Karpinski, et al., 2005).

Another way to explore implicit attitudes can be done by unconsciously priming participants with target stimuli and asking them to assess an ambiguous target to reflect their implicit attitudes towards the prime. Murphy and Zajonc (1993) conducted a study in which participants were shown images too briefly to be identified, followed by Chinese symbols that participants then rated based on pleasantness. The ratings of the Chinese characters were shown to reflect the image that had preceded it. Modeled after Murphy and Zajonc’s (1993) findings, the Affect Misattribution Procedure (AMP) presents priming images at a visible speed, followed by ambiguous Chinese characters, which participants are asked to judge as either pleasant or unpleasant. Participants are

directly told to ignore the preceding picture and focus exclusively on the Chinese symbol, determining if it is pleasant or unpleasant (Payne, et al., 2005).

Unlike the IAT, which only uses a bipolar categorization of “good” or “bad”, the AMP can be modified to include a continuous rating scale, allowing for a more realistic and better understanding of implicit attitudes (Payne, Hall, Cameron, Bishara, 2010). In addition, the AMP is not reliant on reaction time the way the IAT is (Hall & Payne, 2010).

The goal of this study was to explore how political advertisements that either refuted or promoted same-sex marriage influenced heterosexual individuals’ implicit attitudes towards same-sex couples. I hypothesized that viewing anti-same-sex marriage political advertisements would lead to stronger implicit negative attitudes towards same-sex couples, indicated by rating same-sex stimuli as more unpleasant compared to neutral stimuli. I hypothesized that viewing pro-same-sex marriage advertisements would lead to stronger implicit positive attitudes towards same-sex couples, reflected by higher ratings of pleasantness towards same-sex stimuli compared to neutral.

METHOD

Participants

Participants (N=51) were recruited via online via SONA system. Participants were also told about the study in an introductory Psychology class. Participation in the study required that students attend a scheduled time-slot at the Stress and Social Relations Lab on ASU West’s campus. Participants were given the option of either a \$5

gift Target gift card or 2 units of research credits as compensation for their time; completion of the study was not a requirement to receive compensation.

To avoid bias, participants were told they would be taking part in a study that would look at political attitudes and decision-making. Because part of the study entailed rating Chinese characters only people who could not speak or read Chinese were recruited to avoid bias.

The age of participants ranged from 18 years to 60 years old, with the mean age of 25.22 (SD=9.192). A total of 15 males and 36 females participated in the study.

Forty-nine people (96.1%) reported their sexual orientation as straight, while one person reported being bisexual, and another person reporting a sexual orientation of “other.” Because only two participants reported a sexual orientation as something different than heterosexual, they were excluded from the analysis.

Out of the 49 people used in the analysis for this study, 12 reported a political affiliation of republican; 17 people identified as democrats, while the remaining 20 participants identified as “independent.”

A total of 37 participants listed their religious affiliation as Christian. One participant reported a religious affiliation of Muslim, while two people identified themselves as spiritual. A total of 5 people listed their religious beliefs as agnostic, with the remaining 4 participants identifying themselves as atheist.

Although participants were randomly assigned (via the SurveyMonkey website) to either view anti-same-sex marriage advertisements or pro-same-sex marriage advertisements, I unfortunately ended up with a total of 37 (72.5%) participants assigned

to the anti-same-sex marriage condition, while only 14 (27.5%) people were assigned to the pro-same-sex marriage condition. I return to this issue in the Discussion section.

Procedure

Participants were randomly assigned to one of two groups – either the pro- or the anti-same-sex marriage ads among a series of ten videos. Each participant viewed a total of ten videos – six neutral and four videos either supporting or opposing same-sex marriage. All of the videos were real political advertisements.

Immediately after viewing the advertisements, participants were told they would be completing a task on the computer studying decision-making under distracting conditions. In reality, they were completing a version of the Affect Misattribution Procedure (AMP), which explored implicit attitudes towards same-sex couples.

Participants completed the entire study on a computer. They began by filling out demographic information including their gender identity, sexual orientation, major in school, and economic income as well as the PANAS. They were then unknowingly randomly assigned to either view anti- or pro-same-sex marriage political advertisements. Participants viewed a series of ten videos total, six of which were neutral with the remaining four either anti- or pro-same-sex marriage advertisements (see Appendix E for the list and brief description of videos).

After watching the political ads participants were told they were going to complete a task that explored their decision-making. In reality, they were completing an Affect Misattribution Procedure (AMP) (Payne, et al., 2005). Participants were told they were to be shown pairs of images that would flash across the screen. They were told to ignore the first image and that it would be a signal that the second image was about to

appear. The second picture would be an image of a Chinese symbol. Participants were told to rate the symbol based on how pleasant they found it on a scale of 1 to 5.

Participants were told to respond with their “gut feeling as quickly as possible.”

Once participants completed the task, they were debriefed and asked to sign a consent form.

Materials

Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) The PANAS consists of twenty total descriptors that explore both positive affect (PA) and negative affect (NA). The ten PA descriptors reflect the extent to which a person feels enthusiastic, active, and alert. Someone with high PA is characterized by a state of high energy, full concentration, and pleasurable engagement, while someone with low PA will demonstrate sadness and lethargy. Contrastingly, NA exposes subjective distress and unpleasurable engagement that reflects aversive mood states such as anger, contempt, disgust, guilt, fear, and nervousness. Someone with high NA is characterized as being angrier, fearful, nervous, and anxious, while someone with low NA is shown to have more of a calm and serene state.

Participants were asked to rate on a scale of one to five (very slightly or not at all, a little, moderately, quite a bit, extremely) the extent to which they were presently experiencing the listed feelings and emotions. While the PANAS may be used to determine overall traits and disposition, it can also be adjusted to explore current mood and affect. For the purposes of this study, the PANAS scale was used to control for

participants' mood and state during the study, as opposed to looking at their general disposition and trait.

Political Ads. The political advertisements used in this study were all found on YouTube and saved to a YouTube channel (available online at <http://www.youtube.com/playlist?list=PL8E13685A59B7A4BF>). A total of fourteen videos were used, six of which consisted of neutral advertisements, four of anti-same-sex marriage advertisements, and another four of pro-same-sex marriage advertisements. The same six neutral videos were used in both conditions. Neutral videos consisted of advertisements for tax reforms, funding for education, clean energy, and the legalization of marijuana.

Three of the four anti-same-sex marriage advertisements promoted voting yes on California's Proposition 8 that would define marriage as a union between a man and a woman. The other anti-same-sex marriage advertisement was identical to California's prop 8 but for the state of New Hampshire. All of the anti-same-sex marriage advertisements invoked either the use of or the mention of children; the suggestion in all of the advertisements was that allowing same-sex couples to marry would confuse children. This is a common strategy of anti-same-sex advertisements (Stone, 2011).

Two of the four pro-same-sex marriage videos used in this study also discussed California's Proposition 8, advocating for constituents to vote no on defining marriage in California as between one man and one woman. The Governor of New York was shown in the third video promoting same-sex marriage and equality. The fourth pro-same-sex marriage video showed a relationship with a man through the eyes of the man's partner; the video showed the normal timeline of a relationship – the first meeting, fights, moving

in together, going on dates – and ended with a marriage proposal. The camera zooms out at the end of the video, revealing that the man’s partner is another man.

After each video, participants rated their overall impression, the extent to which they agreed with the advertisements, and their likelihood of voting for the proposed advertisement. Participants rated all three on a five-point scales; impression ranged from not at all likable to extremely likable; likelihood of voting ranged from unlikely to likely; extent to which people agreed ranged from disagree to agree.

The extent to which participants agreed with, their likelihood of voting for, and their overall impression of the same-sex marriage advertisements were found to be $\alpha = .95$. Therefore a composite scale of the three variables was created and used to account for overall opinions about both the pro- and anti-same-sex advertisements.

Affect Misattribution Procedure (AMP; Payne, Cheng, Govorun, & Stewart 2005). Affect is considered to be a rudimentary pleasant or unpleasant reaction. While it is subjectively experienced, it is the product of underlying conscious or unconscious processes. Unlike emotions, the affect measured by the Affect Misattribution Procedure differs from an emotional response because it has not been gauged as having a specific source or context. Therefore, the affect a person experiences can be attributed or misattributed to various sources (Payne, et al., 2005). Misattributing an affective reaction to a stimuli means “mistaking an effect of one source for the effect of another,” often seen through projection, in which true source is the self and the effect is attributed to external source (Payne, et al., 2005).

The AMP is an indirect measure of implicit attitudes and feelings towards particular stimuli. The AMP subtly measures the influence that implicit attitudes have on

behavior that may persist even in opposition to participants' intentions (Payne, et al., 2005). A priming stimulus is presented briefly (e.g., a picture of an insect) followed by an ambiguous symbol (e.g., a Chinese symbol). Participants are told to ignore the first image, believing it to be a warning sign that the Chinese symbol is about to appear. Participants are told to rate how pleasant they find the Chinese symbol. However, they are misattributing their attitudes about the prime (e.g., the picture of the bug) to be their attitudes towards the Chinese symbol (e.g., a prime of an insect will result in a less pleasant rating of the Chinese symbol) (Payne, et al., 2005; Hofmann, & Baumert, 2010). Participants are not asked to explicitly report or state their attitudes; rather their attitudes are inferred based on their behavior (Payne, et al., 2005). In the case of our experiment, participants' behavior was measured by their rating on a continuous scale of level of pleasantness.

The AMP was built using E-Prime software on a personal computer (Schneider, Eschmann, & Zuccolotto, 2002). All images for each trial were pre-loaded into graphics memory before the trial commenced. The presentation of each stimulus was randomized for each participant.

As outlined by Payne, et al., (2005) the primes were shown on the center of the computer screen for 75 milliseconds, followed by a mask for 125 milliseconds. The target Chinese symbol was shown in the center of the computer screen for 100 milliseconds, followed by a rating scale. The rating scale ranged from 1 through 5, with a rating of 1 designated as very unpleasant and a rating of 5 designated as very pleasant (Appendix D). The rating scale remained on the screen until a number ranging from 1 through 5 was entered via the computer keyboard.

Initially, a trial version of the AMP was administered using the prime stimuli of insects and flowers. A neutral grey square was used as a neutral prime. Chinese symbols were presented as target primes. Participants were asked to rate how pleasant or unpleasant the Chinese symbol was on a scale of 1 through 5, with 1 being very unpleasant and 5 being very pleasant. Using pleasantness as a continuous variable allowed for a more realistic interpretation as opposed to using a bipolar categorization of either “pleasant” or “unpleasant” stimuli.

Following the practice trial, participants were given the experimental version of the AMP using same-sex couples and heterosexual couples as the primes and with the grey square used as a neutral comparison. Chinese characters were presented and rated using the same outlined scale as above.

RESULTS

It was predicted that exposure to anti-same-sex marriage advertisements would increase the dislike of same-sex couples, indicated by ranking same-sex stimuli as being significantly more unpleasant than neutral stimuli. It was predicted that exposure to pro-same-sex marriage advertisements would decrease the dislike of same-sex couples, indicated by ranking same-sex stimuli as being significantly more pleasant than neutral stimuli.

To test this hypothesis we conducted a 2 (condition: anti- or pro-same-sex marriage) X 3 (prime: same-sex, heterosexual, or neutral) repeated measures ANOVA on ratings of target stimuli, with prime as a within-subject variable. In addition, the composite ad ratings were entered as a covariate to control for participants’ overall impression of the political ads; the overall ratings of same-sex political advertisements

was found to be a significant covariate when exploring target ratings of same-sex stimuli, $F(1,3.469)=4.476, p=.040$. Mood was initially explored as an additional covariate, but was not significant, and was therefore left out of the analysis.

A significant main effect was found for the prime; a same-sex, straight, or neutral prime was found to have a significant effect on rating, $F(2,92)=4.25, p=.02$. However, there was not a significant main effect based on the condition (pro- or anti-same-sex marriage ads), $F(1,46)=1.14, p=.29$. The overall interaction of prime and condition was not significant, $F(2,92)=231, p=.10$. When exploring the effect of primes, there was not a significant difference in ratings between same-sex, heterosexual, and neutral primes among participants who viewed pro-same-sex ads, $F(2,20)=.07, p=.93$. However, there were significant differences between the ratings of same-sex, heterosexual, and neutral primes among the participants who viewed anti-same-sex marriage ads, $F(2,70)=6.60, p=.002$. As seen in Figure 1, contrary to my hypotheses, participants who viewed anti-same-sex marriage ads rated *heterosexual* stimuli as being less favorable ($M=2.315$) compared to same-sex stimuli ($M=2.850$) as inferred based on their ratings of the Chinese characters, $F(1,35)=7.615, p=.009$. There was virtually no difference between their ratings of pleasantness for heterosexual primes and same-sex primes, $F(1,35)=.636, p=.43$.

When the composite score of the overall ratings of same-sex marriage ads ($M=3.469$) was included as a co-variate, there was no significant difference of the ratings of same-sex stimuli between people who viewed anti-same-sex marriage ads ($M=2.850$) and people who viewed pro-same-sex marriage ads ($M=2.2.296$), $F(2,.746)=2.313, p=.105$.

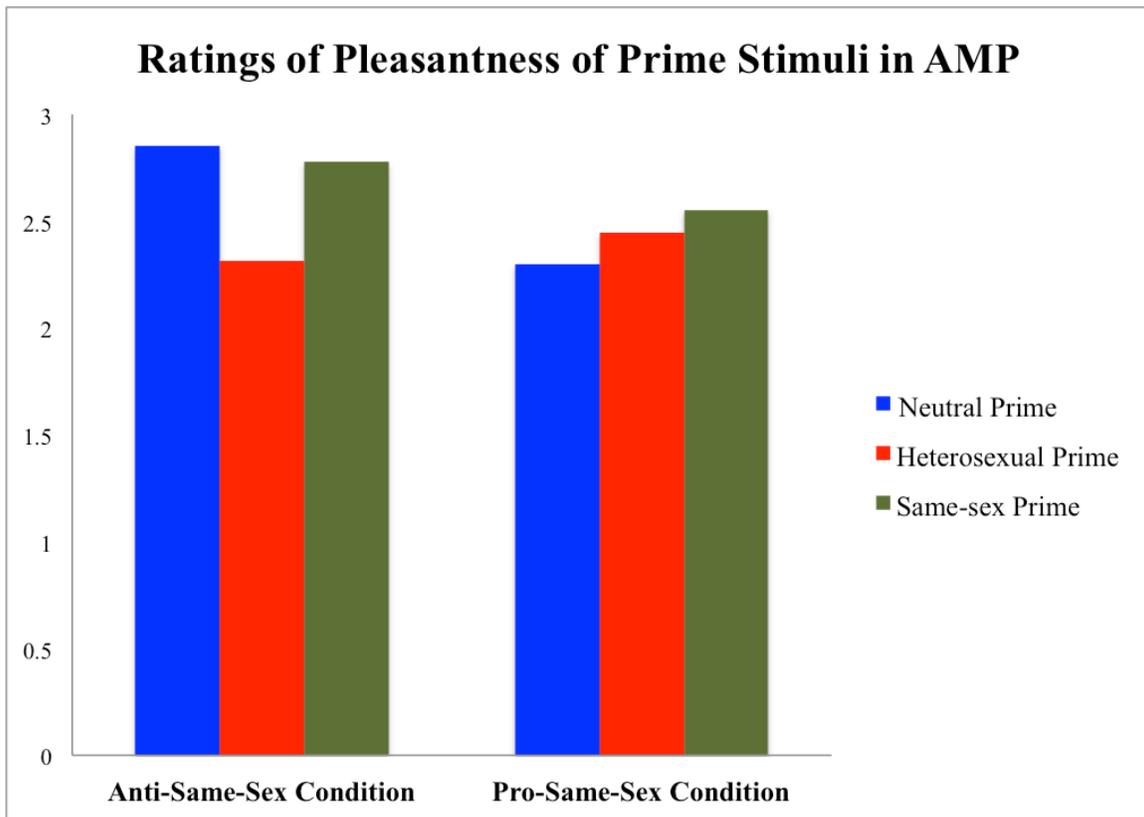


Figure 1

DISCUSSION

It was predicted that participants who viewed anti-same-sex marriage political advertisements would rate same-sex oriented stimuli as more unpleasant and heterosexual stimuli as more pleasant compared to neutral stimuli when tested via implicit measures. It was predicted that participants who viewed pro-same-sex marriage advertisements would rate same-sex oriented stimuli as more pleasant and heterosexual oriented stimuli as more unpleasant compared to neutral stimuli. Contrary to what I expected, people who were exposed to anti-same-sex advertisements were more likely to rate *heterosexual* stimuli as

more unpleasant compared to neutral stimuli. People who were exposed to pro-same-sex marriage advertisements did not rate same-sex or heterosexual stimuli differently. In addition, there was no significant difference in ratings of same-sex oriented stimuli based on exposure to either pro- or anti-same-sex advertisements.

Heterosexuals' awareness of the sexual stigma that sexual minorities experience tends to be made salient when sexual orientation becomes personally relevant (Herek, et al., 2006). In the case of this study, rating heterosexual couples as being more unpleasant compared to same-sex couples after viewing anti-same-sex advertisements could be reflecting the participants' awareness of their position of status and privilege compared to same-sex couples. The salience of the negative treatment towards same-sex couples in the videos may also be activating defensive processing. Theorized to reduce and diffuse a sense of responsibility and blame for a negative outcome, participants may have reported a greater dislike for heterosexual stimuli as a part of defensive processing (Pezzo, 2003).

While personally relevant material may enhance arguments strong and decrease messages with weak arguments, personal relevance has also been shown to inhibit objective processing; this can lead to biased, defensive processing, especially when messages are perceived as threatening (Block & Williams, 2002). Participants who viewed anti-same-sex marriage ads may have been concerned with appearing as responsible for the stigma and oppression of same-sex couples. Rating heterosexual stimuli as being more unpleasant compared to same-sex stimuli have helped reduce and diffuse possible anxiety and feelings of responsibility.

Limitations/Future Directions

One limitation of this study is the use of only heterosexual participants. A follow up study may explore how same-sex marriage advertisements impact the implicit attitudes of same-sex couples; it would be particularly relevant to examine if anti-same-sex advertisements increase internalized homophobia for same-sex attracted people (Meyer, et al, 2006).

There may also be limitations with the political advertisements used; participants may have seen some or all of the videos prior to participating in the study. We did not control for this. In addition, participants were not evenly distributed amongst the two conditions. Despite random selection settings on the SurveyMonkey website, approximately 70% of participants were randomly assigned to view anti-same-sex marriage videos, while approximately 30% were assigned to the pro-same-sex marriage condition. The uneven distribution between conditions may also be contributing to the results.

Research has shown that people who report greater contact with gay men and lesbians, including simply knowing at least one same-sex attracted individual, report more favorable attitudes towards same-sex couples (Lemm, 2008). We did not account for whether participants had personal contact with members of the LGBTQ community.

Another limitation involves the AMP stimuli used. The prime images only featured white, male same-sex couples. There was no use of lesbian couples or more androgynous, gender-bending couples. Therefore the findings of this study should not be considered generalizable when considering implicit attitudes towards other members of

the LGBTQ community, especially lesbian same-sex couples or interracial same-sex couples.

While same-sex marriage is becoming increasingly accepted, the transgender community is not as socially accepted, within heterosexual culture as well as within the mainstream, white, male-dominated, same-sex attracted culture (Halberstam, 2012; Stein, 2012). Given how much of the mainstream same-sex marriage movement fixates on white, male couples it would also be interesting to explore the role of both gender and race and same-sex couples (Halberstam, 2012; Stein, 2012).

Future research may also explore the importance of and the role that language has on attitudes towards same sex marriage. The anti-same-sex marriage campaign predominantly utilizes rhetoric involving protecting children and family values, specifically catering to conservatives. Advocates for same-sex marriages focus more on rhetoric that invokes freedom and equality, accusing opponents of bigotry and hate (Halberstam, 2012; Stone, 2011).

Additional future research may also explore the issue of same-sex couples and adoption. It might be of particular concern to explore attitudes towards same-sex male couples and adoption, considering the stereotyped association of gay men and pedophilia (Bosson, et al, 2004; Stone, 2011).

Considering the negative impacts of laws prohibiting same-sex marriages on same-sex attracted people, more research should be conducted to further explore the effects anti-same-sex marriage campaign advertisements have on views/attitudes towards same-sex couples, particularly for heterosexual individuals (Herek, 2006; Rotosky, et al, 2010). Given the unexpected and unpredicted results found in this study, it would be

particularly helpful to explore if heterosexual individuals report implicit feelings of anxiety about or responsibility for laws that ban same-sex marriage. While explicit prejudice and bias against same-sex couples may be decreasing, bans against same-sex marriages remain a part of the status quo. Exploring the effect that these laws or political campaigns may have on implicit attitudes and feelings may further contribute to understanding the complexity of prejudice towards minority groups.

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APPENDIX A
IRB APPROVAL LETTER



Office of Research Integrity and Assurance

To: Matt Newman
FACULTY/AD

From: *Dr* Mark Roosa, Chair *MR*
Soc Beh IRB

Date: 03/08/2013

Committee Action: Amendment to Approved Protocol

Approval Date: 03/08/2013

Review Type: Expedited F12

IRB Protocol #: 1201007302

Study Title: Implicit Measures of Homophobia and Stigmatization in the LGBTQ Community

Expiration Date: 01/29/2014

The amendment to the above-referenced protocol has been APPROVED following Expedited Review by the Institutional Review Board. This approval does not replace any departmental or other approvals that may be required. It is the Principal Investigator's responsibility to obtain review and continued approval of ongoing research before the expiration noted above. Please allow sufficient time for reapproval. Research activity of any sort may not continue beyond the expiration date without committee approval. Failure to receive approval for continuation before the expiration date will result in the automatic suspension of the approval of this protocol on the expiration date. Information collected following suspension is unapproved research and cannot be reported or published as research data. If you do not wish continued approval, please notify the Committee of the study termination.

This approval by the Soc Beh IRB does not replace or supersede any departmental or oversight committee review that may be required by institutional policy.

Adverse Reactions: If any untoward incidents or severe reactions should develop as a result of this study, you are required to notify the Soc Beh IRB immediately. If necessary a member of the IRB will be assigned to look into the matter. If the problem is serious, approval may be withdrawn pending IRB review.

Amendments: If you wish to change any aspect of this study, such as the procedures, the consent forms, or the investigators, please communicate your requested changes to the Soc Beh IRB. The new procedure is not to be initiated until the IRB approval has been given.

Please retain a copy of this letter with your approved protocol.

APPENDEX B

VIDEO LIST

	Anti-Same-Sex Marriage Condition	Pro-Same-Sex Marriage Condition
Video 1 <i>Neutral</i>	Yes on Prop 111 and 112; local AZ ad to eliminate AZ secretary of state in place of a lieutenant governor	Same as Anti
Video 2 <i>Neutral</i>	Elect Gavin Newsom for Governor of California	Same as Anti
Video 3 <i>Same-Sex Marriage Ad</i>	Tell Governor Lynch to vote no on House bill 436; anti-same-sex marriage ad from New Hampshire presents a series of confused children, asking questions about marriage and who their parents are	Governor of New York advocating marriage equality; says that “government shouldn’t tell you who to love or who to marry”
Video 4 <i>Neutral</i>	Yes on Prop 26; calling hidden taxes “fees”; requires fees to be approved by voters	Same as Anti
Video 5 <i>Same-Sex Marriage Ad</i>	California ad to vote Yes on Prop 8; girl asks her two fathers where babies come from; asks “what’s marriage for?” when told you don’t need to be married to have children	California ad to vote no on Prop 8; targets the Latino population, saying that Prop 8 is not about religion but about discrimination and hate
Video 6 <i>Neutral</i>	Australian ad advocating clean energy, switching from coal	Same as Anti
Video 7 <i>Same-Sex Marriage Ad</i>	California ad to vote yes on Prop 8; two teachers talking about confusing children now that they have to teach children about same-sex relationships in school	California ad to vote no on Prop 8; features parents talking about teaching their children not to discriminate
Video 8 <i>Neutral</i>	California ad to vote yes on Prop 24; advocates for tax reform to increase funding for education	Same as Anti
Video 9 <i>Same-Sex Marriage Ad</i>	Rick Perry for president; talks about decline in Christian values and his disgust with gays serving openly in the military	Australian ad showing viewer as part of a relationship with a man; camera zooms out at end of ad to reveal two men
Video 10 <i>Neutral</i>	California ad to vote yes on Prop 19 to legalize marijuana	Same as Anti

APPENDIX C

SAMPLE AMP PICTURES



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APPENDEX D

AMP RATING SCALE

Rate the character you just saw based on how PLEASANT or UNPLEASANT you found it.

1	2	3	4	5
VERY PLEASANT	PLEASANT	NEUTRAL	UNPLEASANT	VERY UNPLEASANT