TOWARDS AN UNDERSTANDING OF DISGUST REACTIONS TO GAY MEN

A Dissertation in
Psychology
by
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Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Doctor of Philosophy

August 2008
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Three studies investigated the hypothesis that gay men (both in terms of homosexual male behavior and individual targets) elicit moral disgust. In Study 1, participants viewed three film clips designed to elicit neutral emotion, disgust and anger, and also viewed a clip of male homosexual behavior. It was found that men (but not women) expressed feelings of moral disgust to male homosexual behavior: a blend of disgust, and anger. Study 2 found that high endorsers of masculine role norms (particularly anti-femininity) report stronger moral disgust to male homosexual behavior. Study 3 found that when men are threatened with the suspicion that they appear to be gay, they express moral disgust; regardless of the sexual orientation of the person directing the threat. Results from studies 2 and 3 indicate that moral judgments to male homosexuality derive from the repudiation of femininity, and that this relationship is mediated by feelings of disgust.
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ACKNOWLEDGEMENTS

First and foremost I would like to thank Terri Vescio for training me and for instilling in me the skills for a lifelong career of scholarship. Thanks to Reg Adams for inviting me into the world of disgust and for all the conversations over coffee. To my committee members, Janet Swim and Bob Drago: thank you for the gift of your sensitive readings of the work, and for asking me the questions that pushed my thinking and challenged my own underlying assumptions. To my intrepid research assistants: Meredith Gourley, Ron Vega, Heather Sones and Andy Naser—you are best RA’s on the planet. I enjoyed every minute of working with all of you. Thanks to Kat Sinclair for statistical advice, and for numerous careful readings of the manuscript. Also to Kat and Delia: thank you for being such a backbone of support during the process. Lastly, I honor the memory of my parents, Mary and Paul Paolucci, and my beloved partner Steven Wright, all whom I lost during graduate school. Although I miss them every day, I find solace in the thought of how proud they would be of this work, and of me.
Towards an Understanding of Disgust Reactions to Gay men

The purpose of the current work is to gain a richer understanding of the antecedents to and nature of heterosexuals’ felt experience toward gay men. I am interested in heterosexuals’ affective reactions to male homosexual behavior and feeling aroused from gay male targets. Two assumptions guide this work. First, affect aroused from male homosexuality is gendered—that is I expect that the degree and perhaps nature of antigay affect to differ for heterosexual males and females. Second, I focus on a specific but broadly conceptualized emotion, which has repeatedly been found to describe heterosexuals’ feelings toward gay men: disgust.

When perpetrators of hate crimes against gay men are asked what motivated their attack, they often state that they aggressed because they felt disgusted by gay men (Franklin, 1998; 2000). In her investigation of heterosexual men’s motivations to commit acts of antigay violence Franklin (1998) finds that among a non-criminal sample of men who engaged in antigay behaviors, participants justified their violent behavior “as righteous responses to homosexuals’ perceived moral transgressions including flaunting or disgusting behavior” (Franklin, 1998, p. 347).

Several early theoretical accounts of people’s attitudes about homosexuality featured disgust as core to antigay sentiment. For instance, William James (1890) suggested that people have an inborn propensity to be repulsed by homosexuality (which he referred to as an “unnatural vice”, pp. 437-439). James further argued that because people instinctually feel disgusted by homosexuality, tolerance occurs only when this aversion is overcome by habit. Likewise, philosopher and sociologist Edward
Westermarck (1908) described disgust toward homosexuality as a normative reaction, which he describes as “the feeling of aversion or disgust which the idea of homosexual intercourse tends to call forth in normally constituted adult individuals whose sexual instincts have developed under normal conditions” (p. 483, Westermarck, 1908).

Beyond these early theoretical formulations, empirical inquiry into the nature of prejudicial feelings toward sexual minorities did not emerge until the early 1970’s, following the removal of homosexuality from Diagnostic and Statistical Manual of Mental Disorders. Prior to this time, homosexuality was considered to be a mental disorder and because of this theory and research focused on etiology and treatment. Following the removal of homosexuality from the DSM III in 1973 researchers subsequently turned attention to the nature of heterosexual’s antigay sentiment.

Emotional Reactions to Gay Men

A longstanding assumption both in the general public and in the social sciences has been that a common emotion felt toward gay men was fear, or homophobia. The term homophobia, originally coined by Weinberg (1972) was defined as “the dread of being in close quarters with homosexuals.” (p.4). Researchers later argued that homophobia represented an actual phobic response to gay men and lesbian women (see Herek, 2004 for a review), much like phobias (e.g., agoraphobia) described in the Diagnostic and Statistical Manual of Mental Disorders (4th ed. American Psychiatric Association, 1994). More recent research, however, has revealed that fear is infrequently reported when heterosexuals retrospectively recall the emotions they feel when having contact with gay men (Herek, 2004).
Disgust, instead of fear, appears to be the more common affective reaction to gay men (Cottrell & Neuberg, 2005; Herek, 1994; Parrott, Zeichner & Hoover, 2006; Tapias, Glaser, Keltner Vasquez & Wickens, 2007). The most frequent emotion heterosexuals associate with gay men is disgust and more disgust is reported toward gay men than any other outgroup (Cottrell & Neuberg, 2005). In fact, most measures of antigay attitudes also include items assessing disgust toward gay men or same-sex behavior (Frable, Workman, & Joseph, 2001; Herek, 1994; LaMar & Kite, 1998; Larson, Reed, & Hoffman, 1980) and people who are (versus are not) predisposed to experiences of disgust tend to report more antigay prejudice (Ernulf & Innala, 1987; Van de Ven, Bornholt & Bailey, 1996).

Contact with gay men also often inspires feelings of anger. In a series of studies, Parrott and his colleagues (Parrott & Zeichner, 2005; 2006; Parrott, Zeichner & Hoover, 2006) exposed heterosexual men to either opposite or same-sex erotica and measured their emotional reactions. Parrott and colleagues found increased anger in the same-sex, but not opposite-sex, condition (Parrott & Zeichner, 2005; 2006; in press). In addition, increased anger in the same-sex condition was associated with subsequent direct aggression against a gay man (Parrott & Zeichner, 2005).

Some prior research has documented that anger is aroused in response to gay men and other research has noted that disgust is aroused. Although Parrott and colleagues provide a compelling argument for the role of anger in antigay affect, it is unclear as to the relative strength anger would have over disgust in these studies because disgust was not measured. Other researchers maintain that disgust is a strong emotion felt toward gay
men, whereas anger, although aroused, occurs to a lesser extent. For instance, Cottrell and Neuberg (2005) assessed people’s emotions toward a variety of groups including gay men, African-Americans, Asian-Americans, activist feminists, Mexican Americans and fundamentalist Christians. Although anger was a component of affective reactions toward gay men, Cottrell and Neuberg found that disgust ratings were the strongest.

Comparisons of findings across studies are also constrained by methodological variations. In some studies participants reported their feelings toward homosexuality in general (Haidt & Hersh, 2001). In other studies participants rated feelings toward gay men (Cottrell & Neuberg, 2005) or same-sex male behavior (Parrott & Zeichner, 2005; 2006). In still other studies, participants were asked to report affect after being primed with a gay target group, though not in direct response to gay stimuli (Tapias et al, 2007). Because of these inconsistencies, firm conclusions about the relative contributions of disgust and anger toward gay men are premature.

Although gay men have long been regarded with hostility, only recently have researchers begun to identify the specific feelings that comprise such antipathy. In the sections that follow, I first summarize theory and research on disgust as both a basic (pure disgust) and as a moral emotion (moral disgust). I then describe how emotional reactions to gay men constitute an expression of moral disgust, particularly for heterosexual males. Next, I discuss two potential moderators for this effect: masculine role norms and defensiveness (Herek, 1986; 1987). I conclude by summarizing my hypotheses and briefly describe three studies designed to test them.

Disgust as a Basic and Moral Emotion
Emotion theorists and researchers typically distinguish between two forms of disgust: pure disgust and moral disgust (Moll et al, 2005; Olatunji & Sawchuk, 2005; Nabi, 2002; Simpson, Carter, Anthony, & Overton, 2006). The two kinds of disgust are considered below.

**Pure Disgust**

Pure disgust is the term used to refer to the conceptualization of disgust as a basic emotion. More specifically, disgust is an emotional behavior common to most mammals (Darwin, 1872; 1965), evidenced by “a protrusion of the tongue and a flaring of the nares” (Ekman, 1992, p. 160). Although specific definitions vary, common across definitions is the notion that disgust is a response to a revolting and offensive potential contaminate (see Angyal, 1941). At a basic level, disgust is an aversive experience which includes a motivation to expel or break off contact with an offensive and potentially contaminating entity (e.g., feces, Rozin & Fallon, 1987), following a need to wash or purify any remaining residue, real or imagined, of the entity (Moll et. al, 2005; Rozin & Fallon, 1987).

**Moral Disgust**

Moral disgust is a term used to describe disgust responses that have two critical features (Haidt, 2003; see also Haidt, Rozin, McCauley, & Imada, 1997; Moll, et al, 2005; Rozin, Haidt & McCauley, 2000). First, moral disgust refers to emotions that extend beyond the needs and direct interests of the self, and are linked to the interests and welfare of other persons, or of society as a whole. Second, moral disgust is associated with pro-social action tendencies. More specifically, non-moral emotions (e.g., surprise,
fear) may or may not produce action tendencies that benefit the self (e.g., comforting oneself when sad). By contrast, moral emotions (e.g., anger, disgust) produce action tendencies that benefit persons beyond the self (e.g., sadness for hurricane victims).ii Although Haidt (2003) stresses that there are no neat division between moral and non-moral emotions, he notes that disgust is often a moral emotion, hence the term moral disgust (Haidt, Rozin, McCauley & Imada, 1997; Rozin, Haidt & McCauley, 2000).iii

As the above considerations imply, moral disgust differs from pure disgust in two critical ways. First, physical contaminants (e.g., feces) elicit pure disgust, whereas psychological contaminants (e.g., incest, sexual transgressions, hypocrisy) arouse moral disgust. Second, pure disgust and moral disgust differ in terms of the concomitant emotions. Experiences of moral disgust co-occur with feelings anger (Haidt, Rozin, McCauley & Imada, 1997; Rozin, Haidt & McCauley, 2000). For instance, Simpson et al. (2006) found that people felt only disgust following images of physical contaminants (e.g., feces), but both disgust and anger after seeing images of moral violations (e.g., ethnic cleansing). Similar findings were reported by Roberts and Levenson (2006), who found that participants were angry and disgusted when viewing a moral offense (e.g., rape), but only disgusted when viewing clips of physical contaminants (e.g., someone eating feces).

To summarize, disgust is a broadly conceived emotion ranging from an evolved mechanism designed to protect the physical body from potential contaminants (Darwin, 1872; 1965) and from moral offenses to the self. In addition, people respond to
psychological contaminants with feelings of anger and disgust, whereas responses to physical contaminants are associated solely with feelings of disgustiv

Is Antigay Affect an Expression of Moral Disgust?

Given what is currently known of emotional reactions to gay men, some researchers posit that reactions to homosexual behavior and homosexual persons constitute an expression of moral disgust (Haidt & Hersh, 2001; Miller, 1997). To date, however, this suggestion has not been systematically tested.

Recall that moral disgust has two features. First, the stimulus must be perceived as morally offensive. This is likely to be true with homosexuality. An overwhelming majority of Americans consider homosexuality to be immoral, regarding the behavior as wrong and unnatural (Herek, 2000; Herek & Capitanio, 1996; Yang 1997). Recent gallup poll data indicate that, despite a growing trend toward acceptance of homosexuality in the past decade, over one half of Americans consider homosexuality to be morally wrong. This is particularly the case for heterosexual males (Herek) and for conservatives (Haidt and Hersh, 2001).

Second, the stimulus must elicit in the perceiver a blend of disgust and anger. As noted previously, evidence supports that this occurs for heterosexuals’ feelings toward homosexuality. Studies show that people report disgust toward gay men as a group (Cottrell & Neuberg, 2005; Tapias et al., 2007), and anger when viewing male homosexual behavior (Parrott & Zeichner, 2006). In a recent study, Tapias et al. hypothesized that when the category of gay men was primed, participants later reported more disgust toward an unrelated incident, suggesting a link between the category of gay
men and disgust. However, the results showed that the gay category prime elicited comparable levels of disgust and anger, and this was particularly pronounced for males.

**Gender differences in Antigay Affect**

As noted above, men show stronger disgust and anger reactions toward gay men than women (Tapias et al. 2007). This is consistent with findings on antigay prejudice in general. Men consistently hold more pejorative attitudes about homosexuality than do women (see Kite & Whitley, 1996 for a meta-analysis). In fact, heterosexual men’s attitudes toward gay men are more negative than their attitudes toward lesbian women and more negative than heterosexual women’s attitudes toward both gay men and lesbian women (Herek, 2000; Herek & Capitanio, 1998). This suggests a gendering of antigay attitudes. Heterosexual men are not more prejudiced than women about homosexuality *per se*—but are more prejudicial toward *male* homosexuality.

Why would heterosexual men be more prejudiced than heterosexual women against male homosexuality? It appears to be because for heterosexual men (but not women), the renunciation of (male) homosexuality is a repeated practice in both developing and affirming their gender identity (Benke, 1997; Kimmel, 2005; Pascoe, 2005). Research has shown the centrality of homophobic insults to the portrayal of masculinity during adolescence (Pascoe, 2005). According to Pascoe (2005) adolescent males become masculine via the persistent repetition of the word “fag”. The fag, she argues, represents a “failing at the masculine tasks of competence, heterosexual prowess and strength and in anyway revealing weakness.” (Pascoe, 2005, p.330) She further argues that to be called a fag essentially equates to the failure of manhood, but by calling
someone a fag, males are able to assert their manhood. That is, when males call someone a fag they simultaneously assure others that they in turn are not a fag (Pascoe, 2005, 2007).

This practice of renouncing homosexuality in effort to affirm gender identity has not been observed to occur among adolescent girls (Kimmel, 2005; Pascoe, 2005). In Pascoe’s qualitative study of adolescent males and females, she notes that 1) girls rarely if ever used the word fag (or dyke or lesbian), and 2) girls were not called dykes or lesbians (or fags) in any sort of systematic way. In fact, Pascoe (2005, 2007) noted that whereas the word “gay” was found to be a general synonym for “stupid”, “fag” was used solely to denote un-masculine males. According to Kimmel (2005; 2001) this is because masculine role norms are constructed such that a primary objective in proving manhood is to sharply differentiate the self from anything feminine.

I have argued that for heterosexual males, the repudiation of male homosexuality is central to the development and maintenance of their gender identity. In the case of moral disgust, I suggest that males will express moral disgust toward gay men in efforts to repudiate male homosexuality and maintain their gender identity. That is, when men feel threatened by the notion of male homosexuality, I expect moral disgust toward gay men to ensue. Additionally, I expect moral disgust toward gay men to be more pronounced for men who are highly identified with a masculine identity. I elucidate each of these points below in turn.

Male homosexuality as defensiveness threat. The notion of homosexuality as threat was originally articulated by Herek (1984). Herek theorized that a component of
antigay attitudes is defensiveness, which he defined as “coping with one’s inner conflicts or anxieties by projecting them onto homosexual persons” (p. 3). That is, heterosexual men may express antipathy toward gay men in response to the threat of being labeled homosexual (Herek, 1984, 1987, 1988). This threat may derive from the perception that homosexuality violates masculinity or because of unacknowledged same-sex proclivities. In fact, research has shown that when heterosexual males viewed same-sex erotica, men high in antigay prejudice experienced more sexual arousal (measured by penile blood flow) than low prejudiced men (Adams, Wright, & Lohr, 1996).

Evidence of Herek’s defensiveness hypothesis (1984) has not explicitly been tested. However, research shows that heterosexuals are strongly motivated to avoid being classified as gay (Bosson, Prewitt-Freilino and Taylor, 2005), and this is particularly the case for heterosexual men (Kimmel, 2005). Bosson et al. found that when heterosexual men visualized themselves performing cross-gendered activities, they expected to be misclassified as gay. They in turn became more self-conscious and uncomfortable when they expected to be classified as gay. Importantly, however, women did not follow this pattern (Bosson et al., 2005). They neither anticipated misclassification following visualizing cross-gendered behavior nor expressed any self-conscious discomfort. The authors reasoned that, although the behaviors women visualized were masculine (e.g., hunting, watching football), they may not have constituted firm gender role transgression. This is plausible. Gender role transgression is more fluid for females than males (Feinman, 1981), and as such women most likely did not perceive their behavior as evidence of lesbianism.
Although Bosson et al.’s (2005) research shows that heterosexual men experience discomfort at being misclassified as gay, it still does not provide a test of Herek’s (1986, 1987) defensiveness hypothesis, which constitutes directing antipathy to gay men in response to the threat of being labeled as gay.

_Masculine role norms and antigay prejudice._ In his classic conceptualization of masculine role norms, Brannon (1976) presents four domains of manhood, the most critical of which was the repudiation of femininity (“no sissy stuff”, p. 172). The avoidance of femininity is also shown to be an important predictor of antigay prejudice. Wilkinson (2004) assessed masculine role norms and found that the primary predictor of antigay sentiment is anti-femininity (as opposed to component such as power and status or toughness. Wilkinson further suggested that the relationship of masculine role norms to antigay attitudes stems from heterosexual males’ concerns of appearing feminine. Females do not repudiate masculinity to the same extent that males avoid femininity (Pascoe, 2005, 2007). Some cross-gendered behavior may be considered desirable for females. In fact, longitudinal studies show that masculine characteristics during adolescence predict confidence and career success in adulthood (Hilginkamp & Livingston, 2002). Although females to some extent may be concerned about sanctions for gender atypical behavior (Rudman & Fairchild, 2004), it appears that the males are especially vigilant in this regard.

Unfortunately, there has not been research as of yet that specifically examines whether there are gender differences in emotional reactions to gay men and the extent to
which masculine role norms and threat may exacerbate these emotional reactions in heterosexual men.

**Hypotheses and Overview of Proposed Research**

The above rationale provides the framework for several testable hypotheses concerning heterosexuals’ emotional reactions to male homosexual behavior and persons. I describe my hypotheses and summarize the studies by which to test those hypotheses below.

**Moral Disgust**

As noted, moral disgust occurs when a stimulus depicts a moral offense that arouses a blend of disgust and anger. If reactions to homosexual behavior and homosexual persons constitute an expression of moral disgust (Haidt & Hersh, 2001; Miller, 1997), then I would expect two things: 1) gay male persons or behavior must be perceived as morally offensive, and 2) they should elicit heightened disgust and anger. In study 1, I test if gay male behavior elicits moral disgust. I presented participants with four film clips and assessed how immoral they found each clip as well as their emotional reactions to each. Three of the film clips have been used extensively in past research on emotion elicitation (Gross & Levinson, 1995; Hewig, Hagemann, Seifert, Gollwitzer, Naumann, Batussek, 2005). Each of these clips has been previously shown to elicit a distinct emotion: pure disgust, anger, and neutral (baseline). The fourth clip depicts male homosexual behavior (non-genital). I predicted that the gay male clip would be perceived as more morally offensive that the remaining three clips. Second, in comparison to the neutral clip, the gay male clip should elicit both disgust and anger, whereas the disgust
and anger clips should elicit only disgust and anger, respectively. Findings consistent with these two predictions would provide evidence that the gay male clip (male homosexual behavior) indeed elicits moral disgust.

**Gender Differences in Antigay Emotions**

Replicating gender differences in prejudice toward gay men, I predicted that men and women would differ in the extent to which they experience moral disgust. When exposed to a film clip depicting male homosexual behavior, I predicted: 1) heterosexual men would rate the film clip as more morally offensive than heterosexual women, and 2) heterosexual men would report significantly more disgust and anger following the film clip than heterosexual women. That is although women were expected to rate the gay clip as more morally offensive than the remaining three clips, their ratings of the gay male clip were expected to be significantly lower than heterosexual male’s ratings of the same clip. Similarly, I expected that the gay male clip will elicit both disgust and anger in women, but again, I predict these ratings to be significantly lower than men’s disgust and anger ratings.

**Defensiveness Threat**

I predicted that, when threatened, heterosexual men would express more moral disgust toward gay male behavior (Study 2) and gay male targets (Study 3) than non-threatened men. As noted, Herek (1984) suggests that antigay sentiment partially derives from the notion that homosexual behavior and persons are threatening to heterosexual men, particularly because they wish to avoid being misclassified as gay. I extended this prediction to antigay emotions in that I expected that when heterosexual
men are threatened (such as being told they look like they might be gay) increased moral
disgust ensues. In studies 2 and 3, I threatened male participants by providing them with
feedback that another “participant” (either straight or gay) suspected they may be gay. I
expected that participants in the threat conditions will show stronger moral disgust
reactions than non-threatened participants to a film clip depicting gay male affection
(higher immorality, disgust, and anger ratings). In Study 3, I assessed if participants who
are threatened will show greater moral disgust toward the “participant” providing the
feedback than non-threatened participants.

Masculine Role Norms

Because male homosexuality threatens masculine role norms, I predicted that
heterosexual men who strongly endorsed these norms would experience stronger moral
disgust to the gay male film clip than low endorsing men (Study 2). I also expect that
high endorsing men will show increased moral disgust toward a gay male target when
threatened than will low endorsers (Study 3).

Selection of Stimulus Films

Film clips were selected to elicit pure disgust, anger, and neutral emotion. I also selected a film clip depicting male same-sex affection which is hypothesized to
elicit moral disgust. The pure disgust, anger and neutral clips have all been extensively
used in prior research on emotion elicitation (Gross & Levinson, 1995; Hewig,
Hagemann, Seifert, Gollwitzer, Naumann, Batussek, 2005). The disgust film clip (133
seconds total) depicts graphic leg amputation; it has been shown to elicit high levels of
disgust but minimal levels of anger (Gross & Levinson; Hewig et al.). The anger clip
(140 seconds) depicts a teenager being beaten up by a group of older pupils (taken from the film *My Bodyguard*), and has been shown to elicit high anger but minimal disgust (Gross & Levinson; Hewig et al.). The neutral film clip is a scene from the film *All the President’s Men* (150 seconds). It depicts two men in a courtroom having a conversation. This clip was used in prior research by Hewig et al. and was shown to elicit minimal ratings (below 2.5 on an 8 point scale) of positive and negative affect items. The gay male clip is a love scene between two men from the film *Sun-kissed* (approximately 140 seconds total), and includes kissing, undressing, and caressing each other. There is no explicit nudity.

Study 1: Moral Disgust

Study 1 tests two hypotheses. First, I hypothesized that moral disgust ensues when heterosexuals view homosexual male behavior. I tested this hypothesis by presenting each of the four film clips described above: (1) pure disgust (Gross & Levinson, 1995; Hewig, Hagemann, Seifert, Gollwitzer, Naumann, Batussek, 2005), (2) anger (Gross & Levinson; Hewig et al.) (3) neutral (Hewig et al.), and (4) gay male affection. In order to support the moral disgust hypothesis, three specific predictions were made. First, the gay clip should have been rated as more morally offensive than the remaining three clips. Also, the gay clip should have elicited both disgust and anger, whereas the disgust and anger conditions should have elicited only disgust and anger, respectively. Taken together, support for these predictions would provide evidence consistent with the theoretical assumptions of moral disgust. That is, 1) the stimulus is considered morally offensive and 2) the stimulus elicits a blend of disgust and anger.
The second hypothesis was that, compared to females, males would rate the gay clip as more morally offensive and report stronger feelings of disgust and anger. Consistent with previous research on the validation of the remaining film clips (Gross & Levinson, 1995; Hewig et al., 2005), gender differences in the disgust, anger and neutral conditions were not expected.

To test these predictions, I presented participants with the four film clips described in the previous section – neutral, pure disgust, anger and gay male behavior. The order of the clips was fully counterbalanced. Participants then completed affect and morality ratings for each clip immediately after viewing them.

Method

Participants and Design

This study is a gender (male vs. female) by type of film clip (neutral, disgust, anger, gay) mixed model design. Gender is between-participants and film clip is within-participants. A power analysis was performed using the present study conditions and moderate effect sizes reported for affect ratings reported by Simpson et al (2006). Twenty-five participants in each cell ensured power of .95. Thus, participants were 57 undergraduates (29 males; 23 females) enrolled in introductory psychology classes. They were run in groups of seven at separate computers.

Procedure

After providing informed consent, participants were told that the purpose of the study was to examine their emotional reactions to film clips, and that they would be viewing four short film clips. They were directed to their computer screens and were
told that they would view four clips (counterbalanced for order, using a Latin square design). After viewing each film clip, they completed the dependent measures. They were then debriefed and thanked for their participation.

Dependent Measures

Emotional reactions to film clips. Anger was measured with items from Watson and Clark’s (1994) anger-hostility subscale (AHS), which is an ancillary section to the PANAS containing five items (angry, hostile, irritable, scornful, loathing) that specifically assesses anger (used by Parrott & Zeichner, 2006; in press). Disgust was measured with five items used in my previous research on implicit attitudes (revolted; disgusted, repulsed, grossed-out, sick to stomach; Callahan, Vescio, Thomas & Schlenker, in preparation). All items were rated on an 8-point scale (0 = very slightly felt to 7 = extremely felt). In addition to anger and disgust items, several other emotions were listed as filler items (see Appendix A).

Morality Ratings

Along with the emotion ratings participants also completed an item asking how morally offensive the acts depicted in the film were-rated on an 8-point scale (0 = not at all morally offensive to 7 = extremely morally offensive). This rating scale was used in previous work conducted by Wheatley and Haidt (2005). These items are shown in Appendix A.

Results

Assessment of Reliability
Disgust and Anger. Principle components analyses with a varimax rotation for disgust and anger ratings were conducted separately for each film clip. No components were extracted for the neutral film clip. This was because the clip elicited minimal variability across items (each affect item was rated as zero for most participants). This is consistent with prior research using this clip (Hewig et al., 2005) and provides evidence that the clip indeed elicits minimal overall affect. For the remaining film clips, the scree plots indicated a clear two-factor solution: disgust and anger. Disgust items loaded on the disgust factor (all loadings were .60 or greater) with no cross loadings with one exception. There was a cross loading for revolted on the anger clip (My Bodyguard) on the anger and disgust factors. This item was omitted. All anger items strongly loaded the anger factor across all three film clips (loadings of .70 or higher). I then submitted the disgust and anger items to separate reliability analyses. This yielded sufficient reliability for both factors (disgust: $\alpha = .80$; anger: $\alpha = .75$). I then created disgust and anger indices for each clip by averaging disgust and anger ratings for each.

Manipulation Check of Film Clips and Target Emotions

I first determined if the neutral, pure disgust, and anger clips replicated prior work (Hewig et al., 2005) and elicited their target emotions. I submitted anger and disgust ratings for each clip to a repeated measures analysis of variance (ANOVA). A replication of prior research using these clips (Hewig et al.) emerged. Significant main effects for disgust, $F(1, 49) = 90.43, p < .000$, and for anger, $F(1, 49) = 117.41, p < .000$, were found. Pairwise comparisons with a Bonferroni adjustment showed that people reported more disgust to the pure disgust clip ($M = 3.66, SD = .31$) than they did to the neutral ($M$
= .05, SD = .04), \( t(49) = 3.60, p < .001 \), or the anger clip (\( M = 1.48, SD = .19 \), \( t(50) = 2.17, p < .001 \). People also reported significantly more disgust toward the anger clip than the neutral clip, \( t(49) = 1.42, p < .001 \). This effect is consistent with Hewig et al. Because the anger clip depicts a boy being physically attacked, people tend to express disgust. However, this disgust is still significantly smaller than the pure disgust clip. Taken together, these pairwise comparisons show that the disgust clip elicited more disgust than all other clips.

Pairwise comparisons also show that people also reported more anger following the anger clip (\( M = 3.39, SD = .25 \)) than the neutral (\( M = .20, SD = .07 \), \( t(50) = 3.19, p < .001 \), and pure disgust clip (\( M = .37, SD = .12 \), \( t(49) = 3.01, p < .001 \). As with disgust, this pattern of results show that the anger clip elicited more anger than the neutral and pure disgust clips. This pattern is shown below in Figure 1.

*Figure 1. Manipulation check of target emotions from film clips*

![Figure 1](image)

*Male Homosexuality as Moral Disgust*

My approach to these analyses was to test if 1) people rated the gay clip as more immoral than the remaining three clips, 2) if people reported more disgust and
anger toward the gay clip than the neutral clip, and 3) if males reported harsher moral judgment and more disgust and anger to the gay clip than females.

**Morality ratings.** Morality ratings were submitted to a 2 (gender: male vs. female) X 4 (film clip: neutral, disgust, anger, gay) mixed-model ANOVA. Gender was a between-participants factor and film clip was a within-participants factor. There was, as predicted, a main effect of film clip, $F(1,43) = 30.99, p < .001$. Pairwise comparisons with a Bonferroni adjustment showed that morality ratings were harsher in response to the gay film ($M = 3.40, SD = 1.79$) than the neutral clip ($M = 1.13, SD = .46$), $t(44) = 2.29, p < .001$. People also rated the gay clip as more immoral than the pure disgust clip ($M = 2.22, SD = .21$), $t(44) = 1.39, p < .001$. Contrary to predictions, there was no difference in morality ratings for the gay clip ($M = 3.4$) and the anger clip ($M = 3.0$), $t(44) = .31, p > .05$.

As predicted, a significant gender by film clip interaction emerged, $F(1, 43) = 2.88, p < .05$. To interpret this interaction, pairwise comparisons were performed. I first compared morality ratings by gender in the gay clip condition. The gender difference was significant $t(43) = 4.96, p < .05$. Males reported harsher morality ratings for the gay clip ($M = 4.0, SD = 1.97$) than females ($M = 2.8, SD = 1.40$). I then compared gender within the anger clip condition, $t(43) = 4.53, p < .05$. Males also rated the anger clip more harshly ($M = 3.5, SD = 1.50$) than females ($M = 2.69, SD = 1.50$). No gender differences emerged for the neutral or pure disgust film clips (all $F’s > 1$).
Figure 2. Morality ratings by gender and film clip.

Disgust. Disgust ratings were submitted to a 2 (gender: male vs. female) X 4 (film clip: neutral, anger, disgust, gay) mixed model ANOVA. Gender was a between-participants variable in these analyses and film clip was a within-participants variable. A significant main effect for film clip, $F(1, 49) = 20.97, p < .001$ emerged for disgust, which was qualified by a gender by film clip interaction, $F(1, 49) = 11.45, p < .001$. The main effect indicates that disgust responses varied across film clips. To interpret this interaction, I performed pairwise comparisons by gender for each film clip. Across film clips, the only significant gender difference for disgust occurred for the gay clip, $t(50) = 7.58, p < .01$, (males: $M = 3.18$, $SD = .39$; females: $M = 1.53$, $SD = .45$). All other comparisons were not significant (all $F's > 1$). This interaction is depicted in Figure 3.
Figure 3. Disgust ratings to film clips by gender.

Anger. Anger ratings were submitted to a film clip by gender mixed model ANOVA. Results parallel the pattern found for disgust. There was a significant main effect for film clip, $F(1, 49) = 54.90, p < .001$, which was qualified by a film clip by gender interaction, $F(1, 49) = 7.54, p < .01$. The means for this interaction are depicted in Figure 4. To interpret this interaction, I conducted separate pairwise comparisons by gender for each film clip. As with disgust ratings, the only significant gender difference occurred for the gay clip, $t(49) = 7.57, p < .01$. As expected, males reported more anger to the gay clip ($M = .78, SD = .16$) than females ($M = .12, SD = 12$).
To examine relations between disgust, anger and morality ratings to the neutral and gay clip by gender, I conducted separate Person-product moment correlations for females and males. As shown in Table 1, relations between disgust and anger were not significant in the neutral clip condition for both females and males. Of disgust and anger, males’ (but not females’) disgust ratings were related to moral judgments to the neutral clip. Of greater importance however, is the different pattern of relations for disgust and anger to the gay clip. For females, the only significant relationship was between disgust ratings and morality ratings to the gay clip (redundant to previous ANOVA). On the other hand, males showed strong relations between disgust, anger and moral judgment to the gay clip.
Table 1. Correlations Between Disgust and Anger Ratings for Neutral and Gay Film Clips: Females

<table>
<thead>
<tr>
<th>Scale</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Neutral (disgust)</td>
<td>--</td>
<td>-.06</td>
<td>-.06</td>
<td>-.08</td>
<td>-.06</td>
<td>.02</td>
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<tr>
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<tr>
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<tr>
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<td>.69*</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5. Gay (anger)</td>
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<td></td>
<td>-.11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Gay (moral)</td>
<td>--</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Table 2. Correlations Between Disgust and Anger Ratings for Neutral and Gay Film Clips: Males

<table>
<thead>
<tr>
<th>Scale</th>
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<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
</tr>
</thead>
<tbody>
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<td>-.12</td>
<td>.05</td>
<td>-.10</td>
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</tr>
<tr>
<td>3. Neutral (moral)</td>
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<td></td>
</tr>
<tr>
<td>4. Gay (disgust)</td>
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<td>.81*</td>
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</tr>
<tr>
<td>5. Gay (anger)</td>
<td>--</td>
<td></td>
<td>-.57</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>6. Gay (moral)</td>
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<td></td>
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</tr>
</tbody>
</table>

Note: *indicate significant at p<.01
Discussion

Study 1 tested two hypotheses. First, male homosexual behavior elicits moral disgust. Second, males experience greater moral disgust than females. Support of the moral disgust hypothesis requires two things: 1) male homosexual behavior must be considered morally offensive, and 2) it must elicit both disgust and anger.

The first requirement was supported by the findings on morality ratings. The gay clip was rated as more morally offensive than the neutral clip and the pure disgust clip. Surprisingly, the anger clip and the gay clip were rated as equally immoral. In hindsight, this makes sense given an examination of the content of the clips. The anger clip (My Bodyguard) depicts a teenage boy being bullied by a group of older peers. The clip may have evoked a sense of moral injustice in that a person was being harmed. Perceptions of harm have long been considered a fundamental foundation of moral reasoning (Kohlberg, 1969, Haidt & Graham, 2006).

Of greater importance to the present work is that the pure disgust clip was not considered immoral. This is consistent with the theoretical distinction between pure and moral disgust (Haidt, 2003; see also Haidt, Rozin, McCauley, & Imada, 1997; Moll, et al, 2005; Rozin, Haidt & McCauley, 2000). Pure disgust reflects a feeling of revulsion to an offensive physical stimulus (i.e., arm amputation). Moral disgust is revulsion to something morally offensive to the self. The results here show that the amputation clip, although selected to elicit disgust, was not perceived as morally offensive. Given this, increased immorality ratings to the anger clip do not provide evidence against the moral disgust hypothesis for homosexual behavior. Because the gay clip was rated as more
immoral than both the pure disgust and the neutral clip, this provides evidence that homosexual behavior is indeed considered to be morally offensive.

The second requirement—male homosexuality would elicit disgust and anger—was supported for men but not for women. Whereas all participants reported disgust following the gay clip, only men reported feelings of anger. Women’s anger ratings did not significantly differ from the neutral clip. Because moral disgust is defined as a blend of disgust and anger, the present study does not support the hypothesis that women experience moral disgust toward homosexual behavior. Males on the other hand showed a pattern consistent with moral disgust. They perceived the clip as immoral and their disgust and anger ratings were significantly greater than the neutral condition. This finding, coupled with men’s increased immorality ratings of the gay clip provides compelling evidence that heterosexual men (but not women) experience moral disgust to male homosexual behavior. These findings are also consistent with research on antigay attitudes that consistently show that males’ attitudes toward gay men are more negative than females’ attitudes (Herek, 1994; Herek, 2000; Herek & Capitanio, 1998, Kite & Whitley, 1996).

In sum, although men and women responded similarly to clips that inspire anger and/or disgust in contexts irrelevant to sexual orientation, Study 1’s findings demonstrate that heterosexuals’ affective reaction to male homosexual behavior differs by gender. Heterosexual males experience moral disgust to male homosexuality: a blend of disgust and anger. By contrast, women do not experience moral disgust, as evidenced that they report mild elevations in disgust without a concomitant elevation in anger. The absence
of moral disgust to male homosexual behavior for women is consistent with research on masculinity and antigay attitudes. As noted in the introduction, it appears that the disavowal of homosexuality is critical to affirming gender roles for men but less so for women (Kimmel, 2005, Pascoe, 2007).

What remains unanswered from Study 1 is whether most males experience moral disgust to male homosexual behavior. There are two reasons to suspect that there may be variability across individuals and/or situations in heterosexual men’s experiences of moral disgust to male homosexual behavior. First, there may be variability across individuals. Recall that the logic underlying the predicted gender differences in moral disgust were related to gender socialization; namely that the disavowal of male homosexuality is a repeated practice in developing and affirming their male (but not female) gender identity (Benke, 1997; Kimmel, 2005; Pascoe, 2005). If this is the case, men who are less committed to conforming to male gender roles are also less likely to experience moral disgust to male homosexual behavior. Second, if the disavowal of male homosexuality is indeed central to male gender identity, situations where such repudiation is warranted should elicit greater moral disgust to male homosexuality than neutral situations. That is, if men are threatened with the suspicion that they appear to be gay (as described by Herek (1984) as defensiveness threat), the repudiation of male homosexuality might manifest via increased moral disgust reactions to male homosexuality.

Study 2: Masculinity, Threat and Moral Disgust
In Study 2, I focused on two potential factors underlying heterosexual men’s moral disgust reactions to gay male behavior: endorsement of masculine role norms and defensiveness threat (Herek, 1986, 1987, 1988). In this study I measured masculine role norms and manipulated defensiveness threat and then presented participants with the gay film clip used in Study 1.

Male homosexual behavior is considered a strong violation of masculine role norms (Kimmel, 2005; Kimmel & Mahler, 2003; Pascoe, 2005, Whitley, 2001). If this is the case then heterosexual men who strongly endorse these masculine role norms (Thompson & Pleck, 1986) should experience stronger moral disgust to gay male behavior than men who reject these norms. Male antigay attitudes appear to be strongly related to the repudiation of femininity. Thus, men who strongly (versus weakly) reject femininity in the self are expected to show greater moral disgust to male homosexuality. This is because these are the men most likely to perceive gay male behavior as a violation of manhood. Because of this, I predict that high endorsers would rate the gay film clip as more morally offensive than low endorsers and would experience stronger feelings of disgust and anger to the clip.

In addition, Herek’s (1986, 1987, 1988) has suggested that heterosexual men admonish gay male behavior because they experience defensiveness and threat to male homosexuality. Because heterosexuality is considered essential to masculinity (Herek, 1986; Kimmell, 2005; Pascoe, 2005; 2007), imputations of homosexuality are threatening to men (Bosson et al., 2005). To examine this possibility, threat will be manipulated prior to participants viewing of the gay male film clip (used in Study 1). In the threat condition,
participants will be (mis)informed that they were thought to be gay by an apparent male co-participant in another room. By contrast, in the no-threat condition, participants will receive non-threatening false feedback. In addition, sexual orientation of the apparent participant will be manipulated such that the false feedback is thought to come from either a gay or heterosexual co-participant.

Method

Participants and Design

Participants were 114 undergraduates participating in exchange for course credit. Five suspicious participants (distributed across all conditions) and a gay male participant were excluded from analyses. This left a working dataset comprised of 108 undergraduates who were randomly assigned to one of four conditions created by crossing threat (no threat or threat) and one of two levels of target sexual orientation (heterosexual or gay).

Procedure

After signing consent statements, participants were told that they would complete two unrelated studies: a study that examines impression formation and a study on emotional reactions to film clips.

The impression formation study was framed as an attempt to understand how people form impressions of a person in the absence of face-to-face conversation. Participants were lead to believe that they would exchange profile information that resembled computer networking sites such as facebook with another participant down the hall. Participants were handed a folder, selected an experimental user name, and wrote
this name on all questionnaires and on the tab of their folders (ostensibly to keep their materials together and ensure anonymity). They completed an open-ended profile questionnaire adapted from networking websites such as Facebook.com and Myspace.com, which contained questions including participants’ hometown, major and interests and activities (see Appendix B). Participants then posed for a Polaroid photograph which was placed in their folders with their profiles. The experimenter collected them and briefly left the room-ostensibly to give the folders to each of the participants in the adjoining room to review. During this time participants completed a personality inventory containing the MNRS (see Appendix C) as well as several filler questions.

After completing the personality inventory participants reviewed a profile questionnaire and photograph from a (fictitious) participant in the adjoining room. In a folder was a profile questionnaire and Polaroid photograph of the fictitious participant, and a “feedback sheet” that this person ostensibly completed about the participant.

Manipulation of Target Sexual Orientation and Threat

To manipulate target sexual orientation participants received one of two versions of the profile questionnaire. In the straight condition, the profile indicated that the participant’s interests are “girls”. In the gay condition, the profile indicated that the participant’s interests are “guys”. Both profiles included a Polaroid photograph of a White, college-aged male. See Appendix B for the complete profiles.

Threat was manipulated via the feedback sheet. In the no threat condition the sheet read “don’t know. Not much to go on. Might have seen him out at the bars. From
his pic, looks like he is probably 21.” The threat condition feedback sheet read “don’t know. Not much to go on. Might have seen him out at the bars. From his pic though, looks like he might be gay.”

**Manipulation check for experienced threat.** After looking over the target’s picture, profile and initial impression measure, participants placed the target participant’s picture and profile back into the folder. The experimenter then said that participants would complete a measure about their reactions to the participant. After searching for this measure, the experimenter pretended it was missing and said that they would have to skip this measure and proceed to the next study. Participants then completed an ostensible exit questionnaire assessing their interest and reactions to the first study. In this measure was an adapted version of a 6-item perceived threat measure previously used to assess threat experienced after threats to masculinity (Schmitt & Branscombe, 2000, see Appendix D). This measure includes items such as “I am pleased with what the other participant’s impression was of me” and “I feel good about myself after reading the other participant’s impression of me.” These items were rated on a 7-point scale (strongly disagree to strongly agree). Once completed, the experimenter collected the exit questionnaires and introduced the second study.

**Reactions to Film Clips.** Participants were told that the purpose of the second study was to examine reactions to film clips. As with Study 1, participants were directed to their computer screens. To reduce the possibility of suspicion, participants first view the neutral film clip used in Study 1 (*All the President’s Men*). They were told that it was a clip that would familiarize them with the experimental task. After viewing
the neutral film clip, participants completed the affect and morality rating used as dependent variables in Study 1. All participants then viewed the gay film clip and completed the dependent measures a second time in reference to the gay clip. To reduce the possibility of suspicion, the experimenter had participants randomly choose from three film clips, of which they would view one. They chose a number from a hat (one to three), and depending on which number was drawn, the experimenter prepared that clip. In actuality, all three film clips were the gay clip. This was effective; no participants suspected that the two studies were related. After viewing the clip and completing the dependent measures, participants were then debriefed and thanked for their participation.

Results

Assessment of Reliability

I submitted the disgust and anger ratings for each film clip to a principal components analysis with varimax rotation. The factor structure and loadings for the gay and neutral clip yielded a pattern similar to study 1. Reliability analyses for each emotion within each film clip yielded satisfactory results (disgust in neutral clip $\alpha = .85$; anger in neutral clip $\alpha = .85$; disgust in gay clip $\alpha = .9$; anger in gay clip $\alpha = .88$). Masculine role norm scale (MRNS) items were reverse scored where appropriate and a coefficient alpha was conducted ($\alpha = .88$). MNRS items were averaged such that higher scores reflect strong endorsement of masculine role norms. Participants were then divided into two levels, low or high, of masculine role endorsement using a median split.

Manipulation Check
After reverse scoring appropriate items, I averaged across threat items to create a threat score ($\alpha = .93$); higher values of this variable indicate more threat. Threat scores were submitted to a target orientation (heterosexual vs. gay) X threat (no threat vs. threat) between-participants ANOVA. A significant main effect for threat emerged, $F(1, 98) = 19.95, p < .001$, indicating that people reported more threat in the threat condition ($M = 6.11, SD = .23$) than the no threat condition ($M = 4.63, SD = .23$). There was also an unexpected target orientation by threat interaction $F(1, 98) = 17.72, p < .001$. Simple effects tests were performed comparing the threat conditions within levels of target sexual orientation. Findings revealed that threat scores were higher in the threat than in the no threat condition when the target was heterosexual, $F(1, 98) = 41.72, p < .000$; but threat conditions did not differ when the target was gay, ($F(1, 98) = .12, p > 1$). Simple effects tests were then performed to compare heterosexual versus gay targets in the no threat condition. This effect was significant, $F(1, 98) = 2.85, p < .05$. This interaction is depicted in Figure 5.

Figure 5. Manipulation Check
**Moral Disgust**

To determine if the gay clip elicited moral disgust relative to the neutral clip, morality, disgust, and anger ratings were submitted to separate repeated measures ANOVAS, with film clip (neutral or gay) as the within participants factor. Replicating study 1, a main effect of film clip emerged for morality ratings, $F(1, 98) = 281.71, p < .001$, disgust, $F(1, 98) = 465.21, p < .001$, and anger $F(1, 119) = 82.34, p < .001$. This pattern is depicted below.

*Figure 6. Morality, disgust and anger ratings by film clip.*

![Graph showing morality, disgust, and anger ratings by film clip.]

**Masculine Role Norms, Threat and Moral Disgust**

Study 2 was designed to test the hypothesis that moral disgust reactions to the gay film clip are stronger 1) among those high versus low in masculine role norm endorsement and 2) in the threat conditions (regardless of sexual orientation of target) versus no threat conditions. To test these predictions, morality ratings, disgust and anger
ratings were submitted to separate 2 (target orientation: heterosexual; gay) X 2 (threat: no threat; threat) X 2 (MNRS: high versus low) between-participants ANOVAs. For morality ratings to the gay clip, the only significant effect to emerge was a main effect for masculine role norms, $F(1, 98) = 6.80, p < .01$. When viewing the gay clip, high endorsers of masculinity were harsher in moral judgment ($M = 5.0, SD = .30$) than low endorsers ($M = 3.89$). For disgust, the predicted main effect for masculine role norms emerged, $F(1, 119) = 8.75, p < .001$. High masculinity endorsers were more disgusted by the gay clip ($M = 4.81, SD = .30$) than low ($M = 3.59, SD = 28$). An identical pattern emerged for anger ratings with a significant main effect for masculine role norms, $F(1, 98) = 6.42, p < .01$. High masculinity endorsers were more angered by the gay clip ($M = 2.55, SD = .27$) than low ($M = 1.57, SD = .26$). Contrary to predictions, no main effects or interactions emerged for target orientation and threat on any of these variables.

**Mediation Analyses**

As predicted, masculine role norms were strongly related to moral judgments of the gay, but not neutral, film clip. I next tested the extent to which each of the three MRNS subscales predicted moral judgments to the gay clip. Recall that Wilkinson (2004) found that only anti-femininity, and not power/status or toughness was predictive of antigay attitudes. To test this, the anti-femininity, power/status, and toughness scales were entered into a multiple regression analysis with morality ratings (gay clip) as the dependent variable. Results were consistent with Wilkinson’s (2004) findings. Of the three subscales, anti-femininity strongly predicted moral judgment $\beta = .62, p < .001$. The power/status $\beta = .19$, and toughness $\beta = .07$ subscales did not significantly predict moral
judgment (all $p$'s $>.10$). A Pearson-product moment analysis replicated this pattern and is depicted in Table 3.

**Table 3. Correlations Between MRNS Subscales and Disgust and Anger Ratings**

<table>
<thead>
<tr>
<th>Scale</th>
<th>1.</th>
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<th>4.</th>
<th>5.</th>
<th>6.</th>
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<td>.40*</td>
<td>.47**</td>
<td>.37*</td>
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<td>.30*</td>
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<tr>
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<td>6. Immorality</td>
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</table>

I next tested whether the relationship between anti-femininity and moral judgment to homosexual behavior was mediated by disgust. Three regression equations were computed. Disgust and morality ratings were regressed on anti-femininity ratings in separate regression equations. In the final equation morality ratings were simultaneously regressed on anti-femininity and disgust. As Table 2 shows, anti-femininity accounted for a significant amount of the variance in disgust (equation 1) and morality ratings (equation 2). When morality ratings were simultaneously regressed on disgust and anti-femininity, disgust continued to account for a significant amount of the variance in morality ratings. However, when disgust was controlled for, anti-femininity no longer accounted for significant variation in morality ratings. A sobel test confirmed evidence of mediation, $z = 4.19, p < .001$. \( ^{v} \)
Table 4. Regression Analysis to test disgust as a hypothesized mediator of moral judgment to the gay clip, Study 2.

<table>
<thead>
<tr>
<th>Equation</th>
<th>Criterion</th>
<th>Predictor</th>
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<th>t ratio</th>
<th>R2</th>
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<tbody>
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<td>4.39**</td>
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<td>2</td>
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<td>Anti-femininity</td>
<td>.30</td>
<td>3.16**</td>
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<td>3</td>
<td>Morality</td>
<td>Anti-femininity</td>
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<td>.012</td>
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<td></td>
<td></td>
<td>Disgust</td>
<td>.76</td>
<td>11.04**</td>
<td>.32</td>
</tr>
</tbody>
</table>

Note: * indicate significant at p<.05; **indicate significant at p<.01

Discussion

Study 2 focused on males’ reactions to male homosexual behavior. Two factors were proposed to influence the men’s arousal of moral disgust: masculine role norms and defensiveness threat (Herek, 1986, 1987). This study shows that when compared to the neutral clip, all men reported moral disgust. Strong endorsers of masculinity were indeed higher on morality ratings, disgust and anger, but low endorsers were also significantly higher on these variables when compared to the neutral clip. This effect is important. In study 1 I found that women did not show the requisite blend of disgust and anger to provide evidence of moral disgust. Given this, I reasoned that men who do not strongly endorse masculine role norms may also be less likely to experience moral disgust to male homosexual behavior-and should show a pattern similar to women in study 1. Although
low endorsers did experience less moral disgust than high endorsers, the pattern was not similar to women’s in Study 1. Low endorsers still reported relatively strong feelings of disgust and moderate anger to the gay clip.

Study 2 predicted that men who strongly endorse masculine role norms would report harsher moral judgment to and more disgust and anger toward that gay male film clip. This prediction was supported. Morality ratings, disgust and anger were stronger for those who strongly endorse masculine role norms and this was specific to the gay clip. No differences were found on these three variables for the neutral clip. This pattern builds upon research documenting the centrality of masculinity to antigay attitudes (Herek, 1986; Kilianski, 2003; Kimmel, 2005, Pascoe, 2005; 2007; Whitley, 2001; Wilkinson, 2004) anger toward gay men (Parrott & Zeichner, in press; Parrott, Zeichner & Hoover, 2006) and antigay aggression (Cohn & Zeichner, 2006; Parrott & Zeicher, in press). This study found that men endorsing masculine role norms experience strong disgust reactions to homosexual behavior, coupled with a moderate increase in anger. Although this blend of disgust and anger was found, the primary emotion experienced was disgust (replicating Study 1).

Study 2 also provides evidence that of the three components of masculine role norms—anti-femininity, toughness, status—anti-femininity is the critical predictor of moral disgust. Anti-femininity predicted harsher moral judgments to the gay clip and stronger disgust and anger. This adds to mounting evidence that men’s aversion to male homosexuality is due to their repudiation of femininity in other men rather than their endorsement of status and toughness (Wilkinson, 2004). Additionally, results show that
the relationship between anti-femininity and moral judgment is mediated by the arousal of disgust (but not anger). This suggests that when men view gay male affection, their repudiation of femininity arouses the aversive experience of disgust, and that this strong emotion influences their moral judgments of this behavior.

Study 2 also tested the hypothesis that, when threatened with feedback that participants are suspected to be gay, moral disgust to the gay clip would strengthen. Study 2 found no evidence of this. Regardless of whether this feedback came from a heterosexual or gay target, threatened participants did not report increased moral disgust. Additionally, the manipulation check revealed that the feedback was only threatening when it came from a heterosexual male. Gay targets did not elicit increased threat in threat conditions.

Despite that the threat manipulation was effective in the straight condition; an increase in moral disgust should have ensued. This was not the case. Several explanations are plausible. The first is that too much time passed from the threat manipulation to the viewing of the gay clip. Recall that, in order to reduce suspicion, all participants first viewed the neutral clip. It is possible that the neutral clip diffused the impact of the threat manipulation. Another possibility is that, although men in the straight condition indeed became defensive by the threatening feedback (as evidenced by the manipulation check), rating their impressions of the gay film clip would not assuage their increased negative arousal. In other words, it is reasonable to wonder whether reporting adverse ratings of a film clip would suffice in mitigating the threat experienced when they were classified as gay. Recall that Herek (1984; 1987) conceptualizes defensive reactions as men’s
increased antipathy toward gay men in response as being misclassified as gay. Perhaps the expression of this antipathy occurs only in situations for which there is an actual gay target to direct it to. I test this possibility in Study 3.

Study 3: “You Disgust Me”: Moral Disgust toward Gay Men

Study 3 tested the prediction that moral disgust would be expressed toward gay male targets when masculine role norms were strongly endorsed or under conditions of threat. The design and procedure is identical to that of Study 2 with two exceptions. First, the film clip portion of Study 2 is omitted. Following the threat manipulation, participants rated their impressions of the target in the adjoining room; this assessed moral disgust toward the fictitious participant. Second, the dependent measures were adapted. Participants rated their feelings of disgust and anger toward and perceived morality of the target participant (as opposed to the film clip in Studies 1 and 2).

Method

Participants and Design

As with Study 2, participants were randomly assigned to one of two levels of threat (no threat and threat) and divided into one of two levels of target sexual orientation (heterosexual and gay). Ninety-six Penn State male undergraduates enrolled in introductory psychology classes participated and were run in groups of eight.

Procedure

Following obtainment of informed consent, participants were told that they will participate in a study examining impression formation. The first portion of the study was identical to Study 2. Participants were then told that the purpose of the study as to
understand how people form impressions of a person in the absence of face to face conversation. They were told that another experimenter was down the hall and that they would exchange information with another participant. They were then handed a folder. They selected an experimental user name to be used in throughout the study, and to wrote this name on all experimental materials (ostensibly to keep their materials together and ensure anonymity). Folders contained the same profile questionnaire used in Study 2. Participants posed for a Polaroid photograph which was placed in their folder. Participants then completed the personality inventory (identical to Study 2), which contained the MNRS. The experimenter left the room presumably to give the folders to each of the participants in the other room to review.

After completing the MNRS participants received a folder containing a photograph of and profile questionnaire and initial impressions feedback sheets presumably completed by the person working in the other room. As with Study 2, participants received a profile of a heterosexual or a gay target, and received feedback that is either not threatening (looks 21) or threatening (looks gay).

**Dependent Measures.** After looking over the target’s picture and responses to the profile and initial impression measures, participants were told that they would complete a questionnaire about the target, and that the target would not see this questionnaire. Embedded within this questionnaire were the manipulation check items (identical to Study 2) and dependent measures: affect measures and perceived morality/immorality of the target. The affect and morality ratings were similar to those used in studies 1 and 2, but adapted to focus on the target working in the other room rather than on the film clips.
Results

Manipulation Check

As with study 2, the threat items ($\alpha = .91$) were a target orientation (heterosexual vs. gay) by threat (no threat vs. threat) between-participants ANOVA. A single significant main effect for threat emerged, $F (1, 91) = 14.36, p < .001$, indicating that people reported more threat in the threat condition ($M = 3.19, SD = .24$) than the no threat condition ($M = 1.93, SD = .22$). Study 3 did not replicate Study 2’s unanticipated target by threat interaction. That is, the observed main effect for threat in the present study provides evidence that the threat manipulation was equally threatening from straight and gay targets.

Assessment of Reliability

Morality Ratings. A coefficient alpha was conducted on the four morality ratings and demonstrated acceptable reliability ($\alpha = .69$). The items were averaged into an overall index of morality where higher scores reflect harsher moral judgments.

Masculine Role Norms. As with study 2, the coefficient alpha for MNRS scores demonstrated sufficient reliability ($\alpha = .89$). The MNRS items were averaged into an overall mean index for masculine role endorsement. Composites for the anti-femininity ($\alpha = .88$), status ($\alpha = .89$), and toughness ($\alpha = .88$) subscales were also created. I then performed a median split to group participants into high and low role norm endorsement.

Disgust and Anger. Coefficient alphas showed sufficient reliability for anger ($\alpha = .94$) and disgust ($\alpha = .96$) ratings. As with study 2, items were averaged to create overall indices for disgust and anger.
Moral Disgust

I predicted that moral disgust toward the target would be greater in the gay conditions than the heterosexual conditions. I also expect higher moral disgust in the threat condition than in the no threat condition. As with Study 2, I also predicted stronger moral disgust reactions from high versus low masculine role norm endorsers. Again, there is evidence of moral disgust when immorality ratings, disgust, and anger toward the target are higher in the experimental than the control conditions.

To test predictions, perceptions of morality were first submitted to a target orientation (heterosexual vs. gay) by threat (no threat vs. threat) by role endorsement (low vs. high) ANOVA. This yielded a single main effect for threat, $F(1, 90) = 18.99, p < .001$. Threatened participants rated the targets as more immoral ($M = 4.50, SD = .14$) than non-threatened participants ($M = 3.68, SD = .12$).

Disgust and Anger

Disgust and anger ratings were submitted to separate target orientation (heterosexual vs. gay) by threat (no threat vs. threat) by role endorsement between-participants ANOVA. For disgust, findings revealed a significant main effect for threat, $F(1, 90) = 22.16, p < .001$. The same pattern was found for anger, $F(1, 90) = 8.27, p < .001$. Means and standard deviations are shown in Table 5.
Table 5. Means and standard deviations (in parentheses) for moral judgment and disgust and anger by target and threat condition.

<table>
<thead>
<tr>
<th></th>
<th>No threat</th>
<th>Threat condition</th>
<th>Threat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Immoral</td>
<td>Disgust</td>
<td>Anger</td>
</tr>
<tr>
<td></td>
<td>Heterosexual</td>
<td>Gay</td>
<td>Heterosexual</td>
</tr>
<tr>
<td></td>
<td>2.76 (.27)</td>
<td>2.77 (.27)</td>
<td>3.90 (.30)</td>
</tr>
<tr>
<td></td>
<td>1.54 (.22)</td>
<td>1.80 (.21)</td>
<td>2.76 (.28)</td>
</tr>
<tr>
<td></td>
<td>1.66 (.29)</td>
<td>1.93 (.28)</td>
<td>3.22 (.32)</td>
</tr>
</tbody>
</table>

Masculine Role Norms

No main effect for or interactions with masculine role norms emerged, indicating that none of the above effects were moderated by masculine role norms.

Mediation Analyses

Contrary to predictions, no main effects or interactions were found for masculine role norms. However, in Study 2 I found that of the three MRNS subscales, only anti-femininity predicted moral judgment to homosexual behavior (not toughness or status). To test if this also applied to moral judgments of targets, I submitted the anti-femininity, power/status, and toughness scales to a multiple regression analysis with morality rating as the dependent variable. Results replicated Study 2 (and Wilkinson, 2004). Anti-femininity was the only subscale that predicted moral judgment $\beta = .35, p < .01$. The power/status $\beta = .25$, and toughness $\beta = .26$ subscales did not significantly predict moral
judgment (all $p$’s >.10). A Pearson-product moment analysis replicated this pattern and is presented below in Table 6.

Table 6. Correlations Between MRNS Subscales and Disgust and Anger Ratings to target participants.

<table>
<thead>
<tr>
<th>Scale</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Anti-femininity</td>
<td>--</td>
<td>.38*</td>
<td>.57**</td>
<td>.22*</td>
<td>.26*</td>
<td>.20*</td>
</tr>
<tr>
<td>2. Status</td>
<td>--</td>
<td>.68**</td>
<td>.02</td>
<td>.03</td>
<td>.18</td>
<td></td>
</tr>
<tr>
<td>3. Toughness</td>
<td>--</td>
<td>.26*</td>
<td>.14</td>
<td>.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Disgust</td>
<td>--</td>
<td>.63**</td>
<td>.52**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Anger</td>
<td>--</td>
<td></td>
<td>.44**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Immorality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>--</td>
</tr>
</tbody>
</table>

As with Study 2, I tested whether the relationship between anti-femininity and moral judgment to homosexual behavior was mediated by disgust. Disgust and morality ratings were regressed on anti-femininity ratings in separate regression equations. In the final equation morality ratings were simultaneously regressed on anti-femininity and disgust. As Table 4 shows, anti-femininity accounted for a significant amount of the variance in disgust (equation 1) and morality ratings (equation 2). When morality ratings were simultaneously regressed on disgust and anti-femininity, disgust continued to account for a significant amount of the variance in morality ratings. However, when disgust was controlled for, anti-femininity no longer accounted for significant variation in morality ratings. A sobel test confirmed evidence of mediation $z = 2.32, p < .01$. 
Table 7. Regression Analysis to test disgust as a hypothesized mediator of moral judgment of participants, Study 3.

<table>
<thead>
<tr>
<th>Equation</th>
<th>Criterion</th>
<th>Predictor</th>
<th>β</th>
<th>t ratio</th>
<th>R2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Disgust</td>
<td>Anti-femininity</td>
<td>.24</td>
<td>2.43*</td>
<td>.06</td>
</tr>
<tr>
<td>2</td>
<td>Morality</td>
<td>Anti-femininity</td>
<td>.29</td>
<td>2.92*</td>
<td>.07</td>
</tr>
<tr>
<td>3</td>
<td>Morality</td>
<td>Anti-femininity</td>
<td>.16</td>
<td>1.88</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disgust</td>
<td>.50</td>
<td>5.73**</td>
<td>.29</td>
</tr>
</tbody>
</table>

Note: * indicate significant at p<.05; **indicate significant at p<.01

Discussion

Study 3 tested the hypothesis that moral disgust reactions to gay male targets are stronger 1) when masculine role norms are strongly endorsed and 2) under conditions of threat. Interestingly, I found that the threat condition did indeed arouse moral disgust, but contrary to predictions, it was expressed toward both gay and straight targets. When threatened, people made harsher moral judgments to target participants, and felt a blend of disgust and anger toward them. It was predicted that such reactions would be directed only toward gay men. I expected that heterosexual men might elicit increased anger, but not moral disgust. This study provides evidence that when men are threatened with the suspicion that they appear to be gay, moral disgust ensues toward both gay and heterosexual men. Moreover, in the no threat condition, gay targets did not differ from
heterosexual targets in moral disgust. In these conditions, gay men were not considered moral immoral than heterosexual men, nor did they arouse disgust or anger reactions. This suggests that-at least when compared to heterosexual men-gay men are not eliciting moral disgust. Although gay men are regarded with disgust in comparison to other outgroups (Cottrell & Neuberg, 2005), Study 3’s results suggest that this disgust is not experienced at the individual level. This may be in part due to people’s rapidly improving attitudes toward homosexuality (Yang, 1997). In any case, this lack of moral disgust toward individual gay men stands in sharp contrast to the findings on homosexual male behavior (studies 1 and 2); where strong moral disgust reactions were elicited.

A shortcoming of Study 3 is an absence of a threat control condition. Participants were either threatened with false feedback about appearing gay, or were not threatened at all. As predicted, men indeed reported increased negative affect (disgust and anger) when they received feedback that they appear to be gay. It is possible however, that increased negative affect might occur when any threatening feedback is given. Self-categorization theory argues that people experience threat when they perceive themselves incongruent with prototypical features of salient categories of their ingroup (Turner, Hogg, Oakes, Reicher and Wetherell, 1987). In this instance, men may have experienced threat because they perceive being gay as non-prototypical with masculine gender roles. As a result, they expressed disgust and anger toward both gay and heterosexual men. However, it is possible that an identical reaction would occur if the threat was unrelated to homosexuality. Because Study 3 did not include a non-homosexuality threat condition, it cannot be determined if the threat I manipulated was a defensive threat or a more general
threat to the self. Previous research shows that when one facet of the self is threatened, people aggrandize other facets of the self (Steele, 1985).

General Discussion

This research examined heterosexuals’ affective reactions to male homosexuality. In three studies I tested an overarching hypothesis that antigay affect is best conceptualized as an expression of moral disgust. I predicted that people would regard male homosexuality as morally offensive and experience feelings of disgust and anger. The moral component and blend of disgust and anger are what differentiates moral disgust from pure disgust (Haidt, Rozin, McCauley & Imada, 1997; Rozin, Haidt & McCauley, 2000). Expressions of pure disgust do not also elicit anger, nor are pure disgust stimuli regarded as morally offensive. Study 1 demonstrated evidence of these criteria. Pure disgust stimuli were not rated as morally offensive; nor did they elicit anger responses.

The results of this work reveal that heterosexuals’ feelings toward male homosexuality are more nuanced than anticipated. More specifically, the arousal of moral disgust to male homosexuality was found to vary according to three factors: participant gender (Study 1), male participants’ endorsement of masculine norms (Study 2) and the stimulus presented (homosexual behavior (Studies 1 and 2) versus homosexual targets, Study 3). Each of these factors influences the degree of moral disgust experienced or whether moral disgust is experienced at all.

Gender
Study 1’s prediction was that women would experience less moral disgust to male homosexual behavior than men. The result revealed that women did not experience moral disgust at all. Although they regarded the depicted male homosexual behavior as immoral and reported feelings of disgust, they did not experience anger. Additionally, as previously noted, the effect for disgust was small, and the average rating was along the low end of the scale. Taken together, Study 1 provides no evidence that women felt the blend of disgust and anger required to comprise moral disgust.

Males, in contrast, did experience moral disgust to male homosexual behavior. In Studies 1 and 2, males regarded the gay clip as immoral and felt both disgust and anger. Study 1’s results also show that males report harsher moral judgment to male homosexuality than females and feel more disgust. It is important to note that these gender differences were not due to individual differences in the degree of disgust and anger reported by men and women. There were no gender differences in disgust to the amputation clip, and importantly, males and females were equally angered by the anger clip. In fact, because people regarded the anger clip as immoral and reported both disgust and anger, it can be concluded that all participants experienced moral disgust when viewing the anger clip, and, although men reported harsher moral judgments, there were no gender differences in either disgust or anger. This pattern strengthens the conclusion that men feel moral disgust to male homosexual behavior but women do not.

The lack of support for the moral disgust hypothesis for women presents a lingering question about their reactions to male homosexuality—namely, what are women feeling? As noted above, in comparison to the neutral clip, women do report
disgust. The absence of aroused anger in women presents a problem in classifying which form of disgust this comprises. For instance, their reaction cannot be classified as pure disgust because this form of disgust is elicited by physically offensive stimuli (blood, feces) and are not regarded as morally offensive (Rozin, Haidt, & McCauley, 2000). In this situation, women express disgust but not anger to a morally offensive stimulus. This pattern has not been considered in disgust research, and an attempt to classify this expression of disgust is beyond the scope of this work. What this does suggest however, is that women may not have the same affective response to male homosexuality that men seem to experience. It is possible that women may experience feelings of discomfort, embarrassment or anxiety. Or perhaps women’s more favorable attitudes toward gay men (Kite & Whitley, 1996; Herek, 1988; 2000b) may engender positive feelings to homosexual behavior. My future work will explore these potential outcomes.

The results of study 1 also point to an important caveat regarding women’s affective reactions to male homosexuality. To the best of my knowledge, this study is the first to examine women’s affective reactions to gay male affection. Firm conclusions that females do not experience moral disgust to male homosexuality are premature. It is possible that women with fundamentalist religious beliefs may indeed report moral disgust to male homosexuality. Future research investigating the role of religiosity and antigay affect in heterosexual men and women is needed.

*Masculinity*

This research provides evidence that moral disgust arousal to male homosexuality varies according to the endorsement of masculine role norms. Men who
endorse masculine role norms feel strong moral disgust to gay male behavior. Men who are less committed to masculine role norms show less moral disgust. However, study 2 showed that all men, regardless of masculine role endorsement, felt moral disgust to gay male behavior. This suggests that the repudiation of male homosexuality occurs even for men who are less endorsing of masculine norms.

A consistent finding emerged across studies 2 and 3 regarding masculine role norms. Of the three components to masculine norms set forth by Brannon (1976)—anti-femininity (”no sissy stuff”), status (”be a sturdy oak”) and toughness (”give em hell”)—anti-femininity was the sole predictor of moral disgust to male homosexuality. This provides additional evidence to Wilkinson’s (2004) findings that the relationship between masculine norms and antigay attitudes is driven by men’s aversion to femininity rather than concerns about toughness and status. In the present work, both studies 2 and 3 found that the anti-femininity subscale was predictive of moral disgust emotions (disgust and anger) and moral judgment (although in study 3, moral judgment was not specific to target sexual orientation. This will be discussed shortly). This pattern supports theoretical assumptions set forth by Kimmel (2005), namely, that a primary objective for demonstrating masculinity is to sharply differentiate the self from anything feminine. Additionally, Bosson et al., (2005) show that men who were not permitted to affirm their heterosexual identity performed worse and spent less time on a feminine task than men who did affirm. The present work extends these findings to antigay affect, providing evidence that the aversion to femininity is linked to feelings of disgust and anger to male homosexual behavior. Because the relationship between anti-femininity and moral
disgust was correlational, causal inferences are premature. In my future work I plan to
directly manipulate anti-femininity and determine if having men perform feminine tasks
leads to increased moral disgust toward gay male behavior.

A second factor examined in this research was Herek’s (1984; 1987)
defensiveness hypothesis. This posits that antigay antipathy occurs in response to the
threat of being labeled homosexual. Interestingly, this prediction was not supported in
study 2. Men who received threatening feedback did not show increased moral disgust to
the gay clip. As noted in the study 2’s discussion, the reasons for this are unclear. It is
possible that the threat effect was diffused when participants viewed the neutral film clip.
Another possibility is that despite being irritated by the feedback (as measured by the
manipulation check) participants did not perceive the feedback as legitimate. That is, they
may not have been concerned that the other participant perceived that they were gay or
doubted the veracity that they appeared gay. Therefore, they did not experience increased
moral disgust to the gay clip. The main effect for threat found in study 3 supports this
logic. Here, it was found that men who received feedback that they appeared gay
experienced moral disgust—regardless of the target’s sexual orientation. Given that these
participants found the feedback irritating, they responded with increased antipathy
(disgust and anger) to the person who gave the feedback. Again, it is difficult to discern
whether participants perceived the feedback as legitimate or they simply felt annoyed by
the feedback. During debriefing several participants said that they believed that the other
participant was real, but upon receiving the feedback dismissed him as being “a jerk.”
Despite these methodological shortcomings, an important finding from study 3 was that moral disgust did not vary by target sexual orientation.

**Stimulus: Homosexual Targets versus Homosexual Behavior**

Study 3’s results offer no evidence that the individual gay men elicit moral disgust from heterosexual men. Only gay men providing threatening feedback elicited moral disgust, but this occurred in the heterosexual threat conditions as well. This suggests that, although men are threatened and express moral disgust to those who perceive them to be gay, they do not experience moral disgust toward individual gay men. Intergroup emotion research (Cottrell & Neuberg, 2005) shows that in comparison to other outgroups (feminists, Native Americans, African-Americans), heterosexuals report disgust toward gay men. It has also been found that when heterosexuals think about gay men they subsequently report feelings of disgust toward an unrelated stimulus (Tapias et al, 2007). Despite these cognitive links (Tapias et al, 2007) and comparisons across outgroups (Cottrell & Neuberg, 2005) the present work shows that disgust is not related to gay men at the individual level. Heterosexual men did not report increased disgust (or anger) toward gay men when compared with heterosexual men nor did they perceive a gay man as more immoral than a heterosexual man.

One possibility for the lack of moral disgust to gay men at the individual level is that attitudes toward homosexuality are improving (Yang, 1997). Over the past several decades the percentage of people who think homosexuality is “always wrong” has dramatically declined and people overwhelmingly oppose antigay discrimination (Yang, 1997). Less than a decade ago Americans were sharply divided on the issue of gay civil
unions, but now the majority of Americans support them (Herek, 2006). The percentage of heterosexuals who have gay and lesbian friends is steadily increasing (Herek & Capitanio, 1996; Vanofakou, Hewstone & Voci, 2007) and popular television programs and films increasingly feature gay and lesbian characters. Given this rapid trend toward improved sexual minority attitudes, it is likely that gay men do not immediately elicit moral disgust among heterosexuals.

Despite this promising trend, study 3’s results stand in sharp contrast to studies 1 and 2, which showed that men reported strong moral disgust reactions to male homosexual behavior. It appears that although general attitudes toward gay men are improving, the notion of male homosexual behavior is still distressing—at least to heterosexual men. That is, heterosexual men may not feel moral disgust in the presence of gay men *per se*, but exposure to gay affection might arouse strong moral disgust. Because of differential pattern for gay targets versus behavior it is critical for future researchers to examine both of these factors, particularly in the area of antigay aggression. By isolating the conditions in which moral disgust to gay men is and is not aroused, a better understanding of which conditions foster antigay aggression can be gained.

*Toward a Broader Theory of Antigay Prejudice*

This research marks are valuable first step in the development of a broader theory of antigay prejudice. In the following section I posit two theoretical assumptions that were generated by the results of this research. I then discuss limitations and questions
that remain unanswered by the present work. I conclude with a summary of my future research endeavors.

Assumption 1: Heterosexual males and females differ in their emotional reactions to male homosexuality. Males experience a blend of disgust and anger, females experience disgust but not anger. This assumption is derived from the results of study 1. I suggest that the blend of disgust and anger will only occur among males, and that females will not experience anger.

Assumption 2: Males’ aversion to male homosexual behavior derives from their perception that femininity negates masculinity. In study 2 I measured masculinity along three indices: power/status, toughness and anti-femininity (Thompson & Pleck, 1986). Of these three components only anti-femininity was predictive of moral disgust. That is, the perception that femininity in men is pejorative predicted moral judgments and moral emotions to male homosexuality. Given this effect, I would predict that men would perceive homosexual male affection as 1) feminine, and 2) a violation of masculinity. Consistent with studies 1 and 2, they should also report disgust and anger. I argue that this link between anti-femininity and antigay prejudice is central to males, but not females. Recent research by Bosson and colleagues (Bosson et al., in press) shows that people view masculinity as something that must be continually proven and reified, whereas femininity does not require this vigilance. Furthermore, Bosson et al. (2005) found that, when heterosexual men visualize themselves performing cross-gendered activities, they expected to be misclassified as gay. They, in turn, became more self-conscious and uncomfortable when they expected to be classified as gay. Importantly,
however, women did not follow this pattern (Bosson et al., 2005). They neither anticipated misclassification following visualizing cross-gendered behavior nor expressed any self-conscious discomfort. Given these findings, I suggest that although women may indeed perceive that feminine behavior negates masculinity, only men should extend this perception to denigrate male homosexuality.

**Limitations**

This work provides the first systematic investigation into heterosexual men and women’s emotional reactions to male homosexuality. Previous studies have focused exclusively on male participants reactions to gay erotica (Parrott & Zeichner, 2006, in press), or assessed men and women’s emotions toward gay men as compared to other outgroups (Cottrell & Neuberg, 2005). Despite the broader scope of the present inquiry, some important limitations are worth noting.

The most obvious limitation of this research is the exclusive focus on male homosexuality. I chose to focus on gay men for two reasons: First, existing research on disgust and homosexuality was also exclusive to gay men (Cottrell & Neuberg, 2005; Haidt & Hersh, 2003; Tapias et al, 2007). To the best of my knowledge, there has yet to be published research examining people’s emotional reactions to female homosexuality. Because the predictions for the current work derived from findings of past research, it seemed premature to include a female homosexuality comparison group. Second, the present work is part of a broader program of research designed to elucidate the factors that predict antigay aggression. Because the majority of sexual orientation hate crime victims are gay men and not lesbians (Herek, in press), this initial effort to test moral
disgust was focused on gay men. This limitation withstanding, I am currently replicating study 1 and including a film clip depicting female homosexual behavior. I predict that this will not arouse moral disgust from males or females. Because female sexual behavior does not constitute a violation of masculine role norms for men, I expect little anger and disgust to ensue. For heterosexual females, I predict a similar pattern.

A second limitation to the present work is that because disgust and anger were measured via self-report, the mechanism for the predicted “blend” of disgust and anger is unclear. Although men reported disgust, and to a lesser extent, anger, it is unclear if these emotions were experienced simultaneously, or whether a temporal pattern occurred. It is possible that people experience disgust initially and subsequently experience anger. Understanding this mechanism is important. Disgust and anger differ in their associated action tendencies. Disgust has been identified as eliciting avoidance motivations (Davidson et al., 1998) whereas anger elicits approach motivations (Harmon-Jones & Allen, 1998). The predicted “blend” of disgust and anger described for moral disgust (Rozin, Haidt & McCauley, 2000) implies that emotions with opposite action tendencies are elicited together. This presents a challenge in predicting the association between these emotions and antigay aggression. It is known that the anger that heterosexual men experience from gay erotica predicts subsequent antigay aggressive acts (Parrott & Zeichner, 2006). However, the results of the present work demonstrated that men report far more disgust than they do anger to male homosexuality. Therefore, a primary objective for my future research is to assess the relationship of disgust versus anger upon antigay aggression.
Concluding Comments

The implications of this work are both promising and troubling. Heterosexual men did not report disgust or anger to the non-threatening gay male target in study 3, and heterosexual females reported minimal disgust and no anger to male homosexual behavior. This is likely to be an outcome of the rapid change in attitudes toward sexual minorities. I suspect that if this research was conducted ten or even five years ago, the results would have differed such that the mere presence of gay men elicited moral disgust and male homosexual behavior aroused stronger emotional reactions from women. Despite this encouraging trend, this research shows that heterosexual men are strongly threatened by the notion of homosexuality, and experience moral disgust to male homosexual behavior. In fact, Study 1 showed that men found a clip of two men kissing to be equally disgusting as a graphic arm amputation. This suggests a pressing need for further research on the causes and effects of such a powerful emotional response.
References


Rozin and colleagues (2000) proposed a four-factor classification of disgust (see also Rozin & Fallon, 1987; Rozin, Haidt & McCauley, 2000; Rozin, Lowery & Ebert, 1994). First, core disgust refers to basic disgust of a specific sort, where an orally ingestible substance is contaminating. Second, animal origin disgust refers to a reaction to stimuli that elicit associations of humans with animals. Third, interpersonal disgust is the kind of disgust that is aroused from direct or indirect contact with undesirable people. Fourth, moral disgust is disgust related to the protection of the self as a spiritual entity from degrading and polluting influences (discussed in more detail below). Because there is overlap between core disgust and animal origin disgust, researchers classify each as pure disgust.

Emotions also differ in approach and avoidance action tendencies. Disgust has been identified as an avoidance motivation (Davidson et al., 1990) and anger as an approach motivation (Harmon-Jones & Allen, 1998). However, to the best of my knowledge, no research to date has assessed if these motivations differ when emotions are aroused in a moral versus a non-moral context.

There may be overlap between interpersonal and moral disgust (Olatunji & Sawchuk, 2005) and there has yet to be an empirical demonstration of their discriminant validity.

Because of these differences between pure and moral disgust, some researchers question the validity of moral disgust as a form of disgust (Rozyman & Sabini, 2001; Simpson, Carter, Anthony & Overton, 2006), and argue that the felt experience of moral disgust is more characteristic of contempt or anger (Rozyman & Sabini, 2001). Assessing the validity of moral disgust is beyond the scope of the present work. My purpose here is to draw from the literature on disgust to provide a framework understand disgust reactions toward gay men.

I examined if anger also mediated the relationship between anti-femininity and morality ratings. It did not. Also the reverse mediation (anti-femininity mediating disgust and moral judgment) was not significant.
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