

AN INVESTIGATION INTO THE ROLE OF EMOTIONS, PHYSIOLOGICAL
SEXUAL AROUSAL, AND EGO-DEFENSIVENESS IN MEN'S
HOMONEGATIVITY.

A Thesis Submitted to the College of
Graduate Studies and Research
In Partial Fulfillment of the Requirements
For the Degree of Doctorate
In the Department of Psychology
University of Saskatchewan
Saskatoon

By

Lesley Leanne Roberts (M.Sc.)

PERMISSION TO USE

In presenting this thesis/dissertation in partial fulfillment of the requirements for a Postgraduate degree from the University of Saskatchewan, I agree that the Libraries of this University may make it freely available for inspection. I further agree that permission for copying of this thesis/dissertation in any manner, in whole or in part, for scholarly purposes may be granted by the professor or professors who supervised my thesis/dissertation work or, in their absence, by the Head of the Department or the Dean of the College in which my thesis work was done. It is understood that any copying or publication or use of this thesis/dissertation or parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the University of Saskatchewan in any scholarly use which may be made of any material in my thesis/dissertation.

DISCLAIMER

Reference in this thesis/dissertation to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not constitute or imply its endorsement, recommendation, or favoring by the University of Saskatchewan. The views and opinions of the author expressed herein do not state or reflect those of the University of Saskatchewan, and shall not be used for advertising or product endorsement purposes.

Requests for permission to copy or to make other uses of materials in this thesis/dissertation in whole or part should be addressed to:

Gordon Sarty P.Eng., Ph.D.Professor, Acting Department Head Psychology
Department of Psychology
9 Campus Drive, 154 Arts
University of Saskatchewan
Saskatoon, Saskatchewan S7N 5A5 Canada

OR

Dean
College of Graduate Studies and Research
University of Saskatchewan
107 Administration Place
Saskatoon, Saskatchewan S7N 5A2 Canada

ABSTRACT

Homonegativity is a multidimensional construct that encompasses the negative affective, cognitive, and behavioural responses directed towards individuals presumed, correctly or incorrectly, to be gay or lesbian. Given the affective component of homonegativity is relatively understudied compared to the cognitive and behavioural components, two studies were designed to better understand its role in the expression of homonegativity, its association with the different functions of homonegativity, and possible physiological manifestation. The purpose of Study 1 ($N = 737$), which involved an online questionnaire, was four-fold: (1) to examine the prevalence of homonegativity across the cognitive, affective, and behavioural domains, (2) assess the relationships between the ego-defensive function and measures of affective reactions, (3) assess the value of the affective component of homonegativity in predicting past anti-gay behaviours, and (4) to create a sampling pool for Study 2. The majority of participants scored below the scale midpoint of the ATG and MHS-G and they most often reported engaging in subtle behaviours directed toward gay men. The self-identified heterosexual men ($n = 411$) reported more negative affective reactions toward gay men than the self-identified heterosexual women ($n = 325$) and negative affective reactions were positively correlated with the ego-defensive function. Further, stronger negative affective reactions were the best predictors of past homonegative behaviours, compared to gender and homonegative attitudes. The purpose of Study 2 ($N = 40$) was to examine the physiological manifestation of homonegativity using penile plethysmography and its association to affective responses and ego-defensiveness. Genital and subjective sexual arousal to the gay male videos did not significantly differ by level of homonegativity, affective reactions, or scores on measures of defensiveness. In sum, the affective component of homonegativity is associated with the ego-defensive function and has a significant impact on the enactment of homonegativity, but is unrelated to differences in sexual arousal responses. The broader clinical implications of the affective component and a proposed re-conceptualization of the ego-defensive function as it applies to homonegativity are discussed. Limitations of the study including the lower sample scores on the attitudinal measures of homonegativity, directions for future research, and possible interventions are also presented.

ACKNOWLEDGMENTS

I would like to express my appreciation to Dr. Melanie Morrison for accepting me as her student, which provided me the opportunity to pursue my dream of becoming a Clinical Psychologist. I would also like to thank my committee members, Drs. Lorin Elias, Todd Morrison and Laurie Hellsten, for their feedback and support over the course of preparing my final document. A special thank you to Dr. Mark Olver, for his support and assistance with my data analysis and for acting as Chair of my defense. Thank you also to Dr. B. J. Rye, my external examiner, for your interest in and enthusiasm for my research.

I would also like to acknowledge my undergraduate and Master's degree supervisors, without whom I would not be where I am today. I would like to thank Dr. Margo Watt for inspiring me to pursue Clinical Psychology as a career and motivating me through her enthusiasm and ongoing support over the years. Words cannot express my gratitude to Dr. Paul Vasey who accepted me as his student and was committed to helping me reach my goal of a Clinical PhD program. His unwavering support over the past eight years has been unparalleled and encouraged me to push on.

I would also like to thank the wonderful women with whom I have navigated the highs and lows of the last six years, Lindsay Sewell, Laura Scallion, Christina Jones, Rachel Burton, and Chassidy Carruthers. I will never forget these strong women with whom I commiserated and celebrated with during one of the most adverse and rewarding experiences of my life. I wish you all tremendous joy and success in your futures.

Finally, I would like to thank my family and friends in Nova Scotia and in Saskatoon, for their ongoing support and love. Most of all, I would like to thank my husband, Brian Roberts, for his patience, love, and understanding. He has moved across Canada to support me as I pursued my education and now will take me home to Nova Scotia where we will begin the next phase of our lives. I will be forever grateful for the sacrifices he has made and the support he has given me, especially over the last six years.

TABLE OF CONTENTS

Permission to use	i
Abstract	ii
Acknowledgement	iii
Table of Contents	iv
List of Tables	ix
List of Figures	xi
Chapter 1: Introduction	1
Theoretical Explanations for Homonegative Attitudes.....	3
Gender Belief System.....	3
Hegemonic Masculinity.....	5
Self-Discrepancy Theory.....	7
Attitude Functions Theory.....	8
Ego-defensive Function: Its Measurement and Empirical Support.....	10
Summary of Theoretical Overview.....	14
Overview of Proposed Research.....	14
Chapter 2: Study 1: The Affective Component of Homonegativity	16
Introduction.....	16
Affect and Homonegativity.....	16
Affect, Anti-gay Behaviour, and Homonegativity.....	28
Purpose of Study 1.....	35

Hypotheses for Study 1.....	36
Method.....	37
Participants.....	37
Measures.....	38
Cognitive Measures of Homonegativity.....	38
Affective Measures of Homonegativity.....	39
Behavioural Measures of Homonegativity.....	41
Functions Measures.....	43
Additional Measures.....	43
Procedure.....	44
Results.....	44
Discussion.....	54
Limitations and Future Directions.....	57
Chapter 3: Study 2: Affective Reactions, Attitude Functions, and the Physiological Manifestation of Homonegativity.....	59
Introduction.....	59
Affect and Sexual Arousal.....	74
Anxiety and Sexual Arousal.....	75
Anger and Sexual Arousal.....	81
Disgust and Sexual Arousal.....	82
Summary of Affect and Sexual Arousal Research.....	85

Purpose of Study 2.....	86
Hypotheses for Study 2.....	87
Method.....	88
Participants.....	88
Measures.....	89
Cognitive Measures of Homonegativity.....	89
Affective Measures of Homonegativity.....	90
Defensive Measures of Homonegativity.....	90
Additional Measures.....	93
Measures of Continuous Subjective Sexual Arousal.....	94
Post-video Questions.....	94
Measure of Genital Sexual Arousal.....	94
Stimuli.....	95
Procedure.....	96
Results.....	98
Questionnaire Data.....	98
The relationship between homonegativity and genital and subjective sexual arousal responses.....	103
Genital Responses.....	103
Continuous Subjective Arousal Responses.....	104
Emotional and Subjective Arousal Post-video Ratings.....	106

Defensive/Functional Measures of Homonegativity and Genital Arousal.....	108
Discussion.....	108
Limitations and Future Directions.....	111
Chapter 4: General Discussion.....	114
References.....	131
Appendix A: Principle Component Analysis of the ARHS.....	162
Appendix B: Exploratory Factor Analysis of the ABI.....	166
Appendix C: Study 1 Recruitment Poster.....	173
Appendix D: Study 1 Recruitment Bulletin Post.....	174
Appendix E: Study 1 Online Consent Form.....	175
Appendix F: Study 1 Complete Online Survey.....	177
Appendix G: Study 1 Assumption Testing.....	201
Appendix H: Post-stimuli Questions.....	202
Appendix I: Video Stimuli Pilot Study.....	203
Appendix J: Video Selection Rating Form- Sexual Videos.....	208
Appendix K: Video Selection Rating Form- Neutral Videos.....	210
Appendix L: Video Selection Pilot Study Consent Form.....	211
Appendix M: Online Consent to be contacted for Study 2.....	213
Appendix N: Study 2 Telephone Script.....	214
Appendix O: Study 2 Consent Form.....	216

Appendix P: Study 2 Room Script.....	219
Appendix Q: Study 2 Debriefing Form.....	222
Appendix R: Comparison Analysis between Study 1 and Study 2 Participants.....	223
Appendix S: Intercorrelation Among Defensive/functional Measures Using Study 1 Sample.....	225
Appendix T: A Proposed Model of Homonegativity.....	228

LIST OF TABLES

Table 2.1: Demographics of Study 1 participants stratified by gender.....	229
Table 2.2: Means, standard deviations, ranges, and alpha coefficients for measures of homonegativity components and homonegative motivations and functions.....	231
Table 2.3: Frequency of anti-gay behaviours measured by the ABI-SF stratified by gender.....	233
Table 2.4: Frequency of anti-gay behaviours measured by the SBS-R stratified by gender.....	234
Table 2.5: Intercorrelations among the measures of homonegativity components and homonegative motivations and functions.....	238
Table 2.6: Frequency of anti-gay behaviour motivations of assailants stratified by gender.....	239
Table 2.7: Frequency of anti-gay behaviour motivations of non-assailants stratified by gender.....	242
Table 2.8: Univariate logistic regression analysis of predictors of anti-gay behaviour..	245
Table 2.9: Multivariate logistic regression analysis of the predictive value of the ATG and MHS-G in determining anti-gay behavior	246
Table 2.10: Logistic regression analysis of the unique predictive value of the gender and MHS-G in determining anti-gay behavior.....	247
Table 2.11: Logistic regression analysis of the MHS-G, SDMH, and ARHS subscales in determining anti-gay behaviour.....	248
Table 2.12: Logistic regression analysis of the attitude functions (AFI) in determining anti-gay behavior.....	249
Table 2.13: Logistic regression analysis of the SDMH, ARHS- subscales and the AFI- subscales in determining anti-gay behaviour.....	250

Table 3.1: Demographics of Study 2 participants stratified by level of homonegativity.....	251
Table 3.2: Means, standard deviations, ranges, and alpha coefficients for attitudinal and defensive/functional measures of homonegativity.....	253
Table 3.3: Frequency of anti-gay behaviour motivations of <i>Assailants</i>	256
Table 3.4: Intercorrelations among the measures of the attitudinal and defensive/functional measures of homonegativity stratified by scores on the ATG.....	258
Table 3.5: Intercorrelations among the measures of the attitudinal and defensive/functional measures of homonegativity stratified by the scores on the MHS-G.....	259
Table 3.6: Means and standard deviations of the raw genital sexual arousal data in millimeters across videos stratified by scores on the ATG and MHS-G.....	260
Table 3.7: Means and standard deviations of the standardized genital sexual arousal data across videos stratified by scores on the ATG and MHS-G.....	261
Table 3.8: Means and standard deviations of the standardized continuous subjective sexual arousal response (CSR) across videos stratified by scores on the ATG and MHS-G.....	262
Table 3.9: Means and standard deviations of within-subjects correlations between genital sexual arousal and continuous subjective arousal response (CSR) in response to Male/Male sexually explicit material.....	263
Table 3.10: Means, standard deviations, and obtained ranges of post-video question responses.....	264
Table 3.11: Intercorrelations among the affective post-video questions and genital sexual arousal to the Male/Male video.....	265
Table 3.12: Intercorrelations among the measures of the defensive/functional measures of homonegativity and genital sexual arousal to the male/male video.....	266

LIST OF FIGURES

Figure 3.1: Standardized mean genital responses in men higher in homonegativity and lower in homonegativity as measured by the ATG and as a function of video category.....267

Figure 3.2: Standardized mean genital responses in men higher in homonegativity and lower in homonegativity as measured by the MHS-G and as a function of video category.....268

Figure 3.3: Standardized mean subjective responses in men higher in homonegativity and lower in homonegativity as measured by the ATG and as a function of video category.....269

Figure 3.4: Standardized mean subjective responses in men higher in homonegativity and lower in homonegativity as measured by the MHS-G and as a function of video category.....270

CHAPTER ONE

Introduction

In 2005, Mahaffey, Bryan, and Hutchison (2005a) argued that homonegativity was the “last remaining socially acceptable prejudice” (p. 37). Today, some may find themselves scoffing at this statement given the recent strides made by gay and lesbian individuals, or readily generating numerous examples of persecuted social groups whose needs appear to far surpass those of gay men and lesbian women in contemporary society. Moreover, given the year of Mahaffey et al.’s quote (i.e., approximately one decade ago), and the outcomes of recent opinion polls conducted by popular media such as the Wall Street Journal and CNN, one might assume that the extent to which gay men and lesbian women’s equality was not fully granted was of minimal concern or, at the very most, just a few minor legal skirmishes away. In other words, there may be the presumption that enough “progress” has been made (e.g., in the areas of housing – gay men and lesbian women cannot be lawfully evicted due to their sexual orientation; and employment – gay men and lesbian women cannot legally be denied employment on the basis of their sexual identity) that the granting of certain civil rights to gay men and lesbian women may be viewed as unnecessary or incidental.

Despite the likelihood of such presumptions, much of the evidence still supports the contention made by researchers such as Mahaffey et al. (2005) over a decade ago: the unequal treatment of gay men and lesbian women has been a mainstay of American culture as well as many others. Of the contemporary structural inequalities that have been found to compromise the psychological health of individual gay men and lesbian women in the United States, one of the most predominate was the absence of marriage equality (Hatzenbuehler, McLaughlin, Keyes, & Hasin, 2010). For example, as of 2013, only 12 of the 50 United States of America had legalized marriage between same-sex couples. Between 2013 and 2015, an additional 26 States had legalized same-sex marriage thus taking the total to 38 of the 50 possible. It was not until the landmark decision made by the United States’ Supreme Court on June 27th, 2015, that the marriages of gay and lesbian couples across all 50 States, the territory of Guam and the District of Columbia could be performed without repercussions and be legally recognized. In the face of these current legal provisions, however, homonegativity remains at the forefront of many

political campaigns (e.g., Huckabee, 2015) and policy debates (Hatzenbueler et al., 2010). Further, “martyrs” (e.g., Kim Davis, a woman recently imprisoned for her refusal to grant marriage licenses to same-sex couples in Kentucky, USA; “Kim Davis”, 2016), who espouse the sanctity of heterosexual marriage to the exclusion of all others, are trumpeted as modern day heroes by the political right.

This is not to say, that sexual minority individuals living in Canada do not face similar challenges. In a recent Canada-wide study, Peter, Taylor, and Chamberland (2015) assessed the prevalence of homonegative behaviour (i.e., homonegative discourse, physical and non-physical abuse) experienced by sexual minority students and heterosexual students perceived to be lesbian, gay, bisexual, queer, or questioning (LGBG). The researchers indicated that high school students across Canada experience comparable rates of homonegative discourse (70.4%) and abuse (physical = 10.7%; non-physical = 27.8%) as do students in the United Kingdom and the United States. Further, experiencing non-physical acts of abuse (i.e., the spread of negative rumours at school or on the internet) was the best predictor of experiencing physical abuse (e.g., being pushed, punched, kicked, or injured) amongst the students sampled. Regional differences indicated that British Columbia, where anti-homonegativity policies and Gay-Straight Alliances (GSA) have been adopted in the school systems, had the lowest rates of abuse and homonegative discourse (Peter et al., 2015). Despite the clear positive impact of such policies and the presence of GSAs, several regions in Canada, including Saskatchewan continue to fight for legal support from the government to have GSAs in schools (McKinnon, 2015). As a result, the detrimental impact of homonegativity on self-esteem, depression, and anxiety, as well as the rates of internalized homonegativity and suicide continue to be a problem among Canadian LGBT individuals (Blais, Gervais, Hebert, 2014; Ferlatte, Dulai, Hottes, Trussler, & Marchand, 2015; Morrison, 2011).

Homonegativity, at its core, is a multidimensional construct that encompasses the negative cognitive, affective, and behavioural responses directed towards individuals presumed, correctly or incorrectly, to be gay or lesbian (Hudson & Ricketts, 1980). Attitudinal homonegativity, which is the most commonly documented form of homonegativity, and that which primarily encapsulates the *cognitive* component of anti-gay/-lesbian bias, is exhibited by both men and women; however, research has shown

that it is significantly more prevalent among men, and that men tend to score higher on measures of homonegativity than do women (Davies, 2004; Herek & Capitanio, 1999; Kite & Whitley, 1998; Meaney & Rye, 2010; Morrison, Morrison, & Franklin, 2009; Morrison, Parriag, & Morrison, 1999; Prati, Pietrantonio, & D'Augelli, 2011; Roderick, McCammon, Long, & Allred, 1998). Men also have been found to act more aggressively towards sexual minorities than women, and these acts, in their most brutal form, have resulted in numerous violent attacks and homicides (Cramer, Oles, & Black, 1997; Franklin, 1998 a,b, & 2000; Herek et al., 2002; Jewell & Morrison, 2010).

In order to introduce the construct of homonegativity more fully, the next two sections provide a brief overview of the theoretical frameworks used to understand homonegativity as a contemporary form of social group bias. Specifically, the following sections outline the extant theoretical frameworks used to understand homonegative attitudes, which is arguably the dimension that has received the most empirical attention to date.

Theoretical Explanations for Homonegative Attitudes

There are several interrelated explanatory theories of homonegative attitudes; namely, the Gender Belief System (Kite & Deaux, 1987), Hegemonic Masculinity (Connell, 1995), Self-Discrepancy Theory (Higgins, 1987), and the Attitude Functions Theory (Herek, 1988).

Gender Belief System

The Gender Belief System polarizes masculinity and femininity, such that masculinity is defined as the absence of feminine attributes or characteristics (Wilkinson, 2004). Homonegativity is thought to arise from perceptions that gay men and lesbian women violate norms, roles, and characteristics perceived to be masculine and feminine (Kite & Deaux, 1987; Madon, 1997) and, thus, researchers have suggested that the adoption of traditional gender-related beliefs may account for the sex differences found in the acceptance and expression of homonegativity (Capezza, 2007; Davies, 2004; Kite, 1984; Meaney & Rye, 2010; Morrison, McLeod, Morrison, Anderson, & O'Connor, 1997; Rye & Meaney, 2010). For example, in a sample of 213 American undergraduate students (71 men; 142 women), men who scored higher on a measure of old-fashioned homonegativity (i.e., the Attitudes Toward Lesbian and Gay Men Scale; ATLG, Herek,

1994) reported less tolerance toward gay men who displayed gender-atypical behaviours (e.g., cleaned the house or cried during a sad play) than to gay men who were more gender-typical (e.g., fixed a leaky faucet or went to rugby practice; Lehavot & Lambert, 2007). Blashill and Powlishta (2009) extended the research conducted by Lehavot and Lambert (2007) by manipulating both the gender-role behaviours and sexual orientation of the evaluative targets. Manipulation of both variables allowed the researchers to tease apart whether gender-role “violations” alone or the presumed link between gender-role violations and homosexuality lead to more negative evaluations. In their sample of 177 male undergraduate students, Blashill and Powlishta (2009) found that “feminine” targets were rated more negatively than “masculine” targets, and gay targets were rated more negatively than heterosexual targets. Further, Corley and Pollack (1996) found that a sample of 135 self-identified American heterosexual men who strongly endorsed traditional gender roles, as measured by the Attitudes Toward Women Scale (ATW; Spence, Helmreich, & Stapp, 1973), evaluated lesbian women more positively after being primed with a description of a lesbian couple whose partners were both stereotypically feminine than when one or both partners were more stereotypically masculine. This research supports the hypothesis that perceptions of gay men and lesbian women as “violators” of traditional gender roles are strongly related to homonegative attitudes.

The gender belief system also contributes to homonegativity by means of perpetuating heterosexism (i.e., the belief that heterosexuality is the default or natural state of human sexuality; Rye & Meaney, 2010). That a relationship between homonegativity and heterosexism exists has been demonstrated successfully in research investigating attitudes towards adoption among gay and lesbian couples. In a sample of 447 Canadian undergraduate students (172 men; 275 women), for example, Rye and Meaney (2010) found that gay and lesbian couples were rated less favourably than heterosexual couples who were candidates for adoption based on identical scenarios that differed only in regard to the couple’s gender composition (i.e., two men, two women, or a man and a woman). This result was replicated and extended recently by McCutcheon and Morrison (2015) who asked 506 Canadian university students to evaluate vignettes describing adoptive couples. Not only was the gender composition of the couples manipulated; but, so was the sex of the child being adopted and the gender role

characteristics of the potential adoptive couple. The researchers indicated that gay and lesbian couples were rated less favourably than heterosexual couples when asked about outcomes for the adoptive child. However, participants were more likely to approve the placement of the adoptive child with lesbian adoptive couples whose gender role characteristics emulated the traditional masculine/feminine dyad as compared to lesbian couples in which both partners displayed feminine gender role characteristics. Further, research has found a strong relationship between traditional gender-related beliefs and negative attitudes towards same-sex marriage, such that individuals who adhere to traditional gender roles believe that same-sex marriage undermines the institution of marriage and devalues the status accorded to heterosexual persons when married (Bernstein, 2004; McVeigh & Maria-Elena, 2009). Although the Gender Belief System theory possesses several strengths of an explanatory nature, it has been critiqued for its assumption that masculinity and femininity are discrete and stable constructs. This has caused critics to assert that the theory lacks “ethnographic realism” (i.e., it does not accurately reflect the cultural phenomenon of gender; Connell & Messerschmidt, 2005, p. 832).

Hegemonic Masculinity

The theory of Hegemonic Masculinity builds upon the Gender Belief System Theory by acknowledging the plurality and complexity of masculinity, as well as the roles that power and dominance play in gender constructions for some men (Connell & Messerschmidt, 2005). Hegemonic Masculinity asserts that homonegative attitudes are an attempt to solidify the current social order that grants men, who embody a particular form of masculinity depending on the culture and time, power and status while marginalizing gay men and women (Donaldson, 1993). Several studies have found correlations (e.g., r s ranging from .27 to .66) between measures associated with hegemonic masculinity (i.e., right-wing authoritarianism and social dominance orientation) and homonegativity (Altemeyer, 1988; Basow & Johnston, 2000; Haddock, Zanna, & Esses, 1993; Herek, 1988; Kilianski, 2003; Morrison, Kenny, & Harrington, 2005; Pratto, Sidanius, Stallworth, & Malle, 1994; Wilkinson, 2004a, 2004b). Both right-wing authoritarianism and social dominance orientation emphasize the importance of the maintenance of social hierarchies and the marginalization of out-group members or lower status groups.

Morrison et al. (2005) examined the relationship between several variables, including social dominance orientation, as measured by the Social Dominance Orientation Scale (SDO; Pratto et al., 1994) and homonegativity using both the old-fashioned Attitudes Toward Gay Men Scale (ATG; Herek, 1984, 1988) and Modern Homonegativity Scale (MHS; Morrison & Morrison, 2003), a contemporary measure of homonegativity, within a sample of 353 Irish undergraduate students (57 men; 283 women). The authors indicated that individuals' endorsement of homonegative attitudes were positively correlated (i.e., r s ranged from .55 to .65) with scores on the measure of social dominance orientation.

Hegemonic Masculinity and its role in homonegativity garnered further support from another line of research conducted by Jefferson and Bramlett (2010). These researchers investigated the relationship between homonegativity and perceptions of male dyads that varied by sexual orientation (e.g., two male friends, with one of the friends being gay). One hundred and fifty seven American undergraduate students were asked to read a short vignette and shown two short (i.e., six minute) film clips in which two men interacted. The vignette described the films as depicting two men either on a "date" because one of them lost a bet or collaborating on a writing project. The description of one of the character's sexual orientation was manipulated such that he was described as gay in one condition and as heterosexual in the other. The second character was always described as gay. Participants were then asked to rate the likeability of both characters in each film clip. Results showed that men who scored higher on a measure of homonegativity (i.e., the old-fashioned Attitudes Toward Gay Men Scale; Herek, 1984) rated the first character more favourably when both characters in the film clip were described as gay, than if the character was described as a heterosexual man interacting with a gay man. The authors speculated that this effect may reflect homonegative men's desire to maintain the status quo, and for gay men to "know their place" and "appropriately segregate themselves" by only interacting with members of their out-group (i.e., other gay men). In contrast, when the character was described as a heterosexual man interacting with a gay man, he may have been perceived as more of a threat because, as a "member of the dominant social group, he may have a greater

potential to harm in-group solidarity” by not upholding the marginalization of out-group members (Jefferson & Bramlett, 2010; p. 409).

Overall, there is support for the role hegemonic masculinity plays in the perpetuation of homonegativity. However, much of the research thus far has relied on measures of related concepts (e.g., right-wing authoritarianism and social dominance orientation) rather than on the development and application of a measure specifically designed to assess hegemonic masculinity. Further, although hegemonic masculinity has recently been assessed as an individual difference variable (e.g, Smith, Parrott, Swartout, & Tharp, 2015), it is largely considered a cultural construct of gender at the societal level and has been critiqued as not addressing the role of individuals as “agents” of hegemonic masculinity (i.e., the hegemony of men; Hearn, 2004, p. 59).

Self-Discrepancy Theory

Kilianski (2003) combined elements of the Gender Belief system, Hegemonic Masculinity, and Higgins’ (1987) Self-Discrepancy Theory to focus on the impact societal expectations of masculinity have on an individual man’s gender identity development and homonegative attitudes. According to Higgins (1987), there are three basic domains of the self: (1) the actual self, (2) the ideal self, and (3) the “ought” self. The actual self is a representation of the attributes a person believes he or she actually possesses; the ideal self is a representation of attributes a person would like to possess; and the “ought” self is the representation of attributes that a person believes he or she should possess. These domains of the self can be considered from different perspectives or “standpoints” (Higgins, 1987). For example, one can consider his or her actual self from either his or her own standpoint or from the standpoint of a significant (e.g., spouse or partner) or general other (e.g., parents, friends, or colleagues). Higgins (1987) argued that discrepancies among the domains of the self and the standpoints can lead to different emotional states. For instance, when a discrepancy occurs between the actual self from one’s own perspective and the ideal self created by others, a person may experience “dejection-related” emotions such as shame, embarrassment, or sadness, whereas, a discrepancy between the actual self from one’s own perspective and the “ought” self from the perspective of others can result in feeling “agitated-related” emotions, such as fear or feeling threatened (Higgins, 1987).

According to the Self-Discrepancy theory, homonegativity is attributed to men's attempts to resolve such perceived discrepancies between their "ought" or ideal gender-identity, as constructed by society, and their actual gender-identity (Higgins, 1987; Ogilvie, 1987; Theodore & Basow, 2000). For example, men who believe their own masculinity is inadequate are more likely to engage in negative behaviours toward gay men (i.e., men who violate traditional conceptualizations of masculinity) in order to affirm or reaffirm their masculinity (Kilianski, 2003). Research has shown that men who are "hypermasculine" (i.e., adopt an exaggerated male gender-role) often respond aggressively to perceived threats to their masculinity and have been shown to report greater levels of homonegativity (Parrott, Adams, & Zeichner, 2002). In a sample of 85 undergraduate men, Theodore and Basow (2000) found men who reported a greater discrepancy between their actual and ideal/ought masculine selves on the "Ought" Self Questionnaire (OSQ; Pelham & Swann, 1989) held more homonegative attitudes and beliefs as measured by the old-fashioned Attitudes Toward Homosexuality Scale (ATH; Black & Stevenson, 1984). Further, voluntary ratings of the importance of masculine attributes (e.g., dominance and independence) emerged as the best predictors of homonegativity (Theodore & Basow, 2000). Although evidence supporting the Self-Discrepancy theory, as well as the other previously outlined theories, has provided insight into homonegative attitudes, they address only the societal constructions of gender as possible contributing factors to homonegativity. Herek (1986, 1987, 1988), a prolific researcher in the area of homonegativity, was the first to outline a framework, the Attitude Function Theory, that served to broaden the scope of theorizing about the potential causes of homonegativity.

Attitude Function Theory

Building on the Gender Belief System (Kite & Deaux, 1987), Hegemonic Masculinity (Connell, 1995), and the Self-Discrepancy (Higgins, 1987) theories, Herek proposed that homonegative attitudes served several purposes in addition to maintaining gender role stereotypes. His functional approach assumes "people hold and express particular attitudes because they derive psychological benefit from doing so, and the type of benefit varies among individuals" (Herek, 1986, p. 102). Herek (1986, 1987, 1988)

maintains that homonegative attitudes serve four functions: (1) *social-expressive*, (2) *value-expressive*, (3) *experiential*, and (4) *ego-defensive*.

The *social-expressive* and *value-expressive* functions are consistent with the Gender Belief System and Hegemonic Masculinity. The *social expressive* function allows individuals to gain approval and status from their families and friends by sharing similarly held negative views about gay men and lesbian women while demonstrating their own gender identity (Jewell & Morrison, 2010; Meaney & Rye, 2010). The *value-expressive* function enables individuals to express personal values that are important to them such as traditional gender-beliefs (Kilianski, 2003; Morrison & Morrison, 2002; Wilkinson, 2004), and foster alignments with members of their in-group (Herek, 1986). In addition to traditional gender-beliefs, religiosity evidences a strong relationship with homonegative attitudes and serves as a pillar of the *value-expressive* function (Rowatt, Tsang, Kelly, LaMartina, McCullers, & McKinley, 2006; Schwartz & Lindley, 2005; Wilkinson, 2004; Whitley, 2009).

Herek conceptualized the *experiential* function as evaluative, whereby individuals make assumptions about future interactions with gay men and lesbian women based on their past interactions with gay or lesbian persons. For example, if an individual experiences a negative interaction with a gay man, the Attitude Function Theory stipulates that the negative valence of these experiences may lead to unfavourable attitudes towards gay men during future encounters. Support for this function has been documented; however, research also has shown that it is not always negative interactions that lead to homonegative attitudes toward gay men; indeed, it may be due to the lack of any contact experience (Mohipp & Morry, 2004).

Ego-defensive homonegative attitudes are thought to alleviate personal anxiety and psychological conflicts about one's own sexuality or gender conformity, as well as perceived threats to one's sense of self (Meaney & Rye, 2010). Herek (1987) described the *ego-defensive* function as being most strongly associated with affective states, particularly anxiety, disgust, and discomfort. Moreover, researchers (e.g., Bernat, Calhoun, Adams, & Zeichner 2001; Hudepohl, Parrot, & Zeichner, 2011; Mahaffey et al. 2010; Parrott & Peterson, 2008; Parrott & Zeichner, 2008; Zeichner & Reidy, 2009) maintain that it is the *affective* component of homonegativity, represented most closely

by the *ego-defensive* function, that contributes to anti-gay/-lesbian violence (Franklin, 2000).¹

At this juncture, it should be mentioned that, although all dimensions of homonegativity (e.g., the cognitive, affective, and behavioural) will be measured in this dissertation, it is the affective component of homonegativity that will be of primary focus given the strong (albeit limited) empirical support for its role in the enactment of homonegativity (Franklin, 2000). As well, because the *ego-defensive* function of homonegativity is thought to be a proxy for individuals' affective reactions to sexual minority persons, it is this function that will be featured prominently in this dissertation. Consequently, a more expansive overview of the empirical research addressing the ego-defensive function specifically, in the context of the development of the Attitude Function Inventory, is provided below.

Ego-defensive Function: Its Measurement and Empirical Support

Herek (1987) developed the Attitude Function Inventory (AFI)² to assess the functions of attitudes towards gay men and lesbian women, as well as individuals with stigmatizing disabilities (i.e., AIDS, mental illness, and cancer). The AFI is a 10-item scale that assesses the social-expressive (e.g., “*My opinions about gay men mainly are based on my perceptions of how the people I care about have responded to gay people as a group*”); value-expressive (e.g., “*My opinions about gay men mainly are based on my moral beliefs about how things should be*”); experiential-schematic (e.g., “*My opinions about gay men mainly are based on whether or not someone I care about is gay*”) and the ego-defensive functions (e.g., “*My opinions about gay men mainly are based on the fact that I would rather not think about homosexuality or gay people.*”) The AFI uses a Likert-type scale ranging from 1 (*not at all true*) to 9 (*very true*). It has been found to possess good construct validity in so far as it correlates with measures of religiosity, externalized defense mechanisms, sensitivity to acceptance or rejection by valued individuals or groups (i.e., need for approval), density of social networks (i.e., the ratio of the number of

¹ It should be noted that, unlike the ego-defensive function that corresponds most strongly with affective states, the social-expressive, value-expressive, and experiential functions of the Attitude Functions Theory are thought to correspond most strongly with cognitive states (Herek, 1987).

² Items for the AFI were derived originally from a content analysis of short essays written by 205 heterosexual undergraduate students who were asked to describe their attitudes toward gay men and lesbian women (Herek, 1986).

actual relations to the number of relationships possible given the network's size), and sex role conformity (Franklin, 2000). Rye and Meaney (2010) reported the following subscale score reliabilities (Cronbach's α) for the AFI (in order of coefficient size): .87 (ego-defensive), .83 (experiential), .80 (social expressive), and .47 (value expressive).³

Since its development, the AFI has been used in approximately one dozen studies examining negative attitudes towards gay men and lesbian women. In 2008, Barron, Struckman-Johnson, Quevillon, and Banka were the first to investigate the relationship between the functions of homonegativity using the AFI (Herek, 1987), homonegative attitudes using the old-fashioned Attitudes Toward Gay Men Scale (ATG, Herek, 1987), and other variables thought to relate to these constructs (e.g., masculinity, self-discrepancy, openness to experience). Two hundred and forty three men from a Midwestern university completed the questionnaire. The authors indicated that the ego-defensive and social-expressive functions were among the variables that correlated significantly and most strongly with homonegative attitudes; the value-expressive and experiential functions did not correlate significantly with ATG scores. The authors concluded that support was evidenced for the Attitude Functions Theory; in particular, the under-investigated ego-defensive function. Barron et al. (2008) cautioned, however, that results from their study should be interpreted conservatively because the AFI ego-defensive subscale consists of only two items. From a psychometric standpoint, it is possible that a two-item measure may not adequately cover the domain of interest. Thus, it would be prudent for researchers exploring this function to use additional measures thought to represent defensiveness when assessing this particular function of homonegativity. As such, in the current dissertation, additional items thought to tap the ego-defensive function and measures assessing defensive styles more generally are included.

Using a sample of 4497 Canadian university students (1311 men; 2627 women; 559 unreported), Rye and Meaney (2010) compared the psychometric properties of the three most commonly used measures of homonegativity: two old-fashioned measures entitled the Index of Homophobia (IH; Hudson & Ricketts, 1980) and the Attitudes

³ The alpha coefficient for the value-expressive subscale is sub-optimal, and echoes the alpha coefficient for this subscale obtained by Franklin (2000). However, in the original paper Herek (1987) obtained an alpha coefficient for this subscale of .87.

Toward Lesbians and Gay Men Scale (ATLG; Herek, 1984; 1988), and a modern measure entitled the Modern Homonegativity Scale (MHS; Morrison & Morrison, 2002). Several measures were used to assess the construct validity of the three measures, one of which was the Attitude Function Inventory (AFI). Tests of construct validity revealed that the four functions comprising the Attitude Functions Theory (i.e., ego-defensive, social-expressive, experiential, and value-expressive), as measured by the AFI, varied in their degree of correlation with the three measures of homonegativity. Specifically, the ego-defensive function was highly correlated with all three measures of homonegativity (r s ranged from .62 to .68), the social-expressive function was modestly correlated with measures of homonegativity (r s ranged from .14 to .34), and the experiential and value-expressive functions tended not to correlate significantly with the measures of homonegativity (r s ranged from *ns* to .14; Rye & Meaney, 2010).⁴ Although this study demonstrated a strong relationship between the ego-defensive function and the three measures of homonegative attitudes, a comprehensive understanding of how ego-defensiveness functions is limited due to the small number of items used to assess the construct. Although such a small number of items may not adequately tap the domain of interest (i.e., ego-defensiveness), it is plausible that a more expansive approach to the measurement of ego-defensiveness and defensive styles in general may offer greater insight about this function and its potential for understanding anti-gay bias. Additional items associated with the ego-defensive function and measures assessing defensive styles more generally are included in the dissertation in an effort to address the limitations associated with previous research.

In another study by the same authors, Meaney and Rye (2010) used a correlational design with a sample of 875 Canadian university students (325 men; 550 women) to examine the relationships between attitude functions, homonegative attitudes, and gender. The authors found that the ego-defensive function emerged as the only strong and consistent predictor of homonegative attitudes among men and women, whereas the value-expressive, social expressive, and experiential functions emerged as weaker

⁴ Results also indicated that the Gay Men version of the Modern Homonegativity Scale provided a better approximation of the normal distribution compared to the old-fashioned Index of Homophobia and the Attitudes Toward Gay Men Scale. Consequently, the authors recommended that the Modern Homonegativity Scale be used in future studies assessing negative cognitions about gay men.

predictors. Interestingly, despite the ego-defensive function being deemed the best predictor of negative attitudes among men, the value-expressive function was endorsed more so by participants. Meaney and Rye (2010) suggested that the value-expressive function may be easier for participants to endorse because of the clear cognitive (i.e., thought-based) scale items. In contrast, participants may not be as aware of the affective component or the function that is hypothesized to serve as its proxy (i.e., the ego-defensiveness) underlying homonegative attitudes. Consequently, a key advance in research examining the ego-defensive function (i.e., the affective dimension of homonegativity) would be to use techniques that enable their assessment of defensiveness and accompanying affective reactions or states (Mahaffey, Bryan, Ito, & Hutchison, 2011). This would be particularly compelling since researchers (e.g., Mahaffey et al., 2011; Meaney & Rye, 2010) caution against the challenges associated with measuring the ego-defensive function, insofar as these types of reactions may be more difficult for participants to acknowledge, identify, and/or report. As such, in this dissertation, measurement of the affective component of homonegativity (and its proxy, the ego-defensive function of homonegativity) is conducted using techniques that are psychophysiological in nature.

Overall, preliminary empirical support for the role of an ego-defensive function in homonegative attitudes, when using the AFI, has been demonstrated across a handful of studies (Barron et al., 2008; Meaney & Rye, 2010; Rye & Meaney, 2010). Researchers have, however, recommended interpreting these findings with caution because the ego-defensive function of the AFI uses only two items. It is recommended that additional measures of ego-defensiveness, or adequate substitutes, be employed. Further, to assess dimensions of the ego-defensive function that may be less accessible to participants (Jewell & Morrison, 2010; Jewell & Morrison, 2012; Mahaffey et al., 2011), psychophysiological techniques should be utilized. In addition, although researchers have previously suggested that the ego-defensive function of the AFI is the one that most closely aligns with the affective component of homonegativity, its correspondence with measures of affective states has not been investigated; as such, complementary affective measures of the ego-defensive function as well as psychophysiological techniques are employed. It is anticipated that the relationship between the AFI functions and measures

of affect will be elucidated and serve to advance understanding of the role of affect in the expression of homonegativity.

Summary of Theoretical Overview

A common theme across the Gender Belief System, Hegemonic Masculinity, and the Self-Discrepancy theoretical explanations for homonegative attitudes is that masculinity is something men must strive to embody and demonstrate, while femininity, as it is perceived to be embodied by both gay men and women, is something “heterosexual” men should reject and devalue. The strict polarity of masculinity and femininity results in men being sensitive to perceived slights against their masculinity (Bosson, Weaver, Caswell, & Burnaford, 2012; Carnaghi, Maass, & Fasoli, 2011; Glick, Gangl, Gibb, Klumpner, & Weinberg, 2007). Herek (1987, 1988, 1989) built upon the strong foundation of these theories by introducing additional functions of homonegative attitudes: value-expressive, social-expressive, experiential, and ego-defensive. When examining the literature on the four functions proposed by Herek and the relationship with homonegative attitudes, there appears to be promising empirical support for the ego-defensive function, above and beyond, the other three. Although understanding of the ways in which homonegativity functions may be obtained by examining the four functions, as measured by the AFI, two critical advances appear necessary: 1) a more comprehensive assessment of the construct of ego-defensiveness should be undertaken; and 2) measures of explicit (consciously endorsed) and implicit (unconsciously endorsed) ego-defensiveness should be incorporated (Franklin, 2000; Trinder, 2008). This dissertation empirically addresses these issues.

Overview of the Proposed Research

This dissertation takes a multidimensional approach to examining the construct of homonegativity. In Study 1, the correspondence among anti-gay cognitions, affect, and behavioural responses is investigated. Despite the interaction amongst these dimensions of homonegativity being of great interest to researchers, in particular the prediction of anti-gay behaviours, few studies have adopted this type of integrative approach (see Van de Ven, Bornholdt, & Bailey, 1996 for a notable exception). Importantly too, the affective component, including the ego-defensive function, has been shown to be a strong predictor of homonegative attitudes and behaviour (Franklin, 2000; Trinder, 2008);

however, it is the least understood and well-researched component of homonegativity compared to its cognitive and behavioural dimensions. As such, this research program is dedicated to examining the relationships among anti-gay attitudes, their functions, and the role played by affect in the production of homonegative attitudes and behaviours. Study 2 expands the investigation of homonegativity beyond that found in Study 1 by incorporating a psychophysiological measurement technique. This technique enables the interaction between voluntary (subjective ratings) and involuntary movements (physiological arousal) to be calibrated with cognitive, affective, and behavioural indicants of anti-gay bias. By using both explicit (i.e., self-report) and implicit (i.e., physiological) measures, this dissertation addresses the dearth of research examining homonegative affect from a multidimensional measurement perspective and its role in the perpetuation of anti-gay discrimination.

CHAPTER TWO

Study 1: The Affective Component of Homonegativity

Introduction

Homonegativity is a multidimensional construct that encompasses the negative cognitive, affective, and behavioural responses directed towards individuals presumed, correctly or incorrectly, to be gay or lesbian (Hudson & Ricketts, 1980). The cognitive and behavioural components of homonegativity are by far the most researched of the three components, with the affective component being relatively under-explored. Despite the limited research conducted specifically on the affective component, researchers have proposed that differences in affective reactions to gay men may better predict men's engagement in anti-gay behaviours than their endorsement of homonegative attitudes alone. Outlined in the next section is the extant research on homonegativity that has explored affective reactions to gay men explicitly (i.e., through self-report).

Affect and Homonegativity

Nevid (1983) was the first to examine the relationship between homonegative attitudes and affective reactions to same-sex sexual videos among 133 (68 men; 65 women) American undergraduate students. Homonegative attitudes were assessed with the Heterosexual Attitudes Toward Homosexuality Scale (HATH; Larsen, Reed, & Hoffman, 1980), while affective reactions were measured using the Multiple Affect Adjective Checklist (MAACL; Zuckerman & Lubin, 1965) that captures three general mood factors: anxiety, depression, and hostility. The administration of the attitudes and affective measures were counter-balanced such that half of the participants were randomly assigned to complete the HATH before and the MAACL after viewing each 20 minute video, and the other half of the participants did the reverse. The first video depicted two men engaged in same-sex sexual activity and the second video depicted two women engaged in same-sex sexual activity. Nevid (1983) found that the men held stronger homonegative attitudes than the women in the sample and that these attitudes became stronger after viewing the video depicting two men. Specifically, viewing the two men engaged in sexual activity had a significant impact on attitude ratings, in that men scored higher on the HATH after viewing the gay male video than men who completed

the measure prior to viewing the video, and as compared to the men who viewed the lesbian video prior to completing the measure.

In terms of the affective reactions to the sexual videos, the men in the study rated their affective reactions to both videos as more negative (i.e., greater anxiety and hostility) than the women in the sample. The men in the study also rated the gay male sexual video more negatively than the lesbian sexual video. The authors concluded that the unique pattern men displayed as compared to women, characterized by stronger negative affective reactions and elevated scores on the HATH following the presentation of the gay male video, may reflect a “heightened sensitivity to threat” (Nevid, 1983, p. 254); that is, in conditions of heightened “homosexual” threat (e.g., where a heterosexually-identifying man is exposed to gay male sexual stimuli), the adoption of more negative attitudes and negative affective reactions may “mediate the denial of homosexual arousal elicited by homoerotic stimuli” (Nevid, 1983, p. 254).

Nevid’s findings, however, may have been influenced by the administration of the study in a classroom setting. The author told students that the videos were being presented for informational purposes as part of the course. Therefore, the possible added discomfort of watching sexually explicit materials as part of a group, may have influenced participants’ responses. For example, participants may have reported more anxiety as a result of being in a group context.

To examine the effect homonegative attitudes have on affective reactions to gay men, Ernulf and Innala (1987) asked 81 (31 males; 49 females) undergraduate students in Sweden to complete the Attitudes Towards Homosexuality Scale (ATHS; Herek, 1984), a cognitive measure of homonegativity, and an adjective checklist created by the authors. The checklist consisted of 15 adjectives, 7 positive, 7 negative, and 1 neutral. The seven positive adjectives were: alert, intelligent, enthusiastic, peaceful, contented, relaxed, and cheerful. These adjectives were adopted from Sjoberg, Svensson, and Persson’s (1978) general mood research to serve as “distracter adjectives to mask socially desirable reactions” (pg 503). The seven negative adjectives were frightened, angry, ashamed, disdainful, disgusted, doubtful, and guilty. Ernulf and Innala (1987) selected the negative adjectives and the one neutral adjective (i.e., surprised) based on a review of the existing literature on homophobia (i.e., the irrational fear of gay men). To simulate an everyday

situation, the participants were asked to read vignettes depicting social contact situations rather than sexual activity with either gay or heterosexual content. For example, the gay content scenario described two parents being told by their son that he was in a relationship with his *male* friend, that they were in love, and moving in together. In the heterosexual content scenario, the gender of the friend's name was changed to indicate that the friend with whom the son was having a relationship with was female.

Using factor analysis, Ernulf and Innala (1987) identified two interpretable factors denotative of "affect" which they labeled "homophobic anger" and "homophobic guilt." The three adjectives that loaded on the homophobic anger factor included: angry, disdainful, and disgusted. Guilty and ashamed were the two adjectives that loaded on the homophobic guilt factor. A total of 79% of the variance in negative evaluations toward the gay scenario was accounted for by the homophobic anger (48%) and the homophobic guilt (31%) factors. Of the two factors, only homophobic anger was significantly correlated with homonegative attitudes ($r = .73$), with men scoring significantly higher than women on the attitudinal scale (i.e., the ATHS). Results also indicated that scores on the homophobic anger factor and, to a lesser extent, homophobic guilt factor were higher among participants who read the gay content scenario than among participants who read the heterosexual content scenario (Ernulf & Innala, 1987).

Ernulf and Innala's (1987) study is unique because it did not use sexual stimuli to evoke affective reactions to gay men; instead a scenario depicting a situation likely to occur in everyday life was used. However, although individuals expressed affective reactions to the scenarios, it is unclear if the affective factors identified in this study would correspond with the affective reactions that typically occur when more explicit stimuli (i.e., sexual stimuli) is incorporated into the study design. Further, not only did this study assess the relationship between homonegative attitudes and affective reactions; but, it also focused on the development of a new affective measure of homonegativity, which has now become known as the Affective Reactions to Homosexuals Scale (ARHS; Ernulf & Innala, 1987). As the study of affective homonegativity was, and largely still is, in its infancy, it was significant that a measure was being developed specifically to assess the affective component of homonegativity. The authors called for continued validation

of the ARHS factors and indicated that the study of affective reactions to gay men, specifically guilt and shame, was warranted.

In a 1992 publication in a Swedish university journal, Innala and Ernulf reported on the further development of the ARHS. This publication was unavailable for review; however, details of the study were drawn from a brief overview provided by Van de Ven, Bornholt, and Bailey (1996). Through the administration of variants of the original ARHS developed in 1987, Innala and Ernulf (1992) found further support for the maintenance of the original two factors (i.e., homophobic anger and homophobic guilt) among samples in Sweden and the United States. In the final version of the ARHS reported, homophobic anger included anger, disdain, and disgust, which is consistent with the original homophobic anger factor. Homophobic guilt, however, expanded to include “embarrassment,” “awkward,” and “frightened” in addition to the original two adjectives (i.e., “guilty” and “ashamed”). Results also identified a third factor, which they labeled “delight.” According to the authors (Ernulf & Innala, 1992, as cited in Vande Ven et al., 1996), delight was characterized by positive feelings towards gay men and lesbian women and included adjectives such as “contented,” “satisfied,” “encouraged,” “enlightened,” “happy,” and “proud.”

Van de Ven (1995) and Van de Ven, Bornholt, and Bailey (1996) have been the only other researchers that have examined or used the ARHS as a measure of homonegative affect. Despite the dates of these two publications, the research discussed in the 1996 publication preceded the 1995 publication, as the results regarding the validation of the ARHS in the 1996 study are referred to in the 1995 article. Therefore, Van de Ven et al.’s (1996) work on the validation of the ARHS will be discussed first. Van de Ven, Bornholt, and Bailey (1996) tested the psychometric properties of the ARHS and the three factors identified by Innala and Ernulf (1992) within a sample of 97 undergraduate students (26 men; 71 women) from the University of Sydney and 40 high school students (24 boys; 16 girls) from the inner Sydney, Australia metropolitan area. Van de Ven et al. (1996) modified the final version of the ARHS presented in Innala and Ernulf by substituting the adjective “accepting” for the original “compassionate” because compassionate was found to moderately load on two different factors (i.e., delight and anger). The authors suggested that this result may have been due to individuals

considering the “compassionate” adjective to have both positive (i.e., caring) and negative connotations (i.e., “pity”). Van de Ven et al. (1996) also substituted “despising” for the original “disdainful” because they believed it would be more common among adolescents in their sample. The remaining 13 adjectives (i.e., ashamed, embarrassed, awkward, frightened, guilty, disgusted, angry, encouraged, satisfied, contented, enlightened, happy and proud) were identical to those included in Innala’s and Ernulf’s (1992) final list of adjectives. Participants were also asked to complete the Modified Attitudes Toward Homosexuality Scale (MATH; Price, 1982) and the Homophobic Behavior of Students Scale (HBSS; Van de Ven et al., 1996), a measure of behavioural intentions toward both gay men and lesbian women.

Because a three factor solution was obtained in the original ARHS (Innala & Ernulf, 1992), Van de Ven (1996) used an exploratory factor analysis (i.e., given the substitution on accepting and disdainful) and a confirmatory factor analysis to determine if the original three factor solution was supported. The adjectives were found to load on three factors: homophobic guilt (i.e., embarrassed, guilty, ashamed, frightened, and awkward), homophobic anger (i.e., anger, despising, disgusted), and delight (i.e., contented, satisfied, encouraged, enlightened, happy, proud; Van de Ven et al., 1996). Further, results from the confirmatory factor analysis indicated that the three factor solution was the best model fit to the data, especially when the adjective “accepting” was allowed to freely correlate between the “delight” and “homophobic anger” factors for both the undergraduate and high school samples. The ARHS factors also demonstrated convergent validity with the Homophobic Behavior of Students Scale, with moderate correlations in the expected direction (i.e., homophobic guilt, $r = .49$; homophobic anger, $r = .72$; and delight, $r = -.65$; Van de Ven et al., 1996). The authors concluded that the three factors of the ARHS reflected the multidimensional nature of affective reactions to gay men (Van de Ven et al., 1996). Although Van de Ven et al. (1996) indicated that the ARHS was psychometrically sound and recommended the scale to be used in future research examining the role of affect in the expression of homonegativity, the authors suggested that ongoing evaluation of the ARHS’ psychometric properties is warranted, particularly due to the cross-loading of “accepting” on the homophobic anger and delight factors.

In his 1995 publication, Van de Ven was interested in assessing the efficacy of an “anti-homophobia teaching unit” in a sample of 130 high school students (61 boys; 69 girls) from a metropolitan area in Sydney, Australia. The teaching unit or intervention consisted of six sessions that included discussion of topics such as the myths about, and stereotypes of, gay men and lesbian women, the link between prejudice and violence, and the legal ramifications of prejudice and violence. The study was a pretest-posttest, follow-up design in which homonegative attitudes were assessed using the Modified Attitudes Toward Homosexuality Scale (MATH; Price, 1982); homophobic guilt, homophobic anger, and positive affect were assessed using the ARHS; and behavioural intentions were assessed using the Homophobic Behavior of Students Scale (HBSS; Van de Ven, Bornholt, & Bailey, 1996), before, after, and three-months following the intervention.

Van de Ven (1995) indicated that the adolescent boys in the sample scored significantly higher than the adolescent girls on the measure of cognitive homonegativity (i.e., the MATH) and the ARHS factors of homophobic guilt and anger. Results further demonstrated that the intervention was effective in reducing both cognitive and affective homonegativity during the initial posttest assessment however the positive effects were only maintained at the three-month follow-up among the girls in the sample; the boys displayed equivalent levels of homonegativity at the three-month follow-up as their pretest assessment. Unfortunately, the relationship between the affective and cognitive component of homonegativity were not specifically addressed in this study. That is, no correlations between the cognitive and affective measures were reported nor were comparative analyses conducted on the affective factors between individuals who scored higher and lower on homonegativity. In order to address this gap, analyses of this nature are conducted in the present dissertation so as to clarify the relationship between the cognitive and affective components of homonegativity and their association with various anti-gay behaviours. Despite the promise of the ARHS, Van de Ven (1995) and Van de Ven et al. (1996) were the last researchers to implement the ARHS as a measure of affective homonegativity.

Other researchers, however, continued to try and identify the most salient affective states associated with homonegativity through similar methods such as the

rating of adjective checklists. For example, in accord with Ernulf and Innala's (1987) initial study, Tapias et al. (2007) attempted to identify specific emotional reactions to gay men by having heterosexual men rate different adjectives.⁵ In study one, 115 (60 men, 55 women) undergraduate participants from the University of California, Berkeley were first primed by having them unscramble 15 sentences with content related to gay men (e.g., "to a gay club John goes dance from" = "John goes to a gay dance club") and five filler sentences. Following the prime, participants were asked to read a story in which a person was behaving in ways that might evoke anger, disgust, and/or fear; however, the evaluation of the targets sexual orientation was indeterminate.⁶ The purpose of the first study was to determine if priming individuals with content related to "gay men" elicited negative emotional reactions which, in turn, may be incidentally attributed to an unrelated stimulus (i.e., story) more than primes associated with other social groups (e.g., African Americans). Participants rated their emotional reactions (i.e., anger, fear, disgust, contempt, sympathy, shame, and guilt) after reading the story on a scale ranging from 0 (no emotion) to 9 (extreme emotion).

Women reported significantly more anger and fear, and marginally significantly more disgust than men. Men and women did not differ significantly in their ratings of contempt, sympathy, shame, or guilt. The gay prime resulted in comparable levels of anger ($M = 4.09$, $SD = 1.83$) and disgust ($M = 4.04$, $SD = 1.81$), with levels of disgust to the gay prime being significantly greater than that found for the African American condition ($M = 3.40$, $SD = 1.92$). The gay prime also elicited significantly more fear ($M = 2.87$, $SD = 2.06$), while shame ($M = 1.62$, $SD =$ not provided) and guilt ($M = 1.31$, $SD =$ not provided) were more pronounced (but not significantly more so) than in the African American condition ($M = 2.05$, $SD = 2.13$; $M = 3.40$, $SD =$ not provided; $M = 3.40$, $SD =$ not provide.)

In study two, Tapias et al. (2007) were interested in determining if individuals predisposed to experiencing particular emotions (e.g., disgust) are more prejudiced towards out-groups to which the affective response is linked (e.g., gay men). To test this

⁵ Data regarding the affective reactions towards African Americans were also collected in this study, however, only the procedures and results regarding gay men are outlined here.

⁶ One story described being robbed by a foul-smelling homeless man, while the other described being fired by one's boss after providing medical assistance to his severely wounded leg.

theory, participants completed two measures of emotional disposition, the 32-item Disgust Scale, Version 2 (Haidt, McCauley, & Rozin, 1994) and the 20-item Trait Anger Scale (a subscale of the State-Trait Anger Expression Inventory; Spielberger, 1996). Participants also completed the Attitudes Toward Gay Men Scale (ATG; Herek, 1988) and the Gay Male Stereotypes and Contact subscales of the Components of Attitudes toward Homosexuality Scale (LaMar & Kite, 1998), both of which assess homonegative attitudes. It was found that sex-disgust sensitivity, but not trait anger, emerged as a significant predictor of negative attitudes toward gay men. The authors concluded that disgust, particularly that which is related to sexual activity, is one of the primary emotional states underlying homonegativity (Tapias et al., 2007).

Olatunji (2008) attempted to explore further the mechanisms through which disgust operates on negative attitudes towards gay men. One hundred (43 men; 57 women) undergraduate students completed a set of questionnaires that included the Disgust Scale-Revised (DS-R; Olatunji et al., 2007), the Penn Inventory of Scrupulosity assessing fears about committing a sin (PIOS; Olatunji et al., 2007), the Index of Attitudes towards Homosexuals (IAH; Hudson, 1997, Hudson & Ricketts, 1980), the Sexual Attitudes Scale (SAS; Hudson, 1997), the Padua Inventory assessing contaminations concerns (PI; Burns, Keortge, Formea, & Sternberger, 1996), and the Balanced Inventory of Desirable Responding (PDS; Paulhus, 1998). It was predicted that core disgust would uniquely predict levels of homonegativity because of fears related to protecting the body from offensive objects/bodily products (i.e., semen) which are associated with gay sexual activity. The other forms of disgust examined in this study were animal-reminders (i.e., distancing oneself from reminders of one's animal-nature) and contamination (i.e., protecting the body/soul from contagion). Consistent with Tapias et al. (2007), disgust sensitivity in general was found to significantly predict greater homonegativity, as well as conservative attitudes towards sexual intercourse. Disgust sensitivity was unrelated to impression management but was related to self-enhancing deception as measured by the PDS. In keeping with the researcher's hypothesis, results also indicated that, of the three forms of disgust, core disgust uniquely predicted homonegativity and that this relationship was partially mediated by conservative sexual attitudes and religiosity (Olatunji, 2008). This study replicated disgust sensitivity as a

strong predictor of homonegativity, as well as demonstrated the unique role sexual stimuli/content plays in eliciting affect among men higher in homonegativity. The authors did not, however, examine the relationship between disgust and other affective reactions such as anger and anxiety that homonegative individuals have been found to experience when in the presence of gay men or when viewing same-sex sexually explicit material.

Similarly, Hudepohl, Parrott, and Zeichner (2010) focused on the effects sexual and non-sexual depictions of two men had on the experience of *only anger* among heterosexual men. There were 164, 165, and 317 heterosexual men in each study, respectively. Participants completed the Kinsey Heterosexual-Homosexual Rating Scale (KRS; Kinsey et al., 1948), the Homophobia Scale (HS; Wright, Adams, & Bernat, 1999), the Attitudes towards Gay Men Scale (ATGS; Herek, 1988), and the Positive and Negative Affect Schedule-Expanded Form (PANAS-X; Watson & Clark, 1994). In Studies 1 and 2, participants were randomly assigned to view a 3- minute video of two men or a man and a woman engaged in consensual sexual activity. The videos depicted sexual foreplay (i.e., kissing and undressing), oral-genital contact (i.e., fellatio or cunnilingus), and intercourse (i.e., anal or vaginal penetration). In Study 3, the content of the videos were non-sexual/intimate (i.e., hand holding). The PANAS-X was completed before and after viewing the video. Hudepohl and colleagues (2010) found that viewing videos of gay men engaged in sexual activity increased anger from baseline in men both higher and lower in homonegativity; however, men higher in homonegativity, reported significantly greater anger. Men higher in homonegativity also reported increased anger towards the non-sexual/intimate videos of two men. Therefore, homonegativity had a strong effect on the production of anger after viewing both sexual and non-sexual/intimate videos depicting two men. The authors suggested that men higher in homonegativity may be more sensitive to potential sexual contact between two men, and therefore imagined the two men engaged in sexual activity even though they were depicted engaging in common displays of everyday affection (i.e., holding hands or hugging). The authors indicated that this was evidence that sexual stimuli were not necessary to elicit significant levels of anger. However, as previous research indicated that disgust sensitivity, specifically related to sexual activity and bodily fluids, was the strongest predictor of homonegativity (Olatunji, 2008; Tapias et al., 2007), it was

considered prudent in the current dissertation to utilize sexually explicit videos in order to provide the best trigger for a wide variety of affective reactions to gay stimuli.

Zeichner and Reidy (2009) conducted a study to determine the influence of anti-gay attitudes and exposure to gay sexually explicit videos (i.e., oral and anal sex) on a wider variety of emotions (i.e., fear, anger, disgust, and happiness). After participants, 54 heterosexual undergraduate men, completed a brief questionnaire including the Homophobia Scale (Wright, Adams, & Bernat, 1999), they viewed a 3.5 minute video depicting consensual sexual interactions (i.e., oral and penetrative sex) between either two men or a man and a woman. Following the video, participants completed a lexical decision task (i.e., an implicit association test) that required them to correctly categorize 120 “words” denotative of fear, anger, disgust, or happiness, as well as neutral words and 120 “nonwords” (i.e., pronounceable nonwords created by changing a single letter in actual words). Each “word” was presented on a computer monitor, by pressing two keys labeled either “word” or “nonword” as quickly as possible. Zeichner and Reidy (2009) indicated that they employed a lexical decision task based on the theory of trait congruency which suggests that discrete states of affect are linked to enhanced activation of congruent emotional networks and is used to detect biases towards affect-relevant stimuli.

The results of their study indicated that males who scored higher on the Homophobia Scale had faster reaction times to anger and fear words after viewing the gay sexual video. Conversely, men higher in homonegativity reacted more slowly to happiness and disgust words. In the heterosexual video condition, homonegativity had no significant interactions with the reaction times in the lexical decision task. Zeichner and Reidy (2009) concluded based on the larger effect size found for the relationship between homonegativity and fear (as compared to anger), that fear was indicative of the stronger emotional response to gay men. Further, contrary to previous research, Zeichner and Reidy (2009) did not find support for the role of disgust in homonegativity within their sample. They speculated that homonegative men may report being disgusted by gay men as a more socially acceptable reaction than admitting fear. Importantly, Zeichner and Reidy (2009) went on to suggest that the fear homonegative men experienced may arise from their own sexual arousal to same-sex stimuli. This line of research, coupled with the

possible unconscious nature of the Ego-Defensive function (Knight Lapinski & Boster, 2001), emphasizes the importance of using both implicit and explicit methods to circumvent the possible influence of social desirability when assessing the relationships among homonegativity, affective states, and sexual arousal.

Mahaffey, Bryan, and Hutchison (2005a; 2005b) conducted the first three studies to determine if startle eye blink methodology, an implicit method, could measure the affective valence of homonegativity. Prior research by Giargiari, Mahaffey, Craighead, and Hutchison (2005) demonstrated that startle eye blink responses are decreased or inhibited by stimuli that evoke positive affective responses (e.g., happy, excited) and are increased or facilitated by stimuli that evoke negative affective responses (e.g., disgust, anxiety). Mahaffey et al. (2005a; 2005b) assessed participants' levels of homonegativity using the Social Distance Measure of Homophobia (SDMH; Gentry, 1986), which was specifically designed to assess explicit affective reactions toward gay men, with higher scores being viewed as evidence of a defensive-type reaction. In a sample of 74 heterosexual undergraduate men, Mahaffey et al. (2005a) found that homonegativity coupled with a general discomfort with sexuality as measured by the Sexual Opinion Scale (SOS; Fisher, 1988) predicted strong negative affective reactions (i.e., startle eye blink) to the images of gay couples engaged in romantic behaviour, foreplay or "sexual intent, but *no overt sexual activity*" (p. 41).

In a follow-up study using a sample of 87 heterosexual undergraduate men, Mahaffey et al. (2005b) found that participants demonstrated discordance between their explicit (i.e., 9 point Likert scale of happiness) and implicit (i.e., startle-eye blink) affective responses to the gay-male "sexual" images (i.e., not overtly sexual). In contrast to Zeichner and Reidy's social desirability hypothesis, Mahaffey et al. (2005b) suggested that the affective component of homonegativity is an unconscious process. Mahaffey et al. (2005a; 2005b) found that homonegative men displayed negative affective reactions (i.e., greater startle-eye blink response) to viewing images of nude men and gay male couples, and that this effect was exacerbated by erotophobia (i.e., discomfort with sexuality in general). This was the first study to demonstrate negatively valenced affective physiological responses among homonegative men to images of gay male stimuli.

A limitation of Mahaffey et al.'s (2005a; 2005b) studies was the limited range obtained in homonegativity scores. The mean total scale scores indicated the sample was relatively lower in homonegativity as measured by the Social Distance Measure of Homophobia. The authors indicated that the design of the studies would have been strengthened by the pre-selection of participants based on their level of homonegativity (i.e., higher in homonegativity and lower in homonegativity). Further, the only measure of homonegativity used by Mahaffey et al.'s (2005a; 2005b) was one designed to assess the affective component of homonegativity (i.e., SDMH) to the exclusion of the cognitive component. Therefore, it is difficult to determine if the interactions between the SDMH and affective physiological responses to gay male stimuli could be generalized to men who scored higher on a cognitive measure of homonegativity (i.e., the Attitudes Toward Gay Men Scale or the Modern Homonegativity Scale). Therefore, the current dissertation utilizes both affective and cognitive measures of homonegativity to discern their relationship with a physiological manifestation of homonegativity.

Another limitation found in Mahaffey et al.'s (2005a; 2005b) research is that the authors elected to use non-sexually explicit stimuli (e.g., some trials consisted solely of a picture of a naked man). Hegarty (2006) argued that "sex" should be evidenced in experimental trials in research examining sexual prejudice. The inclusion of sexually explicit sexual activity then becomes critical when examining homonegative reactions to gay men. Therefore, the extent to which the stimuli used by Mahaffey et al. elicited affective or physiological responses on the basis of invoking a reaction to same-sex sexual behaviour is questionable. Finally, this limitation may have been compounded by the usage of still pictures instead of videos. Research suggests that the presentation of stimuli via videos elicits stronger physiological reactions compared to pictures or audiotapes (Julien & Over, 1988). As such, this dissertation uses sexually explicit videos as stimuli in the laboratory component (i.e., in Study 2).

In sum, previous research on the affective component of homonegativity has been limited by its reliance on the use of non-sexually explicit material (Ernulf & Innala, 1987, 1992; Nevid, 1983 Olantunji, 2008; Tapias et al., 2007; Van de Ven et al., 1995, 1996), the reliance on self-report ratings of affective states (Ernulf & Innala, 1987 & 1992; Nevid, 1983 Olantunji, 2008; Tapias et al., 2007; Van de Ven et al., 1995, 1996), and the

inadequate development of affective measures of homonegativity. Despite these limitations, the research on affect and homonegativity has consistently illustrated three main affective correlates of homonegativity: anxiety, anger, and disgust (Bernat et al., 2001; Ernulf & Innala, 1987; Hudepohl et al., 2010; Mahaffey et al., 2005 a, b; Nevid, 1983 Olantunji, 2008; Tapias et al., 2007; Zeichner & Reidy, 2009). Other negative affective states associated with homonegativity that have garnered some support are fear, guilt, shame, distress, and nervousness (Bernat et al., 2001).

Several researchers (i.e., Bernat et al., 2001; Parrott, 2009; Trinder, 2008) have indicated that affect may be the most important variable in distinguishing between men who engage in anti-gay behaviours from men who endorse strong homonegative attitudes but do not engage in anti-gay behaviours. To date, there are only five studies (i.e., 3 laboratory-based and 2 survey-based) that have specifically examined the linkage between affect and anti-gay behaviours, primarily in the form of aggression and its association with homonegative attitudes. The five studies will be outlined in the following section.

Affect, Anti-gay Behaviour, and Homonegativity

Bernat, Calhoun, Adams, and Zeichner (2001) investigated whether homonegativity (i.e., negative affect, avoidance, and aggression) was associated with laboratory aggression towards gay men. Fifty-two heterosexual American undergraduate men were selected from a larger sample of 463 participants based on their scores (i.e., 1 SD above and below the mean or more) on the Homophobia Scale (HS; O'Donohue & Caselles, 1993). Participants were told that the purpose of the experiment was to assess the effects of viewing sexually explicit videos (i.e., gay and heterosexual) on reaction-time during a competitive task. After being briefed on the purpose of the study, participants' baseline affective states were assessed. Affective states were assessed using the State-Trait Anxiety Inventory, State Anxiety Scale (STAI A-State; Spielberger, Gorush, & Luchene, 1970), the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988), and the Anger-Hostility scale from the PANAS-Expanded form (PANAS-X; Watson & Clark, 1994). Participants were then shown a video of the confederate who would act as their competitor; the confederate in the video was portrayed as either a heterosexual or gay man. In the gay condition, the confederate

responded to demographic questions (e.g., name, age, major, and relationship status) with stereotyped “gay affectations” (specific mannerisms were, however, not provided), and reported being in a “committed relationship with his partner Steve for two years.” In the heterosexual condition, the same confederate responded to the same demographic questions, without the “gay affectations,” and reported being in a “committed relationship with his girlfriend for 2 years.” Following the introduction to their opponent for the reaction time task, participants were filmed answering the same demographic questions and then all participants were shown a sexually explicit video depicting two men (i.e., foreplay, fellatio, and anal sex). Participants’ affective states were assessed again following the presentation of the gay sexually explicit video using the same measures distributed at baseline.

Participants were seated individually in a small room for the reaction time task. On a table, in front of the participant, was a black metal box (i.e., the aggression console) equipped with several light-emitting diodes and electrical switches. Five shock push buttons were among the switches on the console, labeled 1 (i.e., “low”) through 5 (i.e., “high”). A direct current volumenter, located on the top left of the console, displayed needle deflections indicative of the shock-level selected by the participant to be received by the confederate (i.e., their opponent). The reaction time button was mounted directly in front of the aggression console. Aggression in this study was measured by the intensity and duration of shocks the participants gave to either the “gay” or “heterosexual” confederate if the participant won the reaction-time task (i.e., the confederate lost). It should be noted that participants also had the option to not administer a shock to the confederate.

Results showed that, following the description of the study, and prior to their exposure to the gay sexual video, men higher in homonegativity reported greater negative affect (e.g., fear, shame, distress, guilt, nervousness) than men lower in homonegativity, but did not report significantly greater anxiety or anger-hostility. The affective states endorsed by men higher in homonegativity following the description of the study may reflect their heightened apprehension about the potential of viewing gay sexual activity in the form of a video. After viewing the gay sexual video, men higher in homonegativity continued to report significantly greater negative affect as measured by the PANAS than

men lower in homonegativity, but, now, greater anxiety (i.e., STAI-A-State) and anger-hostility (i.e., PANAS-X) were also reported. The negative affective states (i.e., fear, shame, distress, guilt, nervousness, anxiety and anger-hostility) reported by the men higher in homonegativity post-video were significantly greater than that documented during the pre-video phase. Results further indicated that men higher in homonegativity selected significantly more intense and longer shocks for the gay opponent than men lower in homonegativity. There was no significant difference between men higher and lower in homonegativity in their treatment of the heterosexual opponent.

Bernat et al.'s (2001) study demonstrated clear affective and behavioural correlates of homonegativity, as well as the strong relationship between negative affect and the enactment of anti-gay aggression. Their work illustrated that there is a significant difference in affective states and reactions among men who differ in their endorsement of homonegative attitudes. Results also indicated that increases in both anxiety and anger-hostility in response to the gay sexual video were positively associated with aggression toward the gay opponent.

Parrott (2009) replicated Bernat et al.'s (2001) study with 150 self-identified heterosexual men, but narrowed the focus to the role of anger in anti-gay aggression and used non-sexual videos of gay men interacting rather than sexually explicit videos in order to enhance the ecological validity. Participants completed the Attitudes Toward Gay Men Scale (ATG; Herek 1988) and the Anger-Hostility scale from the PANAS-Expanded form (PANAS-X; Watson & Clark, 1994) which assessed their homonegative attitudes and anger prior to and following the presentation of the non-sexual gay male video (i.e., holding hands, kissing, a marriage ceremony), respectively. The video introduction to the confederate opponent as either gay or heterosexual was the same as that employed previously by Bernat et al. (2001). The reaction time task used by Parrott (2009) required the participant to sit in front of a computer monitor and keyboard in a small experiment room. The keys along the top of the keyboard were labeled 1 (i.e., low and not painful) through 10 (i.e., high and painful), and reflected the range of shock intensities participants could administer to the confederate. For the reaction time task, participants had to press the spacebar on the keyboard as fast as they could when they saw "Press the Spacebar" appear on the computer monitor. Following each trial, the

participants would be presented with either “You Won. You Get to Give a Shock” or “You Lost. You Get a Shock.” Unlike Bernat et al.’s (2001) procedure, participants did not have the option to forgo shocking their opponent.

Consistent with Bernat et al. (2001), Parrott (2009) found a significant positive association between homonegativity and anger-hostility following the non-sexual gay video and a significant positive association between homonegativity and aggression toward the gay opponent during the reaction-time task competition using path analysis. In contrast to Bernat et al. (2001), Parrott (2009) did not find a significant difference in aggression towards the gay and heterosexual confederate opponents. Parrott (2009) concluded that exposure to a gay man or male-male intimate behaviour alone was not sufficient to elicit aggression toward gay men and, importantly, as a means of eliciting stronger anti-gay reactions, more sexually explicit stimuli were required (rather than non-sexual stimuli). Given this finding, it was considered prudent to use sexually explicit stimuli in the present dissertation in order to elicit affective reactions, such as anger, that have been associated with anti-gay aggression. Parrott (2009) also highlighted the importance of exploring the multiple underlying functions or motivations of homonegativity and anti-gay behaviours (e.g., peer dynamics, thrill seeking, and defensiveness). As such, these factors are examined in the current dissertation.

Another limitation Parrott (2009) noted was the use of self-report measures to assess affective reactions in between the video stimuli and the reaction time task. It was posited that, in the time it took participants to complete the self-report measures, high levels of anger that presumably facilitate aggression toward gay men may have dissipated. As an alternative approach, Parrott (2009) suggested measuring the anti-gay behaviour prior to the assessment of emotional states in order to avoid disrupting the temporal effect. Bernat et al. (2001) and Parrott (2009) also cautioned against the generalization of their findings, stating that the laboratory analogue of aggression (i.e., administering shocks) may not generalize to real-world situations involving aggression.

To address some of the limitations of laboratory analogues of aggression within homonegativity research noted by Bernat et al (2001) and Parrott (2009), Trinder (2008) assessed subtle and overt behaviours in a real-world scenario prior to the implicit assessment of affective homonegativity in a two-phased lab-based experiment. The

purpose of Trinder's (2008) research was to determine the predictive utility of implicit measures (i.e., facial electromyography [EMG⁷] and the implicit association task) vis-à-vis homonegative behaviour. Trinder (2008) was the first to assess the three components of homonegativity (i.e., cognitive, behavioural, and affective) within a single sample using both explicit and implicit measures. Fifty-five university men were recruited for the two-phase lab-based experiment based on their scores (i.e., top and bottom 33%) on the Modern Homonegativity Scale-Gay Men (Morrison & Morrison, 2003). The first phase of the lab-based experiment was designed to assess behavioural homonegativity.

Participants were interviewed by two male students regarding campus services (e.g., food and transportation), sequentially. The sexual orientation of the two interviewers was counterbalanced with either the first or second interviewer being gay (i.e., stating that he volunteered at the Campus Pride Center). The interviews were video-taped and participants' covert behaviour (e.g., eye-contact, number of smiles, and body posture) was coded by three independent trained judges. Scores on the covert measure could range from 6 to 66, with lower scores denoting greater covert discrimination. An assessment of overt discrimination was obtained by having participants evaluate each interviewer on the basis of their perceived friendliness, professionalism, and the likelihood of hiring them.

After evaluating the interviewers, participants were escorted into a separate room to complete a Gay-Straight Implicit Association Test (IAT) and a facial EMG task. The IAT was used to assess individuals' implicit cognitive reaction times toward gay men, while the facial EMG served as an implicit assessment of affective reactions toward gay men on the basis of imperceptible facial muscle movements in response to pictures of gay and heterosexual stimuli. Participants also were asked to provide explicit ratings of the pictures on a scale ranging from 0 (extremely negative) to 9 (extremely positive).

The researchers indicated that men higher and lower in modern homonegativity, as measured by the MHS-G, reacted differently to images of gay couples according to facial EMG data. For example, men in the lower range of homonegativity (i.e., scores between 12 and 28) were more likely to display greater cheek activity when viewing images of heterosexual couples rather than gay couples, whereas men who scored higher

⁷ Facial electromyography (EMG) is a technique used to measure muscle activity by detecting and amplifying the tiny electrical impulses that are generated by muscle fibers when they contract and form affective expressions.

(i.e., scores between 37 and 57) on the MHS displayed greater cheek activity when viewing images of gay couples rather than heterosexual couples. The author suggested that the greater cheek activity among those highest in homonegativity may reflect participants smirking at the gay pictures, rather than experiencing positive affect. Indeed, research conducted by Jewell and Morrison (2010) demonstrated that homonegativity often takes the form of anti-gay jokes or laughing at gay individuals.

Trinder (2008) demonstrated that the MHS-G was significantly correlated with overt and covert behaviour, with men scoring higher on the MHS-G displaying more negative covert behaviours towards the gay interviewer than the heterosexual interviewer. The affective component of homonegativity, when measured using facial EMG, did emerge, however, as a better predictor of both overt and covert behavioural discrimination than the IAT. For example, greater cheek activity toward images of heterosexual couples was the best predictor of covert discriminatory behaviour towards the gay interviewers. In sum, Trinder (2008) found significant relationships among the three components of homonegativity (i.e., cognitive, affective, and behavioural); with support for the affective component, as measured by facial EMG, being a stronger predictor of discriminatory behaviour than the cognitive component, as measured by the IAT. Although Trinder (2008) advanced our understanding of the relationship between affective reactions and more covert behaviours, which up to this point was not examined, the author noted that the main limitation was the assessment of overt behaviours, in that the task was not a forced-choice scenario. That is, participants did not have to choose between hiring the target or not; they just provided feedback and indicated the *likelihood* of hiring them. Further, the type of overt behaviour measured by Trinder (2008) may function differently than the more aggressive behaviours assessed by Bernat et al. (2001) and Parrott (2009). Therefore, the current dissertation examined both covert and overt behaviours, including behaviours of an aggressive or violent nature, via self-report to determine how they correspond with the affective component.

In addition to the laboratory-based behavioural studies, self-report measures have also been used to assess the correspondence between anti-gay behaviours and homonegative affect. Patel, Long, McCammon, and Wuensch (1995) were the first to assess the personality and emotional correlates of self-reported past engagement in anti-

gay behaviours in a survey-based study. In a sample of 80 college men, participants were asked to complete the Minnesota Multiphasic Personality Inventory (MMPI; Walsh & Betz, 1985), the Self-Report of Behaviour Scale (SBS; Patel, 1989), and the Index of Attitudes Toward Homophobia (IAH; Hudson and Ricketts, 1980). The IAH was used to assess both the cognitive and affective components of homonegativity as many of the items referred to feelings of disgust, anger, discomfort, and aversion toward gay men. Demographic information was not collected to emphasize anonymity given the “sensitive nature” of the study.

The researchers indicated that participants fell in the “low grade range of homophobia” as measured by the IAH. A regression analysis indicated that personality traits such as impulsivity, thrill-seeking, irritability, hostility, and narcissism (i.e., Scale 9 of the MMPI) and the IAH were all significant predictors of scores on the SBS. Consistent with the laboratory-based studies, Patel et al. (1995) were able to illustrate the role emotional reactions toward gay men (i.e., hostility and irritability) play in the likelihood of reporting engagement in past homonegative behaviour. However, the lack of demographic information Patel et al. (1995) collected, particularly participants’ sexual orientation, makes it difficult to generalize these results. Care is taken in the current dissertation to obtain a more comprehensive characterological profile of participants, which will be achieved by posing a series of demographics questions. Further, participants’ lower homonegativity scores make it difficult to generalize the results to individuals who endorse stronger homonegative attitudes. Therefore, a large sample was recruited in the current dissertation in order to obtain a fuller range of scores on the cognitive measures of homonegativity. Patel et al. (1995) demonstrated the utility of self-report measures of past anti-gay behaviour (i.e., the Self-Report of Behaviour Scale) when examining the relationship between behavioural homonegativity and affective states. However, the authors called for further validation of the SBS as a measure of past anti-gay behaviour and indicated that investigation of its multidimensionality may be warranted.

To enhance the utility of Patel’s (1989) original scale, Roderick, McCammon, Long, and Allred (1998) were interested in testing their revised version of the Self-Report of Behaviour Scale. The revised version (i.e., the SBS-R) addressed behaviours directed

toward both gay men and lesbian women, eliminated two infrequently endorsed items, and added an item regarding the telling of anti-gay jokes. To examine the SBS-R psychometrically, Roderick et al. (1998) also administered the IAH, which they argued was a “highly” reliable measure of negative affective responses to gay individuals. Participants were 182 female and 84 male American college students. The authors indicated that participants were “moderately homophobic” as measured by the IAH, and a significant gender difference in scores (i.e., men scored significantly higher) emerged. Consistent with Patel et al. (1995), the IAH and the SBS-R were found to moderately correlate. In their discussion, Roderick et al. (1998) called for the continued investigation of reliable measures of the three domains of homonegativity (i.e., cognitive, affective, and behavioural), and offered the SBS-R as a promising measurement option of the behavioural component.

To date, researchers have identified both specific affective states (i.e., anxiety, anger, and disgust), as well as general negative affect to be strong correlates of homonegative attitudes and predictors of scores on measures of anti-gay behaviour. However, the underlying impetus of these strong affective responses and their connection to anti-gay behaviours is not well understood. Researchers have noted that the ego-defensive function of homonegativity, as outlined in Chapter 1, is strongly connected to anti-gay behaviours and appears to be emotionally laden. Within the limited number of studies conducted on the three components of homonegativity, however, the relationship between the attitude functions, particularly the ego-defensive one, and affect still has not been explicitly examined, rendering this association unknown.

Purpose of Study 1

The purpose of Study 1, therefore, is fourfold: (1) to examine the prevalence of homonegativity across its three domains: cognitive, affective, and behavioural, (2) assess the relationships between the ego-defensive function and measures of affective reactions to homonegativity, (3) assess the value of the affective component of homonegativity, beyond the cognitive component, in predicting reported past anti-gay behaviours, and (4) to create a sampling pool for Study 2.

Hypotheses for Study 1

1. Research has shown that negative attitudes toward gay men are significantly more prevalent among self-identified heterosexual men, and that men tend to score higher on measures of homonegativity than do women (Davies, 2004; Herek & Capitanio, 1999; Kite & Whitley, 1998; Meaney & Rye, 2010; Morrison, Morrison, & Franklin, 2009; Morrison, Parriag, & Morrison, 1999; Prati, Pietrantoni, & D'Augelli, 2011; Roderick, McCammon, Long, & Allred, 1998). Therefore, it is hypothesized that heterosexual men in the current sample will score significantly higher on both the Attitudes Toward Gay Men Scale (ATG; Herek, 1984, 1988) and Modern Homonegativity Scale (MHS-G; Morrison & Morrison, 2003) than women.
2. Previous research has found that individuals (i.e., men and women) who score higher on measures of cognitive homonegativity (e.g., ATG) also endorse stronger negative affective reactions to gay-male stimuli (Ernulf & Innala, 1987; Tapias et al., 2007). Equivocal findings as to whether men score significantly higher in negative affective reactions than women (Ernulf & Innala, 1987; Nevid, 1983), however, have been documented. Therefore, exploratory analyses will be conducted to determine if there is a gender difference in negative affective reactions toward gay men based on their scores on the measures of affect selected for use in the current dissertation (i.e., the Affective Reactions to Homosexuality Scale [ARHS; Ernulf & Innala, 1987; Innala & Ernulf, 1992] and the Social Distance Measure of Homophobia [SDMH; Gentry, 1986]).
3. Men have been found to act more aggressively towards gay men than women (Cramer, Oles, & Black, 1997; Franklin, 1998). Therefore, men will report involvement in more anti-gay behaviours than women as measured by the Anti-gay Behavior Inventory (ABI; Franklin, 2000) and the Self-Report of Behavior Scale-Revised (SBS-R; Roderick et al., 1998).
4. Herek (1987) suggested that the ego-defensive function is the most affect-laden function of the Attitude Function Inventory (AFI; Herek 1987). To date, however, the association between the AFI subscales and affective measures of homonegativity have not been assessed. Therefore, exploratory analyses will be

- conducted to assess the relationship between the AFI subscales and the affective measures (i.e., ARHS and SDMH).
5. Researchers (e.g., Bernat, Calhoun, Adams, & Zeichner 2001; Hudepohl, Parrot, & Zeichner, 2011; Mahaffey, Bryan, Ito, & Hutchison, 2010; Parrott & Peterson, 2008; Parrott & Zeichner, 2005; Zeichner & Reidy, 2009) maintain that it is the *affective* component of homonegativity that contributes to anti-gay violence. Therefore, higher scores on measures of negative affective reactions will predict involvement in anti-gay behaviours above and beyond negative attitudes alone.
 6. Based on the possible association between affective reactions towards gay men and the ego-defensive function of homonegative attitudes, higher scores on the ego-defensive function subscale of the AFI are expected to predict engagement in anti-gay behaviours. The other three functions (i.e., social expressive, value-expressive, and experiential) will also be explored as predictors of anti-gay behaviours to determine their unique association with the enactment of behavioural homonegativity.

METHOD

Participants

Seven hundred and thirty seven self-identifying men ($n = 411$) and women ($n = 325$) who reside in or attend university within a Canadian prairie province completed the online survey. The number of participants included in the analysis was reduced to 710 (men, $n = 393$; women, $n = 317$) based on self-reported sexual orientation (i.e., participants reported that they were non-heterosexual [i.e., lesbian, gay, or bisexual]) and self-reported age (i.e., participants indicated that their chronological age fell outside of the desired age criterion for Study 2 which stipulated that participants must be between 17 and 35 years old). Of the participants included, 77.9% of men ($n = 306$) and 78.5% of women ($n = 249$) identified as “exclusively heterosexual,” 19.8% of men ($n = 78$) and 17.7% of women ($n = 56$) as “primarily heterosexual,” and 2.3% of men ($n = 9$) and 3.8% of women ($n = 12$) as “more heterosexual than homosexual.” The overall age range for the participants was 17 to 35 years old ($M = 20.74$; $SD = 3.47$), with the men ($M = 22.02$; $SD = 3.72$; range from 17 to 35 years) and women ($M = 19.17$; $SD = 2.30$; range from 17 to 35 years) in the sample significantly differing in their average age, $t(660.20) = -12.50$,

$p < .001$, $d = -0.92$. In terms of ethnicity, the majority of participants (i.e., 76.2%) self-identified as Caucasian. The majority (i.e., 54.7%) of men reported being “not at all religious,” while 30.3% indicated that they were “somewhat religious.” In contrast, only 28.1% of women reported being “not at all religious,” with 46.1% indicating that they were “somewhat religious.” There was a significant difference between men ($M = 3.35$; $SD = .86$) and women ($M = 2.95$; $SD = .86$) in their reported religious self-schema, $t(673.59) = -5.95$, $p < .001$, $d = 0.44$, with women identifying as more religious. Eighty-six percent of men reported political beliefs that ranged from “somewhat” to “very” liberal, while significantly less (i.e., 55.7%) women reported such liberal political views, $t(663.19) = 2.8$, $p = .005$, $d = 0.22$. For a more detailed breakdown of participant descriptives, please refer to Table 2.1.

Measures

Cognitive Measures of Homonegativity

Attitudes Toward Gay Men Scale (ATG; Herek, 1988, 1994). The ATG is a 10-item scale that measures negative attitudes toward gay men along a general condemnation/tolerance factor. Sample items include: “*Male homosexuality is a perversion*” and “*Male homosexuals should not be allowed to teach at schools.*” The ATG uses a 5-point Likert-type response scale ranging from 1 (“*strongly disagree*”) to 5 (“*strongly agree*”). Total scores can range from 10 to 50, with higher scores indicating greater old-fashioned homonegativity. The ATG has been found to have excellent scale score reliability (e.g., alpha coefficients = .90-.94; Berkman & Zinberg, 1997; Rye & Meaney, 2010), and good construct validity, as the ATG has been found to correlate in the hypothesized direction with related constructs (i.e., religiosity, interpersonal contact with gay men, adherence to traditional gender-role attitudes, and endorsement of policies that discriminate against sexual minorities; Berkman & Zinberg, 1997; Nierman, Thompson, & Mahaffey, 2007; Herek, 1994).

The Modern Homonegativity Scale – Gay Men (MHS-G; Morrison & Morrison, 2003). The MHS-G measures modern homonegative attitudes toward gay men and consists of 12 items (e.g., “*Gay men should stop shoving their lifestyle down other people’s throats*”). The MHS-G uses a Likert-type response format ranging from 1 (“*strongly disagree*”) to 5 (“*strongly agree*”), where total scores can range from 12 to 60,

with higher scores indicating greater modern prejudice toward gay men. The MHS-G has been found to possess excellent scale score reliability (Cronbach's alphas ranging between .80 and .93) and has demonstrated construct validity (i.e., correlates with related constructs [i.e., political conservatism, religious behaviour, religious self-schema and modern sexism] in hypothesized directions; Aosved & Long, 2006; Cramer, Miller, Amacker, & Burks, 2013; Morrison & Morrison, 2003; Morrison et al., 2005; Rye & Meaney, 2010).

Affective Measures of Homonegativity

Affective Reactions to Homosexuality Scale (ARHS; Ernulf & Innala, 1987; Innala & Ernulf, 1992). The ARHS assesses affective reactions to gay male-related material. Participants are asked to read a scenario containing gay male-related content and then rate the degree to which 15 adjectives pertain to their reactions to the scenario using a 4-point scale ranging from 1 (“*not at all*”) to 4 (“*very much*”). The original scenario (Ernulf & Innala, 1987; Innala & Ernulf, 1992) was modified in the present study to make the content more “relatable” to the target population (i.e., university students). Specifically, the original scenario involved a young man disclosing to his parents that he was gay and participants who, when asked to adopt the perspective of the parents, indicate how they felt about their “son’s” disclosure. Because this would require participants to imagine they were parents of a 20 something year-old man and determine their reaction to his coming-out, a modified version of the ARHS was introduced. In the present study, the modified version pertained to a bar-type scenario and was presented as follows:

You are at a bar drinking with some friends. It's late and you decide to call it a night but decide to use the washroom before heading home. You enter the washroom and see there are several men already at the urinals and decide you want some privacy, so you turn to one of the stalls. When you opened the stall door, you see two men having sex with one another. One man is pushed up against the wall, moaning. The other man looks at you, smirks, and asks “Do you mind?” before pushing the stall door closed again.

The 15 adjectives used to assess participant's responses to the original scenario were: embarrassed, guilty, ashamed, frightened, awkward, angry, despising, disgusted, contented, satisfied, encouraged, enlightened, happy, proud, and accepting. These adjectives were found to load on three factors: “homophobic anger” (i.e., despising,

disgusted, and angry), “homophobic guilt” (i.e., ashamed, awkward, embarrassed, frightened, and guilty), and “delight” (i.e., accepting, happy, satisfied, contented, encouraged, proud, and enlightened; Innala and Ernulf, 1992; Van de Ven et al., 1996). The ARHS factors have demonstrated convergent validity with a measure of students’ negative behavioural intentions in the context of a teaching module about homosexuality (i.e., Homophobic Behavior of Students Scale), with moderate correlations in the expected direction (i.e., homophobic guilt $r = .38$; homophobic anger $r = .66$; and delight $r = -.56$; Van de Ven, 1995) having emerged. The three subscales have also been shown to have excellent scale score reliability as indicated by Cronbach’s alphas within samples of high school students (e.g., homophobic guilt [.90], homophobic anger [.93], and delight [.94]) and undergraduate students (.93 on each of the three subscales; Van de Ven et al., 1996).

The original 15 adjectives were piloted with the modified version in a randomly selected sample of 10 university students. Participants endorsed all 15 adjectives to varying degrees and therefore the adjectives were retained for the version administered in Study 1. Participants in the pilot study were also given the option of providing an alternate affective response to the modified scenario and they identified “surprised” as the 16th adjective to be included in the final version. Given that a modified scenario was used in the current study, a principle component analysis was conducted on the adjectives to determine what components could be identified in the current data and to allow for adjectives that may not be as pertinent to the modified scenario to be removed. Please see Appendix A for information about this analysis.

Social Distance Measure of Homophobia (SDMH; Gentry, 1986). The SDMH is a 5-item scale that assesses affective reactions heterosexual persons may have when interacting with gay men. Sample items of the SDMH include: “*I would be uncomfortable at a party where a gay man was present*” and “*It would bother me to drive alone in a car with a gay man.*” Participants respond to items using a 5-point Likert-type scale ranging from 1 (“*entirely disagree*”) to 5 (“*entirely agree*”). Scores on the SDMH can range from 5 to 25, with higher scores indicating greater negative affective reactions towards gay men. Mahaffey and colleagues (2005a) found that scores on the SDMH were strong predictors of startle eye-blink responses (i.e., a physiological

measure of positive and negative affect) such that, individuals who scored higher on the SDMH responded more negatively towards images of naked men and gay male couples. The SDMH has been found to possess excellent scale score reliability; for instance, Cronbach's alphas have been found to range between .93 and .95 (Gentry, 1986; Mahaffey et al., 2005a).

Behavioural Measures of Homonegativity

Anti-gay Behavior Inventory (ABI, Franklin, 2000). The original ABI was an 89-item inventory that assessed the frequency of various types of anti-gay behaviours and potential motivations for and against engaging in such behaviours. The shorter 56-item inventory of the ABI was adapted for the present study in order to reduce the amount of superfluous information (e.g., descriptive information such as the individual's age at the time of each incident). Further items were modified to specify motivations for engaging in anti-gay behaviour targeting *gay men*, while the original referred to motivations towards *homosexuals*.

For the 56-item ABI, participants are first instructed to rate the frequency with which they have engaged in 11 behaviours (e.g., "*threatening to hit a gay man*," and "*using an object to strike a gay man*") using a 4-point Likert-scale ranging from 0 ("*0 times*") to 3 ("*3+ times*"). Participants are then asked whether they had ever engaged in any of the preceding behaviours to which they answered "*yes*" or "*no*." Based on their response to this item (i.e., "*yes*" or "*no*"), participants would then be directed to separate lists of motivations. Individuals who indicated "*yes*," they have engaged in anti-gay behaviours (i.e., referred to as "*assailants*"), were asked to rate 19 potential motivations for engaging in past anti-gay behaviours in general (but not for each behaviour endorsed). For example, assailants would rate motivations such as, "*Because I hate gay men*" or "*Because my friends expected me to*." For those who indicated "*no*," they had never engaged in any of the anti-gay behaviours listed (i.e., referred to as "*non-assailants*"), they were asked to rate 15 potential motivations for never having engaged in the anti-gay behaviours listed. For example, non-assailants would rate motivations such as "*Because I am against violence*" or "*Because I have friends who are gay*." There were some motivations that overlapped between the two lists (e.g., "*Because of my moral/religious beliefs*") and several were modified between the two lists (e.g., "*Because I don't want*

gay men in my neighborhood” versus “*Because no gay men live in my neighborhood*”). Motivations for both the assailants and the non-assailants were rated on a 4-point Likert scale ranging from 1 (“*not at all true*”) to 4 (“*very true of me*”).

Parrot and Peterson (2008) reported good internal consistency coefficients by subscales (i.e., Cronbach’s alphas ranging from .81 to .84) for the original 89-item inventory. The ABI has also demonstrated good construct validity by significantly correlating in the expected directions for physical-only assailants, name-callers, and non-assailants on measures of homonegativity (i.e., Attitudes Toward Lesbian and Gay Men Scale) and masculine ideology (i.e., Male Role Attitude Scale; Franklin, 2000). For example, the physical assailants and name callers scored higher than non-assailants on measures of homonegativity. However, additional information on the validity of the motivation subscales for the original 89-item inventory has not been reported in previous research.

Given the limited amount of research conducted on the ABI and the modification of items included in the current study, two exploratory factor analyses were conducted to determine what underlying factors were present in the current data for assailants and non-assailants. Please see Appendix B for more information about these analyses.

Self-Report of Behavior Scale-Revised (SBS-R; Roderick et al., 1998). The SBS-R consists of 20 items that measure self-reported negative behaviours toward gay men. Sample items include: “*I have spread negative talk about someone because I suspected that he was a gay man*” and “*Within the past few months, I have told a joke that made fun of a gay man.*” A five-point Likert scale, ranging from 0 (“*never*”) to 4 (“*always*”), was used to rate each item; thus, total scores on the scale could range from 0 to 80. Higher scores indicate that individuals have engaged in more anti-gay behaviours. Roderick et al. (1998) indicate that the SBS-R has adequate psychometric properties (i.e., Cronbach’ alphas ranging from .85 to .96; Jewell and Morrison (2010) reported an alpha coefficient of .88). Roderick et al. (1998) also reported that the SBS-R was moderately correlated with a measure of homonegative attitudes (i.e., The Index of Homophobia) and a factor analysis (with varimax rotation) revealed two underlying factors (i.e., passive/avoidant behaviours and active/aggressive behaviours), both of which indicate good construct validity.

Functions Measure

Attitude Functions Inventory (AFI; Herek, 1987). The AFI is a 10-item scale that assesses the social-expressive, ego-defensive, experiential-schematic, and value expressive functions of anti-gay attitudes. Sample items include: “*My opinions about gay men mainly are based on my perceptions of how the people I care about have responded to gay people as a group*” (social-expressive), “*My opinions about gay men mainly are based on the fact that I would rather not think about homosexuality or gay people*” (ego-defensive), “*My opinions about gay men mainly are based on whether or not someone I care about is gay*” (experiential-schematic), and “*My opinions about gay men mainly are based on my moral beliefs about how things should be*” (value-expressive). The AFI uses a Likert-type scale ranging from 1 (“*not at all true*”) to 9 (“*very true*”). The AFI has been found to possess good construct validity in so far as it correlates with measures of religiosity, externalized defense mechanisms, motivation to be perceived in a socially desirable manner, density of social networks, and sex role conformity (Franklin, 2000). Rye and Meaney (2010) reported the following alpha coefficients for the AFI subscales: .87 (ego-defensive), .47 (value expressive),⁸ .80 (social expressive), and .83 (experiential).

Additional Measures

Social Desirability Scale – 17 (SDS-17; Stöber, 1999, 2001). The SDS-17 is a 16-item scale that assesses an individual’s tendency to ascribe to oneself, socially desirable attributes. Sample items include: “*In traffic, I am always polite and considerate of others*” and “*I never hesitate to help someone in case of emergency.*” To indicate whether an item accurately describes oneself, a participant circles either true or false. Total scores can range from 0-16, with higher scores indicating greater tendency to respond in a socially desirable manner. The SDS-17 has demonstrated excellent convergent validity by correlating with the Lie Scale of the revised Eysenck Personality Questionnaire (Eysenck & Eysenck, 1991), the Sets of Four Scale (Borkenau & Ostendorf, 1992), and the Marlowe-Crowne Scale (Crowne & Marlowe, 1960) (Stöber, 2001). The SDS-17 has demonstrated good discriminant validity by not correlating with

⁸The alpha coefficient for the value-expressive subscale is sub-optimal, and echoes the alpha coefficient for this subscale obtained by Franklin (2000). However, in the original paper Herek (1987) obtained an alpha coefficient for this subscale of .87.

neuroticism, extraversion, psychoticism, and openness to experience, as measured by the revised Eysenck Personality Questionnaire (Eysenck & Eysenck, 1991; Ruch, 1999) and the NEO Five Factor Inventory (Costa & McCrae, 1993) (Stöber, 2001). The SDS-17 has also been found to possess acceptable scale score reliability (Cronbach's alphas ranging between .72 and .84) across age groups (i.e., 18-80 years old) (Stöber, 2001).

Demographic Information (DI). Participants were asked to respond to questions about their age, education, household income (e.g., *Less than \$10,000, \$10,001 - \$19,999, \$20,000 – 29,999, \$30,000 – 39,999, etc.*), ethnicity (i.e., *Aboriginal, Black, East Asian, South Asian, Southeast Asian, Latin American, West Asian, White/Caucasian*), marital status (i.e., *Single, Dating, Common-law, Married, Separated, Divorced*), and sexual orientation (i.e., *Exclusively heterosexual, Primarily heterosexual, More heterosexual than homosexual, Bisexual, More homosexual than heterosexual, Primarily homosexual, Exclusively homosexual*) as a means of learning more about the respondents and their characterological profile.

Procedure

Participants were recruited using posters (please see Appendix C) placed throughout the University of Saskatchewan campus, as well as through an online campus bulletin board (please see Appendix D), and the University of Saskatchewan's psychology participant pool. All participants were provided with an online consent form (please see Appendix E) that, in accordance with ethical guidelines, outlined the nature of the survey, indicated that participation was voluntary, all responses would remain confidential and anonymous, and that participants were allowed to withdraw from the study at any time. Please see Appendix F for the complete online survey.

RESULTS

Preliminary analyses were conducted to identify missing values and data errors. A missing value analysis was conducted using expectation maximum to determine the frequency and pattern of missing values in the data set. The analysis revealed the highest percentage of missing values in a single item was 2.5% (i.e., ABI item: "I have thrown an object at a gay man"), which falls well below the expectable standard of 5% (Schafer & Olsen, 1998). It was also found that each measure in the survey was missing values randomly, based on the non-significant Little's Missing Completely at Random (MCAR)

tests (i.e., p values ranged between 0.068 and 1.21). Given the low rate (i.e., < 5%) of missing values, and their random distribution (Field, 2009), the missing values were not imputed for the purposes of hypothesis testing (Graham, 2009). It should be noted that expectation maximization (EM) was deemed appropriate for the component and factor analyses on the ARHS and ABI, respectively (see Appendices A and B), as well as the correlation analyses reported below (Graham, 2009). Missing values were therefore imputed to allow for a more complete dataset for these analyses only (Graham, 2009).

Means, standard deviations, ranges of scores (possible and obtained), and scale score reliabilities for the measures of the (1) cognitive, (2) affective, and (3) behavioural components of homonegativity can be found in Table 2.2. The alpha coefficients for all scales were “acceptable” to “superior” (i.e., all were greater than .7; George & Mallery, 2003), with the exception of the ABI-Anti-gay Ideology subscale among women, AFI-Value Expressive subscale and the ARHS- Discomposure subscale which were poor for the overall sample, as well as when stratified by gender (i.e., alphas ranging from .56-.58 and .54-.59, respectively). Therefore, given elevated random error, all correlations involving these measures should be regarded as underestimates (Morrison, 2011).

The cognitive component of homonegativity was assessed using two measures, the Attitudes Toward Gay Men (ATG; Herek, 1988, 1994) and the Modern Homonegativity Scale – Gay Men (MHS-G; Morrison & Morrison, 2003). Participants’ mean total scale score on the ATG was below the scale midpoint of 30 ($M = 18.39$; $SD = 8.34$), indicating that many of the participants held relatively positive attitudes towards gay men on this measure of old-fashioned homonegativity. However, this result should be contextualized, because even though the scores were positively skewed, 80 of the participants scored above the midpoint of the scale revealing that 11.5% of participants held negative attitudes towards gay men as measured by the ATG.

Similarly, participants’ mean total scale score on the MHS-G was below the scale midpoint of 36 ($M = 29.90$; $SD = 9.72$), indicating that many of the participants held relatively positive attitudes towards gay men. Further, participants’ total scale scores spanned the full range of possible scores (i.e., from 12 to 60); yet, were only slightly positively skewed, indicating that a little over half of the participants’ scores fell below the midpoint of the scale. However, 200 participants scored above the midpoint of the

scale revealing that 28.8% of participants held somewhat negative attitudes towards gay men when assessed with the measure of modern homonegativity.

To test Hypothesis 1 and thereby assess whether self-identified heterosexual men scored significantly higher than self-identified heterosexual women on measures of the cognitive component of homonegativity, two separate independent samples *t*-tests were conducted. Testing the assumptions of parametric tests can be found in Appendix G. The independent *t*-tests indicated that there was a significant difference between men's ($M = 19.25$, $SD = 9.14$) and women's ($M = 17.32$, $SD = 7.13$) scores on the ATG, $t(693) = -3.13$, $p = .002$, $d = -0.24$. Further, there was a significant difference between men's ($M = 31.55$, $SD = 10.31$) and women's ($M = 27.83$, $SD = 8.49$) scores on the MHS-G, $t(692) = -5.21$, $p < .001$, $d = -0.39$, with men scoring significantly higher than women on both measures tapping the cognitive dimension of homonegativity.

Participants completed two measures of homonegative affect, the Affective Reactions to Homosexuality Scale (ARHS; Ernulf & Innala, 1987; Innala & Ernulf, 1992) and the Social Distance Measure of Homophobia (SDMH; Gentry, 1986). Participants' mean score on the ARHS-Positive subscale was below the midpoint of 15 ($M = 6.94$; $SD = 2.08$), indicating that many of the participants had less positive affective reactions (e.g., low endorsement of being happy or proud) towards gay men. Further, the participants' scores ranged from 6 to 24 and were positively skewed, indicating that the majority of the scores fell below the midpoint of the scale, with only 15 participants endorsing more "accepting" affective reactions.

The mean score on the ARHS-Negative subscale were also below the midpoint of 12 ($M = 5.25$; $SD = 2.42$), indicating that many of the participants did not strongly endorse negative affective reactions (e.g., disgusted or angry) towards the gay men in the bar-related scenario. The participants' scores ranged from 3 to 12 and were positively skewed; however, 119 participants scored above the midpoint of the scale revealing that 17% of participants had clear negative affective reactions towards the gay men in the scenario. The disproportionate distribution of low scores on the first two subscales of the ARHS appear to reflect an overall lack of endorsement of strongly valenced (i.e., positive or negative) affective reactions to the scenario by the majority of participants.

Participants' mean score on the ARHS-Disgrace subscale was below the midpoint of 5 ($M = 3.20$; $SD = 1.62$), with only 71 (10%) of participants reporting feelings of guilt and shame in response to the gay male scenario. Participants' mean score on the ARHS-Discomposure subscale was above the midpoint of 5 ($M = 6.90$; $SD = 1.51$), indicating that, on average, participants had affective reactions towards the gay men in the bar-related scenario that reflected mostly shock and surprise. In terms of the second measure of homonegative affect, participants' mean score on the Social Distance Measure of Homophobia (SDMH) was below the midpoint of 15 ($M = 8.02$; $SD = 4.54$), indicating that many of the participants had relatively positive affective reactions towards gay men. However, this result should be contextualized, because even though the scores were positively skewed, 84 of the participants scored above the midpoint of the scale revealing that 12% of participants had negative affective reactions towards gay men as measured by the SDMH.

In regards to Hypothesis 2, some gender differences were evident on the affective component of homonegativity. Specifically, heterosexual men and women differed significantly on the Affective Reactions to Homosexuality Scale-Positive Subscale (ARHS-Positive), $t(618.94) = 2.91$, $p = .004$, $d = .22$, with heterosexual women ($M = 7.20$, $SD = 2.24$) endorsing greater positive affect toward gay men than heterosexual men ($M = 6.74$, $SD = 1.90$). Heterosexual men and women differed significantly on the ARHS-Negative subscale, $t(690.65) = 2.72$, $p = .006$, $d = .20$, with heterosexual men ($M = 5.47$, $SD = 2.54$) endorsing greater negative affect toward gay men than heterosexual women ($M = 4.97$, $SD = 2.34$). Heterosexual men and women also differed significantly on the ARHS-Disgrace subscale, $t(572.25) = 6.14$, $p < .001$, $d = .48$, with heterosexual women ($M = 3.63$, $SD = 1.78$) endorsing greater shame and guilt in response to the gay men scenario than heterosexual men ($M = 2.87$, $SD = 1.39$). No significant difference was found between men and women on their scores of the ARHS-Discomposure subscale, indicating that men and women endorsed equivalent surprise and awkwardness. When examining the other measure thought to reflect the affective component of homonegativity, the Social Distance Measure of Homophobia (SDMH), a gender difference emerged. Specifically, heterosexual men ($M = 8.71$, $SD = 4.95$) and women (M

= 7.16, $SD = 3.79$) differed significantly in their scores on the SDMH, with men scoring significantly higher, $t(703) = -4.73, p < .001, d = -0.35$.

The two measures used to assess anti-gay behaviours were the Anti-gay Behaviour Inventory-Short Form (ABI-SF; Franklin, 2000) and the Self-Report of Behaviour Scale-Revised (SBS-R; Roderick et al., 1998). Participants' total mean score on the ABI-SF was below the midpoint of 9.5 ($M = .31; SD = 1.29$), indicating that many of the participants engaged in relatively few anti-gay behaviours. Further, the participants' scores ranged from 0 to 16 and were positively skewed, indicating that the vast majority of the scores fell below the midpoint of the scale. Mean total scale scores on the SBS-R were also below the midpoint of 40 ($M = 2.96; SD = 5.48$), indicating that many of the participants had engaged in relatively few anti-gay behaviours. Participants' scores ranged from 0 to 62 and were positively skewed, which indicates that the majority of participants' scores fell below the midpoint of the scale. Indeed, only 4 participants (i.e., 1%) scored above the midpoint.

The frequency of anti-gay behaviours reported by men and women on both the ABI-SF and SBS-R can be found in Table 2.3 and Table 2.4, respectively. The top three most frequently endorsed anti-gay behaviours on the ABI-SF, in descending order, were: calling gay men insulting names, threatening to hit a gay man, and throwing an object at a gay man. The top three most frequently endorsed anti-gay behaviours on the SBS-R, in descending order, were: telling jokes that made fun of gay men, spreading negative talk about someone presumed to be gay, and playing a joke on someone because he was thought to be gay.

To test Hypothesis 3 and determine if heterosexual men reported engaging in significantly more past anti-gay behaviours than heterosexual women, separate independent samples t -tests were conducted on the two measures of anti-gay behaviours. There was a significant difference between men's ($M = .40, SD = 1.53$) and women's ($M = .20, SD = .90$) scores on the ABI-SF, $t(626.27) = -2.11, p = .03, d = -0.16$. There was also a significant difference between men's ($M = 3.81, SD = 6.07$) and women's ($M = 1.92, SD = 4.45$) scores on the SBS-R, $t(673.86) = -4.70, p < .001, d = -0.35$.

Intercorrelations among the measures of the cognitive, affective, and behavioural components of homonegativity stratified by gender can be found in Table 2.5. Among

heterosexual men, negative cognitions about gay men (as measured by the ATG and MHS-G) were positively correlated with negative affective reactions (as measured by the ARHS-Negative and SDMH), engagement in anti-gay behaviours as measured by the anti-gay inventories (i.e., the ABI-SF and the SBS-R), anti-gay ideology (i.e., ABI-Anti-gay ideology subscale) as a motivation for engaging in anti-gay behaviours, as well as three of the four attitude functions (i.e., AFI- Experiential, Ego-Defensive, and Value Expressive). Negative attitudes (i.e., ATG and MHS-G) were inversely associated with positive affective reactions (as measured by the ARHS-Positive), motivations for not engaging in anti-gay behaviours (i.e., ABI-Personal values), as well as attitude functions (i.e., AFI-Experiential and Value Expressive) among men.

Among heterosexual women, negative attitudes toward gay men (as measured by the ATG and MHS-G) were positively correlated with negative affective reactions (as measured by the ARHS-Negative and SDMH), engagement in anti-gay behaviours (i.e., SBS-R only), as well as the defensive attitude function (AFI-Ego-Defensive subscale). The ATG and MHS-G were inversely associated with personal values against anti-gay behaviours (ABI-Personal Values subscale) and the value expressive function of attitudes (AFI-value expressive subscale). The ATG was positively associated with motivations for engaging in anti-gay behaviours in terms of possessing an anti-gay ideology (i.e., ABI-Anti-gay Ideology) and thrill seeking (i.e., ABI-Thrill seeking subscale). Scores on the MHS-G, but not the ATG were significantly correlated with anti-gay behaviours (as measured by the ABI-Behaviours) and negatively associated with scores on the ARHS-Positive subscale..

In addition to assessing anti-gay behaviours, the ABI-SF also assessed the motivations of men and women who engaged in anti-gay behaviour (i.e., “assailants”), as well as those who did not (i.e., “non-assailants”; Franklin, 2000). To determine if men and women scored differently on the motivation factors, two separate one-way ANOVAs were conducted for those who reported engaging in anti-gay behaviours (i.e., 2 [Gender] X 4 [Motivation Factors]) and those who did not (i.e., 2 [Gender] X 3 [Motivation Factors]). Men and women were not found to significantly differ in their endorsement of motivations for engaging in or not engaging in anti-gay behaviours. Tables 2.6 and 2.7 show the frequency of motivation endorsement stratified by gender for individuals who

engaged in anti-gay behaviours (i.e., assailants) and those who did not (i.e., non-assailants), respectively.

To test Hypothesis 4, which was to assess the relationship between the attitude functions measured by the AFI and the affective measures (i.e., ARHS subscales and the SDMH), correlations were assessed by gender and Fisher's r to z transformations were conducted. For heterosexual men, the AFI-Ego-Defensive subscale was positively correlated with the ARHS-Negative ($r = .50, p < .01$) and the SDMH ($r = .54, p < .01$). The AFI-Value expressive subscale was positively correlated with the ARHS-Discomposure subscale ($r = .18, p < .01$) and negatively associated with the ARHS-Negative subscale ($r = -.13, p < .01$) and SDMH ($r = -.26, p < .01$). The AFI-Experiential subscale was positively associated with the ARHS-Discomposure subscale ($r = .15, p < .01$), and the AFI-Social expressive subscale was positively associated with the ARHS-Discomposure subscale ($r = .13, p < .05$). To determine whether the magnitude of the correlation between ego-defensiveness and negative affect was significantly greater than the magnitude of the association between the value-expressive function of homonegativity and negative affect, Fisher's r -to- z transformations were conducted. The AFI-Ego-Defensive subscale correlated significantly higher with the ARHS-Negative subscale, $z = 9.44, p < .01$ and the SDMH, $z = 12.08, p < .01$) than the AFI-Value expressive subscale.

For the heterosexual women in the study, the AFI-Ego-Defensive subscale was positively correlated with the ARHS-Negative subscale ($r = .30, p < .01$) and the SDMH ($r = .36, p < .01$), and negatively associated with the ARHS-Discomposure subscale ($r = -.16, p < .01$). The AFI-Value expressive subscale was positively correlated with the ARHS-Positive subscale ($r = .15, p < .01$), and negatively associated with the ARHS-Negative subscale ($r = -.15, p < .01$) and SDMH ($r = -.12, p < .05$). The AFI-Experiential subscale was positively associated with ARHS-Disgrace subscale ($r = .24, p < .01$) and the AFI-Social expressive subscale was positively associated with the ARHS-Disgrace subscale ($r = .18, p < .01$). To determine whether the magnitude of the correlation between ego-defensiveness and negative affect was significantly greater than the magnitude of the association between the value-expressive function of homonegativity and negative affect, Fisher's r -to- z transformations were conducted. Consistent with the

analysis among men, the AFI-Ego-Defensive subscale correlated significantly higher with ARHS-Negative subscale, $z = 5.67, p < .01$ and the SDMH, $z = 6.16, p < .01$ than the AFI-Value expressive subscale among women.

In accordance with Hypotheses 5 and 6, a logistic regression analysis was conducted to determine if scores on the cognitive (i.e., ATG and MHS-G) and affective (i.e., ARHS subscales and SDMH) measures as well as the functions of homonegative attitudes (i.e., AFI) could predict reported past engagement in anti-gay behaviour.

Logistic regression analysis requires that certain assumptions about the data be met in order to generalize findings to a population. These assumptions include: linearity (i.e., a linear relationship between any continuous predictors and the logit of the outcome variable), independence of errors (i.e., cases of data are unrelated), and multicollinearity (i.e., predictors should not be too highly correlated; Field, 2009). In logistic regression, the outcome variable is binary or categorical (Field, 2009). Therefore, for the purposes of this analysis, a variable was created and participants were assigned a value of 1 if they reported engaging in anti-gay behaviour (i.e., for assailants) and a 0 if they indicated they had never engaged in anti-gay behaviour (i.e., non-assailants).

To test for linearity, a preliminary logistic regression analysis was run including predictors that were the interaction between each predictor and the log of itself (Field, 2009). Examination of the *variables in the equation* table revealed that all of the interactions had significant values over .05 (Field, 2009) indicating that the assumption of linearity of the logit has been met for the ATG, MHS-G, SDMH, and all three subscales of the ARHS.

To test for multicollinearity, a linear regression was conducted on the same outcome and predictor variables in order to obtain the tolerance and VIF statistics, and collinearity diagnostics (Field, 2009). All of the predictor variables had tolerance values over .1 (Menard, 1995) and VIF values below 10 (Myers, 1990), therefore the assumption of multicollinearity was not violated. Further, examination of the collinearity diagnostic table confirms the assumption is met based on the low condition index value of the smaller eigenvalues and the variance of each predictor's regression coefficients are well distributed (i.e., a large percentage of variance for multiple predictors is not accounted for by one dimension; Field, 2009)

The dependent variable in the logistic regression analysis was a binary code based on endorsement of anti-gay behaviour as measured by the ABI (i.e., 0 = non-assailants, 1 = assailants) because it explicitly asked participants to indicate whether they ever engaged in anti-gay behaviours in a binary response format (i.e., yes or no). The covariates or independent variables of interest were gender, the cognitive measures of homonegativity (i.e., ATG and MHS-G), the affective measures of homonegativity (i.e., ARHS subscales and SDMH), and the functions of homonegative attitudes (i.e., AFI subscales).

Table 2.8 shows the results of the univariate analysis. All independent variables were significant predictors, with the exceptions of ARHS- Positive (OR = 1.08, 95% CI: .98, 1.19), ARHS-Disgrace (OR = 1.08, 95% CI: .94, 1.25), AFI-Experiential (OR = 1.13, 95% CI: .88, 1.45), and AFI-Social Expressive (OR = .96, 95% CI: .77, 1.19). Specifically, results of the univariate logistic regression indicated that men (OR = 1.82, 95% CI: 1.08, 3.06), higher in homonegative attitudes, as measured by the ATG (OR = 1.05, 95% CI: 1.02, 1.08) and MHS-G (OR = 1.05, 95% CI: 1.03, 1.08), with stronger negative affective reactions to gay men, as measured by the ARHS-Negative (OR = 1.16, 95% CI: 1.07, 1.27) and SDMH (OR = 1.10, 95% CI: 1.06, 1.16), as well as being more defensive (OR = 1.43, 95% CI: 1.16, 1.78) and less value expressive (OR = .61, 95% CI: .50, .76), were more likely to engage in anti-gay behaviours.

Based on the results of the univariate logistic regression analysis, the ATG and MHS were entered into a hierarchical logistic regression analysis together to determine whether the measures displayed unique predictive value (Table 2.9). Results indicate that the ATG and MHS-G were no longer significant when the other was controlled. This indicates that the ATG and MHS-G share a significant amount of variance and predictive value when accounting for anti-gay behaviour and therefore can be considered somewhat redundant. Further, the ATG has also been known to produce a “floor effect” within university samples due to its old-fashioned, religiously-based items, while the MHS has been shown to produce a normal distribution of scores within university samples (Morrison and Morrison, 2003; Rye & Meaney, 2010). As such, the MHS-G will be used for the remainder of the logistic regression analyses.

Given the significant gender differences found within several of the independent variables, gender was entered into a hierarchical logistic regression with the MHS-G to determine if gender uniquely predicted anti-gay behaviour above and beyond its association with anti-gay attitudes (MHS-G) (Table 2.10). Gender did not significantly predict engagement in anti-gay behaviour when homonegative attitudes (i.e., MHS-G) were controlled.

To determine if measures of affective reactions could predict anti-gay behaviour above and beyond homonegative attitudes, the MHS-G was entered in the first step of a hierarchical logistic regression, followed by the SDMH in the second step, and entered into the third step, were the two subscales of the ARHS that were significant in the univariate analysis (i.e., Negative and Discomposure; Table 2.11). When compared to measures of affective reactions to gay men, the MHS-G (OR = 1.02, 95% CI: .99, 1.06) was no longer a significant predictor. Of the affective measures, the SDMH (OR = 1.07, 95% CI: 1.01, 1.14) and the ARHS-Discomposure (i.e., surprise and awkward; OR = .85, 95% CI: .73, .99) were significant predictors of anti-gay behaviour.

The Ego-Defensive and Value-Expressive functions of homonegative attitudes were found to be significant predictors of anti-gay behaviours in the univariate logistic regression analysis. These independent variables were entered into a hierarchical logistic regression to determine if they uniquely predicted anti-gay behaviours (Table 2.12). The AFI-Ego-Defensive (OR = 1.54, 95% CI: 1.22, 1.94) and AFI-Value-Expressive (OR = .59, 95% CI: .47, .73) did uniquely predict anti-gay behaviour.

As a final model, the two significant affective measures (i.e., SDMH and ARHS-Discomposure) and the two attitude functions (i.e., Ego-Defensive and Value-Expressive) were entered in separate steps of a hierarchical logistic regression (Table 2.13). The SDMH (OR = 1.08, 95% CI: 1.02, 1.14) and the AFI-Value-Expressive (OR = .63, 95% CI: .50, .79) were found to be the best predictors of anti-gay behaviour, such that higher scores on the SDMH and lower scores on the AFI Value-Expressive predicted engagement in anti-gay behaviours.⁹

⁹ When a multiple regression analysis was conducted, rather than logistic regression, using these same variables to predict individuals' endorsement of anti-gay behaviours on the ABI, the SDMH was still the best predictor, but ARHS-Discomposure, AFI-Experiential, and AFI-Social-Expressive were also significant predictors. Together they accounted for 7% of the total variance in ABI-scores. When this

DISCUSSION

The current study had four main purposes: (1) to examine the prevalence of homonegativity across its three domains: cognitive, affective, and behavioural, (2) assess the relationships between the AFI-Ego-Defensive subscale and measures of affective reactions to homonegativity, (3) assess the value of the affective component of homonegativity, beyond the cognitive component, in predicting reported past anti-gay behaviours, and (4) create a sampling pool for Study 2.

Descriptive statistics in the current study indicated that participants reported relatively positive attitudes towards gay men, with only 12% and 29% scoring above the midpoint on the ATG and the MHS-G, respectively. This is a trend previously noted among college and university samples, especially with respect to the ATG (Morrison & Morrison, 2003). Indeed, the ATG has been known to produce a “floor effect” within university samples due to its old fashioned, religiously-based items, while the MHS has been shown to produce a normal distribution of scores within university samples (Morrison and Morrison, 2003; Rye & Meaney, 2010). However, in the current sample, even the MHS-G displayed limited variability in scores. This finding may, in part, be due to the unique characteristics of this particular sample or cultural climate. For example, the majority (i.e., 57%) of participants in the current study indicated that they considered themselves to be at least somewhat liberally-oriented. Previous research has found that liberal individuals tend to score lower on measures of homonegativity than their more conservative counterparts (Brumbaugh et al. 2008; Burnett & Salka 2009; Morrison & Morrison, 2003; Pearte, Renk, & Negy, 2013).

Despite the more positive trend in attitudes toward gay men within this sample, negative attitudes toward gay men (as measured by the ATG and MHS-G) were positively correlated with engagement in anti-gay behaviours as measured by the behavioural inventories (i.e., the ABI-SF and the SBS-R) and negative affective reactions (as measured by the ARHS-Negative and SDMH), among both heterosexual men and women. Consistent with previous research and with Hypotheses 1 and 3, the self-

analysis was repeated using scores on the SBS-R as the dependent variable, the SDMH again was the best predictor, and along with the ARHS-Positive, AFI-Ego-defensive, ARHS-Disgrace, and ARHS-Discomposure, accounted for 26% of the total variance. These results further emphasize the power of affective measures in predicting anti-gay behaviours.

identified heterosexual men in the sample were found to endorse stronger negative attitudes towards gay men and reported engaging in past anti-gay behaviours significantly more frequently than the self-identified heterosexual women (Cramer, Oles, & Black, 1997; Franklin, 1998).

An exploratory analysis (see Hypothesis 2) was conducted to determine if there was a gender difference in negative affective reactions toward gay men based on their scores on the Affective Reactions to Homosexuality Scale (ARHS; Ernulf & Innala, 1987; Innala & Ernulf, 1992) and the Social Distance Measure of Homophobia (SDMH; Gentry, 1986). The self-identified heterosexual men in the current sample reported less positive affective reactions to gay men (i.e., ARHS-Positive) and more negative affective reactions toward gay men (ARHS-Negative and SDMH) than the self-identified heterosexual women. Previous research on gender differences in affective reactions to gay men have been mixed, with some researchers finding no gender difference (Nevid, 1983) while others have suggested that men have stronger negative affective reactions (Ernulf & Innala, 1987). Given the consistent gender differences in homonegative attitudes and anti-gay behaviour, it is probable that a gender difference in the affective component also exists, as seen in the current study. Indeed, it is possible that the affective component contributes to the gender differences observed in the cognitive and behavioural components, as the ego-defensive function of homonegative attitudes, the most affectively-laden function, has been suggested to be the best predictor of anti-gay behaviours (Bernat, Calhoun, Adams, & Zeichner 2001; Hudepohl, Parrott, & Zeichner, 2011; Mahaffey, Bryan, Ito, & Hutchison, 2010; Parrott & Peterson, 2008; Parrott & Zeichner, 2005; Zeichner & Reidy, 2009).

Although the ego-defensive function was thought to be the most affectively-laden function of homonegative attitudes (Herek, 1987), this is the first study to demonstrate the relationship between affective reactions to gay men and the attitude functions (i.e., ego-defensive, social expressive, experiential, and value expressive). Exploratory analyses (see Hypothesis 4) revealed that the ego-defensive function, and to a lesser degree the value expressive function, positively correlated with negative affective reactions (i.e., ARHS-Negative and SDMH). These findings add further support for the

role affect plays in the expression of homonegativity by demonstrating the strong relationship between affective reactions and homonegative attitudes.

A series of logistic regression analyses were conducted to determine the predictive value of negative affective reactions to gay men and the four attitude functions in predicting anti-gay behaviour. Consistent with Hypothesis 5, stronger negative affective reactions to gay men as measured by the SDMH were the best predictors of self-reported past engagement in homonegative behaviours, over gender and homonegative attitudes. Of particular relevance to this dissertation, and consistent with Hypothesis 6, the ego-defensive function was a significant predictor when analysed among the other functions; however, it lost its unique predictive value when pitted against the SDMH. This may have been due to the significant overlap between the affective component and the ego-defensive function, with the SDMH ultimately demonstrating greater predictive value.

Interestingly, the value-expressive function of homonegative attitudes also emerged as a strong predictor of anti-gay behaviour, such that, endorsement by participants that their homonegative attitudes served a value expressive function decreased participants' likelihood of having engaged in anti-gay behaviours in the past. As religiosity serves as a pillar of the value-expressive function (Rowatt, Tsang, Kelly, LaMartina, McCullers, & McKinley, 2006; Schwartz & Lindley, 2005; Wilkinson, 2004; Whitley, 2009), it is possible that other values associated with religiosity (e.g., "be kind to others") serve as a protective aspect of the value expressive function of homonegativity. For example, although individuals who score higher on the value expressive function see their homonegative attitudes as a reflection of their values or religious beliefs (i.e., "being gay is a sin") they also do not engage in anti-gay behaviours as a further expression of their belief system (e.g., "be kind to others"). Previous research is limited on individuals who engage in anti-gay behaviours and although religiosity has been found to have a strong relationship with homonegative attitudes (Wilkinson, 2004; Whitley, 2009), it may not be a strong predictor of anti-gay behaviour, a finding that was evidenced in the current study.

Limitations and Future Directions

As with any study, a discussion of limitations is warranted. First, the overall sample in the current study held relatively positive attitudes towards gay men as measured by the ATG and MHS-G. This is a trend previously noted among college/university samples (Herek & Glunt, 1993; Morrison & Morrison, 2003; Norris, 1992), particularly with respect to the ATG, a measure of old-fashioned homonegativity. Although the trend toward more positive attitudes regarding homosexuality has been documented for over two decades among college/university samples, more recent evidence has suggested that this trend is also beginning to emerge more widely in North America. For example, opinion polls have noted that between 1990 and 2000, support for gay rights and acceptance of homosexuality significantly increased (Brewer, 2003; Wilcox & Norrandner, 2002). However, research has suggested that, in general, education matters and even within the general population, higher education is predictive of more favourable views of gay men and lesbian women. Therefore, although a trend towards more positive attitudes has been observed within college/university settings and the broader community, the college/university sample is not likely representative of the general population as a whole.

Indeed, a nationwide poll indicated that only approximately 53% of Canadians supported the legalization of gay marriage, with a disproportionate amount of the support coming from younger Canadians (i.e., 18-34 year olds = 66%). The weakest support came from Canadians 55 and older, with only 32% supporting gay marriage (Mazur, 2002). In a more recent publication, the trend of Canadian attitudes towards gay individuals and persons with HIV were examined between 1996, 2002, and 2010 (Adrien, Beaulieu, Leane, Perron & Dassa, 2013). Although total scores on the Homophobia Scale decreased significantly (less homophobic attitudes) during 1996, 2002, and 2010, stronger homophobic attitudes were reported among Canadians with more negative attitudes toward persons with HIV, individuals born outside Canada, men, and respondents with less than 14 years of education. Persons with below-average HIV transmission knowledge also showed greater homophobic attitudes in 1996 and 2010 (Adrien et al., 2013). These data indicate that negative attitudes toward gay men continue to be a relevant and prominent sociocultural problem that merits continued research.

Therefore, in order to better understand the motivations of individuals who hold negative attitudes and act aggressively toward gay men, it is important for future researchers to collect data from populations more likely to provide relevant and more generalizable information, such as a community sample rather than a university/college sample.

Second, because this research relied on emergent measures to assess aspects of homonegativity that were relatively understudied (i.e., affect and behavioural motivations), the utility of the ABI and the ARHS, in particular, were limited due to their poorer performance psychometrically (i.e., instability of factors). The factor analysis of the ABI in the current study excluded several motivations (e.g., “Because gay men disgust me,” “Because of my religious beliefs,” and “Because of the opinions of people I respect”) due to significant cross loading between factors (i.e., $> .32$), that were identified as meaningful in previous analyses by the scales creator (Franklin, 2000) and that closely corresponded to the functions of homonegativity outlined by Herek (1986). Although further research is needed to validate the ABI as a reliable method of assessing anti-gay behaviour motivations, the behavioural motivations assessed by the ABI as presented and discussed may need to be reconsidered in order to retain valuable information. For example, presenting each motivation as descriptive data rather than reducing the data to factors or subscales may provide a clearer picture of the multiplicity of motivations underlying anti-gay behaviour. Further, although the ARHS was modified in the current study to include a more accessible scenario for university students (i.e., encountering a gay couple in a bar bathroom), additional research is needed to assess its utility beyond the current sample by way of a confirmatory factor analysis. Given these limitations, there is a continued need for further research into the development of reliable measures of affective homonegativity and behavioural motivations.

In sum, Study 1 demonstrated the strong positive relationships among the three components of homonegativity; cognitive, behavioural, and affective. Negative affect, as measured by the SDMH, proved to be the strongest predictor of homonegative behaviours. The current study also illustrated the positive relationship between negative affect and the ego-defensive function of homonegativity, thus warranting further exploration of how these two factors are expressed and experienced among men higher in homonegative attitudes.

CHAPTER THREE

Study 2: Affective Reactions, Attitude Functions, and the Physiological Manifestation of Homonegativity

Introduction

Several theories have been put forth to explain homonegativity, but Herek's (1986) Attitude Functions Theory is arguably the most comprehensive. Herek (1986, 1987, 1988) proposed that homonegative attitudes serve four functions: (1) social-expressive, (2) value-expressive, (3) experiential, and (4) ego-defensive. The first two functions (i.e., social-expressive and value-expressive) draw upon earlier sociocultural models (e.g., Gender Belief System; Kite & Deaux, 1987) by identifying the important role interpersonal relationships (i.e., friends and family) and culturally-formed ideologies (i.e., gender-roles and religion) play in the development of homonegative attitudes and behaviours. The third function, experiential, is an evaluative function whereby individuals base their attitudes toward all gay and lesbian persons on their prior interactions. The fourth function, the ego-defensive, is thought to occur when individuals feel threatened by homosexuality or gender non-conformity and this threat is based on internal psychological conflict over their own sexuality (Herek, 1987).

The ego-defensive function is unique to homonegativity, as compared to other prejudices (e.g., racism, ageism). For example, although prejudiced individuals may feel physically threatened by persons of other races because of stereotypical beliefs (e.g., in the form of believing that "black people are dangerous"), it is unlikely that being confronted by a person of another race causes prejudiced individuals to feel anxious about their own race. The ego-defensive function however reflects individuals' anxiety or conflict over their own sexuality when confronted by gay men. The sexual nature of this function (i.e., the underlying threat to one's own sexuality) has been used to explain the significant gender differences in homonegativity (Mahaffey, Bryan, Ito, & Hutchison, 2011), with men endorsing stronger homonegative attitudes and engaging in significantly more anti-gay behaviours (Cramer, Oles, & Black, 1997; Davies, 2004; Franklin, 1998; Herek & Capitanio, 1999; Kite & Whitley, 1998; Meaney & Rye, 2010; Morrison, Morrison, & Franklin, 2009; Morrison, Parriag, & Morrison, 1999; Prati, Pietrantoni, & D'Augelli, 2008; Roderick, McCammon, Long, & Allred, 1998).

The ego-defensive function has been of significant theoretical interest; however, as a topic of study, it has generated only a few empirical investigations. The limited amount of research assessing the ego-defensive function of homonegativity has been attributed to the perceived difficulty of tapping into its assumed “unconscious” basis (Mahaffey et al., 2005b). The reason the ego-defensive function is believed to operate at an unconscious level is due to its association with psychoanalytic defensive strategies (e.g., repression, projection, and sublimation) that are believed to operate at an unconscious level to protect individuals from distressing cognitive or emotional states, and to mitigate anxiety (McCoulough Vaillant, 1997). As a result, researchers have turned to implicit methods, such as those of a physiological nature, to assess the presence of the ego-defensive phenomenon.

Physiological measurement has been considered a useful method of objectively assessing affective and other arousal states (e.g., sexual arousal) that influence behaviour. Indeed, researchers have found that physiological measures are less influenced by social desirability and often operate outside of voluntary control (Adams, Motsinger, McAnulty, & Moore, 1992; Cacioppo, Berntson, Larsen, Poehlmann, & Ito, 2000; Ciuk, Troy, & Jones, 2015; Mauss & Robinson, 2009; McHugo & Lanzetta, 1983; Vanman et al., 1997). In addition, many physiological responses have been suggested to occur at the implicit or unconscious level and therefore beyond the awareness of the individual (Greenwald & Banaji, 1995; Herek, 1991; Nisbett & Wilson, 1977; Vanman et al., 1997). Researchers have argued that the unconscious nature of some physiological responses make them difficult to report explicitly when using questionnaires or during interviews (Greenwald & Banaji, 1995; Nisbett & Wilson, 1977; Mahaffey, Bryan, Ito, & Hutchison, 2011; Vanman et al., 1997). Therefore, implicit methods are the best means for examining the functions of homonegativity, particularly the ego-defensive one. The extant research utilizing implicit methods to examine the ego-defensive function of homonegativity will now be reviewed.

Adams, Wright, and Lohr (1996) assessed heterosexual men’s implicit physiological sexual arousal to gay sexually explicit videos in order to explore the psychoanalytic concept of latent homosexuality. Latent homosexuality can be defined as sexual arousal to gay male stimuli of which the individual is either unaware or denies.

This unconscious or conscious conflict over one's sexuality when confronted with gay male stimuli makes latent homosexuality akin to the ego-defensive function of homonegativity, although perhaps a more extreme concept. Sixty-four participants viewed four-minute video segments of gay men engaged in consensual sexual activity (i.e., kissing, undressing, fellatio, and anal penetration) while their genital sexual arousal was measured. Genital sexual arousal was measured using penile plethysmography, a mercury-in-rubber strain gauge used to measure changes in a man's penis in response to sexual stimuli. Men who scored higher (i.e., 51-100) on a measure of homonegativity (i.e., the Index of Homophobia; O'Donahue & Caselles, 1993) displayed greater sexual arousal to gay male sexual stimuli compared to men who scored lower (i.e., 0-50) on the homonegativity measure. Further, despite participants' physiological sexual arousal to gay male sexual stimuli, they subjectively denied any sexual arousal ($M = 2.03$, $SD = 2.74$), as indicated by their ratings on a self-report scale ranging from 0 (*no sexual arousal*) to 10 (*extremely sexually aroused*).

Adams et al. (1996) proposed that the pattern of responding (i.e., explicit denial of arousal coupled with simultaneous implicit physiological sexual arousal) may be attributed to either affective states such as anxiety or unconscious or denied sexual arousal to gay male sexual stimuli in the form of ego-defensiveness. A critical omission is that Adams et al. (1996) did not incorporate measures of affective states in order to substantiate the claim that the sexual arousal displayed by higher-scoring participants resulted from affective reactions when viewing gay male sexual stimuli. Further, ego-defensiveness was not explicitly assessed (i.e., with the Attitude Functions Inventory, the only available measure at the time; Herek, 1987) and, therefore, correlations with physiological responses could not be conducted to determine if individuals who displayed sexual arousal experienced psychological conflict about their own sexuality.

Despite Adams et al.'s (1996) study generating a significant amount of interest within the scientific community, only five additional studies have tested the ego-defensiveness hypothesis, with some using a variety of implicit methods (i.e., startle eye blink and implicit cognitive tasks), and others measuring the phenomenon of ego-defensiveness explicitly. The five studies that have been published to date are outlined below.

Prior to Adams et al. (1996), Mosher and O'Grady (1979) investigated the relationships among their concept of "homosexual threat" and males' self-reported sexual arousal and affective reactions to explicit sexual films. Homosexual threat in this study was defined as "a personality syndrome of (a) hostility towards homosexuals to bolster hypermasculinity, (b) fear and denial of personal homosexual tendencies, and (c) lack of tolerance for homosexuality" (p.861). The purpose of the study was to determine if homosexual threat or sexual guilt accounted for the negative affective reactions toward male masturbation videos among heterosexual men. The measure of homosexual threat was developed by the authors and included items such as: "*I'd rather be dead than queer*" and "*I am frightened I might have homosexual tendencies.*" According to Mosher and O'Grady (1979), their Homosexual Threat Inventory captured a different concept of homonegativity than the existing inventories of homonegative attitudes. [This claim, however, has not been substantiated empirically.] Sexual arousal was measured via self-report on a scale of 1 (*no sexual arousal*) to 7 (*extremely sexually aroused*). Affective reactions were assessed using the Affect Adjective Checklist (Mosher & Abramson, 1977) following each film (i.e., one of a man masturbating, another of two men engaged in sexual activities, and a final one of a man and a woman engaged in sexual activity). The sexual activity in both films featured kissing, petting, oral sex (i.e., fellatio, cunnilingus), and coitus or anal sex in a variety of positions.

In a sample of 215 undergraduate men attending the University of Connecticut, Mosher and O'Grady (1979) found that men who scored higher (i.e., based on a median split) on the Homosexual Threat Inventory reported significantly less subjective sexual arousal to the masturbation and male/male sexually explicit films, while reporting significantly more affective disgust, anger, and shame than did men less "threatened" by homosexuality. The validity of these findings is limited by the author's use of a novel measure of homonegativity. The Homosexual Threat Inventory was shown to have poor psychometrics in the original study and has not been employed by other researchers since. Further, no psychophysiological or implicit measures of sexual arousal were used; thus, the relationship between men's subjective and genital sexual arousal was not investigated. The reliance on subjective arousal in Mosher and O'Grady's (1979) study also rendered their measure of sexual arousal more susceptible to conscious manipulation

making it more challenging to form any definitive conclusions about the possible link between homosexual threat and sexual arousal.

Shields and Harriman (1984) conducted the first set of physiological studies comparing heart rate responses, as an implicit measure of defensiveness, among heterosexual men as they viewed images of landscapes and explicit sexual activity across three studies. The purpose of the studies were to test if gay men served as “phobic” stimuli for heterosexual men higher in homonegativity in order to determine if the term homophobia (i.e., the *fear* of gay men) was justified. For the pilot study, the Attitudes Toward Male Homosexuality Scale (ATHS-M; MacDonald & Games, 1974) was administered to “a large mixed-sex group of undergraduate volunteers” to assess homonegativity. Ten men were selected based on their scores on the ATHS-M to participate in the physiological study. The five highest-scoring heterosexual male participants on the ATHS-G were assigned to the “High Homonegative” (i.e., HH) group, while the five lowest-scoring heterosexual male participants were assigned to the “Low Homonegative” (i.e., LH) group. For the second study, the Attitudes Toward Gay Men Sale (ATG; Herek, 1984) was administered to 54 heterosexual men, of which 10 participants (i.e., 5 HH and 5LH) were selected to participate in the physiological portion. For Study 3, 20 heterosexual men were selected from a mixed-sex sample of 248 undergraduates based on their scores on the ATG (i.e., only HH men were included¹⁰).

The methodology used across all three studies was nearly identical. Participants were shown 12 slides (i.e., 6 neutral and 6 sexual) for 10 seconds each that were separated by blank slides for randomized durations that ranged between 25 and 35 seconds. The neutral slides depicted scenes of landscapes and the sexual slides depicted sexually explicit activity (i.e., 2 of male-female partners, 2 of female-female partners, and 2 of male-male partners). Participants’ heart rate was measured using a Standard Lead II configuration and a Beckman Type 9857 cardiometer coupler. Significant group effects were obtained only in the pilot study, such that men higher in homonegativity demonstrated heart rate acceleration suggestive of a defensive or phobic response to the male-male images. Examination of individual response patterns in the pilot study and the

¹⁰ Only men higher in homonegativity were selected for Study 3 because men who scored lower in homonegativity did not show a defensive response in both the pilot study and Study 2, suggesting that defensive responses would only be observed in men higher in homonegativity.

two subsequent studies showed that higher homonegativity was necessary, but not sufficient, for heart rate acceleration to sexually explicit images depicting two men. That is, 11 of the 28¹¹ men higher in homonegativity across the three studies demonstrated heart rate acceleration in response to the male-male images, while none of the men lower in homonegativity demonstrated such a response.

Shields and Harriman (1984) suggested that the variability in responses among men higher in homonegativity may have been due to the variability in degrees of homonegativity or perhaps their reasons for holding homonegative attitudes (e.g., religion, defensiveness). For example, the HH men in the pilot study, in which a clear group difference was observed, scored significantly higher on the measure of homonegativity ($M = 125$, possible total score range on ATHS-M = 17 – 153) than the men in the subsequent studies ($M = 68.8$, possible total score range on ATG = 10 – 90). Further, consistent with their defense response (i.e., accelerated heart rate) approach, Shields and Harriman (1984) suspected that men whose homonegative attitudes functioned ego-defensively would respond more defensively (i.e., accelerated heart rate) than men who endorsed more “objective” or non-ego-defensiveness functions (e.g., social conformity, previous experiences with gay men, religious values).

In addition to the physiological measures of defensiveness in Study 3, participants were asked to provide a brief essay describing their reactions to gay men in order to assess their reasons for possessing homonegative attitudes (Shields & Harriman, 1984). The authors believed that attitude functions were a strong but undocumented factor and that phobic reactions would correspond most strongly to the ego-defensive function. Individuals’ heart rates were compared on both their levels of homonegativity and their use of ego-defensive statements (e.g., “*I avoid gay men because they make me feel uncomfortable*”) in their essays. In contrast to their hypothesis, Shields and Harriman (1984) found that men who used non-ego-defensive statements (e.g., “*homosexuality is a sin*”) to describe their reactions to gay men experienced greater heart rate acceleration in response to images of gay men engaged in sexually explicit behaviour than men who used ego-defensive statements. In order to gain a better understanding of these results,

¹¹ One HH participant in Study 2 and 6 HH participants in Study 3 were excluded due to equipment difficulties resulting in incomplete and subsequently discarded data.

post-hoc analyses using measures completed by participants as part of a larger study were conducted (Shields & Harriman, 1984). Analyses revealed that greater heart rate acceleration (i.e., defensive responses) was associated with greater homonegativity (i.e. scores on the ATG), greater endorsement of traditional gender-roles and authoritarianism as measured by the Attitudes Toward Women Scale (ATWS; Spence, Helmreich, & Stapp, 1973), and higher scores on a measure of defense mechanisms, as measured by the Defence Mechanism Inventory (DMI; Gleser & Ihilevich, 1969). Higher scores on the DMI indicate a tendency to externalize personal conflicts and employ reaction formation (Shields & Harriman, 1984). Reaction formation is a defense mechanism observed by the exaggeration of characteristics (e.g., hypermasculinity) that are in complete opposition to those that one finds anxiety-provoking or unacceptable (e.g., femininity).

Shields and Harriman (1984) successfully demonstrated accelerated heart rates among some heterosexual men who scored higher on a measure of homonegative attitudes and endorsed certain defensive tendencies in response to gay male sexual stimuli. The authors, however, did not describe the content of the sexually explicit material used in their series of studies and they relied on still images. Therefore, it is unclear if the materials used by Shields and Harriman (1984) were able to elicit strong affective or physiological responses. Consequently, research is needed that examines the various functions of homonegativity and physiological arousal in response to explicit sexual videos depicting two men, as videos have been found to be the best medium for eliciting strong affective and sexual responses (Julien & Over, 1988; Nevid, 1983; Zeichner & Reidy, 2009). Further, changes in heart rate can represent both positive (e.g., excitement, sexual arousal) and negative (e.g., fear, anxiety) affective states; therefore, additional research designed to better understand the affective valence associated with physiological responses in relation to homonegativity is necessary.

Researchers have demonstrated that startle eye blink is a valid method for assessing positively versus negatively valenced affective states (Amodio, Harmon-Jones, & Devine, 2003; Blascovich, 2000; Lang, 1995; Mahaffey et al., 2005 a, 2005b). For example, startle eye-blink magnitude (i.e., change score from baseline) is facilitated by negative affect while it is inhibited by positive affect. Subjective reports of sexual arousal to sexual stimuli have been found to correlate with positive affective startle responses

(Giargiari, Mahaffey, Craighead, & Hutchison, 2005). Mahaffey, Bryan, Ito, and Hutchison (2011) attempted to assess the relationship between homonegativity and what they referred to as a “defensive reaction to uncertainties surrounding one’s own sexuality” (p. 27) using startle-eye blink methodology. Mahaffey et al. (2011) proposed that the association between affect and startle eye blink may be moderated by the defensive startle eye-blink response. In order to assess the defensive startle eye blink response, Mahaffey et al. (2011) compared individuals’ startle response (i.e., eye blink) to a startle probe (i.e., loud noise) at two different lead times (i.e., shorter and longer) following the presentation of the image stimuli. They hypothesized that, if a defensive function were present among men higher in homonegativity, shorter lead times (i.e., 800ms) would reveal more positive responses (i.e., slower startle response), while longer lead times (i.e., 4000 ms) would reveal more negative responses (i.e., faster startle response) because participants would have a greater amount of time to cognitively process and evaluate the gay male sexual stimuli.

A sample of 104 university men completed the Social Distancing Measure of Homophobia (SDMH, Gentry, 1986) prior to the laboratory study. Based on participants’ yes/no responses to eight items such as, “*I would be uncomfortable at a party where a gay man was present,*” and “*It would bother me to live in the same house as a gay man,*” the sample was divided into low (i.e., all “no” responses), moderate (i.e., 1-3 “yes” responses), and high (i.e., 4 or more “yes” responses) anti-gay bias groups. Participants were presented with 40 slides depicting gay, heterosexual, and lesbian couples engaged in non-explicit sexual activity (e.g., nude or semi nude, kissing, fondling), as well as affectively positive (e.g., puppies) and neutral images (e.g., electrical outlet). Participants viewed all 40 images twice, once during the startle eye blink assessment and then again so they could provide subjective ratings of the images. Subjective ratings about how sexually desirable the images were, how positively (e.g., sad, happy) the images made them feel, and how excited (e.g., calm, agitated) the images made them feel were collected using a 9-point Likert-type scale (Mahaffey et al., 2011).

Mahaffey et al. (2011) failed to find support for the psychological defensiveness hypothesis as all three groups of men (i.e., those lower, moderate, and higher in homonegativity) had similar startle responses (i.e., decreased startle magnitude indicative

of positive affect) to the gay male stimuli at the short lead time. However, men higher in homonegativity did have a unique response pattern at the longer lead time such that they responded more negatively than the other two groups, perhaps after having more time to cognitively process the stimuli. Although this is inconsistent with their hypothesis that individuals would “defensively” respond, it does demonstrate that men higher in homonegativity may have unique physiological responses to gay male sexual stimuli.

Mahaffey et al.’s (2011) study possesses a few notable limitations. The stimuli used in this study depicted non-sexually explicit activity (e.g., kissing and fondling). The lack of explicit sexual activity in their stimuli may be why they did not observe a strong “sexual arousal” response. Similar to Shields and Harriman (1984), the authors also used still images. According to Julien and Over (1988), still images are less effective at eliciting sexual arousal than video clips. Finally, Koukounas and McCabe (2001) suggested that there has been limited research to support the use of startle eye blink as a measure of physiological sexual arousal. These limitations will be addressed in the current dissertation by using explicit sexual videos and penile plethysmography as a valid measure of sexual arousal.

In contrast to Adams et al. (1996), and other proponents of an ego-defensive-type response to same-sex sexual imagery (e.g., Mahaffey et al., 2011, Mosher & O’Grady, 1979; Shields & Harriman, 1984), Meier, Robinson, Gaither, and Heinert (2006) argued that it is illogical to assume the “phobic-like aversion” exhibited by some homonegative men is due to unconscious same-sex desires. They indicated that such an argument is equivalent to proposing that individuals with a spider phobia secretly desire spiders. Nonetheless, Meier et al. (2006) suggested that there may be two types of homonegativity: defensive/phobic and non-defensive/non-phobic. In order to test this hypothesis, Meier et al. (2006) distributed explicit measures of homonegativity, the Index of Homophobia (IHP; Hudson & Ricketts, 1980), and self-deception (i.e., the Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1991), to a sample of 44 self-identified heterosexual men. To examine implicit associations between positive and negative evaluations and images of gay sexual activity (i.e., clothed or semi-clothed gay couples kissing or embracing) or neutral images (e.g., a chair or electrical outlet), an implicit cognitive task and a viewing time task were incorporated.

The implicit cognitive task required participants to first categorize the pictures as quickly and as accurately as possible by saying the word “gay” for gay images and “neutral” for neutral images into a microphone. Once they categorized the photos, participants were shown a randomly selected positive (great, positive, good, valuable, and wonderful) or negative (awful, negative, bad, gross, and disgusting) word. Participants categorized each word they were shown as either “positive” or “negative,” and did so as quickly and accurately as possible by pressing the 1 (“*positive*”) or 5 (“*negative*”) button on a response box. Participants completed the 40 trials involved in the implicit cognitive task prior to the viewing time task. For the viewing time task, participants were instructed to view 10 images of clothed or semi-clothed gay and heterosexual couples kissing or embracing, as long as they needed to in order to rate its “pleasantness.” When participants were ready to rate the images, they pressed the spacebar on the keyboard to terminate the image and a rating scale appeared on the screen ranging from 1 (i.e., “*very unpleasant*”) to 9 (i.e., “*very pleasant*”). Participants would enter their rating using the number keys on the keyboard. The authors hypothesized that “defensive homophobics” would report greater self-deception, display negative implicit attitudes towards gay male targets and terminate gay male sexual stimuli faster than their non-defensive counterparts.

Consistent with their hypothesis, Meier et al. (2006) found that a subset of individuals higher in homonegativity (as measured by the IHP) and self-deception (as measured by the BIDR) exhibited “phobic-like” reactions to gay male sexual stimuli. For example, men higher in homonegativity and self-deception displayed an aversion to viewing gay male sexual material by how quickly they terminated such stimuli compared to the sexually explicit heterosexual material. Further, men higher in homonegativity, as assessed by the explicit measure (i.e., the IHP), also demonstrated greater negative implicit associations to gay male targets on the implicit cognitive test such that on the implicit association task, when positive words were preceded by a gay male image, men higher in homonegativity, would incorrectly categorize the words as “negative.”

Meier et al. (2006) argued that the phobic-like aversion they found served to protect homonegative individuals from unwanted self-knowledge that they hold prejudiced attitudes. They reported that “defensive” homophobia is consistent with research on “aversive racism,” a form of modern racism wherein individuals claim

egalitarian attitudes explicitly; yet, display implicit racist tendencies at an unconscious level. The authors' conclusions, however, are inconsistent with their earlier argument. For instance, it is unlikely that someone who has a spider phobia is protecting him or herself from the knowledge he or she dislikes spiders by having a phobic reaction. That is, rather than protecting them from acknowledging their own prejudicial attitudes, the defensive behaviours exhibited by participants in Meier et al.'s (2006) study could serve to protect them from the knowledge of a potentially more threatening notion, their own same-sex desires (i.e., those that may be classified as ego-defensive).

Meier et al. (2006) also found that participants, who scored higher on both measures of homonegativity and self-deception, were especially likely to limit their exposure to the gay male sexual stimuli (i.e., terminate viewing the images). In contrast, among participants who scored lower on the measure of self-deception, level of homonegativity had no significant relationship to viewing time. Self-deception has been found to play a role in repressive-defensive coping, a method used to unconsciously manage unwanted thoughts or desires (Salzman, 1957). Psychoanalytic theory links repression to the maintenance of unconscious same-sex attraction, by keeping unwanted thoughts and desires "dormant." Theorists, however, have indicated that these desires can be "called into action" by certain stimuli (e.g., gay male sexual stimuli; Salzman, 1957, p. 164). Indeed, the authors concluded that this finding provided support for the idea that some homonegative men are defensive and therefore more inclined to quickly terminate images of gay male sexual content, while there are other homonegative men that do not have this defensive response.

Despite Meier et al.'s (2006) results appearing to show some support for the ego-defensive function among men higher in homonegativity, their interpretations of the results suggest a possible bias against such a conclusion. As well, their conclusions about whether sexual arousal can be exhibited among individuals higher in homonegativity or the meaning of such arousal are limited because they did not assess physiological or subjective sexual arousal in response to gay male stimuli in their study. Therefore, further research examining the role of sexual arousal, same-sex attraction, and homonegativity is needed.

MacInnis and Hodson (2012) also attempted to test the relationship between homonegativity and “implicit same-sex attraction” using a sexual preference implicit association test (SP-IAT; Snowden, Witcher, & Gray, 2008). Specifically, the authors were interested in testing what they referred to as the attraction-based theory of homonegativity versus the robust attitude-similarity effect found in social psychological literature. The attraction-based theory of homonegativity (Ferenczi, 1914/1956) is similar to the ego-defensive function, in that negative attitudes arise from self-defensive loathing of gay persons due to unwanted same-sex attractions. The attitude-similarity effect is the result of individuals evaluating others more positively when they possess similar attitudes and preferences to themselves (Klohn & Luo, 2003).

Two hundred and thirty seven (152 women, 85 men) Canadian undergraduate students were asked to categorize pictures depicting nude or partially nude individuals as “male” or “female,” and words (e.g., arousing, repulsive) as sexually “attractive” or “unattractive.” Stronger implicit same-sex attractions were inferred from faster associations between same-sex pictures and the label “sexually attractive” (MacInnis & Hodson, 2012, p. 3). Explicit sexual attraction was assessed by having participants respond to the item “I have been sexually attracted to...” for both males and females using a five point scale ranging from 1 (*not at all true of me*) to 5 (*very true of me*). Explicit attitudes towards gay men were assessed using the Attitudes Toward Gay Men Scale (ATG; Herek, 1988).

Among heterosexual men, there was no significant relationship between the implicit SP-IAT and explicit homonegative attitudes; whereas explicit same-sex attraction ratings were significantly negatively correlated with explicit homonegative attitudes. Even when those scoring highest on the ATG were assessed separately using a median split, their SP-IAT scores revealed opposite-sex attractions as denoted by significantly negative scores on the SP-IAT. SP-IAT scores also did not differ significantly for men higher versus lower in homonegativity. MacInnis and Hodson (2012) concluded that these results provided evidence for an attitude-similarity effect, rather than an attraction-based one.

There were, however, four men in their sample who displayed implicit same-sex attractions, but reported explicit opposite-sex attractions. Unfortunately, statistical

analyses to determine the relationship between homonegativity and same-sex attraction could not be conducted on such a small number of cases. This suggests that the existence of a subset of homonegative men harbouring same-sex attractions cannot be ruled out. Further, MacInnis and Hodson (2012) did not assess physiological arousal in order to determine if their more cognitively-based implicit association task corresponded to physiological sexual arousal. As such, they may have been tapping into something quite different from Adams et al. (1996), and what was attempted by Shields and Harriman (1984) and Meier and colleagues (2006). Given these limitations, additional research is warranted using larger samples and physiological measures of sexual arousal to examine the attraction-based theory or ego-defensive function of homonegativity.

To build upon MacInnis and Hodson's (2012) work, Weinstein et al. (2012) compared explicit and implicit sexual orientation, using an Implicit Association Test, to determine if homonegative individuals whose parents were perceived to also be homonegative and not supportive of personal autonomy, would be more likely to demonstrate a discrepancy between their explicit and implicit sexual orientations. For example, such individuals may explicitly report heterosexuality but implicitly display a gay sexual orientation. Weinstein et al. (2012) based their hypothesis on research exploring the possible risks of self-identifying as gay, such as encountering bias and hostile attitudes (King & Smith, 2004), as well as alienation from one's family (Savin-Williams & Ream, 2003). Weinstein et al. (2012) tested the relationship between explicit and implicit sexual orientation and parental homonegativity over four studies in the Northeastern United States and Germany.

Implicit sexual orientation was assessed using a modified Implicit Association Test (Weinstein et al., 2012), in which participants were asked to categorize words and pictures as "gay" or "straight." Before each trial, participants were either subliminally primed with either the word "me" or "others." Higher scores reflected a faster association between "me" and "gay." A pilot study demonstrated that for self-identified gay participants, a gay implicit sexual orientation, as measured by the modified Implicit Association Test, was a significant predictor of explicit sexual orientation (Weinstein et al., 2012). Among the heterosexual participants, however, there was no significant relationship between implicit and explicit sexual orientation. The authors reasoned that,

the results of the pilot study reflected the tendency for gay men and lesbian women to more accurately report their place on the sexual orientation continuum, while some self-identified heterosexual participants would deny a gay orientation explicitly, but would register as gay or lesbian implicitly. Therefore, they concluded that the modified Implicit Association Test was a valid measure of “implicit” sexual orientation.

Perceived parental homonegative attitudes and support of child autonomy were assessed in the same way across the four studies. Perceived parental homonegative attitudes were assessed using a modified version of the Components of Attitudes Toward Homosexuality scale (LaMar & Kite, 1998). Items were modified to read as “my mom” or “my dad” instead of the original “I.” Perceived parental (i.e., both mothers’ and fathers’) autonomy support was assessed using four items adapted from the Autonomy scale of the Basic Need satisfaction in Relationships Scale (La Guardia, Ryan, Couchman, & Deci, 2000). The researchers indicated that individuals raised by non-supportive, homonegative parents demonstrated greater discrepancy between their self-reported (explicit) sexual orientation (i.e., heterosexual) and implicit sexual orientation (i.e., gay), as well as higher homonegativity as measured using the Homophobia Scale (HS; Wright, Adams, & Bernat, 1999). This effect appeared to be particularly strong among children of non-supportive, homonegative fathers. Weinstein et al.’s (2012) research illustrates that a discrepancy between implicit and explicit sexual orientation may exist as a result of social pressures to conform to a heterosexual identity.

Based on the extant research investigating the relationship between homonegativity and possible implicit or unconscious same-sex attractions characteristic of the ego-defensive function, the results appear inconclusive. There has been some support for a possible discrepancy between implicit and explicit sexual orientation among men higher in homonegativity (Meier et al., 2006; Weinstein et al., 2012). However, some studies failed to find a pattern of responding among such men that would support the ego-defensiveness hypothesis (MacInnis & Hodson, 2012; Mahaffey et al., 2011). Despite the underlying sexual component of the ego-defensive function (i.e., conflict over sexual orientation), none of the studies since Adams et al. (1996) have assessed differences in physiological sexual arousal among men based on their degree of homonegativity; rather they have relied on self-report and cognitively-based

methodologies. As penile plethysmography is considered the most valid implicit measure of sexual orientation (Chivers, Rieger, Latty, & Bailey, 2004), it is therefore the most appropriate method for assessing possible unconscious contradictory sexual attractions to gay sexual stimuli among self-identifying heterosexual men.

In addition to being the first, and only study to date, to use phallometric methodology to assess the physiological expression of homonegativity, Adams et al.'s (1996) study also contributed significantly to the literature on homonegativity by demonstrating that: (1) although the men in the study self-identified as heterosexual, men higher in homonegativity displayed significantly greater sexual arousal when viewing gay male sexual stimuli than men lower in homonegativity and (2) despite the participants' physiological sexual arousal to gay male sexual stimuli, they subjectively denied any sexual arousal. These two contributions are important because they conflict with previous research on men's typical sexual arousal patterns. Essentially, sexual arousal research conducted with men has consistently demonstrated that men are significantly more category-specific in their genital arousal response (i.e., greater sexual arousal to their preferred sexual target) than women. For instance, research has shown that self-identified heterosexual men demonstrate greater genital sexual arousal to stimuli containing a woman or women, while gay men typically show greater genital sexual arousal to stimuli depicting men engaged in sexual activity (e.g., Chivers, Rieger, Latty, & Bailey, 2004; Chivers, Seto & Blanchard, 2008; Freund, Langevin, Cibiri, & Zajac, 1973; Rieger, Chivers, & Bailey, 2005; Suschinsky, Lalumière, & Chivers, 2009).

Further, men display stronger concordance (i.e., correlation) between their self-reported and physiological sexual arousal (Chivers, 2005; Suschinsky et al., 2009). Adams et al. (1996) proposed that the unique pattern of sexual arousal to the gay stimuli they observed among men higher in homonegativity might have been due to either the influence of affective states or an ego-defensive reaction to the stimuli. However, more recently researchers have argued that these hypotheses may not be mutually exclusive. Indeed, many researchers (Bernat, Calhoun, Adams, & Zeichner 2001; Hudepohl, Parrott, & Zeichner, 2011; Mahaffey, Bryan, Ito, & Hutchison, 2011; Parrott & Peterson, 2008; Parrott & Zeichner, 2005; Zeichner & Reidy, 2009) have indicated that the ego-defensive function of homonegativity is the most affectively-laden of all the functions. Due to the

suggested strong affective nature of the ego-defensive function, it is therefore important to investigate the possible role different affective states may play in the physiological manifestation of homonegativity (i.e., sexual arousal) observed by Adam's et al. (1996). The relationship between the primary affective states (i.e., anxiety, anger, and disgust) associated with homonegativity and sexual arousal among men will now be reviewed.

Affect and Sexual Arousal

Previous research has demonstrated that men higher in homonegativity often evidence strong negative affective responses (i.e., anxiety, anger, and disgust) to viewing gay male sexual stimuli (Bernat et al., 2001; Hudepohl et al., 2010; Mahaffey et al., 2005 a, b; Nevid, 1983; Zeichner & Reidy, 2009). It has been suggested that these strong affective reactions may be triggered by unconscious conflict over same-sex attractions among self-identifying heterosexual men. The relationship between negative affective states and sexual arousal has raised much debate in the literature on human sexuality in general. Early publications on the topic were based on clinical observations by psychologists and physicians who concluded that negative affect (e.g., depression, anxiety) indisputably impacted genital sexual arousal (Kaplan, 1974; Masters & Johnson, 1970; Wolchik et al., 1980).

Research has since demonstrated that the relationship between negative affect and sexual arousal is complex, and evidence on the inhibitory and enhancing effects of affective states on sexual arousal has produced equivocal findings. For example, in a sample of 50 heterosexual men, the majority reported that mood played an important role in their sexual arousal and interest (Janssen, McBride, Yarber, Hill, & Butler, 2008). Although most participants reported that positive mood states enhanced, and negative mood states inhibited their sexual arousal and interest, some men indicated that some negative mood states (i.e., stress or anger) have no impact or can have an enhancing effect (Janssen et al., 2008). The literature on the relationship between the three main affective states (i.e., anxiety, anger, and disgust) associated with homonegativity and sexual arousal will now be reviewed in order to better understand their possible dual relationship with homonegativity as a reflection of the ego-defensive function.

Anxiety and Sexual Arousal

The majority of the literature on anxiety and sexual arousal stems from investigations into the etiology of disorders of sexual dysfunction. Research on the enhancing or inhibiting effects of anxiety on sexual arousal has produced mixed findings. There is a portion of the literature that demonstrates an enhancing effect. As such, Meier et al. (2006) proposed that the sexual arousal documented in the Adams et al. (1996) study was consistent with the enhancing effect anxiety has on sexual arousal. For example, in a sample of 12 American men, Barlow, Sakheim, and Beck (1983) assessed men's genital sexual arousal using penile plethysmography (PPG) (i.e., mechanical strain gauge) and their subjective sexual arousal continuously by having participants adjust a lever. Anxiety and arousal ratings were provided on a scale of 0 – 100 one minute after viewing a three-minute film clip of a man and a woman engaged in sexual activity. Anxiety was induced by introducing the threat of receiving an electric shock if one's genital sexual arousal was lower than that of the average participant's at that point in the film. Barlow and colleagues (1983) found that anxiety induced by shock-threat facilitated sexual arousal to heterosexual sexual stimuli among men. The authors' use of heterosexual stimuli limits the generalizability of these findings to other sexually explicit stimuli (i.e., same-sex sexual stimuli). Further, the authors did not describe the specific sexual activities depicted in the film clips; therefore, it is unclear if the stimuli were strong enough to elicit significant sexual responses in the absence of shock-threat.

Similarly, in a sample of 30 Australian men, Koukounas and McCabe (2001) assessed participants' genital sexual arousal using penile plethysmography (i.e., mercury-in-rubber strain gauge) in response to 10 two-minute segments (i.e., five sexually explicit and five neutral). The sexually explicit videos depicted a man and a woman engaged in sexual petting, and oral and genital sex. After each film clip, participants were asked to verbally rate the material on a scale of 1 (“*not at all*”) to 5 (“*extremely*”) with respect to the following nine variables: subjective sexual arousal, absorption (i.e., attention), positive feelings, anxiety, disgust, entertainment, boredom, anger, and curiosity. Affect was also implicitly measured using startle eye-blink. The eye-blink startle response was evoked by a 50-ms burst of 95dB white noise, which occurred once during each film clip. Koukounas and McCabe (2001) found that subjective sexual arousal was positively

correlated with ratings of anxiety. However, there was no significant difference between the amount of anxiety elicited by either the neutral or sexually explicit film. Koukounas and McCabe (2001) suggested that the anxiety elicited by the films might have resulted in an increase in general arousal levels, which then enhanced or were misattributed to sexual arousal. Results of the startle-eye blink measure did not provide greater insight into specific affective states, only that the sexually explicit films were more appetitive than the neutral films. Unfortunately, Koukounas and McCabe (2001) did not analyze the relationship between anxiety and genital sexual arousal, only subjective arousal, and, further, the relationship between sexual arousal to same-sex sexual stimuli was not examined in this study.

Using a priming technique, Sharifzadeh (2009) compared 47 undergraduate men's subjective physiological sexual arousal as measured by the Sexual Arousal and Desire Inventory (SADI; Toledano & Pfaus, 2006), in response to a heterosexual sexually explicit video following either a neutral or anxiety-inducing video. Anxiety was assessed implicitly via changes in heart rate using the Cateye PL-6000 Pulse Monitor (i.e., a pocket size heart rate monitor with an ear clip sensor) and explicitly using the Subjective Units of Distress Scale (SUDS; Wolpe, 1958). The author indicated that heterosexual men's subjective assessment of their own physiological sexual arousal in response to the sexually explicit video was significantly enhanced after viewing an anxiety video compared to a neutral video. Further, men's heart rates were much higher during the sexually explicit video following the anxiety-inducing film. Although heart rate was intended to assess physiological changes in anxiety, this interpretation may be confounded, as increases in heart rate are also associated with sexual arousal (LeVay, Baldwin, & Baldwin, 2009) and therefore may reflect a more general state of heightened physiological arousal.

In order to assess the influence of anger and anxiety on genital sexual arousal, Wolchik et al. (1980) employed a priming procedure in which 14 heterosexual men were shown a three-minute neutral (i.e., travel documentary), anger- (i.e., car-accident) or anxiety- (i.e., threatened amputation) inducing video followed by a sexual video. The sexual video depicted a man and a woman engaged in foreplay, with no scenes of sexual intercourse. Sexual arousal was assessed using penile plethysmography. Wolchik et al.

(1980) found that videos that elicited mild anxiety and anger facilitated sexual arousal, but speculated that higher levels of anxiety may inhibit sexual arousal. The authors suggested that anxiety might increase general arousal levels that, in turn, enhance the subjective experience of sexual arousal or vice versa (Koukounas & McCabe, 2001; Wolchik et al., 1980). This hypothesis is consistent with earlier theoretical work by Schachter and Singer (1962) on misattribution of arousal. Schachter and Singer (1962) proposed that emotional states consisted of two components: physiological arousal, which is emotionally non-specific, and cognitions about an arousing situation. Based on their theory, physiological states can be misattributed or mislabelled depending on how someone chooses to think about a particular situation or arousing object, which may be influenced by social acceptability of an object. Although the videos were pilot-tested by another researcher (Beggs et al., 1978), Wolchik et al. (1980) did not assess the affective reactions to the videos in the current study. This limitation is perhaps most pertinent to the sexual stimuli, as the affective reactions it elicited, independently of the affect-laden priming videos, were not assessed. Further, the authors noted that men and women evaluated these videos differently in previous research and, consequently, they may have elicited different affective reactions in their sample as well. Therefore, affective reactions to the videos used in the current dissertation are assessed when examining the relationship between affect and sexual arousal to ensure the stimuli elicit the intended affective reactions.

Another portion of the literature on the relationship between anxiety and sexual arousal demonstrates a neutral effect. For example, Bernick, Kling, and Borowitz (1971) used pupil dilation and self-reported erectile response (i.e., duration of erection) as indicators of sexual arousal in a small sample of 8 self-identified heterosexual men, and assessed anxiety using an electrocardiogram to indicate heart rate. Participants watched three different 16-minute videos during three separate sessions, with each session being 2-6 weeks apart. Each video was preceded and followed by 12 randomized “non-provocative” images of men (6) and women (6). The first video depicted a man and a woman engaged in a “range of heterosexual sexual activity,” the second video was of two men engaged in sexual activity, and the third video depicted a suspenseful scene from an Alfred Hitchcock film intended to evoke anxiety. Despite participants self-identifying as

heterosexual, four of the eight participants reported experiencing an erection at least 25% of the time while viewing the gay male sexually explicit video. The authors (1971) found that sexual arousal (i.e., pupil dilation and self-reported erectile response) and anxiety (i.e., heart rate) were not exhibited by the same individual at the same time to either the heterosexual or same-sex sexual videos, suggesting that they may be conflicting processes. Previous research has shown that, although pupil dilation occurs in response to sexual stimuli, the measure is not specific enough to measure sexual arousal or actual interest (Aboyoun & Dabbs, 1998). Further, having participants self-report the duration of their erection is a crude measure of sexual arousal. An alternative and superior method of assessing sexual arousal is penile plethysmography, a physiological measure of genital erections. Specific details of the sexual activity depicted in the videos also were not provided by the authors; thus, it is unclear if the stimuli were explicit enough to elicit strong physiological or emotional reactions.

In a similar vein, Bozman and Beck (1991) assessed genital sexual arousal using penile plethysmography (i.e., mechanical strain gauge) and sexual desire using a subjective ratings dial among 24 men while they listened to three audiotapes. The audiotapes were each 7.5 minutes in length; two were written to elicit affective states (i.e., anxiety and anger¹²) and the third was a control. All three recordings described sexual interactions between a man and woman (e.g., caressing, foreplay, and sex). Affective content included self-statements by the male reflecting frustration and anger (e.g., “*she should not be leading me on*”), anxiety (e.g., “*I hope I don’t screw this up*”), or pleasure and contentment (e.g., “*this is great!*”). Affective reactions were assessed after each audio presentation using the Profile of Mood States (POMS; McNair et al., 1971). Bozman and Beck (1991) found that anxiety reduced sexual desire but did not inhibit penile tumescence. This suggests that anxiety may independently influence self-report and physiological responses, consistent with Adams et al.’s (1996) study. Although participants in Bozman and Beck’s (1991) study demonstrated physiological arousal in response to the stories, previous research has demonstrated that videos are a stronger method of eliciting sexual arousal. Further, none of the stories referred to sexual activities

¹² Bozman and Beck (1991) assessed the impact of both anxiety- and anger-inducing audio stories on genital and subjective sexual arousal. Results involving the anger-inducing audio stories on sexual arousal will be presented in the next section.

between two men; thus, it is unclear if the findings can be generalized to videos depicting gay sexually explicit content.

In another portion of the literature on anxiety and sexual arousal, researchers have found that anxiety has an *inhibiting* effect on sexual arousal. For example, Beck and Barlow (1986a) assessed the effect shock threat (i.e., anxiety) had on genital sexual arousal (e.g., using a mechanical strain gauge) and subjective arousal in a sample of 12 sexually functioning men and 12 sexually dysfunctional men (i.e., secondary erectile dysfunction). Erectile dysfunction was defined as an inability to achieve and maintain an erection during at least 25% of all sexual contacts, excluding masturbation. Participants' sexual arousal was monitored while they viewed four 3-minute "moderately arousing" videos depicting a man and woman engaged in foreplay (Beck & Barlow, 1986a). Participants were told that when a light turned on they had a 60% chance of receiving a shock if their sexual arousal level was below the average participant's. When the light was off there was no threat of shock. Each participant's level of shock tolerance was determined prior to the experimental session to maintain the credibility of the shock-threat manipulation. Healthy controls exhibited significantly lower sexual arousal during the threat condition while the dysfunctional men displayed equivalent genital arousal during both the threat and no-threat conditions (Beck & Barlow, 1986a). The authors concluded that among the dysfunctional men, performance anxiety might have inhibited their sexual arousal during non-threat conditions. A limitation of this study was the videos used to assess sexual arousal; specifically, none of the videos depicted explicit sexual activity (i.e., oral sex or intercourse) and none of the videos depicted same-sex interactions. The generalizability of the results to gay sexually explicit videos, which have been shown to elicit the strongest affective reactions among men higher in homonegativity, is therefore placed in question.

In a sample of 54 American men, Hale and Strassberg (1990) assessed genital sexual arousal using penile plethysmography (i.e., using a mercury-in-rubber strain gauge) while participants watched four explicitly sexual videos depicting heterosexual couples engaging in sexual fondling, oral sex, and intercourse. Participants were randomly assigned to three different experimental conditions: control, shock threat, or performance threat. In the control condition, participants were told the purpose of the

study was to learn more about men's sexual response to explicit sexual videos. In the shock threat condition, participants were told that they would receive a "painful but not harmful electric shock" (p. 574) via a bogus electrode fastened to their arm at a random time during the experiment to assess the effect of stress on sexual arousal patterns (Hale & Strassberg, 1990). In the performance threat condition, after participants completed the baseline measurement, they were shown three bogus arousal patterns. The first was described as an "unusually strong response pattern" while the second was described as an "atypically low level of response" (p. 574; Hale & Strassberg, 1990). The third bogus arousal pattern illustrated a similar pattern to that of the second pattern (i.e., unusually low). The third pattern was described as being the participant's arousal pattern from the baseline measurement. The experimenter pretended to be discouraged and indicated that, even though the participant's response pattern was below average, he "might as well just go ahead and finish the study anyway" (p. 574; Hale & Strassberg, 1990). Prior to, and following the experimental session, participants completed the State-Trait Anxiety Inventory (STAI; Spielberger et al., 1970) and the Perceived Concerns Inventory (Hale & Strassberg, 1990). Hale and Strassberg (1990) found a 35% drop in penile tumescence from baseline in both anxiety-inducing conditions (i.e., shock threat and performance threat). There was no significant difference between the shock threat and performance threat conditions in regards to their effect on sexual arousal; however, the shock threat condition was subjectively rated as significantly more anxiety-provoking than the other two conditions. Although Hale and Strassberg (1990) addressed the limitation found among earlier research by including more explicitly sexual videos in their study, they still did not assess whether anxiety influenced sexual arousal differently in response to sexually explicit videos depicting two men.

Taken together, the extant literature on anxiety and sexual arousal has demonstrated enhancing, neutral, and inhibiting effects on sexual arousal when anxiety is induced; however, the majority of the research does appear to lean in the direction of an *enhancing* effect. Nevertheless, the equivocal evidence may be the result of inconsistent methods employed to assess affect and sexual arousal across studies and the previously outlined limitations of the extant research. For example, the research on anxiety and sexual arousal among healthy heterosexual men has predominantly focused on the impact

anxiety has on sexual arousal when “experiencing” heterosexual sexual stimuli. Although the stimuli used in previous research have been primarily heterosexual in nature, our understanding of the ways in which anxiety influences sexual arousal in response to gay male sexually explicit videos is currently limited. Therefore, the current dissertation is the first to assess the relationship between anxiety and physiological sexual arousal as measured by penile plethysmography in response to sexually explicit videos depicting two men. Further, many of the studies employed either audio or non-explicit sexual stimuli, which have been found to elicit less physiological sexual arousal compared to sexually explicit videos (Julien & Over, 1988). Consequently, the current dissertation uses sexually explicit videos in order to enhance the effectiveness of the stimuli to elicit both sexual arousal and affective reactions among men higher in homonegativity.

Anger and Sexual Arousal

The literature investigating the relationship between anger and sexual arousal mostly stems from the desire to understand sexual aggression and assault in the form of heterosexual rape. As such, much of this literature has examined the impact sexual arousal has on aggression. There are three studies that focus specifically on the relationship between anger and sexual arousal (i.e., in both subjective and physiological forms). In the Bozman and Beck (1991) study described earlier, 24 heterosexual undergraduate men were presented with three 7.5 minute audiotapes. Two were written to elicit affective states (i.e., anxiety and anger) and the third was a control. All three recordings described sexual interactions between a man and woman involving caressing, foreplay, and sexual intercourse. The recording for the anger condition described the woman expressing reluctance to engage in intercourse but eventually conceding, while the man’s thoughts expressed frustration and anger (e.g., “*I don’t like to be teased*”). Bozman and Beck (1991) found that self-reported anger as measured by the Profile of Mood States (POMS; McNair et al., 1971) significantly reduced both sexual desire and penile tumescence, the latter of which was measured by penile plethysmography. Similarly, in a sample of 14 undergraduate men, Wolchik et al. (1980) found that videos that elicit anger and depression inhibited sexual arousal as measured by penile plethysmography, whereas videos that elicit anger and “mild” anxiety facilitated sexual

arousal (p. 598). Wolchik et al. (1980) concluded that anger may have little influence on sexual arousal and it is other affective states (i.e., anxiety) that have greater impact.

In another study conducted by Kelley, Miller, Byrne, and Bell (1983), 48 undergraduate men were assigned to either an “angered condition” or a “non-angered condition.” Individuals were asked to evaluate another participant on a series of attributes (e.g., likability, intelligence, attractiveness, maturity) and given the impression that the other participant was doing the same for them. In the angered condition, participants were given a fake evaluation that indicated that the other participant had evaluated them negatively. Subjective sexual arousal was then assessed in response to 15 slides, five nonsexual (i.e., inanimate objects), five mildly sexual (i.e., man and woman kissing and undressing), and five strongly sexual (i.e., man and woman engaged in sexual intercourse). Each slide was presented for 15 seconds. Kelley et al., (1983) found that individuals in the angered condition reported significantly more anger in response to the fake feedback than participants in the non-angered condition; however, there was no difference in the reported level of sexual arousal between the two groups of participants. These results suggest that anger had minimal effect on sexual arousal.

The small body of literature on the effect anger has on sexual arousal has produced little support for an enhancing effect on genital or subjective ratings of sexual arousal; rather, it has been found to have little, to no, effect. The studies featuring anger as the primary emotion of interest share similar limitations to the studies on anxiety and sexual arousal. For example, no researchers have examined the impact of anger on sexual arousal using same-sex sexual materials. Therefore, it is unclear how anger may influence heterosexual men’s sexual arousal in response to same-sex sexually explicit material. The current dissertation is the first to assess the relationship between anger and physiological sexual arousal as measured by penile plethysmography in response to sexually explicit videos depicting two men. Further, the use of explicitly sexual videos in the current dissertation advances previous research on anger and sexual arousal that relied historically on slides, recordings of stories, and non-sexually explicit videos.

Disgust and Sexual Arousal

Similar to the body of research on anger and sexual arousal, there has been limited research examining the effect of disgust on sexual arousal. Indeed, only three

studies have been published on disgust and sexual arousal to date. Koukounas and McCabe (1997, 2001) conducted two studies examining the relationships among sexual arousal, attention, and affect. In their 1997 study, Koukounas and McCabe presented 20 undergraduate men with one of two videotapes, each comprised of 16 two-minute segments of film: eight sexually explicit and eight neutral. The eight sexually explicit film clips depicted heterosexual sexual petting, oral and genital sex, while the eight neutral videos featured nature scenes. At the end of each two-minute segment, participants were asked to verbally rate the material on a scale from 1 (“*not at all*”) to 5 (“*extremely*”) with respect to the following nine variables: subjective sexual arousal, absorption, positive feelings, anxiety, disgust, entertainment, boredom, anger, and curiosity. Participants were also asked to identify what it was about the film material that produced their particular responses.

Koukounas and McCabe (1997) found that the magnitude of subjective sexual arousal was predicted largely by the separate groupings of appetitive states attentional and emotional variables (such as absorption, pleasure, entertainment, curiosity) and aversive states (i.e., anxiety, anger, and disgust). Some respondents were simultaneously angered and disgusted by the sexual films, yet sexually aroused due to their curiosity about the material. The authors suggested this finding might have resulted from the socialization factors that play a role in the information processing of sexually explicit films. For example, anger and disgust responses to sexually explicit material arise from restrictive and conservative views of sexual behaviour imposed by social bodies (e.g., religion), while curiosity stems from innate inclinations towards the “sexually salient” (p. 229; Koukounas & McCabe, 1997). The findings of this study are limited by the authors’ exclusive reliance on explicit measures (i.e., self-report ratings) of affect and sexual arousal.

Koukounas and McCabe (2001) addressed their measurement limitation by employing implicit and explicit measures in their second study. Twenty undergraduate men’s sexual arousal was assessed using penile plethysmography (i.e., using a mercury-in-rubber strain gauge) in response to 10 two-minute film segments. Five of the film clips depicted heterosexual sexually explicit activity (i.e., sexual petting, oral and genital sex) and the other five were of neutral nature scenes. The film clips alternated between the

sexual and neutral videos during their presentation, in the same order for every participant. Affect was measured implicitly and only once during the presentation of the film segments using startle eye-blink. The eye-blink startle response was evoked by a 50-ms burst of 95dB white noise. Explicit affect and sexual arousal also were assessed using verbal ratings of the same sexual arousal item and affective states as in the 1997 study. Koukounas and McCabe (2001) found there to be no significant relationship between disgust and physiological sexual arousal. The authors noted that their results might have been influenced by order effects, because they did not counterbalance the presentation of the experimental stimuli, a limitation that is addressed in the current dissertation through randomizing the presentation of the sexually explicit videos.

In another stream of research examining the relationship between disgust and sexual arousal, Stevenson, Case, and Oaten (2011) investigated whether general disgust stimuli or, more specifically, sex-related disgust stimuli would have a stronger relationship with sexual arousal in a sample of 99 undergraduate men. Participants were presented with four modalities of general-disgust and sex-related disgust stimuli (i.e., visual, auditory, tactile, and olfactory). The general-disgust stimuli included: an image of pollution, an audio clip of someone vomiting, a bucket of ham and pea soup, and a fecal odor. The sex-related disgust stimuli included: an image of a scar on a naked woman, an audio clip of someone performing fellatio, a bucket of four lubricated condoms, and a fishy odor¹³. After the participants were presented with the first two modalities of both general and sex-related disgust stimuli, they were presented with one of four sets of 20 images: sexual images of females and heterosexual couples, neutral images of females and heterosexual couples fully dressed, “pleasantly” arousing images (e.g., skydiving), or “unpleasantly” arousing images (e.g., an aimed gun). This was then repeated after the last two modalities of disgust stimuli were presented. After the presentation of the stimuli was complete, participants were asked to rate the images they viewed on a number of variables (e.g., how sexually arousing they found them) on a 7-point scale ranging from 1 (“*not at all*”) to 7 (“*very*”). They also completed the Disgust Sensitivity Scale (DS; Haidt et al., 1994).

¹³ The fishy odor was rated as being less connected to sexual behaviour compared to the other sex-related stimuli and was, therefore, excluded from analysis.

Overall, it was demonstrated that participants were less disgusted by the sex-related stimuli than the general-disgust stimuli. Individuals who endorsed greater sexual arousal to the sexual images reported less disgust to the sex-related disgust stimuli than the general-disgust stimuli when compared to individuals who viewed the other image categories. This finding suggests that sexual arousal differentially affects the experience of disgust in response to sex-related versus general-disgust stimuli. The authors suggested that a greater threshold for disgust towards sex-related stimuli serves to make sexual stimuli more appetitive rather than repulsive in order to facilitate sexual interest/arousal. This conclusion contradicts previous literature that has suggested that disgust inhibits sexual arousal in order to protect individuals from contracting disease and simultaneously increasing the chance of healthy offspring. Stevenson, Case, and Oaten's (2011) study is limited by its use of "sex-related" stimuli rather than actual depictions of more explicit sexual activity (i.e., oral or penetrative sex) that would more likely elicit greater sexual arousal.

Studies examining the relationship between disgust and sexual arousal have shown that disgust in response to sexual and non-sexual stimuli may have little impact on the amount of sexual arousal experienced, and most of this literature has relied on explicit measures of affect and sexual arousal. Indeed, only one study has employed penile plethysmography as a measure of sexual arousal (Koukounas & McCabe, 2001); thus, advancing the implicit measurement of this arousal type. As well, none of the research has examined the effect disgust has on sexual arousal to sexually explicit videos depicting two men. As a result, the current dissertation is the first to assess the relationship between anxiety and physiological sexual arousal as measured by penile plethysmography in response to sexually explicit videos depicting two men.

Summary of Affect and Sexual Arousal Research

Research on affect and sexual arousal has demonstrated that anxiety both inhibits and enhances sexual arousal, whereas other affective states such as anger and disgust appear to have either no effect or serve to inhibit sexual arousal. Adams, Wright, and Lohr (1996) suggested that anxiety might be the most likely affective state to have contributed to the arousal patterns exhibited by men higher in homonegativity. It could be argued that any enhancing effects anxiety may have on sexual arousal could be

neutralized by the other affective states also associated with homonegativity (i.e., anger or disgust). Clearly research examining the role affective states, specifically anger, anxiety, and disgust, play in the sexual arousal exhibited among men higher in homonegativity is warranted.

The literature on the relationship between different affective states and sexual arousal has several limitations. First, many studies employ either a measure of explicit or implicit sexual arousal, with only 6 of the 11 studies reviewed employing both (i.e., Barlow et al., 1983; Beck & Barlow, 1986 a, b; Bernick et al., 1971; Bozman & Beck, 1991; Koukounas & McCabe, 1997 & 2001). Explicit measures are more susceptible to voluntary manipulation and often provide different information than implicit methods designed to assess involuntary and unconscious responses. Second, three studies were limited by their reliance on audio (i.e., Bozman & Beck, 1991) and still images (Kelley et al., 1983; Stevenson et al., 2011) as experimental stimuli. Audio and still image stimuli have been shown to be less effective in terms of eliciting sexual arousal than sexually explicit videos (Julien & Over, 1988). Similarly, four other studies were limited by their reliance on video stimuli depicting non-explicit sexual activity (i.e., Barlow et al., 1983; Beck & Barlow, 1986; Bernick et al., 1971; Wolchik et al, 1980). Previous research has shown that explicitly sexual videos are better at eliciting affective and behavioural reactions from men higher in homonegativity (e.g., Bernat et al, 2001; Nevid, 1983; Zeichner & Reidy, 2009). Third, none of the studies have assessed the influence of affect on sexual arousal to same-sex sexually explicit stimuli. This limits our understanding of how affect may have contributed to the sexual arousal demonstrated by heterosexual participants in Adams et al.'s (1996) study. It also reduces advances in the field vis-à-vis triggering of homonegative behaviour that may have affective underpinnings (i.e., angry, defenses). These limitations in methodology and design will be addressed in the current study by using explicit and implicit methods to assess sexual arousal (i.e., penile plethysmography) and affective reactions to sexually explicit heterosexual and same-sex videos.

Purpose of Study 2

Previous research has examined separately the relationship between homonegativity and affective states, as well as the relationship between sexual arousal

and affective states. To date, however, no research has combined these areas of research to assess physiological sexual arousal and affective states simultaneously among heterosexual men who vary in their degree of homonegativity. The relationship between physiological sexual arousal and affective states is important to our understanding of homonegativity because they have both been associated with the ego-defensive function of homonegativity, one of the strongest predictors of anti-gay behaviour. Therefore, the purpose of Study 2 was twofold: (1) to examine physiological sexual arousal, affective reactions, and homonegativity concurrently, in order to gain further insight about the causal nature of the physiological response characteristic of the ego-defensive function (i.e., sexual arousal to same-sex sexual material), and (2) to assess the ego-defensive function in combination with more established measures of defensive styles in order to better understand the correspondence between ego-defensiveness and more traditional defensive styles.

Hypotheses for Study 2

Adams et al. (1996) proposed that the greater genital sexual arousal observed among men higher in homonegativity in response to sexually explicit videos depicting two men was due to either affective (e.g., anxiety) or ego-defensive reactions to such stimuli. Adams et al. (1996) however, did not assess variables denoting anxiety or ego-defensiveness, nor has any researcher since using penile plethysmography as a measure of sexual arousal. On the basis of these gaps in our collective knowledge, and outstanding research questions, the following hypotheses were generated:

1. Men higher in homonegativity (i.e., those scoring in the top 35%) are expected to display greater sexual arousal, as measured by circumferential penile plethysmography (PPG), to male/male sexually explicit videos than men lower in homonegativity (i.e., those scoring in the bottom 35%; Adams et al., 1996).
2. Despite their expected greater sexual arousal (as proposed in Hypothesis 1), men higher in homonegativity (i.e., top 35%) are expected to report lower subjective sexual arousal to the male/male videos; therefore displaying less concordance between their subjective and genital sexual arousal responses than men who score lower on measures of homonegativity (i.e., bottom 35%), who would display both

- lower genital sexual arousal and report lower subjective arousal (i.e., greater concordance; Adams et al., 1996).
3. Adams et al. (1996) suggested strong negative affective reactions might account for the sexual arousal observed in their original study. Therefore, men who display greater genital sexual arousal to male/male sexually explicit videos and are higher in homonegativity are expected to report greater negative affect in the form of anxiety, anger, disgust, and general stress as measured by the post-stimuli questions than men who display less genital sexual arousal and are lower in homonegativity. This particular subgroup of men would also evidence greater social distancing from gay men, as measured by the Social Distance Measure of Homophobia (SDMH, Gentry, 1986), an affective measure of homonegativity.
 4. Adams et al. (1996) also suggested that a defensive reaction might account for the sexual arousal observed in their original study. To account for this possibility, participants completed a variety of measures of defensive styles. It was hypothesized that men who display greater genital sexual arousal to the male/male sexually explicit videos and are higher in homonegativity would obtain higher defensiveness scores, as measured by the Attitude Functions Inventory (AFI; Herek, 1986), as well as higher scores on measures of defensive mechanisms (i.e., Self-Concealment Scale; Larson & Chastain, 1990, and Defence Style Questionnaire; Andrews, Singh, & Bond, 1993) than men who display less genital sexual arousal to the male/male sexually explicit videos and are lower in homonegativity.

METHOD

Participants

One hundred and twenty one self-identifying heterosexual men consented to be contacted and provided their contact information. Of these men, eight did not meet inclusion criteria, 14 were unable to be contacted after several attempts, and fifty-nine declined after being provided more information about the study's procedure. Therefore, of the 121 potential participants, forty individuals completed the study's protocol. Of these 40, three participants' data were not included in the analyses. Specifically, two of

the participants displayed insufficient genital response to stimuli (i.e., < 2.5 mm circumferential change; Kuban, Barbaree, & Blanchard, 1999), with the third participant's data being rendered unusable due to equipment/technical failure. Thus, the final sample consisted of 37 self-identifying heterosexual male participants. The participants ranged in age from 18 to 32 years ($M = 22.59$; $SD = 3.66$). With respect to participants' self-declared ethnicity, the majority of participants (approximately 62.2%) self-identified as Caucasian, with the remaining participants identifying as Aboriginal, Asian, Black, or Hispanic. The majority (54.1%) of participants identified as "not at all" religious, 27% indicated that they were "somewhat religious," with the remaining 18.9 % indicating that they were either "very" or "quite" religious. Eighty-seven percent of the participants reported political beliefs that ranged from "somewhat" to "very" liberal; thus, participants on the whole skewed toward a less conservative political self-identification. With regards to relationship status, 70.3% of participants identified as being "single," 21.6% identified as "dating," with the remainder of the sample (8.1%) indicating that they were married. For a more detailed breakdown of the demographic information stratified by level of homonegativity (i.e., as measured by the old-fashioned Attitudes Toward Gay Men Scale [ATG]; Herek, 1988) and Modern Homonegativity Scale-Gay Men [MHS-G]; Morrison & Morrison, 2003), please refer to Table 3.1.

Measures

Cognitive Measures of Homonegativity

Attitudes Toward Gay Men (ATG; Herek, 1988, 1994). The ATG is a 10-item scale that measures negative attitudes toward gay men along a general condemnation/tolerance factor. Sample items include: "*Male homosexuality is a perversion*" and "*Male homosexuals should not be allowed to teach at schools.*" The ATG uses a 5-point Likert-type response scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Total scores can range from 10 to 50, with higher scores indicating greater old-fashioned homonegativity. The ATG has been found to have excellent scale score reliability (alpha coefficients = .94) and good construct validity (Rye & Meaney, 2010; Patel et al., 1995).

The Modern Homonegativity Scale–Gay Men (MHS-G; Morrison & Morrison, 2003). The MHS-G measures modern homonegative attitudes toward gay men and consists of 12 items (e.g., “*Gay men should stop shoving their lifestyle down other people’s throats*”). The MHS-G uses a Likert-type response format ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), where total scores can range from 12 to 60, with higher scores indicating greater modern prejudice toward gay men. The MHS-G has been found to possess excellent scale score reliability (Cronbach’s alphas ranging between .80 and .93) and has demonstrated construct validity (correlates with related constructs in hypothesized directions; Aosved & Long, 2006; Cramer, Miller, Amacker, & Burks, 2007; Morrison & Morrison, 2003; Morrison et al., 2005).

Affective Measure of Homonegativity

Social Distance Measure of Homophobia (SDMH; Gentry, 1986). The SDMH is a 5-item scale that assesses affective reactions heterosexual persons may have when interacting with gay men. Sample items of the SDMH include: “*I would be uncomfortable at a party where a gay man was present*” and “*It would bother me to drive alone in a car with a gay man.*” Participants respond to items using a 5-point Likert-type scale ranging from 1 (“*entirely disagree*”) to 5 (“*entirely agree*”). Scores on the SDMH can range from 5 to 25, with higher scores indicating greater negative affective reactions towards gay men. Mahaffey and colleagues (2005a) found that scores on the SDMH were strong predictors of startle eye-blink responses (i.e., a physiological measure of positive and negative affect) such that, individuals who scored higher on the SDMH responded more negatively towards images of naked men and gay male couples. The SDMH has been found to possess excellent scale score reliability; for instance Cronbach’s alphas have been found to range between .93 and .95 (Gentry, 1986; Mahaffey et al., 2005a).

Defensive and Functions Measures

Anti-gay Behaviour Inventory-Short Form (ABI-SF, Franklin, 2000). The ABI-SF is a 56-item inventory that was adapted from the original 89-item inventory that assesses the frequency of various types of anti-gay behaviours and potential motivations for such behaviours. Participants are instructed to rate the frequency with which they have engaged in 11 behaviours including: “*threatening to hit a gay man,*” “*using an object to*

strike a gay man,” and *“calling a gay man an insulting name.”* Participants then rate 19 motivations on a 4-point Likert scale ranging from 1 (*“not at all true”*) to 4 (*“very true of me”*). It should be noted that, if participants indicate that they have not engaged in anti-gay behaviours, they are then directed to a separate set of motivations that denote reasons why someone may not commit anti-gay acts (e.g., *“Because I am against violence”* and *“Because there are no gay people in my neighborhood”*). Thus, on the basis of responses from those who have engaged in anti-gay behaviours (i.e., assailants) and those who have not (i.e., non-assailants), comparisons between the two groups can be made. Franklin (2000) reported that the motivations assessed using the original ABI accounted for 77% of the variance in motivations for anti-gay behaviours. Parrott and Peterson (2008) reported alpha coefficients ranging from .81 to .84 for the original 89-item inventory.

Attitude Functions Inventory (AFI; Herek, 1987). The AFI is a 10-item scale that assesses the social-expressive, defensive, experiential-schematic, and value expressive functions of anti-gay attitudes. Sample items include: *“My opinions about gay men mainly are based on my perceptions of how the people I care about have responded to gay people as a group”* (social-expressive), *“My opinions about gay men mainly are based on the fact that I would rather not think about homosexuality or gay people”* (ego-defensive), *“My opinions about gay men mainly are based on whether or not someone I care about is gay”* (experiential-schematic), and *“My opinions about gay men mainly are based on my moral beliefs about how things should be”* (value-expressive). The AFI uses a Likert-type scale ranging from 1 (*“not at all true”*) to 9 (*“very true”*). The AFI has been found to possess good construct validity insofar as it correlates with measures of religiosity, externalized defense mechanisms, motivation to be perceived in a socially desirable manner, density of social networks, and sex role conformity (Franklin, 2000). Rye and Meaney (2010) reported the following alpha coefficients for the AFI subscales: .87 (ego-defensive), .47 (value expressive),¹⁴ .80 (social expressive), and .83 (experiential).

The Defence Style Questionnaire (DSQ-40; Andrews, Singh, & Bond, 1993). The DSQ-40 is a short form of the original 88-item Defence Style Questionnaire developed

¹⁴ The alpha coefficient for the value-expressive subscale is sub-optimal, and echoes the alpha coefficient for this subscale obtained by Franklin (2000). However, in the original paper Herek (1987) obtained an alpha coefficient for this subscale of .87.

by Bond, Gardner, Christian and Sigal (1983). Currently the most frequently used measure for defence styles (Chabrol et al., 2005), the DSQ-40 is designed to measure defence mechanisms as described in the *Diagnostic and Statistical Manual of Mental Disorders, Text Revision (DSM-IV-TR)* (APA, 2000). The DSQ-40 comprises 20 defence mechanisms in total, each consisting of two items, which are subsumed within three subscales (Mature, Neurotic, and Immature). Respondents use a nine-point Likert-type scale ranging from 1 (“*strongly disagree*”) to 9 (“*strongly agree*”) to rate the extent to which they agree with each statement that corresponds to each item.

The Mature subscale is made up of 8 items reflecting four defences (i.e., humour, sublimation, suppression, and anticipation) and contains items such as “*I work out my anxiety by doing something constructive like painting or woodwork*” (sublimation). The Neurotic subscale contains 8 items also reflecting four defences (undoing, pseudo-altruism, reaction-formation, and idealisation) and corresponds to items such as “*I always feel that someone I know is like a guardian angel*” (idealisation). Finally, the Immature subscale comprises 24 items reflecting 12 defences (projection, acting out, passive-aggression, autistic fantasy, isolation, devaluation, denial, displacement, splitting, dissociation, rationalisation, and somatisation) and contains items such as “*As far as I’m concerned, people are either good or bad*” (splitting) (Andrews et al., 1993). Subscale total scores for both the Mature and Neurotic subscales individually range from 4 to 36, and from 12 to 108 for the Immature scale (given the different number of items across the subscales), with higher scores indicating stronger endorsement and use of that particular set of defence mechanisms. Scale score reliability for the defense styles has been shown to range from somewhat adequate to good with alpha coefficients ranging from .58 to .80 (Andrews et al., 1993). The DSQ-40 has also demonstrated good convergent and concurrent validity, by correlating in theoretically meaningful ways with the severity of psychiatric symptoms assessed by the General Health Questionnaire (GHQ; Goldberg, 1972), and psychosocial adjustment assessed by the Global Assessment of Functioning Scale (GAF; DSM-IV, American Psychiatric Association, 2000; Ruuttu et al., 2006). For example, individuals who endorse more Mature defense styles displayed less severe psychiatric symptoms (GHQ) and better psychosocial adjustment (GAF; Ruuttu, 2006).

Self-Concealment Scale (SCS; Larson & Chastain, 1990). The SCS is a 10-item scale that assesses one's "predisposition to actively conceal from others personal information that one perceives as distressing or negative." Sample items include: "*I have an important secret that I haven't shared with anyone*" and "*Some of my secrets have really tormented me.*" Participants respond to items using a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Total scores range from 10 to 50, with higher scores indicating greater self-concealment. Cramer and Barry (1999) reported alpha coefficients ranging between .83 to .87 and test-retest reliability estimate of .74, indicating good scale score reliability and over 7 weeks, respectively.

Additional Measures

Social Desirability Scale – 17 (SDS-17; Stöber, 1999, 2001). The SDS-17 is a 16-item scale that assesses an individual's tendency to ascribe to oneself, socially desirable attributes. Sample items include: "*In traffic, I am always polite and considerate of others*" and "*I never hesitate to help someone in case of emergency.*" To indicate whether an item accurately describes one self, a participant circles either "true" or "false." Total scores range from 0-16, with higher scores indicating greater tendency to respond in a socially desirable manner. The SDS-17 has demonstrated excellent convergent validity by correlating with the Lie Scale of the revised Eysenck Personality Questionnaire (Eysenck & Eysenck, 1991), the Sets of Four Scale (Borkenau & Ostendorf, 1992), and the Marlowe-Crowne Scale (Crowne & Marlowe, 1960) (Stöber, 2001). SDS-17 scores also have produced nonsignificant correlations with neuroticism, extraversion, psychoticism, and openness to experience as measured with the revised Eysenck Personality Questionnaire (Eysenck & Eysenck, 1991; Ruch, 1999) and the NEO Five Factor Inventory (Costa & McCrae, 1993) respectively, which, in turn, demonstrate good discriminant validity (Stöber, 2001). The SDS-17 has also been found to possess excellent scale score reliability (Cronbach's alphas ranging between .61 and .84) across age groups (i.e., 18-80 years old) (Stöber, 2001).

Demographic Information (DI). Participants were asked to respond to questions about their age, education, household income (e.g., *Less than \$10,000, \$10,001 - \$19,999, \$20,000 – 29,999, \$30,000 – 39,999, etc.*), ethnicity (i.e., *Aboriginal, Black, East Asian, South Asian, Southeast Asian, Latin American, West Asian, White/Caucasia*),

marital status (i.e., *Single, Dating, Common-law, Married, Separated, Divorced*), and sexual orientation (i.e., *Exclusively heterosexual, Primarily heterosexual, More heterosexual than homosexual, Bisexual, More homosexual than heterosexual, Primarily homosexual, Exclusively homosexual*) as a means of learning more about the respondents and their characterological profile.

Measure of Continuous Subjective Sexual Arousal

Throughout the presentation of the videos, participants continuously rated their subjective sexual arousal by pressing or holding down buttons on a keypad. The buttons were labeled with an arrow pointing up and an arrow pointing down that represented increases and decreases in subjective sexual arousal. All changes to participant's self-reported ratings of sexual arousal appeared as a vertical indication bar on the left side of the computer monitor that increased or decreased in height with each button press. For example, increases in self-reported sexual arousal are indicated by an increase in the height of the bar, and decreases in sexual arousal are indicated by a decrease in the bar's height (Suschinsky, 2006; Suschinsky et al., 2009).

Post-Stimulus Questions

Immediately after the presentation of each video, the participants were automatically presented with post-stimulus questions (please see Appendix H). Participants were asked to rate how sexually arousing each video was overall, how sexually aroused their genitals felt in response to the video, and the degree to which they felt a variety of affective states (i.e., anxiety, disgust, and anger) using the numbered buttons on a keypad. Questions were presented with unipolar response scales that range from 1 to 9, with 1 indicating "no"/"low affect" sexual arousal to the stimuli, and 9 indicating "strong"/"high affect" sexual arousal to the stimuli. One question was presented at a time, in a fixed order, due to the nature of the software being used for the experiment (Suschinsky, 2006; Suschinsky et al., 2009).

Measure of Genital Sexual Arousal

Genital arousal was measured using a mercury-in-rubber strain gauge. The penile plethysmograph is the most commonly used method to measure penile erection and has been well validated (Janssen & Geer, 2000). The device consists of a mercury-filled hollow rubber tube that is sealed at the ends with platinum electrodes that are inserted

into the mercury. Changes in the circumference of the penis cause the rubber tube to either stretch or shorten, changing electrical resistance. The signal was sampled at a rate of 10 samples/second, low-pass filtered (to .5 Hz), and digitized (40 Hz). The signal was transformed into millimeters of circumference change from baseline. Between each experimental session, the gauges were calibrated over six 5-mm steps. Movement artefacts were detected through visual inspection of the waveforms and removed prior to data analysis. All genital sexual arousal data were sampled using a Limestone Technologies Inc. DataPac_USB. Peak minus baseline (at stimulus onset) scores for each stimulus category were calculated for genital and continuous subjective sexual arousal responses. These scores were then standardized (i.e., transformed into z -scores) within subjects for each type of response to eliminate any effect of individual variation in responsiveness (Harris, Rice, Quinsey, Chaplin, & Earls, 1992). Z -scores were created by calculating the mean and standard deviation of raw genital arousal data for each individual across stimulus categories. The raw genital response data for each stimulus category were then subtracted from the mean overall genital response and divided by the standard deviation. The genital response z -scores for each video pair (i.e., every participant viewed two videos from each stimulus category) were then averaged to produce mean scores for each stimulus category (i.e., neutral, male/female, and male/male).

Stimuli

Neutral, male/female sexually explicit, and male/male sexually explicit videos were presented for two minutes each in a randomized order. The neutral videos depicted landscape scenes (e.g., trees growing in the jungle) from a nature documentary with commentary. The male/female sexually explicit videos depicted an adult male and adult female engaged in non-violent consensual sexual behaviour (e.g., vaginal penetration, and oral sex). The male/male videos depicted two adult males engaged in non-violent consensual sexual behaviour (e.g., anal penetration, oral sex). Please see Appendices I-L for further information about the pilot study that was conducted to select the videos based on participants' ratings.

Procedure

Individuals were recruited for the lab-based study following their participation in the Study 1 online questionnaire about attitudes, affective reactions, and behaviours toward gay men. In addition to the measures utilized in Study 1, participants completed defensive and functional measures (to be analyzed in the present study). Upon completion of the questionnaire, participants were presented with a synopsis of the lab-based study and the option of providing their contact information (please see Appendix M). Individuals who consented to be contacted for Study 2 were telephoned by the student researcher, provided further details about the lab-based study, and screened using inclusion criteria (please see Appendix N for telephone script). The inclusion criteria required participants to be between 18 to 35 years old, sexually experienced (i.e., having previously engaged in heterosexual sexual intercourse and exposed to sexually explicit materials) and able to read and write English fluently. Participants also could not have a history of mental illness, substance abuse, chronic sexual arousal problems, or sexually transmitted infections. Further, all participants could not be on any medications to treat mental illnesses or high blood pressure.¹⁵ Participants who met criteria and consented to participate in the study were scheduled for an appointment.

Before the lab-based session began, participants were asked for their written informed consent (please see Appendix O) after the student researcher reviewed the critical components of the consent form (e.g., purpose of the research, potential risks, confidentiality, and anonymity). Respondents were reminded that their participation was strictly voluntary and that they could withdraw at any point for any reason, without penalty or consequence, by asking the student researcher to discontinue the experimental session. Participants were asked to read and sign two copies of the consent forms if they wished to participate, and then one signed copy was handed back to the student researcher.

¹⁵ The inclusion criteria were used to ensure: 1) a degree of homogeneity among participants, especially for characteristics that have been shown to affect sexual arousal (e.g., age, sexual experience); 2) that participants are capable of completing the different experimental tasks (e.g., English fluency, no sexual arousal problems); and 3) participants would be comfortable during the experiment (e.g., previous exposure to sexually explicit videos, previous sexual intercourse experience).

The student researcher reviewed the experimental procedure (please see Appendix P for the room script), provided instructions about the application of the strain gauge, and invited the participants to ask any questions. Participants were instructed to attend to the videos, to not move their lower body, and to not voluntarily contract their pelvic muscles during testing. Participants also were reminded to assess their subjective sexual arousal throughout the presentation of each video and indicate their arousal level by pressing the buttons on the keypad. Participants were then informed that they could communicate with the student researcher at any point during the experimental session via an intercom system (i.e., fashioned by the use of baby-monitors). After all questions were answered, the student researcher left the experimental room and moved to a separate room where she remained for the duration of the experimental session. Once the student researcher was in the separate room, the participant undressed from the waist down, sat in a linen-lined recliner and attached the penile plethysmography in privacy. The participant was provided a light sheet with which to cover himself, if he wished. The student researcher did not re-enter the experimental room during testing.

Once the participant attached the gauge, he signalled that he was ready to begin the experiment by using the intercom. Participants wore headphones to hear the audio track of the video, as the video and post-stimulus questions were presented on a computer monitor placed approximately five feet in front of them as recommended by Suschinsky et al. (2009). Participants were given approximately 5-minutes to relax before the warm-up stimuli were presented. Two warm-up videos were presented first to acquaint the participant with the stimuli and procedure. One warm-up video was neutral in valence, and depicted a landscape scene; baseline genital arousal was determined when viewing the landscapes. The second warm-up video depicted a consensual sexual interaction between a man and woman (i.e., male/female), in order to ensure the equipment was functioning properly. Following the two warm-up videos, each participant was presented with two gay videos (i.e., male/male), two heterosexual videos (i.e., male/female), and two neutral videos in a pre-determined random order. All participants were exposed to different randomizations of the stimuli. Immediately following each video presentation, participants responded to the post-stimulus questions. Experimental videos were separated by a minimum interval of 30 seconds or until the participant's genital arousal

levels returned to baseline. When a participant displayed difficulty returning back to his baseline level of arousal (i.e., did not return to baseline or begin to show decreased arousal within 30 seconds), the student researcher invited him to engage in a distraction task (e.g., counting backwards from 100 aloud; reading a magazine aloud; and so forth).

After all experimental stimuli were presented, participants removed the genital gauge and placed it in a sealable plastic bag provided for them on a table near the recliner. The participants were then debriefed (i.e., provided further information about the study and given an opportunity to ask any questions; see Appendix Q), thanked for their participation, and compensated for their time. These procedures and techniques were adopted from standard practices used by researchers (e.g., Suschinsky, Lalumière, & Chivers, 2009) when conducting sexual arousal research.

RESULTS

Questionnaire Data

Means, standard deviations, ranges of scores (possible and obtained), and scale score reliabilities for the measures of the attitudinal and defensive/functional measures of homonegativity can be found in Table 3.2 for Study 2 participants stratified by level of homonegativity (i.e., as measured by the ATG and MHS-G). Also included in Table 3.2 are male participants from Study 1 who did not volunteer for Study 2.

Participants' mean total scale score on the ATG was below the midpoint of 30 ($M = 18.57$; $SD = 10.14$), indicating that many of the participants held relatively positive attitudes towards gay men. Further, the participants' scores ranged from 10 to 50 and were positively skewed, indicating that the majority of the scores fell below the midpoint of the scale. However, even though the scores were positively skewed, 5 of the 37 participants scored above the midpoint of the scale revealing that 14% of participants held negative attitudes towards gay men as measured by the ATG. Similarly, the participants' mean total scale score on the MHS-G was below the midpoint of 36 ($M = 29.30$; $SD = 9.18$), indicating that many of the participants held relatively positive attitudes towards gay men. Further, the participants' scores ranged from 13 to 52 and were only slightly positively skewed, indicating that the majority of the participants' scores fell below the midpoint of the scale. However, 8 of the 37 participants scored

above the midpoint of the scale revealing that 22% of participants held negative attitudes towards gay men as measured by the MHS-G.

Because of its strong correlation with the ego-defensive function in Study 1, the Social Distance Measure of Homophobia (SDMH) was included in Study 2 as a measure of homonegative affect. Participants' mean total scale score on the SDMH was below the midpoint of 15 ($M = 7.27$; $SD = 3.85$), indicating that many of the participants had relatively positive affective reactions towards gay men. The participants' scores ranged from 5 to 21 and were positively skewed, indicating that the majority of the scores fell below the midpoint of the scale, with only 2 of the participants scoring above the midpoint of the scale.

There were three measures used in this study to assess aspects of defensiveness. The first measure was the ego-defensive subscale of the Attitude Functions Inventory (AFI). Participants' mean total scale scores on the AFI-Ego-Defensive subscale was below the midpoint of 3 ($M = 1.47$; $SD = .91$, range 1-4), indicating that many of the participants did not hold negative attitudes towards gay men due to defensive reactions. Only 5 of the 37 participants scored above the midpoint of the scale indicating that 14% of participants experienced defensive reactions toward gay men.

The second measure of defensiveness was the Defense Style Questionnaire-40 (DSQ-40). The DSQ-40 was used to assess the three broad categories of defensive styles: mature, immature, and neurotic. Mean total scale scores for the mature ($M = 29.95$; $SD = 4.25$) and neurotic ($M = 24.95$; $SD = 4.92$) subscales were above the midpoint of 24, while scores on the immature subscale ($M = 65.29$; $SD = .10.64$) fell below its midpoint of 72. Only 4 (11%) participants fell below the midpoint of the mature subscale, 16 (43%) fell below the midpoint on the neurotic subscale, and 11 (30%) fell above the midpoint of the immature subscale. In sum, this pattern of scores across the three defensive styles suggests that the participants in Study 2 engage in predominantly mature defensive styles of coping (e.g., sublimation or humour), but a larger percentage of these individuals (57%) have also engaged in neurotic defensive styles (e.g., undoing or pseudo-altruism).

The third measure of defensiveness was the Self Concealment Scale (SCS). Participants' mean total scale score on the SCS was above the midpoint of 30 ($M = 31.24$;

$SD = 8.68$), suggesting that the majority of participants displayed a greater tendency to self-conceal information from others that they perceive as distressing or negative.

The Social Desirability Scale-17 (SDS-17) was used as a measure of the extent to which someone responds in a socially desirable or culturally appropriate manner. Participants' mean total scale score on the SDS-17 was slightly above the midpoint of 8 ($M = 8.86$; $SD = 2.76$), indicating that participants tended to ascribe socially desirable attributes to themselves.

To determine if the sample of participants who completed Study 2 significantly differed from those who did not (i.e., Study 1 Only participants) on the various measures administered, 12 t -tests were conducted.¹⁶ Participants in Study 2 appeared to be an appropriate representation of the larger sample of participants from Study 1, as they scored similarly on almost every measure and subscale. The subscales of the DSQ-40 were the exception, with the Study 2 participants scoring significantly higher on the DSQ-Mature, $t[387] = -2.68$, $p = .008$, $d = .46$, the DSQ-Neurotic, $t[382] = 3.03$, $p = .003$, $d = .46$, and the DSQ-Immature, $t[368] = 2.80$, $p = .005$, $d = .51$, than the male participants who participated only in Study 1 (See Appendix R).

The alpha coefficients were acceptable to superior (i.e., .63 - .95; Cronbach, 1951) for most of the scales, with the exception of the SDS-17 (alpha = .59) and the AFI-Value expressive subscale (alpha = .57). Though the poor alpha coefficient for the AFI-Value expressive is consistent with previous research (Andrews et al., 1993), all correlations including the SDS-17 and the AFI-Value expressive subscale should be considered underestimates. Given the small number of participants who identified as assailants (i.e., those who had engaged in anti-gay behaviours) in Study 2 (i.e., $n = 7$), alpha levels could not be calculated for the ABI-Assailant subscales. These subscales were omitted from further analysis. For descriptive purposes, however, endorsement of the ABI-Assailant subscale items appear in Table 3.3.

Intercorrelations among the measures of the attitudinal and defensive/functional measures of homonegativity stratified by scores on the Attitudes Toward Gay Men (ATG) can be found in Table 3.4. Among the men who scored higher in old-fashioned

¹⁶ To control for Type I error from calculating multiple comparisons, a more conservative alpha of 0.01 (two-tailed) for detecting significance was applied (e.g., $.05/12 = .001$).

homonegativity (i.e., top 35%) on the ATG, modern homonegativity, as measured by the MHS-G was significantly and positively correlated with greater defensiveness, as measured by the AFI-Ego-Defensive subscale. Scores associated with having greater contact with gay men, as measured by the ABI-Contact subscale, were positively correlated with greater tendencies to self-conceal (i.e., the SCS) and negative affective reactions to gay men (i.e., the SDMH). Negative affective reactions to gay men, as measured by the SDMH, were also positively correlated with greater defensiveness (i.e., the AFI-Ego-Defensive subscale). Motivations for not engaging in anti-gay behaviours associated with personal values, as measured by the ABI-Personal values subscale, were significantly and positively correlated with greater social- and value-expressive functions of homonegativity (i.e., AFI-Social expressive and AFI-Value expressive, respectively), as well as reliance on more mature defensive styles, as measured by the DSQ-40 Mature, and greater social desirability, as measured by the SDS-17. The AFI-Social expressive subscale was also positively correlated with the AFI-Value expressive. Reliance on more neurotic defensive styles was significantly and positively correlated with the use of more immature defensive styles, as measured by the DSQ-Neurotic and Immature subscales, respectively.

Among men who scored lower in old-fashioned homonegativity (i.e., bottom 35%), as measured by the ATG, old-fashioned homonegativity was significantly and positively correlated with modern homonegativity, as measured by the MHS-G and more personal values against anti-gay behaviours, as measured by the ABI-Personal values subscale. With respect to defensiveness, scores on the DSQ-Mature and DSQ-Immature subscales were positively correlated.

Intercorrelations among the measures of the attitudinal and defensive/functional measures of homonegativity stratified by scores on the Modern Homonegativity Scale-Gay Men (MHS-G) can be found in Table 3.5. Among the men who scored higher in modern homonegativity (i.e., top 35%) as measured by the MHS-G, modern homonegativity was positively correlated with scores on the old-fashioned homonegativity scale as measured by the ATG, defensiveness as measured by the AFI-Defensive subscale, and negative affect as measured by the SDMH. Modern homonegativity was negatively associated with strong moral or religious values related to

homonegative attitudes as measured by the AFI-Value expressive subscale. Of the men who scored higher on the measure of modern homonegativity (i.e., MHS-G) and identified personal values as motivations for not engaging in anti-gay behaviours as measured by the ABI-Personal values subscale, they were also more likely to endorse moral and religious values as functions of their homonegative attitudes (i.e., AFI-Value expressive subscale) and tended to present themselves more positively as measured by the SDS-17. These individuals also reported less negative affective reactions towards gay men as measured by the SDMH. Among the men higher in modern homonegativity, defensiveness as measured by the AFI-Defensive subscale was positively correlated with negative affective reactions toward gay men (i.e., SDMH), while basing one's attitudes toward gay men on past experiences with gay men as measured by the AFI- Experiential subscale was positively correlated with homonegative attitudes serving as a way to convey membership with a particular social in-group as measured by the AFI-Social expressive subscale, and greater reliance on neurotic defensive strategies, as measured by the DSQ-40 Neurotic subscale.

Among men who scored lower in modern homonegativity (i.e., bottom 35%), as measured by the MHS-G, negative affective reactions toward gay men as measured by the SDMH were positively correlated with the defensiveness as measured by the AFI-Defensive subscale and previous bad experiences with gay men as measured by the AFI-Experiential subscales. Reliance on neurotic defensive strategies, as measured by the DSQ-Neurotic were positively correlated with old-fashioned and modern homonegativity as measured by the ATG and MHS-G, respectively, as well as defensiveness toward gay men as measured by the AFI-Defensive, previous bad experiences with gay men as measured by the AFI-Experiential, and reliance on immature defensive styles as measured by the DSQ-Immature. Reliance on immature defensive styles (i.e., DSQ-Immature subscale) was also positively correlated with the homonegative attitudes serving as a way to convey membership with a particular social in-group (i.e., AFI-Social expressive subscale) and reliance on mature defensive styles as measured by the DSQ-40 Mature subscale.

The relationship between homonegativity and genital and subjective sexual arousal responses.

Genital responses. The means and standard deviations of the raw genital sexual arousal (PPG) data across videos by group can be found in Table 3.6. The means and standard deviations of the standardized¹⁷ genital sexual arousal (PPG) across videos by group can be found in Table 3.7. The standardized mean genital sexual arousal responses to each video category for participants who scored higher and lower in old-fashion homonegativity (i.e., top and bottom 35%) as measured by the ATG can be found in Figure 3.1. The standardized mean genital sexual arousal responses to each video category for participants who scored higher and lower in modern homonegativity (i.e., top and bottom 35%) as measured by the MHS-G can be found in Figure 3.2.

To test Hypothesis 1, that men higher in homonegativity (i.e., those scoring in the top 35%) would display greater sexual arousal, as measured by circumferential penile plethysmography (PPG), to male/male sexually explicit videos than men lower in homonegativity (i.e., those scoring in the bottom 35%), two separate 2 (Level of Homonegativity: Top 35% scorers; Bottom 35% scorers) X 3 (Video Category: neutral; male/male; male/female) one-way repeated-measures ANOVAs were conducted using the ATG and MHS-G as measures of homonegativity to determine if there was a significant difference in genital sexual arousal to the different videos based on level of homonegativity. The separate analyses indicated a main effect of video based on ATG scores, $F(1.07, 26.65) = 162.37, p < .001, \eta^2 = .87$ and MHS-G scores, $F(2, 54) = 172.64, p < .001, \eta^2 = .87$, suggesting that the average genital response to at least two of the videos significantly differed. However, contrary to Hypothesis 1, no significant interaction was found between homonegativity and genital arousal to the different videos based on scores on the ATG, $F(1.07, 26.65) = 1.88, p = .182, \eta^2 = .07$ or the MHS-G, $F(2, 54) = 1.04, p = .361, \eta^2 = .04$.

To determine which videos elicited significantly different degrees of sexual genital arousal, three paired *t*-tests were conducted on the sample as a whole (i.e., not

¹⁷ Standardized scores (i.e., transformed into *z*-scores) are used within phallometric research to eliminate any effect of individual variation in responsiveness (Harris, Rice, Quinsey, Chaplin, & Earls, 1992).

based on homonegativity scores). The paired *t*-tests indicated that there were significant differences in genital arousal between all three videos. The male/male video ($M = -.32$; $SD = .43$) elicited significantly more genital sexual arousal than the neutral video ($M = -.79$; $SD = .26$), $t(36) = 4.27$, $p < .001$, $d = 1.54$. The male/female ($M = 1.10$; $SD = .25$) also elicited significantly more genital sexual arousal than the neutral video ($M = -.79$; $SD = .26$), $t(36) = 41.23$, $p < .001$, $d = 7.39$). The men in this sample also responded significantly more to the male/female video ($M = 1.10$; $SD = .25$) than to the male/male video ($M = -.31$; $SD = .43$), $t(36) = 13.35$, $p < .001$, $d = 4.06$). In sum, the men who participated in Study 2 demonstrated a typical heterosexual genital arousal pattern (i.e., significantly more genital arousal to the male/female video), regardless of their endorsement of homonegative attitudes.

Continuous subjective arousal responses. The means and standard deviations of the continuous subjective sexual arousal response (CSR) across videos by group can be found in Table 3.8. The mean subjective sexual arousal responses to each video category for participants who scored higher and lower in homonegativity (i.e., top and bottom 35%) on the ATG can be found in Figure 3.3. The mean subjective sexual arousal responses to each video category for participants who scored higher and lower in homonegativity (i.e., top and bottom 35%) on the MHS-G can be found in Figure 3.4.

Hypothesis 2, predicted that men higher in homonegativity would show less concordance between their genital and subjective sexual arousal to the male/male video due to their greater genital arousal and less subjective arousal to such stimuli. Hypothesis 2 was tested in two steps. In the first step, two separate 2 (Level of Homonegativity: Top 35% scorers; Bottom 35% scorers) X 3 (Video Category: Neutral; Male/Female; Male/Male) one-way repeated measures ANOVAs were conducted to determine if there was a significant difference in how individuals continuously rated their subjective sexual arousal to the different videos based on level of homonegativity as measured by the ATG and MHS-G. There was a main effect of video based on the ATG, $F(1, 25) = 146.55$, $p < .001$, $\eta^2 = .85$ and the MHS-G, $F(1, 27) = 140.61$, $p < .001$, $\eta^2 = .84$, suggesting that the average continuously reported subjective sexual arousal to at least two of the videos significantly differed. However, no significant interaction was found between homonegativity and continuous subjective ratings of sexual arousal to the different videos

based on scores on the ATG, $F(1, 25) = .05, p = .82, \eta^2 = .002$ and the MHS-G, $F(1, 27) = .30, p = .58, \eta^2 = .01$.

To determine which videos elicited significantly different degrees of subjective sexual arousal based on the main effect found in the ANOVA, three paired t -tests were conducted. The paired t -tests indicated that men reported significantly more sexual arousal to the male/male video ($M = 13.98, SD = 2.29$) than the neutral video ($M = 3.51 (SD = .58), t(36) = 3.22, p = .003, d = .77$, and significantly more sexual arousal to the male/female video ($M = 59.83, SD = 27.06$) than the male/male video, $t(36) = 13.45, p < .001, d = 3.21$.

The second step to testing Hypothesis 2 was to calculate within-subjects correlations to determine the concordance or correspondence between the genital sexual arousal and continuous subjective sexual arousal in response to the male/male videos. Of the 37 participants included in the study, only 14 reported increases in sexual arousal during the male/male videos. As the remaining participants did not display any variance, within-subject correlations could not be calculated for them. Therefore, the following analysis was conducted on only 14 participants and a median split was applied to group participants based on their ATG ($n = 7$ and 7) and MHS-G scores ($n = 6$ and 8). Genital sexual arousal and continuous subjective sexual arousal were sampled 10 times per second during the two-minute videos. The maximum value per second was selected for analysis, resulting in 121 data points per variable. The within-subject correlation for each of the two male/male videos was then averaged. Means and standard deviations of the within-subjects correlations can be found in Table 3.9.

Fisher's r to z transformations were conducted to compare men higher and lower in homonegativity to determine if concordance was impacted by degree of homonegativity as measured by the ATG and MHS-G. There was no significant difference in concordance between men higher ($r = .38$) and lower ($r = .27$) in old-fashioned homonegativity as measured by the ATG, $z = .17, p = .87$. Similarly, there was no significant difference in concordance among men higher ($r = .45$) and lower ($r = .23$) in modern homonegativity as measured by the MHS-G, $z = .34, p = .73$.

An exploratory analysis, utilizing two independent t -tests, was conducted to determine if individuals who indicated subjective sexual arousal during the male/male

videos differed in their scores on measures of homonegativity (i.e., ATG and MHS-G) from those who did not report any subjective sexual arousal. A significant difference was found regarding scores on the ATG only, with men who did not indicate any subjective sexual arousal ($M = 20.96$, $SD = 11.93$) to the male/male video scoring significantly higher on the ATG than participants who indicated some degree of sexual arousal to the male/male video ($M = 14.64$, $SD = 4.20$; $t [29.78] = 2.31$, $p = .028$, $d = .71$).

In sum, men reported continuous subjective sexual arousal in a heterosexual typical pattern (i.e., endorsing stronger subjective sexual arousal to the male/female video), regardless of their endorsement of homonegativity. There were no significant differences in concordance between subjective sexual arousal and genital sexual arousal based on homonegativity scores on either the MHS-G or the ATG. However, an exploratory analysis revealed that men who did not subjectively report any sexual arousal during the male/male videos scored significantly higher on the ATG than the men who did report some subjective sexual arousal during the male/male videos.

Emotional and Subjective Arousal Post-video Ratings. Means, standard deviations, and obtained ranges of the post-video question responses stratified by video category are provided in Table 3.10. To assess the effect of video category on individuals' ratings of the post-stimuli questions, several paired t -tests were conducted. A more conservative alpha level of 0.01 was adopted to control for Type 1 error.

Participants rated their subjective sexual arousal to be significantly greater after watching the male/female video ($M = 6.05$; $SD = 2.16$) than the male/male video ($M = 6.05$; $SD = 2.16$), $t(36) = 8.93$, $p < .001$, $d = 1.96$, and significantly greater after watching the male/male video than the neutral video ($M = 1.03$; $SD = 0.11$), $t(36) = 3.70$, $p < .001$, $d = .86$. Men rated their genital sexual arousal to be significantly greater after watching the male/female video ($M = 5.66$; $SD = 2.21$) than the male/male video ($M = 2.26$; $SD = 1.88$), $t(36) = 7.79$, $p < .001$, $d = 1.67$, and significantly greater after watching the male/male video than the neutral video ($M = 1.01$; $SD = .08$), $t(36) = 4.11$, $p < .001$, $d = .94$.

Men rated their anxiety level to be significantly higher after watching the male/male video ($M = 2.19$; $SD = 1.38$) than the neutral video ($M = 1.28$; $SD = .95$), $t(36) = 4.29$, $p < .001$, $d = .77$, but there was no significant difference in the level of anxiety

reported after watching the male/male video than the male/female video ($M = 1.80$; $SD = 1.64$), $t(36) = 1.19$, $p = 0.24$, $d = .26$. There was no significant difference in how men rated their level of anger in response to the three different videos. Men rated their level of stress to be significantly higher after watching the male/male video ($M = 2.05$; $SD = 1.40$) than the male/female video ($M = 1.14$; $SD = .33$), $t(36) = 4.09$, $p < .001$, $d = .90$ and significantly higher after watching the male/male video than the neutral video ($M = 1.08$; $SD = .25$), $t(36) = 4.17$, $p < .001$, $d = .97$). Men rated their level of happiness to be significantly higher after watching the male/female video ($M = 4.27$; $SD = 2.39$) than the male/male video ($M = 1.95$; $SD = 1.59$), $t(36) = 6.72$, $p < .001$, $d = 1.15$, and significantly higher after watching the neutral video ($M = 4.14$; $SD = 1.35$) than the male/male video, $t(36) = 7.79$, $p < .001$, $d = 1.47$. There was no significant difference in how men rated their level of sadness in response to the three different videos. Men rated their level of disgust to be significantly greater after watching the male/male video ($M = 2.74$; $SD = 2.22$) than the male/female video ($M = 1.23$; $SD = .52$), $t(36) = 4.23$, $p < .001$, $d = .94$, and significantly greater after watching the male/male video than the neutral video ($M = 1.00$; $SD = .00$), $t(36) = 4.79$, $p < .001$, $d = 1.11$.

Intercorrelations among the affective post-video questions, the general measure of negative affect (the SDMH), and genital sexual arousal to the male/male video stratified by level of response to the male/male video (i.e., Top 25% and Bottom 25% of responders) can be found in Table 3.11. Among men who displayed greater genital sexual arousal to the male/male video (Top 25%), levels of anxiety and genital sexual arousal to the male/male video were negatively correlated. There were strong positive correlations among levels of anger and stress, as well as disgust and sadness in response to the male/male video. Negative affective reactions to gay men as measured by the SDMH were positively correlated with sadness and disgust in response to the male/male video. Among men who displayed less sexual arousal to the male/male video (Bottom 25%), the only significant correlation was the positive relationship between anxiety and stress.

To test Hypothesis 3 and determine if men who displayed the most sexual arousal to the male/male videos (Top 25% of responders) scored higher on the affective post-video questions and the SDMH than men who displayed the least sexual arousal (Bottom 25% of responders), seven independent t-tests were conducted. It should be noted that a

more conservative alpha level of 0.01 was used to control for Type 1 error. There were no significant differences in how the higher and lower responders rated their affective reactions to the male/male video ($ps = .08 - .94$) or scored on the SDMH ($p = .71$).

Defensive/Functional Measures of Homonegativity and Genital Arousal (PPG)

Intercorrelations among the defensive/functional measures of homonegativity stratified by level of response to the male/male video can be found in Table 3.12. Among men who demonstrated the most genital sexual arousal to the male/male video (i.e., Top 25%), the AFI-Ego-defensive subscale was significantly, positively correlated with the DSQ-40-Mature subscale. The AFI-Experiential subscale significantly correlated with the DSQ-40 Neurotic and Immature subscales. The DSQ-40 Neurotic subscale was also positively correlated with the DSQ-Immature subscale. Given the reduced sample size of Study 2, intercorrelations among the defensive/functional measures were also conducted with the larger sample from Study 1 (See Appendix S).

Among men who demonstrated the least genital sexual arousal to the male/male video (i.e., Bottom 25%), the AFI-Social expressive subscale was significantly and positively correlated with the AFI-Value expressive and the DSQ-40 Immature subscales. The AFI-Value expressive was also significantly and positively correlated with the DSQ-Mature.

In order to test Hypothesis 4 and determine if men who displayed more sexual arousal to the male/male videos (Top 25%) scored higher on the defensive/functional measures of homonegativity than men who displayed less sexual arousal (bottom 25%), eight independent samples *t*-tests were conducted. A more conservative alpha level of 0.01 was adopted to control for Type 1 error. There were no significant differences in how men who displayed more or less genital sexual arousal to the male/male video scored on the defensive/functional measures of homonegativity or the general defensive style measures ($ps = .06 - .67$).

DISCUSSION

The purpose of Study 2 was twofold: (1) to examine physiological sexual arousal, affective reactions, and homonegative attitudes concurrently, in order to gain further insight about the causal nature of the physiological response characteristic of the ego-defensive function (i.e., sexual arousal to same-sex sexual material), and (2) to assess the

ego-defensive function in combination with more established measures of defenses in order to better understand the correspondence between ego-defensiveness and more traditional defensive styles.

The results found by Adam's et al. (1996) were not replicated in the current study. Genital and subjective sexual arousal to the male/male video did not significantly differ by level of homonegativity when assessed using both old-fashioned *and* modern measures (i.e., the ATG and MHS-G, respectively). However, the men who reported some subjective sexual arousal to the male/male video scored significantly lower in old-fashioned homonegativity as measured by the ATG, but not modern homonegativity as measured by the MHS-G. Further, affective reactions to the male/male video and scores on measures of defensiveness did not significantly differ by level of genital sexual arousal to the male/male video. However, the correlations among affective reactions to the male/male video and measures of defensiveness (AFI-Ego-Defensive) were stronger among men in the Top 25% of responders (i.e., genital sexual arousal) to the male/male video than those in the Bottom 25% of responders.

Participants rated their level of stress and disgust to be significantly higher after watching the male/male video than either the male/female or neutral videos, while their happiness was significantly greater after watching the male/female video. There was no significant difference in the level of anxiety reported after watching the male/male and male/female videos; but, both videos significantly differed from the neutral video. This suggests that the anxiety may have been a function of the sexual nature of the videos in general and not unique to the same-sex nature of the video content. Among the men who displayed the most genital sexual arousal to the male/male video (Top 25%), ratings of stress, disgust, and sadness increased as their ratings of anger increased. Their scores of general negative affective reactions towards gay men as measured by the SDMH also increased with higher anger ratings. It was also found that, as their ratings of anxiety increased, their genital sexual arousal to the male/male video decreased. Further, their scores on the AFI-Ego-Defensive subscale were significantly, positively correlated with their scores on the DSQ-40-Mature subscale. Among the men who displayed the least sexual arousal to the male/male video (Bottom 25%), the only significant correlation was the positive relationship between anxiety and stress. There were no significant

correlations with the ego-defensive function among men who displayed the least genital sexual arousal to the male/male video.

Overall, men in the current study displayed a typical pattern of arousal for heterosexual men (Chivers et al., 2010) with their genital and subjective sexual arousal to the male/female video being significantly greater than either the male/male or neutral videos. Although there were no significant differences in the affective reactions to the male/male video among men who genitally responded the most and the least to the stimuli, there was a significant trend among the top responders (Top 25%); with men who displayed the most genital arousal to the male/male video reporting less anxiety in response to the stimuli. It is possible that the men who reported more anxiety may have experienced a slight inhibitory effect on their genital arousal to the gay stimuli and the men who displayed the most genital arousal simply displayed a typical level of arousal when viewing same-sex gay male imagery. Researchers have found that, although heterosexual men display significantly more sexual arousal to sexual stimuli depicting a man and a woman they still display some genital sexual arousal to gay stimuli, as compared to neutral stimuli (Chivers et al., 2004). The extant literature on the effects of anxiety on sexual arousal has been mixed and no researchers have utilized sexually explicit gay stimuli to assess the relationship between these two variables. Of note, however, two researchers have found that anxiety can inhibit genital sexual arousal (Beck & Barlow, 1986 a,b; Hale & Strassenberg, 1990), which is consistent with the negative association between anxiety and genital sexual arousal found among the top responders to the male/male video in the current study.

In keeping with the typical pattern of arousal observed among heterosexual men, the majority of the men in the sample denied any subjective experience of sexual arousal to the male/male stimuli. The men who did report some level of subjective sexual arousal to the male/male video scored significantly lower on a measure of old-fashioned homonegativity (i.e., the ATG); however, no such difference was found with the measure of modern homonegativity (i.e., the MHS-G). This result may reflect the different natures of the two measures of homonegativity (i.e., old-fashioned and modern). That is, individuals who score higher on the ATG are more likely to harbour strong negative attitudes grounded in traditional religious and moral beliefs (e.g., being gay is a sin) and

misconceptions about homosexuality (e.g., gay men should not be allowed to teach young children in schools; Herek, 1988). As such, they may be less likely to endorse any subjective experiences of sexual arousal to gay stimuli, even if their genital response is minimal and beyond their control. In contrast, the MHS-G items are characterized by more contemporary and abstract issues (i.e., the fight for gay rights/marriage) and less about the morality of being gay (Morrison & Morrison, 2003). As a result of attitudes being derived from items that shift from targeting the individual (i.e., “being a gay man is wrong”) to how society treats/views gay men as a group (i.e., “gay men have all the rights they need”), it may be more acceptable to endorse arousal to the gay sexual stimuli among men who experience modern homonegativity than those who experience old-fashioned homonegativity. Furthermore, the MHS-G items have been shown to resonate most strongly with individuals who identify as more liberal-minded (Morrison & Morrison, 2003; 2011; Morrison et al., 2009). Therefore, individuals who endorse items on the MHS-G may be more comfortable admitting to their experience of minor sexual arousal to gay male sexual stimuli given previous research has demonstrated that self-identifying liberal individuals also tend to be more sexually liberal and possess more positive attitudes towards sexuality (Van den Akker, Van der Ploeg, & Scheepers, 2013). Given the differences in willingness to endorse physiological arousal among men higher in old-fashioned homonegativity, it may be useful for future research to use multiple measures that assess different types of homonegativity (i.e., old-fashioned and modern) as they may provide unique information about the underlying thoughts and beliefs that contribute to the perpetuation of different manifestations of homonegativity.

Limitations and Future Directions

As with any study, a discussion of limitations is warranted. First, the overall sample in the current study held relatively positive attitudes towards gay men as measured by the ATG and MHS-G. This is, in part, due to the positive attitudes of the larger sample of participants from Study 1 from which the sampling pool was created and is a trend previously noted among college/university samples (Herek & Glunt, 1993; Morrison & Morrison, 2003; Norris, 1992). The other factor that may have contributed to the relative positive attitudes of the sample for Study 2 was self-selection based on (1) it being a physiological study of sexuality and (2) the presentation of same-sex male

sexually explicit stimuli. Previous research has found that men who are willing/interested in participating in human sexuality research that employs physiological measures of genital arousal tend to be more sexually experienced, have more liberal sexual attitudes, and are more interested in sexually explicit materials (Chivers et al., 2010; Saunders, Fisher, Hewitt, & Clayton, 1985; Strassberg & Lowe, 1995; Wiederman, 1999; Wolchik, Braver, & Jensen, 1985). Thus, men higher in homonegativity, and therefore more conservative, may have been less likely to participate in this research study.

Second, participants for Study 2 were recruited from the sampling pool created in Study 1. However, rather than recruiting participants for Study 2 based on the highest and lowest scores on the ATG and MHS-G in the sampling pool, as originally planned, any person who expressed an interest in learning more about Study 2 was contacted. In order to reduce the risk of participant attrition, potential participants were contacted within a month and scheduled to participate in Study 2 as soon as possible. Participants were selected, therefore, with a range of scores on the ATG and MHS-G and were divided into groups for data analysis after their participation in Study 2. As there is no pre-existing cut-offs in the literature, the top and bottom 35% of scorers on the ATG and MHS-G were used in order to include the majority of the participants in one of the two categories for each measure. This meant that some men were not included in every analysis and therefore analyses focused on smaller subgroups of the sample. Furthermore, men did not always score in the top range on both measures. For example, some participants were bottom-scorers on the ATG but top-scorers on the MHS-G. Therefore, the top- and bottom-scorers on the two measures consisted of different constellations of the participants in the sample. In order to maximize differences in attitudes between the two comparison groups, future research should attempt to select participants based on set cut-off scores. Alternatively, recruitment from a larger sample could permit the use of other statistical procedures, such as regression analyses.

The current study did not find a physiological manifestation (i.e., sexual arousal) of the ego-defensive function of homonegativity. However, the strong positive relationship among the ego-defensive function, affective reactions toward gay men, and modern and old-fashioned homonegative attitudes was found. As strong indicators of the

enactment of homonegativity, future research should continue to explore the ego-defensive function and, in particular, the affective component of homonegativity.

CHAPTER FOUR

General Discussion

The purposes of this dissertation were twofold: (1) to use an integrative approach to examine the relationships among the three components of homonegativity (i.e., cognitive, affective, and behavioural) with an explicit focus on the role affect plays in the expression of homonegativity, and (2) to investigate homonegativity using psychophysiological techniques. By using both explicit (i.e., self-report) and implicit (i.e., physiological) measures, this dissertation addressed the dearth of research examining homonegative affect from a multidimensional measurement perspective and its role in the perpetuation of anti-gay discrimination. This dissertation included two studies designed to meet these purposes.

The specific purposes of Study 1 were to: (1) examine the prevalence of homonegativity across its three domains: cognitive, affective, and behavioural, (2) assess the relationships between the AFI-ego-defensive subscale and measures of affective reactions to homonegativity, and (3) determine the value of the affective component of homonegativity, beyond the cognitive component, in predicting reported past anti-gay behaviours.

The results obtained from Study 1 indicate that there was a significant gender difference in affective reactions toward gay men, with heterosexual men reporting stronger negative affective reactions than heterosexual women. The gender difference noted for the affective component was similarly reflected in the cognitive and behavioural components of homonegativity, with heterosexual men reporting stronger negative attitudes toward gay men and greater involvement in anti-gay behaviours in the past than heterosexual women. This result is consistent with previous research on the cognitive and behavioural component indicating that, although homonegativity does present among women, it is predominantly a male phenomenon, as it was measured in the present study (Cramer, Oles, & Black, 1997; Davies, 2004; Franklin, 1998; Herek & Capitano, 1999; Kite & Whitley, 1998; Meaney & Rye, 2010; Morrison, Morrison, & Franklin, 2009; Morrison, Parriag, & Morrison, 1999; Prati, Pietrantoni, & D'Augelli, 2011; Roderick, McCammon, Long, & Allred, 1998; Romero, Morera, & Wiebe, 2015).

It also suggests that the relationships among the three components of homonegativity operate consistently within each gender. Indeed, results from Study 1 also indicate that the affective, cognitive, and behavioural components are strongly correlated among both men and women.

Study 1 also explored the relationship between the components of homonegativity and Herek's presumed functions of attitudinal homonegativity (i.e., ego-defensive, value-expressive, social-expressive, and experiential). Of particular interest was the relationship between the affective component and the ego-defensive function. The ego-defensive function serves to alleviate personal anxiety and psychological conflicts about one's own sexuality or gender conformity, as well as perceived threats to one's sense of self (Meaney & Rye, 2010). Researchers have noted the affective nature of the ego-defensive function; however, this is the first study to explicitly assess the relationship between the ego-defensive function and affective measures of homonegativity. The ego-defensive function was significantly related to both measures of negative affect (i.e., Affective Reactions to Homosexuals Scale [ARHS]-Negative and Social Distance Measure of Homophobia [SDMH]) among the heterosexual men and, to a lesser degree, among the heterosexual women who participated in the study. Due to the ego-defensive function, in part being associated with threats to one's sexuality, it makes sense that men would experience a stronger association between defensive and affective reactions towards other men who identify as gay; whereas women may perceive gay men's sexuality less threatening to their own sexual identity (Mahaffey, Bryan, Ito, & Hutchison, 2011).

Given the strong relationships among the three components of homonegativity and the significant relationship between the affective component and the ego-defensive function, logistic regression analyses were conducted to determine how well the affective component could predict reports of past anti-gay behaviours. Negative affect, as measured by the SDMH, was the best predictor of self-reported past engagement in anti-gay behaviours, over and above gender, and modern and old-fashioned homonegative attitudes. This suggests that not all individuals who endorse strong homonegative attitudes engage in anti-gay behaviours; but, those who experience strong negative affective reactions towards gay men are the most likely to act verbally or physically aggressive towards them. Further analyses revealed that the ego-defensive function was a

significant predictor of engagement in anti-gay behaviours when analyzed with the other attitude functions; however, when it was analyzed against the SDMH, it no longer uniquely predicted behaviour. Given the strong relationship between the ego-defensive function and the SDMH, any predictive value the ego-defensive function may have contributed was already accounted for by the SDMH. In sum, the affective component of homonegativity, as measured by the SDMH, emerged as the best predictor of anti-gay behaviours.

Although not a particular focus of this dissertation, the other attitude functions identified by Herek (1986; i.e., value-expressive, social-expressive, and experiential) were also assessed in Study 1. Of the remaining functions, the value-expressive function (i.e., homonegativity as a reflection of personal beliefs and in-group membership) proved to be a significant predictor of reported engagement in anti-gay behaviours, even when analyzed with the SDMH. This suggests that the value-expressive function serves a unique role in the expression of anti-gay behaviours compared to the affective component. Indeed, the relationship between the value-expressive function and engagement in anti-gay behaviours was inverted such that higher scores on the value-expressive subscale of the AFI predicted fewer reports of past engagement in anti-gay behaviours.

The value-expressive function enables individuals to express personal values that are important to them (Kilianski, 2003; Morrison & Morrison, 2003; Wilkinson, 2004) and foster alignment with members of their in-group (Herek, 1986). Values associated with traditional gender beliefs and strong religiosity are pillars of the value-expressive function (Rowatt, Tsang, Kelly, LaMartina, McCullers, & McKinley, 2006; Schwartz & Lindley, 2005; Wilkinson, 2004; Whitley, 2009). Although religiosity has been associated with stronger homonegative attitudes, it is possible that other values associated with religiosity (e.g., “be kind to others”¹⁸) serve as a protective factor against anti-gay violence. Indeed, Blogowska, Saroglou, and Lambert (2013) argued that negative or discriminatory attitudes shown by religious people may not necessarily translate into

¹⁸ Religious beliefs serve as a pillar to the value-expressive function of homonegativity. An example of a protective value associated with religion against homonegative aggression is “Let all bitterness and wrath and anger and clamor and slander be put away from you, along with all malice. Be kind to one another, tenderhearted, forgiving one another, as God in Christ forgave you” from Ephesians 4:31-32).

physical antisocial behaviour. Previous research on the relationship between religiosity and prosocial behaviour has suggested that the “compassionate values of religion” (i.e., “love thy neighbor”; Habito & Inaba, 2006) and the importance of self-control over negative emotions, thoughts, and impulsive acts (McCoullough & Willoughby, 2009) may prevent or reduce outward displays of physical aggression among religious people. However, the possible protective value of religious beliefs seems to decrease as intrinsic and fundamentalist religious beliefs (i.e., one set of religious teachings to be followed as an unchanging practice of the past) increase. For example, research has demonstrated that it is “*how* people are religious (i.e., their fundamentalist attitude), rather than their specific religion or content of their beliefs that is the best predictor of prejudice” (Leak & Finken, 2011, p. 45; Brown & Henriguez, 2008). Indeed, researchers (e.g., Altemyer & Hunsberger, 2005 & Hunsberger, Owusu, Duck, 1999) have found that even across different faiths (i.e., Christian, Muslim, Hindu, and Jewish), religious fundamentalists have consistently shown significant hostility toward gay men.

In considering the strong negative relationship demonstrated in Study 1 between the value-expressive function and anti-gay aggression it is important to note that the sample was relatively “*unreligious*” with only 14% of the total sample (11% of men and 17% of women) indicating that they attended religious services “regularly” and only 6% of the total sample (5% of men and 7% of women) identifying as “very religious.” Therefore, the value-expressive function of homonegativity for this sample may have fewer religious connotations and a stronger association with respected peoples’ opinions as suggested by the items of the Attitude Function Inventory (e.g., “My opinions about gay men mainly are based on my moral beliefs about the way things should be”). With the shift towards greater acceptance of sexual minorities and the social condemnation of individuals who hold prejudicial attitudes, participants in Study 1 may be more likely to adopt these non-prejudicial views given their more liberal and nonreligious affiliations. In other words, the in-group Study 1 participants associate with holds more positive attitudes towards gay men and their *non*-prejudicial attitudes function to promote *these* values. This explanation is further supported by the significant negative relationship found in Study 1 between old-fashioned homonegativity and the value-expressive function, as well as modern homonegativity and the value-expressive function.

In sum, Study 1 demonstrated the important role the affective component has in understanding the enactment of homonegativity, as it was the best predictor of reported past involvement in anti-gay behaviour. The affective component of homonegativity was also strongly associated with the ego-defensive function, particularly among men, which also proved to be a strong predictor of anti-gay behaviour when compared to the other attitude functions. These results build upon past research that has primarily focused on the role attitudes (i.e., the cognitive component) play in homonegative behaviour, by demonstrating that negative attitudes are not a sufficient indicator of anti-gay aggression. By using a multidimensional approach it became clear that the affective component and its relationship to perceived threats to self (i.e., ego-defensiveness) in the presence of individuals who are or presumed to be gay warrants further exploration as the primary cause of anti-gay aggression. Unexpectedly, the value-expressive function proved to be the best predictor of individuals *not* engaging in past anti-gay behaviours. The conceptualization of the value-expressive function acting as an indication of people's core values shifted from more religious and traditional gender-role values to, perhaps, more accepting values within this sample of relatively unreligious and liberal participants. As such, it will be important for researchers utilizing the Attitude Function Inventory (AFI) in future to particularize its relationship with an attitude measure to clearly identify the values being expressed within a given population (i.e., prejudicial vs. non-prejudicial).

Given the sexual nature of the ego-defensive function (i.e., internal conflict over one's sexuality) and its association with affective responses toward gay men, it has been suggested that homonegativity may manifest physiologically (Adams et al. 1996; Mahaffey et al., 2011; Mosher & O'Grady, 1979; Shields & Harriman, 1984). The best physiological measure of sexual orientation and arousal among men is penile plethysmography (PPG), a measure of genital arousal via a circumferential strain gauge (Chivers, Rieger, Latty, & Bailey, 2004). Only one previous study has attempted to assess this potentially defensive-like physiological response among men, based on their scores on a measure of homonegativity, using PPG (Adams et al. 1996). These researchers found that men higher in homonegativity displayed significantly more genital sexual arousal to the gay male sexually explicit stimuli than men who scored lower on a measure

of homonegativity. Adams et al. (1996) concluded the results were either due to an affective response or latent homosexuality (i.e., some form of ego-defensiveness). Importantly, despite their conclusions, these researchers neglected to assess specific affective reactions as well as the ego-defensive function of homonegativity. Thusly, the purpose of Study 2 was to test critical hypotheses and, in so doing, extend the research conducted by Adams et al. (1996) through assessment of the affective component and ego-defensive function of homonegativity via explicit (i.e., self-report) and implicit (i.e., PPG) methods, respectively.

Study 2, however, did not replicate the findings of Adams et al. (1996). No significant relationship was found between homonegativity and genital sexual arousal to sexually explicit videos involving two presumably gay men. Further, there was no significant relationship between affect or ego-defensiveness and sexual arousal to gay stimuli. Of the affective reactions to the gay sexually explicit videos used in the present study, anxiety was the only emotion to relate significantly to genital sexual arousal. More specifically, Study 2 demonstrated that anxiety negatively correlated with genital sexual arousal to the gay sexual stimuli among men who displayed the most genital sexual arousal. This is consistent with previous research that has demonstrated an inhibitory effect on sexual arousal as anxiety increases (Beck & Barlow, 1986a; Hale & Strassberg, 1990). Although previous research assessing the physiological manifestation of homonegativity and the ego-defensive function has been mixed, there is more existing support for a non-sexual indicator of homonegative affect. For example, Shields and Harriman (1984) demonstrated that men higher in homonegativity displayed an increased heart-rate compared to men lower in homonegativity when presented with sexual images of two men. Further, Mahaffey and colleagues (2011) found a similar interaction when using startle eye-blink methodology to assess the physiological component of homonegativity. Both heart-rate and startle eye-blink are associated with affective states (i.e., positive vs. negative) and affect regulation (Amodio, Harmon-Jones, & Devine, 2003; Blascovich, 2000; Lang, 1995; Mahaffey et al., 2005 a, 2005b; Riganello, Candelieri, Quintieri, & Dolce, 2015; Vos, De Cock, Munde, Petry, Van Den Noortgate, & Maes, 2012). Given the importance of the affective component in the enactment of homonegativity demonstrated in Study 1, it is reasonable to hypothesize that

homonegativity may physically manifest in more affective, rather than sexual, ways. This notion is consistent with work conducted by Trinder (2008), who found facial electromyography (EMG; i.e., an implicit measure of affective facial expressions) was a better predictor of both overt and covert behavioural anti-gay discrimination than an implicit cognitive test. This line of research also speaks to the continued need to incorporate a multidimensional approach to the study of homonegativity and the vital role implicit measures will have in the advancement of our understanding of the underlying causes of homonegative behaviour.

Study 2 also explored the relationship between the ego-defensive function of homonegativity and more traditional measures of defensive styles to determine if the ego-defensive function mapped onto more established defensive styles that could provide greater insight to the underlying mechanisms of this function. Although, among men higher in homonegativity, there were no significant relationships among the ego-defensive function and the more traditional defensive styles, significant correlations appeared among men lower in homonegativity as measured by the MHS-G, but not the ATG. For example, the ego-defensive function was significantly correlated with neurotic defensive styles among men who scored lower on the MHS-G, or the measure of contemporary bias toward gay men.

The neurotic defensive styles measured by the DSQ-40 included undoing, pseudo-altruism, idealization, and reaction formation (Andrews et al., 1993). Briefly, undoing is the attempt to take back an unconscious behaviour or thought that is unacceptable or hurtful. Pseudo-altruism occurs when emotional conflict is countered by helping others address similar conflict or stress rather than helping oneself. Idealization occurs when exaggerated positive qualities are assigned to someone or something else and association with this person or thing increases self-esteem. Reaction formation is the converting of unwanted or dangerous thoughts, feelings or impulses into their opposites (MacGregor, Olson, Presniak, & Davidson, 2008). All of the neurotic defensive styles are characterized by some type of contradiction; negativity becomes positivity and the need for help becomes helping others. Further, defensive styles (e.g., neurotic) are triggered as a method of coping with strong affective reactions that cause anxiety and stress (Vaillant, 1997). Understanding the nature of the neurotic defensive styles helps clarify the

significant correlation found among men lower in homonegativity as measured by the MHS-G. That is, when these men experience internal conflict or stress about their affective reactions towards gay men (i.e., ego-defensiveness), their neurotic defenses are activated and result in explicit endorsement of more positive attitudes towards gay men regarding modern challenges and prejudices (e.g., the right to marry and celebrate gay pride). Therefore, scores on more cognitive measures of homonegativity may not predict anti-gay behaviour well because a subset of the individuals who explicitly endorse more positive attitudes may be experiencing significant affective reactions due to their internal conflict regarding gay men. This dynamic relationship between affect, attitudes, and defensive styles illustrates the limitation of attempting to predict anti-gay behaviour based on attitudes alone. It also reinforces the findings of Study 1 that explicit attitudes (i.e., positive or negative) reflecting the cognitive component of homonegativity do not best predict how someone behaves towards gay men; rather it is internal affect states and defensive styles that better explain the physical enactment of homonegativity.

Previous research has demonstrated a strong positive relationship between negative affect and aggression, particularly the important role anger plays in aggressive behaviour (Berkowitz, 2003; 2012; Dollard, Doob, Gardner & Moore, 2008; Robertson, Daffern, & Bucks, 2014, Wilkowski & Robinson, 2010). The close relationship between affect and aggression may arise from the fact that emotional processing and aggression are associated with the same areas of the brain; the amygdala and the prefrontal cortex (Davidson, Putnam, & Larson, 2000). The amygdala is responsible for rapid, automatic responses to social situations, while the prefrontal cortex integrates emotional information and semantic processing (i.e., experiential information) in order to facilitate response selection and behaviour control (Payer, Lieberman, & London, 2011).

Aggression can be conceptualized as either instrumental or hostile. Instrumental aggression is a “proactive, premeditated means of obtaining some goal other than harming the victim” (Anderson & Bushman, 2002, p. 29). Hostile aggression, conversely, is “impulsive, thoughtless, driven by anger, having the ultimate motive of harming the target, and occurring as a reaction to some perceived provocation” (Anderson & Bushman, 2002, p. 29). Hostile aggression is also sometimes referred to as affective aggression (Anderson & Bushman, 2002). Given the strong predictive relationship

between negative affect and anti-gay behaviour, it is likely that the majority of anti-gay behaviours assessed in Study 1 fall into the hostile aggression category. Therefore, unlike Herek's theory of attitude functions, anti-gay behaviours may not serve an instrumental purpose of demonstrating someone's values or social affiliations; rather, as demonstrated by Study 1, anti-gay behaviours are more reactive and based on the affective states triggered by ego-defensive responses to gay men.

More generally, ego-defensiveness (i.e., sensitivity to perceived threats to self-concept) has been shown to be a strong predictor of anger and hostile aggression among aggressive drivers (Neighbors, Vietor, & Knee, 2002) and parents in sporting situations (Goldstein & Iso-Ahola, 2008). Within these empirical bodies of literatures, ego-defensiveness is conceptualized as a response to perceived threats to a broader self-concept. Therefore, the conceptualization of the ego-defensive function by Herek (1987), as it pertains to homonegativity, may have limited our scope by emphasizing the role of sexuality (i.e., perceived threats to one's own sexuality or internal conflict about one's sexuality; Meaney & Rye, 2010). Therefore, if we expand the focus of the ego-defensive function of homonegativity to include affective reactions to perceived threats to an individual's self-concept as defined by traits incongruent with homonegative attitudes (e.g., fairness, open-mindedness, and kindness; Knight Lapinski & Boster, 2001) or one's perceived masculinity as suggested by Kite and Deaux (1987), Connell (1995), and Higgins (1987), we may develop a better understanding of the underlying causes of homonegative affect, and therefore, anti-gay aggression.

Consistent with a broader conceptualization of the ego-defensive function of homonegativity, research has demonstrated a strong relationship between *masculine gender-role stress* and acts of anti-gay aggression. Masculine gender-role stress is defined as "stress in response to traditional gender-role violations" or violators (e.g., gay men) (Vincent, Parrott, & Peterson, 2011, p. 1239). As such, individuals who experience greater "stress" when confronted with such violations experience "masculinity threat" which is consistent with the ego-defensive function. Indeed, Kimmel (1997) stated that masculinity can be understood as a "defensive effort to prevent being emasculated" (p. 237). Among men who endorse higher masculine gender-role stress, research has shown that they also report higher levels of anger in response to stimuli depicting intimate

behaviour between two gay men (Parrott, Peterson, Vincent, & Bakeman, 2008). This relationship was found to be moderated by sexual prejudice; in that, men higher in sexual prejudice, but not lower, displayed a stronger association between masculine gender-role stress and “anti-gay anger” (Vincent et al., 2011). Further, Vincent and colleagues found that masculine gender-role stress was also positively associated with the frequency of perpetuating acts of anti-gay aggression.

Despite the lower average scores on the modern and old-fashioned measures of homonegativity in Study 1 and 2, a significant percentage of the participants still reported engaging in some form of anti-gay behaviour. Among the participants in Study 1 and 2, non-physical aggression was endorsed most frequently. For example, telling anti-gay jokes was the most highly endorsed behaviour, with 63% of participants indicating that they told a homonegative joke. The next most frequently endorsed behaviours were spreading negative talk (26%) and playing jokes (18%) on persons perceived to be gay. More physically aggressive behaviours toward men believed to be gay were endorsed significantly less. For example, 0.8% of the sample in Study 1 endorsed hitting and 0.7% endorsed beating up a man presumed to be gay. These results are largely consistent with Jewell and Morrison (2010) who noted the need for greater focus on, what they referred to as, more “subtle” anti-gay behaviours. Although these subtle forms of homonegativity could be misconstrued as less serious or having less of an impact on those targeted than more physically violent acts of homonegativity, it is imperative that we acknowledge the significant emotional and psychological impact these subtle behaviours have. For example, research has shown that the experience of persistent subtle anti-gay behaviours, which can also be conceptualized as bullying, can lead to “low self-esteem, isolation, anxiety, depression, despair, and hopelessness, all of which are risk factors for suicide” among individuals who are or perceived to be gay (Ahuja et al., 2015, p. 133; Poteat & Espelage, 2007). Indeed, sexual minority teens are four times more likely to attempt suicide than their heterosexual counterparts when subjected to bullying (Ahuja et al., 2015; Centers for Disease Control and Prevention, 2009; Morrison & L’Heureux, 2002; Peter, Taylor, & Chamberland, 2015).

Through qualitative analysis, Jewell and Morrison (2010) found that the reinforcement of traditional male gender roles, alleviation of feelings of discomfort, and

conveying a heterosexual identity were the primary motivations for engaging in subtle anti-gay behaviours. Given the role emotions and ego-defensiveness (masculine gender-role stress) plays in the enactment of anti-gay behaviours, particularly subtle aggression, several interventions can be considered. For example, the emotions commonly triggered by gender-role violations or interaction with gay men (i.e., distress/anger) among men who engage in anti-gay behaviours can be better managed via distress tolerance and affect-regulation techniques. These techniques include empirically-validated relaxation training, as well as cognitive and behavioural skill enhancement (Deffenbacher, Dahlen, Lynch, Morris, & Gowensmith, 2000; Deffenbacher, Oetting, & DiGiuseppe, 2002). For example, progressive muscle relaxation can be used to reduce anger-related physiological arousal (i.e., muscle tension, increase heart rate) by systematically tensing and relaxing muscles of the body (Deffenbacher & McKay, 2000). This skill may then be utilized by individuals who are exposed to situations that elicit anger-related arousal (e.g., exposure to two males kissing) in order to reduce their anger arousal and, potentially, reduce their likelihood of anti-gay aggression in that particular situation (Parrott & Miller, 2009).

Further, hostile cognitions and faulty beliefs regarding the consequences of anger and aggression can be modified with well-established cognitive techniques (Donohue & Cavenagh, 2003; Parrott & Miller, 2009). These techniques include thought stopping, problem-solving skills training, self-reinforcement, impulse-control, and identifying and challenging irrational thoughts (i.e., Cognitive Behavioural Therapy; Parrott & Miller, 2009). For example, individuals can reduce emotional arousal (e.g., anger, anxiety) by engaging in self-talk strategies (e.g., reciting positive outcomes for non-violent behaviour) in order to decrease levels of anger and, in turn, prevent themselves from engaging in anti-gay aggression (Parrott & Miller, 2009). The problem-solving skills training technique can be used to teach perpetrators of anti-gay aggression to evaluate threatening situations, generate possible solutions, evaluate the pros and cons of each solution, and then attempt to follow through with their chosen solution (Parrott & Miller, 2009).

Clarifying the difference between adaptive and maladaptive emotion regulation, and exploring the anticipated outcomes of each is also a beneficial technique used to regulate anger and aggression (i.e., Emotion Focused Therapy; Robertson, Daffern, &

Bucks, 2014). For example, explaining the importance of attending to emotions and allowing them to unfold, as well as controlling behaviour in the face of distressing emotions, will create a greater understanding of the nature of emotions (Davey et al., 2005). Further, highlighting that adaptive emotion regulation is intended to modulate the intensity or duration of emotional reactions sufficiently to control behaviour, rather than control the distressing emotion itself will teach individuals that their emotions are more manageable (Gratz & Tull, 2010). This should foster insight into their own emotion regulation styles among men who react with anti-gay behaviours, helping them to better understand their emotional reactions and encourage them to adopt a more adaptive style of emotion regulation (Robertson, Daffern, & Bucks, 2014).

Unfortunately, the intervention techniques outlined thus far target homonegative affect at the individual level and are limited by the required engagement of the perpetrators of homonegative behaviours. Therefore, in contrast to those who may be required by law (i.e., court mandated) to complete such treatment interventions following a more physically aggressive act, the majority of individuals who engage in more subtle anti-gay behaviours are unlikely to volunteer for or engage in therapies targeting their homonegative affect. Therefore, although these techniques are effective at enhancing individuals' emotion-regulation skills and therefore have the potential to reduce anti-gay aggression, they do not seem realistic in combating homonegativity and its devastating sequelae.

In addition to distress tolerance and affect-regulation techniques, researchers (i.e., Allport, 1954; Dovidio et al., 2004; Pettigrew & Tropp, 2000; Turner, Crisp, & Lambert, 2007) have argued that structured interactions between in-group (e.g., heterosexual) and out-group members (e.g., sexual minority) is one of the most effective methods of attenuating prejudice (e.g., sexual). This argument is born out of research that has demonstrated that individuals who report knowing someone who is gay or lesbian report lower levels of sexual prejudice (Herek & Capitanio, 1996; Herek & Glunt, 1993). However, the effectiveness of this intervention has been reportedly contingent on several "optimal conditions" (Dixon, Durrheim, & Tredoux, 2005, p. 699). These conditions have resulted in the contact strategy to be criticized as too contrived and therefore limited in its generalizability and sustainability (Dixon et al., 2005). Dixon and colleagues (2005)

have argued that researchers need to shift away from traditional contact strategies and focus on the “mundane details of how ordinary people themselves makes sense of, and manage, their encounters with others” (p. 709).

Given the limitations associated with individual approaches and traditional contact strategies, there has been a shift toward more comprehensive prevention and intervention methods. Developing strategies that go beyond the individual level to the socio-cultural level are intended to challenge attitudes and behaviours, as well as policies and systems that perpetuate homonegativity. For example, a recent study examining the Canadian high school students’ experience with school-based homophobia found significant provincial differences based on the adoption of extensive *anti-homophobia policies* within certain school districts (Peter, Taylor, and Chamberland, 2015). Further, within a sample of 60 Saskatchewan high school students Morrison, Jewell, McCutcheon, and Cochrane (2014) assessed the impact of anti-lesbian, gay, bisexual, transgender, or questioning (LGBTQ) behaviours, mainly homonegative talk (e.g., pejorative use of words like “fag,” faggot,” “dyke,” “queer,” or “gay”) on individuals and their perceived school environment. In addition to the deleterious effects of the widespread homonegative talk experienced by both heterosexual and LGBTQ students, Morrison and colleagues (2014) found that the existence of a Gay-Straight Alliance (GSAs)¹⁹ at their school was “integral... to the students’ perception of how hospitable and safe their schools were for sexual minority youths” (p. 25). Students also reported that GSAs had a positive influence on their own lives in terms of their self-acceptance and as a means of social support.

The efficacy of having collective bodies, like School Boards, adopt anti-homophobia policies is echoed in the prejudice confrontation literature. Prejudice confrontation research examines the impact of having someone confront prejudicial attitudes and discriminatory behaviours in the moment. Researchers have found that individuals are likely to be more receptive to confrontational feedback about prejudice and discrimination from non-target individuals and when the feedback is presented as a reflection of a larger body (i.e., School Board policy) rather than individual opinion

¹⁹ Gay-Straight Alliances (GSAs) are “youth-driven groups intended as a setting for LGBTQ and heterosexual youth to receive support, socialize, and engage in advocacy” (Poteat et al., 2015).

(Gulker, Mark, & Monteith, 2013). However, with respect to homonegative behaviour in particular, the confrontation literature also indicates that heterosexual men (i.e., non-target individuals, ergo the most effective interventionists) are unlikely to confront homonegativity if they endorse beliefs consistent with precarious manhood. Precarious manhood is the belief that “manhood is an uncertain fleeting state, which must be continuously reaffirmed...” (Kroeper, Sanchez, & Himmelstein, 2013, p. 2). Research has yet to explore if speaking from the authority of a policy would compensate for any barrier precarious manhood may create for heterosexual men to confront homonegative behaviour. Therefore, future research should continue to explore the efficacy of anti-homophobia policies in different contexts as well as any potential barriers such as those associated with precarious manhood to their enforcement among individuals. If there is to be a widespread and lasting effect at the socio-cultural level on homonegative attitudes and behaviours, it appears crucial that policies that dictate intolerance toward prejudicial attitudes and behaviours be adopted and enforced starting within our schools.

Limitations and Future Directions

This dissertation demonstrated the strong dynamic relationships among homonegative affect, cognitions, and behaviours and the potential role ego-defensiveness plays in their expression. It demonstrated that affect, not homonegative attitudes, was the best predictor of homonegative behaviour. Future research is warranted to examine the role the ego-defensive function may play in the experience of affective reactions (e.g., anger) and the behavioural enactment of anti-gay aggression in order to better understand the process of engaging in homonegativity. Implicit and explicit methods will continue to be useful in these investigations; however qualitative research may provide a richer understanding of how homonegative individuals experience their own prejudice, which, will in turn, provide information about the challenges to assuaging such attitudes. For example, Jewell and Morrison (2012) were the first to use a qualitative method known as interpretive phenomenological analysis to explore individuals’ understanding of their own motivations for engaging in anti-gay behaviour and reported valuable insight into the personal and social factors that contribute to individuals’ prejudice and discrimination toward gay men. However, the authors noted that qualitative research is limited by participants’ conscious awareness of their motivations and willingness to share their

attitudes openly and honestly (Jewell & Morrison, 2012). It also does not serve as a good measure for potential unconscious processes at play (e.g., those that are ego-defensive). Therefore, future research using an implicit measure of affect (i.e., facial electromyography) along with explicit measures (i.e., questionnaires and interviews) could provide a more comprehensive picture of the underlying processes of homonegativity.

In the current dissertation, the samples overall held relatively positive attitudes towards gay men as measured by the ATG and MHS-G. This is a trend previously noted among college/university samples (Herek & Glunt, 1993; Morrison & Morrison, 2003; Norris, 1992), particularly with respect to the ATG, which is a measure of old-fashioned homonegativity. The trend towards greater attitudinal positivity directed toward gay men may, in part, be attributed to more liberal views among individuals who attend university. Younger Canadians (i.e., 15-24 years old) who attend university, in particular, are more likely to be interested in social issues and are more politically involved (Turcotte, Statistics Canada, 2015). Indeed, in Study 1, 86% of men endorsed beliefs ranging from “somewhat” to “veral liberal,” as compared to 39.9% of the general population voting for the liberal party in the 2015 Canadian Election (Schwartz, 2015). Henrich, Heine, and Norenzayan (2010) dubbed North American undergraduate university convenience samples as “WEIRD” because they predominatly consist of “Western, educated, industrialized, rich, and democratic” individuals (p. 29). They argued that most people in the general population are not WEIRD and because basic cognitive and motivational processes differ across populations it is difficult for researchers to garner a generalizable understanding of human psychology and behavior from these WEIRD participants. Therefore, in order to better understand the motivations of individuals who hold negative attitudes and act aggressively toward gay men, it is important for researchers to collect data from populations more likely to provide relevant and more generalizable information, such as a community sample rather than a university/college sample (Adrien et al. 2013). Indeed, data collected from the general population indicates that negative attitudes toward gay men continue to be a relevant and prominent sociocultural problem that merits continued research (Adrien et al. 2013; Mazur, 2002).

An additional limitation of the current dissertation is the inadequate power evidenced in Study 2. Despite the sample size being comparable to that found in most penile plethysmography studies, wherein the average is approximately 32 participants (i.e., range is from 6-125 participants; Chivers et al. 2010), it appears the power may have been insufficient in Study 2 to detect differences between men higher and lower in modern homonegativity, particularly in terms of the concordance between their genital and subjective sexual arousal. For example, men higher in modern homonegativity displayed an average correlation of .45 between their genital and subjective sexual arousal, while men lower in homonegativity displayed an average correlation of .23. Although the concordance appears to be almost twice as high among men higher in homonegativity, the Fisher r to z transformation was not significant, suggesting power was a factor in this analysis (Hill, Lewicki, & Lewicki, 2006). Statistical power depends on sample size, significance criterion, and population effect size (Cohen, 1992). For example, larger sample sizes are necessary for adequate power (i.e., .80) to detect a smaller differences between two population r s at $\alpha = .05$. Posthoc analyses determined that the statistical power for the analysis in Study 2 was .70 (below the recommended .80, Cohen, 1992). Therefore, a larger sample (e.g., 66 per group, Cohen, 1992) would have increased the statistical power sufficiently to detect the difference in concordance between men higher and lower in homonegativity. Future researchers should utilize a power analysis during the design of their study to determine an appropriate sample size for the exploration of concordance differences between these two groups.

Finally, this dissertation focused on the affective, cognitive, and behavioural components of homonegativity directed toward gay men and did not explore homonegativity directed toward lesbian women. Prejudice and discrimination toward lesbian women is generally overlooked in the academic literature, but has a similar, if not greater, deleterious effect. For example, in a sample of Canadian gay men and lesbian women, Morrison (2011) found that the association between depression and internalized homonegativity was greater in magnitude for lesbian women than for gay men. As a result, future research investigating the relevance of homonegative affect in terms of behaviour directed toward lesbian women is warranted.

In sum, this research, most importantly, brings to light the need for continued exploration and better measurement of the affective component of homonegativity. It is evident from this body of research that the affective component plays a significant predictive role in the enactment of homonegativity. There also seems to be some value in examining the concept of ego-defensiveness and the way in which it functions, in particular its relationship to homonegative behaviours. It is therefore proposed that future research continue to explore specific elements of same-sex sexual behaviour (e.g., sexual contact) that trigger strong emotional responses (e.g., disgust and contempt) in order to better identify possible routes of interventions. From a psychoanalytic perspective, it is these emotional responses that activate ego-defensive behaviours (e.g., micro and macro-aggressions) to protect individuals' self-concept from psychological conflict/anxiety. Therefore, a model for future researchers to consider is provided in Appendix T. This model proposes that, for some individuals such as those higher in ego-defensiveness, specific elements associated with same-sex behaviour trigger emotional reactions and anxiety that are unconsciously and automatically defended against by ego-defensive-type behaviours that may, ultimately, manifest in anti-gay micro and macro aggressions. Further, the two-items of the AFI-ego-defensive subscale and the SDMH, which both seem to tap into general states of discomfort and anxious avoidance, should be further developed through the addition of items and the use of more precise language, perhaps drawing on and altering items from more established defensive style measures (i.e., DSQ-40).

REFERENCES

- Aboyoun, D. C., & Dabbs, J. M. (1998). The Hess pupil dilation findings: Sex or novelty. *Social Behavior and Personality: An International Journal*, 26, 415-419.
- Adams, H. E., Motsinger, P., McAnulty, R. D., & Moore, A. L. (1992). Voluntary control of penile tumescence among homosexual and heterosexual subjects. *Archives of Sexual Behaviour*, 21, 17-31.
- Adams, H. E., Wright, L. W., & Lohr, B. A. (1996). Is homophobia associated with homosexual arousal? *Journal of Abnormal Psychology*, 105, 440-445.
- Adrien, A., Beaulieu, M., Leane, V., Perron, M., & Dassa, C. (2013). Trends in attitudes toward people living with HIV, homophobia, and HIV transmission knowledge in Canada (1996, 2002, and 2010). *AIDS Care*, 25(1-2), 55-65.
- Ahuja, A., Webster, C., Gibson, N., Brewer, A., Toledo, S., & Russell, S. (2015). Bullying and suicide: The mental health crisis of LGBTQ youth and how you can help. *Journal of Gay & Lesbian Mental Health*, 19(2), 125-144.
- Allport, G. W. (1979). *The nature of prejudice*. Basic books.
- Altemeyer, B. (1988). *Enemies of freedom: Understanding right-wing authoritarianism*. San Francisco, CA: Jossey-Bass.
- Altemeyer, B., & Hunsberger, B. (2005). Fundamentalism and authoritarianism. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (378-393). New York: Guilford.
- American Psychiatric Association (Ed.). (2000). *Diagnostic and statistical manual of mental disorders IV-TR*. Washington, DC: American Psychiatric Publication Incorporated.

- Amodio, D. M., Harmon-Jones, E., & Devine, P. G. (2003). Individual differences in the activation and control of affective race bias as assessed by startle eyeblink response and self-report. *Journal of Personality and Social Psychology, 84*, 738.
- Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual Review of Psychology, 53*, 27–51.
- Andrews, G., Singh, M., & Bond, M. (1993). The defense style questionnaire. *The Journal of Nervous and Mental Disease, 181*, 246-256.
- Aosved, A. C., & Long, P. J. (2006). Co-occurrence of rape myth acceptance, sexism, racism, homophobia, ageism, classism, and religious intolerance. *Sex roles, 55*(7-8), 481-492.
- Barlow, D. H., Sakheim, D. K., & Beck, J. G. (1983). Anxiety increases sexual arousal. *Journal of Abnormal Psychology, 92*, 49-54.
- Barron, J. M., Struckman-Johnson, C., Quevillon, R., & Banka, S. R. (2008). Heterosexual men's attitudes toward gay men: A hierarchical model including masculinity, openness, and theoretical explanations. *Psychology of Men & Masculinity, 9*, 154.
- Basow, S. A., & Johnson, K. (2000). Predictors of homophobia in female college students. *Sex Roles, 42*, 391–404.
- Beck, J. G., & Barlow, D. H. (1986a). The effects of anxiety and attentional focus on sexual responding-I: Physiological patterns in erectile dysfunction. *Behaviour Research and Therapy, 24*, 9-17.

- Beck, J. G., & Barlow, D. H. (1986b). The effects of anxiety and attentional focus on sexual responding—II: Cognitive and affective patterns in erectile dysfunction. *Behaviour research and therapy*, 24(1), 19-26.
- Beggs, V. (1978). *Emotional responses to videotaped stimuli*. (Unpublished dissertation), Brown University, USA.
- Berkman, C. S., & Zinberg, G. (1997). Homophobia and heterosexism in social workers. *Social Work*, 42(4), 319-332.
- Berkowitz, L. (2003). Affect, aggression, and antisocial behavior. In R. J. Davidson, K. R. Scherer & H. H. Goldsmith (Eds.), *Handbook of affective sciences*. New York, NY: Oxford University Press.
- Berkowitz, L. (2012). A different view of anger: The cognitive-neoassociation conception of the relation of anger to aggression. *Aggressive Behavior*, 38, 322–333.
- Bernat, J. A., Calhoun, K. S., Adams, H. E., & Zeichner, A. (2001). Homophobia and physical aggression towards homosexual and heterosexual individuals. *Journal of Abnormal Psychology*, 110, 179-187.
- Bernick, N., Kling, A., & Borowitz, G. (1971). Physiologic differentiation of sexual arousal and anxiety. *Psychosomatic Medicine*, 33, 341-352.
- Bernstein, M. (2004). Paths to homophobia. *Sexuality Research & Social Policy*, 1(2), 41-55.
- Black, K. N., & Stevenson, M. R. (1984). The relationship of self-reported sex-role characteristics and attitudes toward homosexuality. *Journal of Homosexuality, Special Issue: Homophobia: An Overview*, 10, 83–93.

- Blais, M., Gervais, J., & Hébert, M. (2014). Internalized homophobia as a partial mediator between homophobic bullying and self-esteem among youths of sexual minorities in Quebec (Canada). *Ciência & Saúde Coletiva*, *19*(3), 727-735.
- Blascovich, J. (2000). Using physiological indexes of psychological processes in social psychological research. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 117-137). New York: Cambridge University Press.
- Blashill, A. J., & Powlishta, K. K. (2009). The impact of sexual orientation and gender role on evaluations of men. *Psychology of Men & Masculinity*, *10*, 160.
- Blogowska, J., Lambert, C., & Saroglou, V. (2013). Religious prosociality and aggression: It's real. *Journal for the Scientific Study of Religion*, *52*(3), 524-536.
- Bond, M., Gardner, S. T., Christian, J., & Sigal, J. J. (1983). Empirical study of self-rated defense styles. *Archives of General Psychiatry*, *40*, 333.
- Borkenau, P., & Ostendorf, F. (1992). Social desirability scales as moderator and suppressor variables. *European Journal of Personality*, *6*, 199-214.
- Bosson, J. K., Weaver, J. R., Caswell, T. A., & Burnaford, R. M. (2012). Gender threats and men's antigay behaviors: The harmful effects of asserting heterosexuality. *Group Processes & Intergroup Relations*, 1368430211432893.
- Bozman, A. W., & Beck, J. G. (1991). Covariation of sexual desire and sexual arousal: The effects of anger and anxiety. *Archives of Sexual Behaviour*, *20*, 47-60.
- Brewer, P. R. (2003). The shifting foundations of public opinion about gay rights. *Journal of Politics*, *65*(4), 1208-1220.

- Brown, M. J., & Henriquez, E. (2008). Socio-demographic predictors of attitudes towards gays and lesbians. *Individual Differences Research*.
- Brumbaugh, S. M., Sanchez, L. A., Nock, S. L., & Wright, J. D. (2008). Attitudes toward gay marriage in states undergoing marriage law transformation. *Journal of Marriage and Family*, 70, 345–359.
- Burnett, R., & Salka, W. (2009). Determinants of electoral support for anti-gay marriage constitutional amendments: an examination of 2006 votes on ballot measures in the states. *Journal of Homosexuality*, 56, 1071–1082.
doi:10.1080/00918360903275476.
- Burns, G. L., Keortge, S. G., Formea, G. M., & Sternberger, L. G. (1996). Revision of the Padua Inventory of obsessive compulsive disorder symptoms: Distinctions between worry, obsessions, and compulsions. *Behaviour Research and Therapy*, 34, 163-173.
- Cacioppo, J. T., Berntson, G. G., Larsen, J. T., Poehlmann, K. M., & Ito, T. A. (2000). The psychophysiology of emotion. In M. Lewis & J. M. Haviland-Jones (Eds.), *Handbook of emotions* (2nd ed., p. 173–191). New York: Guilford Press.
- Capezza, N. M. (2007). Homophobia and sexism: The pros and cons to an integrative approach. *Integrative Psychological and Behavioral Science*, 41(3-4), 248-253.
- Carnaghi, A., Maass, A., & Fasoli, F. (2011). Enhancing masculinity by slandering homosexuals: The role of homophobic epithets in heterosexual gender identity. *Personality and Social Psychology Bulletin*, 37, 1655-1665.

- Centers for Disease Control and Prevention (2009). *Massachusetts youth risk behaviour survey*. Retrieved May 29th, 2016 from <http://www.cdc.gov/MMWR/Preview/MMWRhtml/ss5905a1.htm>.
- Chabrol, H., Rousseau, A., Rodgers, R., Callahan, S., Pirlot, G., & Sztulman, H. (2005). A study of the face validity of the 40 item version of the Defense Style Questionnaire (DSQ-40). *The Journal of nervous and mental disease*, 193(11), 756-758.
- Chivers, M. L. (2005). A brief review and discussion of sex differences in the specificity of sexual arousal, *Sexual and Relationship Therapy*, 20, 377-390
- Chivers, M. L., Rieger, G., Latty, E., & Bailey, J. M. (2004). A sex difference in the specificity of sexual arousal. *Psychological Science*, 15, 736-744.
- Chivers, M. L., Seto, M. C., & Blanchard, R. (2008). Gender and sexual orientation differences in sexual response to sexual activities versus gender of actors in sexual films. *Journal of Personality and Social Psychology*, 93, 1108-1121.
- Chivers, M. L., Seto, M. C., Lalumière, M. L., Laan, E., & Grimbos, T. (2010). Agreement of self-reported and genital measures of sexual arousal among men and women: A meta-analysis. *Archives of Sexual Behaviour*, 39, 5-56.
- Ciuk, D., Troy, A. K., & Jones, M. C. (2015). Measuring Emotion: Self-Reports vs. Physiological Indicators. *Physiological Indicators (April 16, 2015)*.
- Connell, R. W. (1995). *Masculinities*. Cambridge, MA: Polity
- Connell, R. W., & Messerschmidt, J. W. (2005). Hegemonic masculinity rethinking the concept. *Gender & Society*, 19, 829-859.

- Cramer, K. M., & Barry, J. E. (1999). Psychometric properties and confirmatory factor analysis of the self-concealment scale. *Personality and Individual Differences, 27*(4), 629-637.
- Cramer, R. J., Miller, A. K., Amacker, A. M., & Burks, A. C. (2013). Openness, right-wing authoritarianism, and antigay prejudice in college students: A mediational model. *Journal of Counseling Psychology, 60*(1), 64.
- Cramer, E., Oles, T. P., & Black, B. M. (1997). Reducing social work student's homophobia: An evaluation of teaching strategies. *Arete, 21*, 36-49.
- Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology, 24*, 349-354.
- Davey, L., Day, A., & Howells, K. (2005). Anger, over-control and serious violent offending. *Aggression and Violent Behavior, 10*, 624-635.
- Davies, M. (2004). Correlates of negative attitudes toward gay men: Sexism, male role norms, and male sexuality. *Journal of Sex Research, 41*, 259-266.
- Davidson, R.J., Putnam, K. M., & Larson, C. L. (2000). Dysfunction in the neural circuitry of emotion regulation: A possible prelude to violence. *Science, 289*, 591-594.
- Deffenbacher, J. L., Dahlen, E. R., Lynch, R. S., Morris, C. D., & Gowensmith, W. N. (2000). An application of Beck's cognitive therapy to general anger reduction. *Cognitive Therapy and Research, 24*(6), 689-697.

- Deffenbacher, J. L., Oetting, E. R., & DiGiuseppe, R. A. (2002). Principles of empirically supported interventions applied to anger management. *The Counseling Psychologist, 30*(2), 262-280.
- Deffenbacher, J. L., & McKay, M. (2000). *Overcoming situational and general anger: A protocol for the treatment of anger based on relaxation, cognitive restructuring, and coping skills training*. New Harbinger Publications.
- Dixon, J., Durrheim, K., & Tredoux, C. (2005). Beyond the optimal contact strategy: A reality check for the contact hypothesis. *American Psychologist, 60*(7), 697.
- Donaldson, M. (1993). What is hegemonic masculinity? *Theory and Society, 22*, 643–57.
- Donohue, B., & Cavenagh, N. (2003). Anger (negative impulse) management. *Cognitive behavioral therapy: Applying empirically supported techniques in your practice*. Hoboken, NJ: John Wiley & Sons, 10-15.
- Dovidio, J. F., Gaertner, S. L., Stewart, T. L., Esses, V. M., ten Vergert, M., & Hodson, G. (2004). From intervention to outcome: Processes in the reduction of bias. *Education programs for improving intergroup relations: Theory, research, and practice, 243-265*.
- Ernulf, K. E., & Innala, S. M. (1987). The relationship between affective and cognitive components of homophobic reaction. *Archives of Sexual Behavior, 16*, 501–509.
- Eysenck, H. J., & Eysenck, S. B. G. (1991). *Manual of the Eysenck Personality Scales (EPS Adult)*. London: Hodder and Stoughton.
- Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods, 4*(3), 272.

- Ferenczi, S. (1956). The nosology of male homosexuality (homoerotism). In E. Jones (Trans.), *Sex in Psychoanalysis* (pp. 296–318). New York, NY: Basic Books.
(Original work published 1914)
- Ferlatte, O., Dulai, J., Hottes, T. S., Trussler, T., & Marchand, R. (2015). Suicide related ideation and behavior among Canadian gay and bisexual men: A syndemic analysis. *BMC Public Health, 15*(1), 597.
- Field, A. (2009). *Discovering statistics using SPSS*. Sage publications.
- Fisher, W. A. (1988). The Sexual Opinion Survey. In C. M. Davis, W. L. Yarber, and S. L. Davis (Eds.), *Sexuality-Related Measures*, Graphic Publishing Co., Lake Mills, Iowa
- Franklin, K. (1998). Psychosocial motivations of hate crimes perpetrators: Implications for Educational Intervention. *Annual Convention of the American Psychological Association* (106th, San Francisco, CA, Aug 14-18).
- Franklin, K. (1998). Unassuming motivations contextualizing the narratives of antigay assailants. In G. M. Herek (Ed.), *Stigma and Sexual Orientation: Understanding Prejudice Against Lesbians, Gay Men, and Bisexuals* (pp. 1-23). Newbury Park, CA: Sage Publishing.
- Franklin, K. (2000). Antigay behaviours among young adults: Prevalence, patterns, and motivations in a noncriminal population. *Journal of Interpersonal Violence, 15*, 339-362.
- Freund, K., Langevin, R., Cibiri, S., & Zajac, Y. (1973). Heterosexual aversion in homosexual males. *British Journal of Psychiatry, 122*, 163–169.

- Gentry, C. S. (1986). Development of scales measuring social distance toward male and female homosexuals. *Journal of Homosexuality, 13*, 75-82.
- George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference. 11.0 update* (4th ed.). Boston: Allyn & Bacon.
- Giargiari, T. D., Mahaffey, A. L., Craighead, W. E., & Hutchison, K. E. (2005). Appetitive responses to sexual stimuli are attenuated in individuals with low levels of sexual desire. *Archives of Sexual Behavior, 34*, 547-556.
- Gleser, G. C., & Ihilevich, D. (1969). An objective instrument for measuring defense mechanisms. *Journal of Consulting and Clinical Psychology, 33*, 51.
- Glick, P., Gangl, C., Gibb, S., Klumpner, S., & Weinberg, E. (2007). Defensive reactions to masculinity threat: More negative affect toward effeminate (but not masculine) gay men. *Sex Roles, 57*, 55-59.
- Goldberg, D. (1972) *Detecting psychiatric illness by questionnaire*. Oxford University Press, Oxford
- Goldstein, J. D., & Iso-Ahola, S. E. (2008). Determinants of parents' sideline-rage emotions and behaviours at youth soccer games. *Journal of Applied Social Psychology, 38*, 1442-1462.
- Graham, J. W. (2009). Missing data analysis: Making it work in the real world. *Annual review of psychology, 60*, 549-576.
- Gratz, K. L., & Tull, M. T. (2010). Emotion regulation as a mechanism of change in acceptance and mindfulness-based treatments. In R. A. Baer (Ed.), *Assessing mindfulness and acceptance: Illuminating the processes of change* (pp. 107-133). Oakland, CA: New Harbinger.

- Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: attitudes, self-esteem, and stereotypes. *Psychological Review*, *102*, 4.
- Gulker, J. E., Mark, A. Y., & Monteith, M. J. (2013). Confronting prejudice: The who, what, and why of confrontation effectiveness. *Social Influence*, *8*(4), 280-293.
- Habito, R. L., & Inaba, K. (2006). *The Practice of Altruism Caring and Religion in Global Perspective* (p. 209). Cambridge Scholars Press.
- Haddock, G., Zanna, M. P., & Esses, V. M. (1993). Assessing the structure of prejudicial attitudes: The case of attitudes toward homosexuals. *Journal of Personality and Social Psychology*, *65*, 1105-1118.
- Haidt, J., McCauley, C., & Rozin, P. (1994). Individual differences in sensitivity to disgust: A scale sampling seven domains of disgust elicitors. *Personality and Individual Differences*, *16*, 701-713.
- Hale, V. E. & Strassberg, D. S. (1990). The role of anxiety on sexual arousal. *Archives of Sexual Behaviour*, *19*, 569-581.
- Harris, G. T., Rice, M. E., Quinsey, V. L., Chaplin, T. C., & Earls, C. (1992). Maximizing the discriminant validity of phallometric assessment data. *Psychological Assessment*, *4*(4), 502.
- Hatzenbuehler, M. L., McLaughlin, K. A., Keyes, K.M., & Hasin, D.S. (2010). The impact of institutional discrimination on psychiatric disorders in lesbian, gay, and bisexual populations: A prospective study. *American Journal of Public Health*, *100*, 452-459.

- Hayton, J. C., Allen, D. G., & Scarpello, V. (2004). Factor retention decisions in exploratory factor analysis: A tutorial on parallel analysis. *Organizational Research Methods, 7*(2), 191-205.
- Hearn, J. (2004). From hegemonic masculinity to the hegemony of men. *Feminist Theory, 5*(1), 49-72.
- Hegarty, P. (2006). Where's the sex in sexual prejudice? *Gay and Lesbian Psychology Review, 7*, 264-275.
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). Most people are not WEIRD. *Nature, 466* (7302), 29-29.
- Herek, G. M. (1984). Attitudes toward lesbians and gay men. A factor-analytic study. *Journal of Homosexuality, 10*, 39-52.
- Herek, G. M. (1986). The instrumentality of attitudes: Toward a neofunctional theory. *Journal of Social Issues, 42*, 99-114.
- Herek, G. M. (1987). Can functions be measured? A new perspective on the functional approach to attitudes and females. *Social Psychology Quarterly, 50*, 285-303
- Herek, G. M. (1988). Heterosexuals' attitudes toward lesbians and gay men: Correlates and gender differences. *Journal of Sex Research, 25*, 451-477.
- Herek, G. M. (1991). Stigma, prejudice, and violence against lesbians and gay men. *Homosexuality: Research Implications for Public Policy, 60-80*.
- Herek, G. M. (1994). Assessing heterosexuals' attitudes toward lesbians and gay men: A review of empirical research with the ATLG scale. In B. Greene & G. M. Herek (Eds.), *Lesbian and gay psychology* (p. 206-228). Thousand Oaks, CA: Sage.

- Herek, G. M., & Capitano, J. P. (1999). Sex differences in how heterosexuals think about lesbians and gay men: Evidence from survey context effects. *Journal of Sex Research, 36*, 1-23.
- Herek, G. M., Cogan, J. C., & Gillis, J. R. (2002). Victim experiences in hate crimes based on sexual orientation. *Journal of Social Issues, 58*(2), 319-339.
- Herek, G. M., & Glunt, E. K. (1993). Interpersonal contact and heterosexuals' attitudes toward gay men: Results from a national survey. *Journal of Sex Research, 30*(3), 239-244.
- Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94*, 319-340.
- Hill, T., Lewicki, P., & Lewicki, P. (2006). *Statistics: methods and applications: a comprehensive reference for science, industry, and data mining*. StatSoft, Inc.
- Huckabee, M. (2015). *God, guns, grits, and gravy*. Macmillan.
- Hudepohl, A. D., Parrott, D. J., & Zeichner, A. (2010). Heterosexual men's anger in response to male homosexuality: Effects of erotic and non-erotic depictions of male-male intimacy and sexual prejudice. *Journal of Homosexuality, 57*, 1022-1038.
- Hudson, W. W. (1997). *The WALMYR assessment scales scoring manual*. WALMYR Pub. Co.
- Hudson, W. W., & Ricketts, W. (1980). A strategy for the measure of homophobia. *Journal of Homosexuality, 5*, 357-372.

- Hunsberger, B., Owusu, V., & Duck, R. (1999). Religion and prejudice in Ghana and Canada: Religious fundamentalism, right-wing. *The International Journal for the Psychology of Religion*, 9(3), 181-194.
- Innala, S. M., & Ernulf, K. E. (1992). *The relationship between affective and cognitive components of homophobic reaction: Three cross-national replications*. University of Göteborg.
- Janssen, E., & Geer, J., (2000). The sexual response system. In J. T. Cacioppo, L. G. Tassinary, & G. G. Bernston (Eds.), *Handbook of psychophysiology* (2nd ed., pp. 315–341). New York: Cambridge University Press.
- Janssen, E., McBride, K. R., Yarber, W. Y., Hill, B. J., & Butler, S. M. (2008). Factors that influence sexual arousal in men: A focus group study. *Archives of Sexual Behaviour*, 37, 252-265.
- Jefferson, S. D., & Bramlett, F. (2010). The moderating roles of gender and anti-gay prejudice in explaining stigma by association in male dyads. *Journal of Homosexuality*, 57, 401-414.
- Jewell, L. M. & Morrison, M. A. (2010). “But there’s a million jokes about everybody...”: Prevalence of, and reasons for, directing negative behaviours toward gay men on a Canadian university campus. *Journal of Interpersonal Violence*, 25, 2094-2112.
- Jewell, L. M., & Morrison, M. A. (2012). Making sense of homonegativity: Heterosexual men and women's understanding of their own prejudice and discrimination toward gay men. *Qualitative Research in Psychology*, 9, 351-370.

- Julien, E., & Over, R. (1988). Male sexual arousal across five modes of erotic stimulation. *Archives of Sexual Behavior, 17*, 131-143.
- Kaplan, H. S. (1974). *The New Sex Therapy*. New York: Brunner/Mazel.
- Kelley, K., Miller, C. T., Byrne, D., & Bell, P. A. (1983). Facilitating sexual arousal via anger, aggression, or dominance. *Motivation and Emotion, 7*, 191-202.
- Kilianski, S. E. (2003). Explaining heterosexual men's attitudes toward women and gay men: The theory of exclusively masculine identity. *Psychology of Men and Masculinity, 4*, 37-56.
- Kim Davis (County Clerk) (2016, July). *Wikipedia, The Free Encyclopedia*. Retrieved from [https://en.wikipedia.org/wiki/Kim_Davis_\(county_clerk\)](https://en.wikipedia.org/wiki/Kim_Davis_(county_clerk))
- King, L. A., & Smith, N. G. (2004). Gay and straight possible selves: Goals, identity, well-being and personality development. *Journal of Personality, 72*, 967-994.
- Kinsey, A. C., Pomeroy, W. B., & Martin, C. E. (1948). *Sexual behavior in the human male*. Philadelphia: W. B. Saunders.
- Kite, M. E. (1984). Sex differences in attitudes toward homosexuals: A meta-analytic review. *Journal of Homosexuality, 10*, 69-81.
- Kite, M. E. & Deaux, K. (1987). Gender belief systems: Homosexuality and the implicit inversion theory. *Psychology of Women Quarterly, 11*, 83-96.
- Kite, M. E. & Whitley, B. E., Jr. (1998). Do heterosexual women and men differ in their attitudes toward homosexuality? A conceptual and methodological analysis. In G. M. Herek (Ed.), *Stigma and sexual orientation* (p. 39-61). Newbury Park, CA: Sage.

- Klohnen, E. C., & Luo, S. (2003). Interpersonal attraction and personality: What is attractive--self similarity, ideal similarity, complementarity, or attachment security? *Journal of Personality and Social Psychology, 85*, 709.
- Koukounas, E., & McCabe, M. P. (2001). Sexual and emotional variables influencing sexual response to erotica: A psychophysiological investigation. *Archives of Sexual Behaviour, 30*, 393-408.
- Kroeper, K. M., Sanchez, D. T., & Himmelstein, M. S. (2014). Heterosexual men's confrontation of sexual prejudice: The role of precarious manhood. *Sex Roles, 70*(1-2), 1-13.
- Kuban, M., Barbaree, H. E., & Blanchard, R. (1999). A comparison of volume and circumference phallometry: Response magnitude and method agreement. *Archives of Sexual Behavior, 28*(4), 345-359.
- La Guardia, J. G., Ryan, R. M., Couchman, C. E., & Deci, E. L. (2000). Within-person variation in security of attachment: A self-determination theory perspective on attachment, need fulfillment, and well-being. *Journal of Personality and Social Psychology, 79*(3), 367.
- LaMar, L. A., & Kite, M. E. (1998). Sex differences in attitudes toward gay men and lesbians: A multi-dimensional perspective. *Journal of Sex Research, 35*, 189-196.
- Lang, P. J. (1995). The emotion probe: Studies of motivation and attention. *American Psychologist, 50*, 372.
- Lapinski, M., & Boster, F. J. (2001). Modeling the ego-defensive function of attitudes. *Communication Monographs, 68*(3), 314-324.

- Larsen, K. S., Reed, M., & Hoffman, S. (1980). Attitudes of heterosexuals toward homosexuality: A Likert-type scale and construct validity. *Journal of Sex Research, 16*, 245-257.
- Larson, D. G., & Chastain, R. L. (1990). Self-concealment: Conceptualization, measurement, and health implications. *Journal of Social and Clinical Psychology, 9*, 439-455.
- Leak, G. K., & Finken, L. L. (2011). The relationship between the constructs of religiousness and prejudice: A structural equation model analysis. *International Journal for the Psychology of Religion, 21*(1), 43-62
- Lehavot, K., & Lambert, A. J. (2007). Toward a greater understanding of antigay prejudice: On the role of sexual orientation and gender role violation. *Basic and Applied Social Psychology, 29*, 279-292.
- LeVay, S., Baldwin, J. I., & Baldwin, J. D. (2009). *Discovering human sexuality*. Sinauer Associates.
- Madon, S. (1997). What do people believe about gay males? A study of stereotype content and strength. *Sex Roles, 37*, 663-685.
- MacDonald, A. P., & Games, R. G. (1974). Some characteristics of those who hold positive and negative attitudes toward homosexuals. *Journal of Homosexuality, 1*, 9-28.
- MacInnis, C. C., & Hodson, G. (2013). Is homophobia associated with an implicit same-sex attraction? *Journal of Sex Research, 50*(8), 777-785.

- Mahaffey, A. L., Bryan, A., & Hutchison, K. E. (2005a). Using startle eye blink to measure the affective component of antigay bias. *Basic and Applied Social Psychology, 27*, 37-45.
- Mahaffey, A. L., Bryan, A., & Hutchison, K. E. (2005b). Sex differences in affective responses to homoerotic stimuli: Evidence for an unconscious bias among heterosexual men, but not heterosexual women. *Archives of Sexual Behaviour, 34*, 537-545.
- Mahaffey, A. L., Bryan, A. D., Ito, T. A., & Hutchison, K. E. (2011). In search of the defensive function of sexual prejudice: Exploring antigay bias through shorter and longer lead startle eye blink. *Journal of Applied Social Psychology, 41*, 27-44.
- Masters, W. H., & Johnson, V. E. (1970). *Human sexual inadequacy*. Boston, Little, Brown.
- Mauss, I. B., & Robinson, M. D. (2009). Measures of emotion: A review. *Cognition and Emotion, 23*, 209-237.
- Mazur, P. (2002). Gay and lesbian rights in Canada: A comparative study. *International Journal of Public Administration, 25*(1), 45-62. doi:10.1080/PAD-120006538
- McCutcheon, J., & Morrison, M. A. (2015). The effect of parental gender roles on students' attitudes toward lesbian, gay, and heterosexual adoptive couples. *Adoption Quarterly, 18*(2), 138-167.
- McCullough, M. E., & Willoughby, B. L. (2009). Religion, self-regulation, and self-control: Associations, explanations, and implications. *Psychological Bulletin, 135*(1), 69.
- McCullough-Vaillant, L. (1997). *Changing character*. New York, Basic.

- McHugo, G. J., & Lanzetta, J. T. (1983). Methodological decisions in social psychophysiology. *Social Psychophysiology: A Source Book*, 630-665.
- McKinnon, M. (May, 2015). No need for “symbolic” Gay-Straight Alliance law: Sask. Educ. Minister. Global News (<http://globalnews.ca/news/1994711/no-need-for-symbolic-gay-straight-alliance-law-sask-education-minister/>)
- McNair, D. M., Lorr, M., & Droppleman, L. F. (1971). *Manual: Profile of Mood States*. San Diego: Educational & Industrial Testing Service.
- McVeigh, R., & Maria-Elena, D. D. (2009). Voting to ban same-sex marriage: Interests, values, and communities. *American Sociological Review*, 74(6), 891-915.
- Meaney, G. J., & Rye, B. J. (2010). Gendered egos: Attitude functions and gender as predictors of homonegativity. *Journal Homosexuality*, 57, 1274-1302.
- Meier, B. P., Robinson, M. D., Gaither, G. A., & Heinert, N. J. (2006). A secret attraction or defensive loathing? Homophobia, defense, and implicit cognition. *Journal of Research in Personality*, 40, 377-394.
- Menard, S. (1995). *Applied Logistic Regression Analysis: Sage University Series on Quantitative Applications in the Social Sciences*. Thousand Oaks, CA: Sage.
- Mohipp, C., & Morry, M. M. (2004). The relationship of symbolic beliefs and prior contact to heterosexuals' attitudes toward gay men and lesbian women. *Canadian Journal of Behavioural Science*, 36(1), 36.
- Morrison, L. L., & L'Heureux, J. (2002). Suicide and gay/lesbian/bisexual youth: Implications for clinicians. *Journal of Adolescence*, 24, 39-49.

- Morrison, M. A. (2011). Psychological health correlates of perceived discrimination among Canadian gay men and lesbian women. *Canadian Journal of Community Mental Health, 30*(2), 81-98.
- Morrison, M. A., Jewell, L. M., McCutcheon, J. M., & Cochrane, D. B. (2014). In the face of anti-LGBQ behaviour: Saskatchewan high-school students' perceptions of school climate and consequential impact. *Canadian Journal of Education, 37*(2), 1-29.
- Morrison, M. A., & Morrison, T. G. (2003). Development and validation of a scale measuring modern prejudice toward gay men and lesbian women. *Journal of Homosexuality, 43*(2), 15-37.
- Morrison, M. A., & Morrison, T. G. (2011). Sexual orientation bias toward gay men and lesbian women: Modern homonegative attitudes and their association with discriminatory behavioral intentions. *Journal of Applied Social Psychology, 41*(11), 2573-2599.
- Morrison, M. A., Morrison, T. G., & Franklin, R. (2009). Modern and old-fashioned homonegativity among samples of Canadian and American university students. *Journal of Cross-Cultural Psychology, 40*, 523-542.
- Morrison, T. G., Kenny, P., & Harrington, A. (2005). Modern prejudice toward gay men and lesbian women: Assessing the viability of a measure of modern homonegative attitudes within an Irish context. *Genetic, Social, and General Psychology Monographs, 131*, 210-50.

- Morrison, T. G., McLeod, L. D., Morrison, M. A., Anderson, D., & O'Connor, W. E. (1997). Gender stereotyping, homonegativity, and misconceptions about sexually coercive behavior among adolescents. *Youth & Society, 28*, 351-382.
- Morrison, T. G., Parriag, A., & Morrison, M. A. (1999). The psychometric properties of the Homonegativity Scale. *Journal of Homosexuality, 37*, 107-122.
- Mosher, D. L., & Abramson, P. R. (1977). Subjective sexual arousal to films of masturbation. *Journal of Consulting and Clinical Psychology, 45*, 796.
- Mosher, D. L., & O'Grady, K. E. (1979). Homosexual threat, negative attitudes toward masturbation, sex guilt, and males' sexual and affective reactions to explicit sexual films. *Journal of Consulting and Clinical Psychology, 47*, 860.
- Myers, R. H. (1990). *Classical and modern regression with applications* (Vol. 2). Belmont, CA: Duxbury Press.
- Neighbors, C., Vietor, N. A., & Knee, C. R. (2002). A motivational model of driving anger and aggression. *Personality and Social Psychology Bulletin, 28*, 324-335.
- Nevid, J. S. (1983). Exposure to homoerotic stimuli: Effects on attitudes and affects of heterosexual viewers. *The Journal of Social Psychology, 119*, 249-255.
- Nierman, A. J., Thompson, S. C., Bryan, A., & Mahaffey, A. L. (2007). Gender role beliefs and attitudes toward lesbians and gay men in Chile and the US. *Sex Roles, 57*(1-2), 61-67.
- Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review, 84*, 231.

- Norris, W.P. (1992). Liberal attitudes and homophobic acts: The paradoxes of homosexual experience in a liberal institution. *Journal of Homosexuality*, 24, 81-120.
- O'Donohue, W., & Caselles, C. E. (1993). Homophobia: Conceptual, definitional, and value issues. *Journal of Psychopathology and Behavioral Assessment*, 15, 177-195.
- O'Connor, B. P. (2000). SPSS and SAS programs for determining the number of components using parallel analysis and Velicer's MAP test. *Behavior Research Methods, Instruments, & Computers*, 32(3), 396-402.
- Ogilvie, D. M. (1987). The undesired self: A neglected variable in personality research. *Journal of Personality and Social Psychology*, 52, 379-385.
- Olatunji, B. O. (2008). Disgust, scrupulosity and conservative attitudes about sex: Evidence for a mediational model of homophobia. *Journal of Research in Personality*, 42(5), 1364-1369.
- Olatunji, B. O., Williams, N. L., Tolin, D. F., Abramowitz, J. S., Sawchuk, C. N., Lohr, J. M., & Elwood, L. S. (2007). The Disgust Scale: Item analysis, factor structure, and suggestions for refinement. *Psychological Assessment*, 19(3), 281.
- Parrott, D. J. (2009). Aggression toward gay men as gender role enforcement: Effects of male role norms, sexual prejudice, and masculine gender role stress. *Journal of Personality*, 77(4), 1137-1166.
- Parrott, D. J., Adams, H. E., & Zeichner, A. (2002). Homophobia: Personality and attitudinal correlates. *Personality and Individual Differences*, 32, 1269-1278.

- Parrott, D. J., & Miller, C. A. (2009). Alcohol consumption-related antigay aggression: Theoretical considerations for individual-and societal-level interventions. *Substance Use & Misuse, 44*(9-10), 1377-1398.
- Parrott, D. J., & Peterson, J. L. (2008). What motivates hate crimes based on sexual orientation? Mediating effects of anger on antigay aggression. *Aggressive Behaviour, 34*, 306-318.
- Parrott, D. J., & Zeichner, A. (2005). Effects of sexual prejudice and anger on physical aggression toward gay and heterosexual men. *Psychology of Men & Masculinity, 6*(1), 3.
- Parrott, D. J., & Zeichner, A. (2008). Determinants of anger and physical aggression based on sexual orientation: An experimental examination of hypermasculinity and exposure to male gender role violations. *Archives of Sexual Behaviour, 37*, 891-901.
- Patel, S. (1989). *Homophobia: Personality, emotional, and behavioral correlates*. (Unpublished master's thesis), East Carolina University, Greenville, NC.
- Patel, S., Long, T. E., McCammon, S. L., & Wuensch, K. L. (1995). Personality and emotional correlates of self-reported antigay behaviours. *Journal of Interpersonal Violence, 10*, 354-366.
- Paulhus, D. L. (1991). Measurement and control of response bias. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 17-59). New York: Academic Press.

- Paulhus, D. L. (1998). *Paulhus Deception Scales (PDS): The Balanced Inventory of Desirable Responding-7: User's Manual*. North Tonawanda, NY: Multi-Health Systems, Inc.
- Pearce, C., Renk, K., & Negy, C. (2013). Explaining variation in relations among intrinsic religiosity, political conservatism, and homonegativity as a function of authoritarianism's three components: An expansion on recent literature. *Sexuality Research and Social Policy, 10*(2), 97-109.
- Pelham, B. W., & Swann, W. B., Jr. (1989). From self-conceptions to self-worth: On the sources and structure of global self-esteem. *Journal of Personality and Social Psychology, 57*, 672-680.
- Peter, T., Taylor, C., & Chamberland, L. (2015). A queer day in Canada: Examining Canadian high school students' experiences with school-based homophobia in two large-scale studies. *Journal of Homosexuality, 62*(2), 186-206.
- Pettigrew, T. F., & Tropp, L. R. (2000). Does intergroup contact reduce prejudice? Recent meta-analytic findings. *Reducing Prejudice and Discrimination, 93*, 114.
- Poteat, V. P., & Espelage, D. L. (2007). Predicting psychosocial consequences of homophobic victimization in middle school students. *The Journal of Early Adolescence, 27*(2), 175-191.
- Poteat, V. P., Yoshikawa, H., Calzo, J. P., Gray, M. L., DiGiovanni, C. D., Lipkin, A., ... & Shaw, M. P. (2015). Contextualizing gay-straight alliances: Student, advisor, and structural factors related to positive youth development among members. *Child Development, 86*(1), 176-193.

- Prati, G., Pietrantoni, L., & D'augelli, A. R. (2011). Aspects of homophobia in Italian high schools: Students' attitudes and perceptions of school climate. *Journal of Applied Social Psychology, 41*, 2600-2620.
- Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology, 67*, 741–763.
- Price, J. H. (1982). High school students' attitudes toward homosexuality. *Journal of School Health, 52*, 469-474.
- Rieger, G., Chivers, M. L., & Bailey, J. M. (2005). Sexual arousal patterns of bisexual men. *Psychological Science, 16*, 579–584.
- Riganello, F., Candelieri, A., Quintieri, M., & Dolce, G. (2010). Heart rate variability, emotions, and music. *Journal of Psychophysiology, 24*, 112–119.
- Roberton, T., Daffern, M., & Bucks, R. S. (2014). Maladaptive emotion regulation and aggression in adult offenders. *Psychology, Crime & Law, 20*(10), 933-954.
- Roderick, T., McCammon, S. L., Long, T. E., & Allred, L. J. (1998). Behavioural aspects of homonegativity. *Journal of Homosexuality, 36*, 79-88.
- Romero, D. H., Morera, O. F., & Wiebe, J. S. (2015). Assessing the gender invariance of the Modern Homonegativity Scale. *Journal of Homosexuality, 62*(11), 1539-1559.
- Rowatt, W. C., Tsang, J. A., Kelly, J., LaMartina, B., McCullers, M., & McKinley, A. (2006). Associations between religious personality dimensions and implicit and explicit homosexual prejudice. *Journal for the Scientific Study of Religion, 45*, 397-406.

- Ruuttu, T., Pelkonen, M., Holi, M., Karlsson, L., Kiviruusu, O., Heilä, H., & Marttunen, M. (2006). Psychometric properties of the Defense Style Questionnaire (DSQ-40) in adolescents. *The Journal of Nervous and Mental Disease, 194*(2), 98-105.
- Rye, B. J. & Meaney, G. J. (2010). Measuring homonegativity: A psychometric analysis. *Canadian Journal of Behavioural Science, 42*, 158-167.
- Salzman, L. (1957). The concept of latent homosexuality. *American Journal of Psychoanalysis, 17*, 161-170.
- Saunders, D. M., Fisher, W. A., Hewitt, E. C., & Clayton, J. P. (1985). A method for empirically assessing volunteer selection effects: Recruitment procedures and responses to erotica. *Journal of Personality and Social Psychology, 49*, 1703–1712.
- Schachter, S., & Singer, J. (1962). Cognitive, social, and physiological determinants of emotional state. *Psychological Review, 69*, 379.
- Schafer, J. L., & Olsen, M. K. (1998). Multiple imputation for multivariate missing-data problems: A data analyst's perspective. *Multivariate Behavioral Research, 33*(4), 545-571.
- Schwartz, J. P., & Lindley, L. D. (2005). Religious fundamentalism and attachment: Prediction of homophobia. *International Journal for the Psychology of Religion, 15*, 145-157.
- Sharifzadeh, B. (2009). *The impact of anxiety on subjective and physiological sexual arousal*. (Unpublished doctorate thesis). Concordia University, Montreal, Quebec.
- Shields, S. A., & Harriman, R. (1984). Fear of male homosexuality: Cardiac responses of low and high homonegative males. *Journal of Homosexuality, 10*, 53-67.

- Sjöberg, L., Svensson, E., & Persson, L. O. (1978). Konstruktion av metoder för mätning av stämningsläge. *Department of Psychology, Univ. of Gothenburg, Sweden.*
- Smith, R. M., Parrott, D. J., Swartout, K. M., & Tharp, A. T. (2015). Deconstructing hegemonic masculinity: The roles of antifemininity, subordination to women, and sexual dominance in men's perpetration of sexual aggression. *Psychology of Men & Masculinity, 16*(2), 160.
- Snowden, R. J., Wichter, J., & Gray, N. S. (2008). Implicit and explicit measurements of sexual preference in gay and heterosexual men: A comparison of priming techniques and the implicit association task. *Archives of Sexual Behavior, 37*, 558–565.
- Spence, J. T., Helmreich, R., & Stapp, J. (1973). A short version of the Attitudes toward Women Scale (AWS). *Bulletin of the Psychonomic Society, 2*, 219-220.
- Spielberger, C. D. (1996). *Manual for the State-Trait Anger Expression Inventory (STAXI)*. Odessa, FL: Psychological Assessment Resources.
- Spielberger, C., Gorsuch, R., & Lushene, R. (1970). *Manual for the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Stevenson, R. J., Case, T. I., & Oaten, M. J. (2011). Effect of self-reported sexual arousal on responses to sex-related and non-sex-related disgust cues. *Archives of Sexual Behaviour, 40*, 79-85.
- Stöber, J. (1999). The Social Desirability Scale-17 (SDS-17): Development and first results on reliability and validity. *Diagnostica, 45*, 173-177.

- Stöber, J. (2001). The Social Desirability Scale-17 (SDS-17): Convergent validity, discriminant validity, and relationship with age. *European Journal of Psychological Assessment, 17*(3), 222.
- Strassberg, D. S., & Lowe, K. (1995). Volunteer bias in sexuality research. *Archives of Sexual Behavior, 24*(4), 369-382.
- Suschinsky, K. D. (2006). *An examination of psychophysiological measures of sexual arousal* (Unpublished doctoral dissertation), University of Lethbridge, Lethbridge, Alberta.
- Suschinsky, K., Lalumière, M., & Chivers, M. (2009). Sex differences in patterns of genital arousal: Measurement artifacts or true phenomenon. *Archives of Sexual Behaviour, 38*, 559-573.
- Tapias, M. P., Glaser, J., Keltner, D., Vasquez, K., & Wickens, T. (2007). Emotion and prejudice: Specific emotions toward outgroups. *Group Processes and Intergroup Relations, 10*, 27-39.
- Theodore, P. S., & Basow, S. A. (2000). Heterosexual masculinity and homophobia: A reaction to the self? *Journal of Homosexuality, 40*, 31-48.
- Toledano, R., & Pfaus, J. (2006). The Sexual Arousal and Desire Inventory (SADI): A multidimensional scale to assess subjective sexual arousal and desire. *The Journal of Sexual Medicine, 3*(5), 853-877.
- Trinder, K. (2008) *Predicting homonegative behaviour: A cognitive or affective enterprise?* (Unpublished master's thesis). University of Saskatchewan, Saskatoon, Saskatchewan.

- Turcotte, M. (2015). Political participation and civic engagement of youth. *Statistics Canada*.
- Turner, R. N., Crisp, R. J. & Lambert, E. (2007). Imagining intergroup contact can improve intergroup attitudes. *Group Processes Intergroup Relations*, 10, 427-441.
- Vanman, E. J., Paul, B. Y., Ito, T. A., & Miller, N. (1997). The modern face of prejudice and structural features that moderate the effect of cooperation on affect. *Journal of Personality and Social Psychology*, 73, 941-959.
- Van de Ven, P. (1995). Effects on high school students of a teaching module for reducing homophobia. *Basic and Applied Social Psychology*, 17(1-2), 153-172.
- Van de Ven, P., Bornholt, L., & Bailey, M. (1996). Measuring cognitive, affective, and behavioral components of homophobic reaction. *Archives of Sexual Behavior*, 25, 155-179.
- Van den Akker, H., Van der Ploeg, R., & Scheepers, P. (2013). Disapproval of homosexuality: Comparative research on individual and national determinants of disapproval of homosexuality in 20 European countries. *International Journal of Public Opinion Research*, 25(1), 64-86.
- Vincent, W., Parrott, D. J., & Peterson, J. L. (2011). Combined effects of masculine gender-role stress and sexual prejudice on anger and aggression toward gay men. *Journal of Applied Social Psychology*, 41(5), 1237-1257.
- Vos, P., De Cock, P., Munde, V., Petry, K., Van Den Noortgate, W., & Maes, B. (2012). The tell-tale: What do heart rate, skin temperature, and skin conductance reveal about emotions of people with severe and profound intellectual disabilities? *Research in Developmental Disabilities*, 33(4), 1117-1127.

- Walsh, W. B., & Betz, N. E. (1995). *Tests and assessment*. Prentice-Hall, Inc.
- Watson, D., & Clark, L. A. (1994). *Manual for the positive and negative affect schedule-Expanded form*. (Unpublished manuscript). University of Iowa, Iowa City.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, *54*, 1063.
- Weinstein, N., Ryan, W. S., DeHaan, C. R., Przybylski, A. K., Legate, N., & Ryan, R. M. (2012). Parental autonomy support and discrepancies between implicit and explicit sexual identities: Dynamics of self-acceptance and defense. *Journal of Personality and Social Psychology*, *102*, 815–832.
- Whitley, B. E. (2001). Gender-role variables and attitudes toward homosexuality. *Sex Roles*, *45*, 691–721.
- Whitley, B. E. (2009). Religiosity and attitudes towards lesbians and gay men: A meta-analysis. *International Journal for the Psychology of Religion*, *19*, 21-38.
- Wiederman, M. W. (1999). Volunteer bias in sexuality research using college student participants. *Journal of Sex Research*, *36*(1), 59-66.
- Wilcox, C., & Norrander, B. (2002). Of moods and morals: The dynamics of opinion on abortion and gay rights. *Understanding Public Opinion*, *2*, 121-48.
- Wilkinson, W. W. (2004). Religiosity, authoritarianism, and homophobia: A multidimensional approach. *International Journal for the Psychology of Religion*, *14*, 55-67.
- Wilkinson, W. W. (2004). Authoritarian hegemony, dimensions of masculinity, and male antigay attitudes. *Psychology of Men & Masculinity*, *5*(2), 121.

- Wilkowski, B. M., & Robinson, M. D. (2010). The anatomy of anger: An integrative cognitive model of trait anger and reactive aggression. *Journal of Personality, 78*, 9–38.
- Wolchik, S. A., Beggs, V. E., Wincze, J. P., Sakheim, D. K., Barlow, D. H., & Mavissakalian, M. (1980). The effect of emotional arousal on subsequent sexual arousal in men. *Journal of Abnormal Psychology, 89*, 595-598.
- Wolchik, S. A., Braver, S. L., & Jensen, K. (1985). Volunteer bias in erotica research: Effects of intrusiveness of measure and sexual background. *Archives of Sexual Behavior, 14*, 93–107.
- Wolpe, J. (1958). *Psychotherapy by reciprocal inhibition*. Palo Alto, CA: Stanford University Press.
- Worthington, R. L., & Whittaker, T. A. (2006). Scale development research: A content analysis and recommendations for best practices. *The Counseling Psychologist, 34*(6), 806-838.
- Wright, L. W., Adams, H. E., & Bernat, J. A. (1999). The homophobia scale: Development and validation. *Journal of Psychopathology and Behavioural Assessment, 21*, 337-347.
- Zeichner, A., & Reidy, D. E. (2009). Are homophobic men attracted to or repulsed by homosexual men? Effects of gay male erotica on anger, fear, happiness, and disgust. *Psychology of Men & Masculinity, 10*, 231-236.
- Zuckerman, M., & Lubin, B. (1965). *Manual for the multiple affect adjective check list*. San Diego: Educational and Industrial Testing Service.

Appendix A

Principle Component Analysis of the ARHS

The Affective Reactions to Homosexuality Scale (ARHS; Ernulf & Innala, 1987; Innala & Ernulf, 1992) requires participants to read a scenario containing gay male-related content and then rate the degree to which 15 adjectives pertain to their reactions to the scenario using a 4-point scale ranging from 1 (“*not at all*”) to 4 (“*very much*”). The 15 adjectives used to assess participant’s responses to the scenario were: embarrassed, guilty, ashamed, frightened, awkward, angry, despising, disgusted, contented, satisfied, encouraged, enlightened, happy, proud, and accepting. The original scenario (Ernulf & Innala, 1987; Innala & Ernulf, 1992) was modified in the present study to make the content more “relatable” to the target population (i.e., university students). This modified scenario was piloted among 10 randomly selected individuals and all 15 adjectives used with the original scenario were endorsed to some degree and therefore retained for the modified version. Participants in the pilot study were also given the option of providing another adjective they believed more appropriately reflected their affective response to the scenario. All 10 individuals identified the adjective “surprised” as a response to the scenario and therefore it was included in the final modified version of the ARHS as the 16th adjective.

Prior to calculating the descriptive data and inter-correlations between the different measures used in Study 1, it was considered prudent to implement a principle component analysis (PCA) on the Affective Reactions to Homosexuality Scale (ARHS) given the nature of the revisions to the scenario (e.g., moving away from a “coming out” scenario where participants would assume the role of the parent, to witnessing two gay men engaged in sexual activity in a public washroom) used in the present study. A PCA is used to reduce data into a set of linear variates or components (Field, 2009). Therefore, a PCA was considered the most appropriate analysis for assessing for possible underlying components in the revised scenario because it would allow for adjectives that may not be pertinent to the revised scenario to be removed.

Testing Assumptions for the PCA on the ARHS

Principle component analysis is a parametric test which assumes a normal distribution in the data (Field, 2009). As such, this and other assumptions (i.e., sufficient

sample size, sufficient intercorrelations, singularity) have been analyzed. In order to assess whether the distribution of each variable significantly differed from a normal distribution, their graphical representations were examined. Because of the large sample size (i.e., > 200), it is more valuable to use this approach than to calculate the significance of the skewness value because even small deviations from normality will inflate the standard error and therefore overestimate its significance (Field, 2009).

Skewness histograms were plotted for each individual item, of which there were 16. These items were analyzed across the entire sample and separately by sex of participant. Overall, none of the items displayed normally distributed data; Items 1 (Embarrassed), 5 (Awkward), and 16 (Surprised) were negatively skewed, while the remaining items were all positively skewed (i.e., based on visual examination of histograms; Field, 2009). Splitting the data by sex of participant did not correct the skewness observed so a log transformation and a square root transformations were attempted separately with all of the items to see which would yield the most normally distributed data. These transformations are traditionally used only on positively skewed data; however, in order for the ARHS items to remain on the same scale (e.g., 4-point Likert scale) they were applied to the negatively skewed items as well (Field, 2009). After inspecting the histograms generated following the transformations, it was determined, based on visual comparison, that the transformations did not significantly improve the data's normality. Therefore, the original raw data was used in the PCA because the "sampling distribution tends to be normal... regardless of the shape of the data actually collected" in large samples (i.e., >30) (Field, 2009, p. 134). Furthermore, factor analyses (i.e., PCA) are considered robust tests (i.e., provide a stable factor solution) when applied to large samples (i.e., over 300 participants) (Field, 2009).

A preliminary PCA with an oblique rotation (i.e., direct oblim, to allow for components to correlate) was conducted in order to determine which items should be retained after component loadings and cross-loading criteria were considered. Based on Worthington and Whittaker's (2006) criteria, the minimum acceptable component loading for the initial PCA was .50, with no cross loadings greater than .32. As such, three adjectives (i.e., Frightened, Embarrassed, and Accepting) were removed, and the remaining 13 adjectives were retained. The analysis was re-run with the remaining

adjectives. Bartlett's test of sphericity was statistically significant ($p < .001$) and the KMO statistic was .75 (.70-.80 is "good" according to Field, 2009), suggesting that a PCA was appropriate for the data. The eigenvalues indicated that 4 components had values over one and examination of the inflexion on the screeplot also indicated that 2 or 4 components should be retained. Retention of 4 components was also consistent with the parallel analysis. Based on the convergence of these criteria (i.e., eigenvalues, screeplot, and parallel analysis) on 4 components, this is the number of components that were retained in the final analysis. Table A.1 shows the factor loadings after rotation for the final component solution which accounted for 66.63% of the total variance. The items that cluster on the same components suggest that component 1 represents positive affective reactions toward gay men and component 2 reflects negative affective reactions toward gay men. Although these two components are similar to the original "delight" and "homophobic anger" factors identified by Innala & Ernulf (1992) the descriptors of "positive" and "negative" were adopted to better reflect the adjectives encompassed by each component, rather than one specific affective state (i.e., anger). Component 3 consists of feelings of disgrace about gay men (i.e., guilt and shame), and component 4 reflects discomposure in response to gay men (i.e., surprise and awkward).

Table A.1
 Summary of Principle Component Analysis for the Affective Reactions to
 Homosexuality Scale- Modified (N= 710)

Items	“Positive”	“Negative”	“Disgrace”	“Discomposure”
Encouraged	.80	.07	.04	-.04
Satisfied	.80	.08	.02	-.13
Happy	.79	-.13	-.10	.05
Proud	.79	-.10	-.05	.02
Enlightened	.73	-.04	-.02	.10
Contented	.49	.26	.23	-.07
Angry	.04	.87	-.05	.00
Despising	.01	.83	.09	-.06
Disgusted	-.11	.81	-.09	.17
Guilty	.01	-.21	.92	.08
Ashamed	-.05	.16	.82	-.02
Surprised	.09	-.04	-.02	.87
Awkward	-.08	.14	.09	.78
Eigenvalues	3.43	2.55	1.39	1.29
% of Variance	26.41	19.63	10.69	9.90

Appendix B

Factor Analyses of the ABI Motivations

Using an exploratory factor analysis (with an oblique rotation) on the original 89-item inventory, Franklin (2000) identified four factors underlying the motivations of “assailants” (i.e., peer dynamics, anti-gay ideology, thrill-seeking, and self-defense) which, together, accounted for 64% of the total variance. When Franklin (2000) analyzed assailants separately based on whether they engaged in verbal name calling only versus engaging only in physical assaults, the motivations endorsed by “name callers” fell into the same factors as those identified in the overall assailant analysis (i.e., peer dynamics, anti-gay ideology, thrill-seeking, and self-defense). However, two additional factors (i.e., sexual identity display [*“to prove I’m not gay”*]) and previous bad experiences) arose among men who reported engaging only in physical aggression (i.e., physical-only assailants). Furthermore, the anti-gay ideology factor also separated out into two distinct factors (i.e., hatred and moral values). Taken together, the six factors for the physical-only assailants accounted for 77% of the variance in motivations for anti-gay behaviours. For the non-assailants, four factors emerged which were: fear-avoidance (e.g., *“Because I might get in trouble”*), non-violence (e.g., *“Because I am against violence”*), personal contact (e.g., *“Because I have friends who are gay”*), and moral beliefs (e.g., *“Because of my religious beliefs”*). The total variance accounted for was not reported (Franklin, 2000).

A shorter 56-item inventory of the ABI was adapted for the present study in order to reduce the amount of superfluous information (e.g., descriptive information such as the individual’s age at the time of each incident). Further items were modified to specify motivations for engaging in anti-gay behaviour targeting *gay men*, while the original referred to motivations towards *homosexuals*. Given the limited amount of research conducted on the ABI and the modification of items included in the current study, two exploratory factor analyses were conducted to determine what underlying factors were present in the current data for assailants and non-assailants.

Prior to calculating the descriptive data and inter-correlations between the different measures used in Study 1, it was considered prudent to conduct two exploratory factor analyses (EFAs) on the motivations of individuals who reported engaging in anti-

gay behaviours and those who did not on the ABI. An EFA was selected because the motivation items used in the present study were altered to specify motivations for engaging in anti-gay behaviour targeting *gay men*, while the original referred to motivations towards *homosexuals*. This change in language made the items conceptually different (Herek, 2000). Therefore, the underlying factors found by Franklin (2000) for assailants (i.e., peer dynamics, anti-gay ideology, thrill seekers, and self-defense) and non-assailants (i.e., Fear-avoidance, non-violence, personal-contact, and moral beliefs) may not be reflected in the current data. Further, in Franklin's (2000) original factor analysis, factor loading and cross-loading criteria was not applied therefore some motivations may not contribute significantly to the latent factors.

Exploratory factor analyses are parametric tests which assume a normal distribution in the data (Field, 2009). As such, this and other assumptions (i.e., sufficient sample size, sufficient intercorrelations, singularity) were analyzed. Seventy two individuals (23 females, 49 males) reported engaging in at least one type of anti-gay behaviour (e.g., name calling, hitting a gay man). Kass and Tinsley (1979) recommended having between 5 and 10 participants per item. Based on the low end of this recommendation (i.e., 5 participants per item) and the 19 motivations/items included in for the assailants, a minimum of 95 participants would be considered acceptable to perform an EFA. As such, the 72 participants who reported engaging in anti-gay behavior in Study 1 did not meet the criteria (i.e., 95 participants). However, before an EFA was determined unsuitable, a correlation matrix of the items was examined to determine if all items would be retained for the analysis based on the criteria that they needed to display correlations of .3 or more with some of the other items (Field, 2009). Based on this criteria, four items were removed from the analysis (i.e., "To feel strong", "Because I was actually angry at someone else", "Because the gay man started the fight", and "Because my friends expected me to") because they did not correlate with any other items over .30. Therefore, 15 of the original 19 motivations for the engagement in anti-gay behaviours were retained. In reconsidering Kass and Tinsley's (1979) criteria (i.e., 5 participants per item), a minimum of 75 participants would be considered acceptable to perform an EFA on the retained 15 items. Given the close proximity of the cut off (i.e., 75) to the number of participants who engaged in anti-gay behaviours (i.e., 72), an EFA was conducted. It

should be noted that Gauadagnoli and Velicer (1988) indicated that, if a factor has four or more loadings greater than .6 then it is a reliable factor regardless of the sample size.

As for the normality of the distributions for each item, the original raw data was used in the factor analysis, despite the significant positive skewness of all the items, on the basis that in large samples (i.e., >30) the “sampling distribution tends to be normal... regardless of the shape of the data actually collected” (Field, 2009, p. 134). However, in the event that normality does impact the analysis, a principle axis factor (PAF) analysis was used as a method of extraction because it does not assume normality (Costello & Osborne, 2005; Fabrigar, Wegener, MacCallum, & Strahan, 1999).

EFA on the ABI- Assailants' Motivations

A preliminary EFA was conducted in order to determine which items should be retained after factor loading and cross-loading criteria were considered. PAF was used as the method of extraction and an oblique rotation (i.e., direct oblim) was selected to allow for the factors to correlate (Field, 2009). Based on Worthington and Whittaker's (2006) criteria, the minimum acceptable factor loading was .50 with no cross loading greater than .32. As such, four items (i.e., “Because I hate gay men,” “Because gay men disgust me,” “Because of my religious belief,” and “Because of the opinions of people I respect”) were removed and 11 motivations of the original 19 were retained. Parallel analysis indicated a three-factor solution should be retained based on the first three eigenvalues of the data being greater than the 95th percentile criteria of the randomly generated data sets (Hayton, Allen, & Scarpello, 2004; O'Connor, 2000). The eigenvalues after rotation and the screeplot were consistent with the parallel analysis, indicating a three-factor solution. When the remaining 11 motivations were forced into a three factor solution as indicated by the parallel analysis and eigenvalues, “Because gay men spread AIDS” did not significantly load (>.50) on any of the factors.

The final analysis consisted of 10 of the original 19 motivations and items loaded on three factors as indicated by the parallel analysis, eigenvalues and screeplot. Bartlett's test of sphericity was statistically significant ($p < .001$) and the KMO statistic was .69 (.70 is “good” according to Field, 2009), suggesting that an EFA was suitable for the data. Table A.2 shows the factor loadings after rotation for the final factor solution which accounted for 55.04% of the total variance. The items that clustered on the same

factor suggest that factor 1 represented motivations associated with gaining status (i.e., get money, demonstrate toughness), factor 2 represented motivations associated with anti-gay ideology (i.e., moral beliefs), and factor 3 represented motivations associated with thrill-seeking.

EFA on the ABI- Non-assailants' Motivations

Testing Assumptions

Exploratory factor analyses are parametric tests which assume a normal distribution in the data (Field, 2009). As such, this and other assumptions (i.e., sufficient sample size, sufficient intercorrelations, singularity) were analyzed. Of the individuals who completed the online questionnaire, 629 (290 women, 339 men) reported never engaging in any anti-gay behaviours on the ABI. As such, this sample is sufficiently large enough to conduct an EFA (i.e., > 300, Field, 2009). Furthermore, due to the large sample size an EFA can be conducted using principle axis factoring (PAF) regardless of the distribution of the data for each item (Costello & Osborne, 2005; Fabrigar, Wegener, MacCullum, & Strahan, 1999).

A correlation matrix of the items was analyzed to assess for sufficient correlations (i.e., >.30) among the items (Field, 2009). The only item without one or more correlations with other items over .30 was the "...of my religious beliefs" item. Another item not included in the analysis was "... I myself am gay," because all of the participants were self-identified heterosexuals. In sum, 13 motivations were included in the preliminary EFA.

Data Analysis- Non-Assailant Motivations

An exploratory factor analysis was selected given the revised language in the ABI items (i.e., gay men vs. homosexuals) and the interest in identifying underlying factors present in the current data. As mentioned above, PAF was used as the method of extraction and an oblique rotation (i.e., direct oblim) was selected to allow the factors to correlate (Field, 2009).

A preliminary EFA was conducted in order to determine which items should be retained after factor loading and cross-loading criteria were considered. A minimum acceptable factor loading was .50, with no cross loading greater than .32 (Worthington & Whittaker, 2006). As such, five items (i.e., "I might get hurt", "I have friends that are

gay”, “a gay person has never approached me in a threatening way”, I have family members who are gay”, and “I avoid places gay people might be”) were removed. The remaining eight items were entered into the EFA to determine the number of factors that would ultimately be retained. When the rotated matrix was analysed it was determined that three additional items (i.e., “I might get AIDS,” “I am against violence,” and “I do not want to get in trouble with the authorities”) should be removed due to low factor loadings (i.e., $<.50$) and high crossloadings (i.e., $>.32$). The final analysis revealed that the 5 remaining items loaded on two factors. Bartlett’s test of sphericity was statistically significant ($p < .001$) and the KMO statistic was .76 (.70-.80 is “good” according to Field, 2009), suggesting that an EFA was appropriate for the data. One factor had an eigenvalues over Kaiser’s criteria of 1 and one factor had an eigenvalue below Kaiser’s criteria (.89) and in combination explained 39.53% of the variance. The screeplot and the parallel analysis clearly indicated a two factor solution should be retained and because we have a sample significantly larger than 200 the screeplot can be considered a reliable indicator (Field, 2009). Therefore, the two factor solution was accepted. Table A.3 shows the factor loadings after rotation for the final factor solution. The items that cluster on the same components suggest that factor 1 represents contact with gay men and factor 2 represented personal values.

Table A.2

Summary of Exploratory Factor Analysis for the Anti-gay Behaviour Inventory of Assailants' Motivations (N= 72; *n* for Men = 49; *n* for Women = 23)

Items	"Gain Status"	"Antigay Ideology"	"Thrill Seeking"
I did it to show my friends I am tough.	.87	-.08	.10
I did it because the gay man looked like he had a lot of money.	.80	.15	.12
I did it to prove I am not gay.	.69	.01	-.13
I did it to feel closer to my friends.	.61	-.12	-.27
I did it because of my moral beliefs.	.23	.81	.01
I did it because I don't want gay men in my neighborhood	-.05	.64	-.00
I did it because of previous bad experiences with gay men.	-.09	.59	-.06
I did it for excitement.	-.05	-.10	-.91
To have fun.	.19	-.00	-.61
I did it because I was bored.	-.07	.18	-.58
Eigenvalues	2.65	1.62	1.23
% of Variance	26.52	16.18	12.34

Table A.3

Summary of Exploratory Factor Analysis for the Anti-gay Behaviour Inventory of Non-Assailants' Motivations ($N= 629$; n for Men = 339; n for Women = 290)

Items	"Contact with gay men"	"Personal values"
I have never harassed or beaten up a gay man because there are no gay people in my neighborhood.	.78	-.01
I have never harassed or beaten up a gay man because I never see gay people.	.67	.01
I have never harassed or beaten up a gay man because I believe gay people have the right to be left alone.	-.04	.59
I have never harassed or beaten up a gay man because of my moral beliefs.	.03	.58
I have never harassed or beaten up a gay man because I am against violence	.01	.51
Eigenvalues	1.09	.89
% of Variance	21.74	17.79

Appendix D

Study 1 Recruitment Bulletin Post

Research Opportunity

If you are a heterosexual man or woman between the ages of 17 and 35 years old, you are invited to complete a questionnaire on social attitudes and behaviours. The purpose of the questionnaire is to determine the prevalence of and relationship between attitudes and behaviors, as well as the underlying motivations for them. This questionnaire will take approximately 20 minutes to complete.

Participants can access the questionnaire at the following link:

<http://fluidsurveys.usask.ca/s/attitudessurvey/>

Or, if you are registered in a course that provides credit for research participation, you may access the questionnaire on the student participant pool website.

Please do not complete the questionnaire more than once.

Thank you.

For more information, contact:

llt632@mail.usask.ca

Appendix E

Study 1 Online Consent Form

You are invited to participate in a research study entitled “Affective, Cognitive and Behavioural Components of Homonegativity.” Please read the following information carefully.

Researchers: Dr. Melanie Morrison, University of Saskatchewan, Department of Psychology, melanie.morrison@usask.ca, (306) 966-2564
Lesley Terry, University of Saskatchewan, Department of Psychology, l1t632@mail.usask.ca, (306) 966-1773

Purpose and Procedure: The purpose of the research program is to determine if there is a relationship between social attitudes and sexual arousal to various forms of stimuli. The portion that you are involved in consists of completing a questionnaire, which is one component of the larger research program. Specifically, this questionnaire examines the evaluations, feelings, and behaviours of heterosexual men towards gay men. Once you have completed the following questionnaire, you will be invited to provide your contact information for the opportunity to be contacted to participate in additional studies.

Potential Benefits: There are no direct benefits to you for participating in this study. Your participation will, however, inform future research examining homonegativity and its linkage to sexual arousal.

Potential Risks: Some questions may be uncomfortable to answer due to their sensitive nature. As such, you may leave questions blank if you are uncomfortable responding to them. However, if you do provide a response to a given question, we encourage you to answer as honestly as possible.

Storage of Data: In order to protect your confidentiality, your responses will be saved on a non-network, password-protected computer.

Confidentiality: All of the information that you provide on the questionnaire will be stored anonymously. You will be assigned an identification number and all information you provide will only be identified by this number, not your name. Your name will never be mentioned in any publications, papers, or presentations that come from this study. Furthermore, your data will not be analyzed individually but will be combined with other participants’ data in order to obtain a global picture.

Right to Withdraw: Your participation in this study is completely voluntary. As such,

you may withdraw from the research project for any reason, without penalty of any sort. To withdraw from the study, simply exit out of the window and your data will be destroyed.

Questions: If you have any questions concerning the research project, please feel free to contact the researchers at the numbers provided (see above). This research project was approved on ethical grounds by the University of Saskatchewan Behavioural Research Ethics Board on January 30th, 2012. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics Office: ethics.office@usask.ca or (306) 966-2975. Out of town participants may call toll free (888) 966-2975.

Follow-Up: If you have any questions about this study during or following your participation or would like information about the results of the study, please contact the student researcher, Lesley Terry, at the University of Saskatchewan: (306) 966-1773.

Consent to Participate: I have read and understood the description provided. I consent to participate in the research project, understanding that I may withdraw my consent at any time.

Appendix F

Study 1 Complete Online Questionnaire

Demographic Information

1. My age is: _____(yrs)
2. My sex is: Male___ Female___ Transgender FTM___ Transgender MTF___
3. My academic major is: (please specify) _____
4. My ethnic background is: (*please select one*)
 - ___ Aboriginal (e.g., First Nations, Inuit, Métis)
 - ___ Black (e.g., African, African American, African Canadian, Caribbean)
 - ___ East Asian (e.g., Chinese, Japanese, Korean, Polynesian)
 - ___ South Asian (e.g., Indian, Pakistani, Sri Lankan, Bangladeshi)
 - ___ Southeast Asian (e.g., Burmese, Cambodian, Filipino, Laotian, Malaysian, Thai, Vietnamese)
 - ___ Latin American (e.g., Mexican, Indigenous Central and South American)
 - ___ West Asian (e.g., Arabian, Armenian, Iranian, Israeli, Lebanese, Palestinian, Syrian, Turkish)
 - ___ White/Caucasian
 - Other (please specify) _____
5. By my own definition, I would consider myself to be:
 - ___ Very liberal
 - ___ Liberal
 - ___ Somewhat liberal
 - ___ Somewhat conservative
 - ___ Conservative
 - ___ Very conservative

6. I attend religious services (*e.g., in a church, synagogue, mosque, etc.*):

- Regularly
- Now and then
- On special occasions
- Never

7. By my own definition, I am:

- Very religious
- Quite religious
- Somewhat religious
- Not at all religious

8. By my own definition, I would consider myself to be:

- Exclusively heterosexual
- Primarily heterosexual
- More heterosexual than homosexual
- Bisexual
- More homosexual than heterosexual
- Primarily homosexual
- Exclusively homosexual
- If other, please specify: _____

9. I am currently:

- Single
- Dating
- Common-law
- Married
- Separated

___ Divorced

___ If other, please specify: _____

10. The average income in my (parent's) household before taxes is:

___ Less than \$10,000

___ \$10,001 - \$19, 999

___ \$20,000 – 29,999

___ \$30,000 – 39,999

___ \$40,000 – 49,999

___ \$50,000 – 59,999

___ \$60,000 – 69,999

___ \$70,000 – 79,999

___ \$80,000 – 89,999

___ \$90,000 – 99,999

___ \$100,000 or more

**Attitudes Toward Gay Men Scale
(ATG; Herek, 1988)**

Using the scale below, please indicate the extent to which you agree or disagree with each statement.

1. Male homosexual couples should be allowed to adopt children the same as heterosexual couples.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

2. Just as in other species, male homosexuality is a natural expression of sexuality in human men.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

3. The idea of male homosexuality marriages seems ridiculous to me.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

4. Male homosexuality is a perversion.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

5. If I had a son, I would not be too upset if I learned that he was homosexual.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

6. If a man has homosexual feelings, he should do everything he can to overcome them.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

7. Homosexual behavior between two men is just plain wrong.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

8. Male homosexuals should not be allowed to teach at schools.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

9. I think male homosexuals are disgusting.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

10. Male homosexuality is merely a different kind of lifestyle that should not be condemned.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly Agree

**Modern Homonegativity Scale-Gay Men
(MHS-G; Morrison & Morrison, 2002)**

Using the scale below, please indicate the extent to which you agree or disagree with each statement.

1. Many gay men use their sexual orientation so that they can obtain special privileges.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly Agree

2. Gay men seem to focus on the ways in which they differ from heterosexuals and ignore the ways in which they are the same.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly Agree

3. Gay men do NOT have all the rights they need.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly Agree

4. The notion of universities providing students with undergraduate degrees in Gay and Lesbian studies is ridiculous.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly Agree

5. Celebrations such as "gay pride day" are ridiculous because they assume an individual's sexual orientation should constitute a source of pride.

1-----2-----3-----4-----5

- | | | | | | |
|--|----------------------|----------|------------|-------|-------------------|
| | Strongly
Disagree | Disagree | Don't Know | Agree | Strongly
Agree |
|--|----------------------|----------|------------|-------|-------------------|
6. Gay men should stop shoving their lifestyle down other people's throats.
- 1-----2-----3-----4-----5
- | | | | | | |
|--|----------------------|----------|------------|-------|-------------------|
| | Strongly
Disagree | Disagree | Don't Know | Agree | Strongly
Agree |
|--|----------------------|----------|------------|-------|-------------------|
7. Gay men should stop complaining about the way they are treated in society and simply get on with their lives.
- 1-----2-----3-----4-----5
- | | | | | | |
|--|----------------------|----------|------------|-------|-------------------|
| | Strongly
Disagree | Disagree | Don't Know | Agree | Strongly
Agree |
|--|----------------------|----------|------------|-------|-------------------|
8. Gay men have become far too confrontational in their demand for equal rights.
- 1-----2-----3-----4-----5
- | | | | | | |
|--|----------------------|----------|------------|-------|-------------------|
| | Strongly
Disagree | Disagree | Don't Know | Agree | Strongly
Agree |
|--|----------------------|----------|------------|-------|-------------------|
9. In today's tough economic times, tax payers' money should not be used to support gay organizations.
- 1-----2-----3-----4-----5
- | | | | | | |
|--|----------------------|----------|------------|-------|-------------------|
| | Strongly
Disagree | Disagree | Don't Know | Agree | Strongly
Agree |
|--|----------------------|----------|------------|-------|-------------------|
10. If gay men want to be treated like everyone else then they need to stop making such a fuss about their sexuality or culture.
- 1-----2-----3-----4-----5
- | | | | | | |
|--|----------------------|----------|------------|-------|-------------------|
| | Strongly
Disagree | Disagree | Don't Know | Agree | Strongly
Agree |
|--|----------------------|----------|------------|-------|-------------------|
11. Gay men still need to protest for equal rights.
- 1-----2-----3-----4-----5
- | | | | | | |
|--|----------------------|----------|------------|-------|-------------------|
| | Strongly
Disagree | Disagree | Don't Know | Agree | Strongly
Agree |
|--|----------------------|----------|------------|-------|-------------------|
12. Gay men who are "out of the closet" should be admired for their courage.
- 1-----2-----3-----4-----5
- | | | | | | |
|--|----------------------|----------|------------|-------|-------------------|
| | Strongly
Disagree | Disagree | Don't Know | Agree | Strongly
Agree |
|--|----------------------|----------|------------|-------|-------------------|

Self-Report Behavior Scale – Revised
(SBS-R; Roderick, McCammon, Long, & Allred, 1998)

Circle the number on the scale provided that best reflects how frequently you engage(d) in each behavior described.

1. I have spread negative talk about someone because I suspected that he was a gay man.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

2. I have participated in playing jokes on someone because I suspected that he was a gay man.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

3. I have changed roommates and/or rooms because I suspected my roommate to be a gay man.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

4. I have warned men whom I thought were gay and who were a little too friendly with me to keep away from me.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

5. I have attended anti-gay protests.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

6. I have been rude to someone because I thought that he was a gay man.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

7. I have changed seat locations because I suspected the man sitting next to me to be gay.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

8. I have had to force myself to stop from hitting someone because he was gay and very near me.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

9. When someone I thought to be gay has walked towards me as if to start a conversation, I have deliberately changed directions and walked away to avoid him.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

10. I have stared at a gay man in such a manner as to convey to him my disapproval of his being too close to me.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

11. I have been with a group in which one (or more) person(s) yelled insulting comments to a gay man or group of gay men.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

12. I have changed my normal behavior in a restroom because a man I believed to be gay was in there at the same time.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

13. When a gay man has “checked” me out, I have verbally threatened him.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

14. I have participated in damaging someone's property because he was a gay man.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

15. I have physically hit or pushed someone I thought was a gay man because he brushed his body against mine when passing by.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

16. Within the past few months, I have told a joke that made fun of gay men.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

17. I have gotten into a physical fight with a gay man because I thought he had been making moves on me.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

18. I have refused to work on school and/or work projects with a partner I thought was a gay man.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

19. I have written graffiti about gay men or homosexuality.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

20. When a gay man has been near me, I have moved away to put more distance between us.

1-----2-----3-----4-----5
Never Rarely Occasionally Frequently Always

Antigay Behavior Inventory
(ABI: Franklin, 2000)

We are interested in finding out how many of your friends have engaged in the behaviours listed below. Please read the following list of behaviours, and, for each item, select a number from 0 (none of my friends have done this) to 3+ (3 or more of my friends have done this).

- | | | | | |
|---|---|---|---|----|
| 1. Called a gay man an insulting name. | 0 | 1 | 2 | 3+ |
| 2. Spat at a gay man. | 0 | 1 | 2 | 3+ |
| 3. Threatened to hit a gay man. | 0 | 1 | 2 | 3+ |
| 4. Thrown an object at a gay man. | 0 | 1 | 2 | 3+ |
| 5. Chased or followed a gay man. | 0 | 1 | 2 | 3+ |
| 6. Damaged the property of a gay man. | 0 | 1 | 2 | 3+ |
| 7. Hit, kicked, or beaten up a gay man. | 0 | 1 | 2 | 3+ |
| 8. Used an object to strike a gay man. | 0 | 1 | 2 | 3+ |

Now, we would like to know how many times YOU have engaged in the behaviours listed below. Please read the following list of behaviours, and, for each item, select a number from 0 (never) to 3+ (3 or more times).

- | | | | | |
|---|---|---|---|----|
| 1. Called a gay man an insulting name. | 0 | 1 | 2 | 3+ |
| 2. Spat at a gay man. | 0 | 1 | 2 | 3+ |
| 3. Threatened to hit a gay man. | 0 | 1 | 2 | 3+ |
| 4. Thrown an object at a gay man. | 0 | 1 | 2 | 3+ |
| 5. Chased or followed a gay man. | 0 | 1 | 2 | 3+ |
| 6. Damaged the property of a gay man. | 0 | 1 | 2 | 3+ |
| 7. Hit, kicked, or beaten up a gay man. | 0 | 1 | 2 | 3+ |
| 8. Used an object to strike a gay man. | 0 | 1 | 2 | 3+ |

Now, we are interested to know why you think you became involved in the conflict. Please indicate whether you think any of the reasons listed below reflect why you became involved in the conflict, from not at all true of me to very true of me.

I did it...

- | | | | | |
|---|---|---|---|---|
| 1. Because of my religious beliefs. | 1 | 2 | 3 | 4 |
| 2. To have fun. | 1 | 2 | 3 | 4 |
| 3. Because I don't want gay people in my neighborhood. | 1 | 2 | 3 | 4 |
| 4. Because my friends expected me to. | 1 | 2 | 3 | 4 |
| 5. To prove I am not gay. | 1 | 2 | 3 | 4 |
| 6. Because I hate gay people. | 1 | 2 | 3 | 4 |
| 7. Because I was bored. | 1 | 2 | 3 | 4 |
| 8. Because of previous bad experiences with homosexuals. | 1 | 2 | 3 | 4 |
| 9. To show my friends I'm tough. | 1 | 2 | 3 | 4 |
| 10. Because of my moral beliefs. | 1 | 2 | 3 | 4 |
| 11. To feel closer to my friends. | 1 | 2 | 3 | 4 |
| 12. Because the gay person(s) started a fight. | 1 | 2 | 3 | 4 |
| 13. For excitement. | 1 | 2 | 3 | 4 |
| 14. Because the gay person(s) looked like he/she had a lot of money | 1 | 2 | 3 | 4 |
| 15. Because gay people disgust me. | 1 | 2 | 3 | 4 |
| 16. To feel strong. | 1 | 2 | 3 | 4 |
| 17. Because gay people spread AIDS. | 1 | 2 | 3 | 4 |
| 18. Because I was actually angry at someone else. | 1 | 2 | 3 | 4 |
| 19. Because of the opinions of people I respect. | 1 | 2 | 3 | 4 |
| 20. Other (explain) _____ | | | | |

Nonassailant Section:

We are interested in the reasons why you have not engaged in verbal or physical conflicts with gay men. Please read the following list of reasons, and, for each item, select whether it is "not at all true," "somewhat true," "true," or "very true" of me.

I have never harassed or beaten up a gay man because:

- | | | | | |
|---|---|---|---|---|
| 1. Because of my religious beliefs. | 1 | 2 | 3 | 4 |
| 2. Because there are no gay people in my neighborhood. | 1 | 2 | 3 | 4 |
| 3. Because my friends would not approve. | 1 | 2 | 3 | 4 |
| 4. Because I do not want to get in trouble with authorities. | 1 | 2 | 3 | 4 |
| 5. Because I avoid places where gay people might be. | 1 | 2 | 3 | 4 |
| 6. Because I myself am a gay person. | 1 | 2 | 3 | 4 |
| 7. Because of my moral beliefs. | 1 | 2 | 3 | 4 |
| 8. Because a gay person has never approached me in a threatening way. | 1 | 2 | 3 | 4 |
| 9. Because I am against violence. | 1 | 2 | 3 | 4 |
| 10. Because I have friends that are gay. | 1 | 2 | 3 | 4 |
| 11. Because I have family members who are gay. | 1 | 2 | 3 | 4 |
| 12. Because I never see gay people. | 1 | 2 | 3 | 4 |
| 13. Because I might get hurt. | 1 | 2 | 3 | 4 |
| 14. Because I might get AIDS. | 1 | 2 | 3 | 4 |
| 15. Because I believe gay people have a right to be left alone. | 1 | 2 | 3 | 4 |
| 16. Other (explain) _____ | | | | |

Affective Reactions to Homosexuality Scale
(ARHS; Ernulf & Innala, 1987; Innala & Ernulf, 1992).

Please read the following story:

You are at a bar drinking with some friends. It's late and you decide to call it a night but decide to use the washroom before heading home. You enter the washroom and see there are several men already at the urinals and decide you want some privacy, so you turn to one of the stalls. When you opened the stall door, you see two men having sex with one another. One man is pushed up against the wall, moaning. The other man looks at you, smirks, and asks "Do you mind?" before pushing the stall door closed again.

Now rate your emotional reaction to this story by indicating to what degree you are experiencing each of the following emotions:

	Not at all			Very Much
1. Embarrassed	1	2	3	4
2. Guilty	1	2	3	4
3. Ashamed	1	2	3	4
4. Frightened	1	2	3	4
5. Awkward	1	2	3	4
6. Angry	1	2	3	4
7. Despising	1	2	3	4
8. Disgusted	1	2	3	4
9. Contented	1	2	3	4
10. Satisfied	1	2	3	4
11. Encouraged	1	2	3	4
12. Enlightened	1	2	3	4
13. Happy	1	2	3	4
14. Proud	1	2	3	4
15. Accepting	1	2	3	4
16. Surprised	1	2	3	4

**Attitude Function Inventory
(AFI; Herek, 1987)**

Using the scale below, please indicate the extent to which each statement is true for you.

(1) My opinions about gay men mainly are based on whether or not someone I care about is gay.

1-----2-----3-----4-----5

Not at all true

Very True

(2) My opinions about gay men mainly are based on my personal experiences with specific gay persons.

1-----2-----3-----4-----5

Not at all true

Very True

(3) My opinions about gay men mainly are based on my judgment of how likely it is that I will interact with gay people in any significant way.

1-----2-----3-----4-----5

Not at all true

Very True

(4) My opinions about gay men mainly are based on my personal experiences with people whose family members or friends are gay.

1-----2-----3-----4-----5

Not at all true

Very True

(5) My opinions about gay men mainly are based on my perceptions of how the people I care about have responded to gay people as a group.

1-----2-----3-----4-----5

Not at all true

Very True

(6) My opinions about gay men mainly are based on learning how gay people are viewed by the people whose opinions I most respect.

1-----2-----3-----4-----5

Not at all true

Very True

(7) My opinions about gay men mainly are based on the fact that I would rather not think about homosexuality or gay people.

1-----2-----3-----4-----5

Not at all true

Very True

(8) My opinions about gay men mainly are based on my personal feelings of discomfort or revulsion at homosexuality.

1-----2-----3-----4-----5

Not at all true

Very True

(9) My opinions about gay men mainly are based on my concern that we safeguard the civil liberties of all people in our society.

1-----2-----3-----4-----5

Not at all true

Very True

(10) My opinions about gay men mainly are based on my moral beliefs about how things should be.

1-----2-----3-----4-----5
Not at all true *Very True*

**Social Distance Measure of Homophobia
(SDMH; Gentry, 1986)**

Using the scale below, please indicate the extent to which you agree or disagree with each statement.

1. I would be uncomfortable at a party where a gay man was present.

1-----2-----3-----4-----5
Entirely Disagree Entirely Agree

2. It would bother me to drive alone in a car with a gay man.

1-----2-----3-----4-----5
Entirely Disagree Entirely Agree

3. I would be uncomfortable if I was left alone in a room with a gay man.

1-----2-----3-----4-----5
Entirely Disagree Entirely Agree

4. I would be uncomfortable having a gay man as an overnight guest.

1-----2-----3-----4-----5
Entirely Disagree Entirely Agree

5. It would bother me to live in the same house as a gay man.

1-----2-----3-----4-----5
Entirely Disagree Entirely Agree

The Defence Style Questionnaire- 40
(DSQ-40; Andrews, Singh, & Bond, 1993)

Using the scale below, please indicate the extent to which you agree or disagree with each statement.

1. I get satisfaction from helping others and if this were taken away from me I would get depressed.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly Agree

2. I'm able to keep a problem out of my mind until I have time to do deal with it.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly Agree

3. I work out my anxiety through doing something constructive and creative like painting or wood-work.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly Agree

4. I am able to find good reasons for everything I do.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly Agree

5. I am able to laugh at myself pretty easily

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly Agree

6. People tend to mistreat me.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly Agree

7. If someone mugged me and stole my money, I'd rather he be helped than punished

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

8. People say I tend to ignore unpleasant facts as if they don't exist.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

9. I ignore danger as if I were Superman.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

10. I pride myself on my ability to cut people down to size.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

11. I often act impulsively when something is bothering me.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

12. I get physically ill when things aren't going well for me.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

13. I'm a very inhibited person.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

14. I get more satisfaction from my fantasies than from my real life.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

15. I've special talents that allow me to go through life with no problems.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

16. There are always good reasons when things don't work out for me.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

17. I work more things out in my daydreams than in my real life.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

18. I fear nothing.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

19. Sometimes I think I'm an angel and other times I think I am the devil.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

20. I get openly aggressive when I feel hurt.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

21. I always feel that someone I know is like a guardian angel.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly
Disagree Agree

22. As far as I'm concerned, people are either good or bad.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly
Disagree Agree

23. If my boss bugged me, I might make a mistake in my work or work more slowly so as to get back at him.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly
Disagree Agree

24. There is someone I know who can do anything and who is absolutely fair and just.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly
Disagree Agree

25. I can keep the lid on my feelings if letting them out would interfere with what I'm doing.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly
Disagree Agree

26. I'm usually able to see the funny side of an other-wise painful predicament.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly
Disagree Agree

27. I get a headache when I have to do something I don't like.

1-----2-----3-----4-----5
Strongly Disagree Don't Know Agree Strongly
Disagree Agree

28. I often find myself being very nice to people who by all rights I should be angry at.

1-----2-----3-----4-----5
Strongly Disagree Don't Know Agree Strongly
Disagree Agree

29. I am sure I get a raw deal from life

1-----2-----3-----4-----5
Strongly Disagree Don't Know Agree Strongly
Disagree Agree

30. When I have to face a difficult situation I try to imagine what it will be like and plan ways to cope with it.

1-----2-----3-----4-----5
Strongly Disagree Don't Know Agree Strongly
Disagree Agree

31. Doctors never really understand what is wrong with me.

1-----2-----3-----4-----5
Strongly Disagree Don't Know Agree Strongly
Disagree Agree

32. After I fight for my rights, I tend to apologize for my assertiveness.

1-----2-----3-----4-----5
Strongly Disagree Don't Know Agree Strongly
Disagree Agree

33. When I'm depressed or anxious, eating makes me feel better.

1-----2-----3-----4-----5
Strongly Disagree Don't Know Agree Strongly
Disagree Agree

34. I'm often told that I don't show my feelings.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly
Disagree Agree

35. If I can predict that I'm going to be sad ahead of time, I can cope better.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly
Disagree Agree

36. No matter how much I complain, I never get a satisfactory response.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly
Disagree Agree

37. Often I find that I don't feel anything when the situation would seem to warrant strong emotions.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly
Disagree Agree

38. Sticking to the task at hand keeps me from feeling depressed or anxious.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly
Disagree Agree

39. If I were in a crisis, I would seek out another person who had the same problem.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly
Disagree Agree

40. If I have an aggressive thought, I feel the need to do something to compensate for it.

1-----2-----3-----4-----5
Strongly Disagree Disagree Don't Know Agree Strongly
Disagree Agree

Self-Concealment Scale
(SCS; Larson & Chastain, 1990)

Using the scale below, please indicate the extent to which you agree or disagree with each statement.

1. I have an important secret that I haven't shared with anyone.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

2. If I shared all my secrets with my friends, they'd like me less.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

3. There are lots of things about me that I keep to myself.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

4. Some of my secrets have really tormented me.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

5. When something bad happens to me, I tend to keep it to myself.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

6. I'm often afraid I'll reveal something I don't want to.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

7. Telling a secret often backfires and I wish I hadn't told it.

1-----2-----3-----4-----5

Strongly Disagree Disagree Don't Know Agree Strongly Agree

8. I have a secret that is so private I would lie if anybody asked me about it.
- 1-----2-----3-----4-----5
- Strongly Disagree Disagree Don't Know Agree Strongly Agree
9. My secrets are too embarrassing to share with others.
- 1-----2-----3-----4-----5
- Strongly Disagree Disagree Don't Know Agree Strongly Agree
10. I have negative thoughts about myself that I never share with anyone.
- 1-----2-----3-----4-----5
- Strongly Disagree Disagree Don't Know Agree Strongly Agree

**Social Desirability Scale-17
(SDS-17; Stöber, 1999, 2001)**

Below you will find a list of statements. Please read each statement carefully and decide if that statement describes you or not. If it describes you, circle the word "true"; if not, check the word "false".

- | | | |
|--|-------------|--------------|
| 1. I sometimes litter. | True | False |
| 2. I always admit my mistakes openly and face the potential negative consequences. | True | False |
| 3. In traffic I am always polite and considerate of others. | True | False |
| 4. I always accept others' opinions, even when they don't agree with my own. | True | False |
| 5. I take out my bad moods on others now and then. | True | False |
| 6. There has been an occasion when I took advantage of someone else. | True | False |
| 7. In conversations I always listen attentively and let others finish their sentences. | True | False |
| 8. I never hesitate to help someone in case of emergency. | True | False |
| 9. When I have made a promise, I keep it – no ifs, ands, or buts. | True | False |
| 10. I occasionally speak badly of others behind their back. | True | False |
| 11. I would never live off at other people's expense. | True | False |
| 12. I always stay friendly and courteous with people, even when I am stressed out. | True | False |

13. During arguments I always stay objective and matter-of-fact. **True False**
14. There has been at least one occasion when I failed to return an item that I borrowed. **True False**
15. I always eat a healthy diet. **True False**
16. Sometimes I only help because I expect something in return. **True False**

Appendix G

Study 1 Assumption Testing

Independent *t*-tests are parametric tests that assume the sampling distribution is normally distributed and that there is homogeneity of variance. Due to the large sample (i.e., > 30) in this study it could be assumed that the sampling distribution was normal even if the data set in this sample did not appear to be (Field, 2009). However, the normality of the ATG and MHS-G data distributions were assessed using skewness and kurtosis values and histograms. The ATG was found to be significantly positively skewed, suggesting that the majority of individuals (i.e., 89.9%) scored below the midpoint of 30. Given the large sample size (i.e., >300) a transformation was not used in an attempt to normalize the data (Field, 2009). The MHS-G was normally distributed.

Homogeneity of variance was assessed simultaneously with the *t*-test analyses using Levene's test for equality of variance. Levene's tests of homogeneity for both the original and transformed ATG scores were significant ($p < .05$), therefore, the assumption of homogeneity of variances was violated. As such, for the *t*-tests examining the ATG scores, the test statistics reported did not assume equal variance. Levene's test for the MHS-G was also significant ($p = .05$), therefore the test statistics reported for the MHS-G did not assume equal variance.

Appendix H
Study 2 Post-Stimuli Questions

1. How sexually arousing did you find the video?
2. How sexually aroused did your genitals feel in response to the video?
3. How anxious did you feel while viewing the video?
4. How angry did you feel while viewing the video?
5. How stressed did you feel while viewing the video?
6. How happy did you feel while viewing the video?
7. How sad did you feel while viewing the video?
8. How disgusted did you feel while viewing the video?

All questions will be answered using a 9-point Likert-scale (1 = not at all and 9 = extremely).

Appendix I

Video Stimuli Pilot Study

Purpose

To select sexual videos (i.e., Male/Female and Male/Male) to be used in Study 2 based on subjective responses to a brief rating form (Appendix J) from heterosexual and gay men, respectively.

Method

Participants

Twenty participants (10 self-identified heterosexual men, 10 self-identified gay men) were recruited via posters displayed around the University of Saskatchewan campus and the PAWS online bulletin (i.e., a campus online message board). No demographic information was collected.

Stimuli

Videos were selected by the student researcher from the public domain (i.e., the internet). All materials were commercially available, sexually explicit materials that did not infringe copyright agreements. Further, in accordance with Section 2257 of Title 18 United States Code, all performers were 18 years of age or older. This code stipulates that proof of age for each performer has to be housed somewhere within the production company, and the company must specify where they keep their records for each performer, as a means of avoiding hiring under-age performers. Finally, because the material is commercially available, the actors have provided consent to be involved in the sexually explicit activity.

Videos were selected to depict a variety of sexual positions and the reciprocal exchange of oral sex between the actors. The Male/Female sexually explicit videos depicted an adult male and adult female engaged in non-violent consensual sexual behaviour (i.e., vaginal penetration and oral sex). The Male/Male videos depicted two adult males engaged in non-violent consensual sexual behaviour (i.e., anal penetration and oral sex). Videos intended to serve as neutral videos were also piloted (see Appendix H for neutral rating form) and they depicted scenes from a nature documentary. All videos were approximately two minutes in length. In total, 8 Male/Female videos, 13 Male/Male, and 4 Neutral videos were piloted for the purposes of selecting 3

Male/Female, 2 Male/Male, and 3 Neutral videos. Nine videos (four sexual, three neutral) were randomly selected for each participant to view and rate, as such some videos (i.e., the Male/Female and Neutral videos) were rated by more individuals than others.

Procedure

Participants contacted the student researcher by email and a time to come into the lab (i.e., Arts 161) was arranged via email correspondence. Participants were greeted and escorted into the experiment room by the student researcher. The experiment room was furnished with a comfortable recliner, side table, lamp, and a computer monitor for the viewing of the videos. Participants were provided information about the nature of the videos they would be viewing and the rating form was reviewed. The heterosexual men only viewed and rated the Male/Female videos, while the gay men only viewed and rated the Male/Male videos. Participants were also asked for their written informed consent after the student researcher reviewed the critical components of the consent form (e.g., purpose of the research, confidentiality, and anonymity; see Appendix N).

Participants were left to view the videos in private, while the student researcher sat in an adjacent room. Participants were asked to press the enter key on a small keypad next to their chair when they completed each rating form, to signal to the student researcher that they were ready to view the next video. Once all the videos were rated the student researcher debriefed and thanked the participants. Each session took approximately 45 minutes.

Results

The means and standard deviations for the video rating items of the Male/ Female, Male/Male, and Neutral videos can be seen in Tables A.4 –A.6. For the Male/ Female videos the three videos with the highest ratings on overall sexual arousal, female attractiveness, and sexual arousal to the depiction of intercourse were selected for use in Study 2. Although only two Male/Male videos were needed, three videos were selected based on the highest ratings on overall sexual arousal. The three Male/Male videos selected were also rated highly on other items (i.e., attractiveness of performers, depiction of oral sex and intercourse). Of the neutral videos, the three videos with the most, lowest ratings of affective responses were selected. The selected videos were then randomized among trials.

Table A.4
Means and Standard Deviations for Male/Female Sexual Video Ratings

	<i>N</i>	Overall Sexual Arousal <i>M (SD)</i>	Female Rating <i>M (SD)</i>	Male Rating <i>M (SD)</i>	Oral Sex <i>M (SD)</i>	Intercourse <i>M (SD)</i>	Overall Quality <i>M (SD)</i>	Tell a friend
M/F 1	7	6.29 (.76)	4.76 (1.82)	3.81 (2.41)	5.29 (1.70)	6.43 (.97)	5.86 (.69)	4.57 (1.72)
M/F 2	8	5.25 (2.05)	3.83 (2.15)	3.88 (2.99)	4.88 (2.23)	5.50 (2.00)	5.87 (2.10)	4.88 (2.90)
M/F 3	7	6.71 (.95)	5.62 (2.10)	3.52 (1.84)	4.71 (1.38)	6.57 (1.40)	6.14 (1.35)	3.71 (2.29)
M/F 4	6	4.50 (1.64)	3.17 (1.83)	3.44 (2.95)	5.33 (2.07)	5.00 (1.67)	4.83 (2.23)	4.33 (2.58)
M/F 5	5	5.80 (1.64)	4.60 (1.80)	2.60 (1.85)	5.20 (2.28)	5.80 (1.10)	5.80 (1.48)	3.40 (2.07)
M/F 6	10	6.20 (1.87)	5.13 (2.85)	3.83 (2.50)	5.60 (2.46)	6.40 (1.96)	6.80 (1.55)	5.20 (2.74)
M/F 7	8	5.75 (1.98)	4.71 (2.55)	3.71 (2.56)	5.50 (2.32)	5.50 (1.93)	6.00 (1.41)	4.75 (3.15)
M/F 8	4	7.50 (1.00)	6.08 (1.54)	4.00 (3.49)	6.00 (1.83)	7.00 (.82)	7.25 (.96)	5.25 (3.50)

Note: Ratings were made on a 9 point Likert scale, ranging from 1 (not at all) to 9 (extremely); midpoint 5. The female and male ratings are average scores of the three items assessing the sexual attractiveness of each performer. The highest three average ratings for each item is in bold.

Table A.5
Means and Standard Deviations for Male/Male Sexual Video Ratings

	<i>N</i>	Overall Sexual Arousal <i>M (SD)</i>	Average Ratings of Performers <i>M (SD)</i>	Oral Sex <i>M (SD)</i>	Intercourse <i>M (SD)</i>	Overall Quality <i>M (SD)</i>	Tell a friend
M/M 1	2	4.00 (.00)	3.00 (.94)	2.00 (.00)	3.50 (3.54)	4.00 (.00)	1.50 (.71)
M/M 2	3	5.67 (1.15)	5.33 (.67)	5.00 (1.73)	5.00 (2.00)	5.33 (1.15)	3.67 (1.53)
M/M 3	3	7.00 (1.73)	5.56 (2.11)	7.67 (1.15)	6.33 (2.31)	5.67 (3.06)	5.00 (3.00)
M/M 4	4	4.25 (1.50)	4.79 (1.27)	4.75 (1.26)	4.00 (1.83)	4.75 (1.26)	3.00 (1.83)
M/M 5	5	6.80 (1.30)	6.03 (1.04)	6.20 (1.64)	6.20 (1.30)	6.20 (1.48)	6.00 (1.00)
M/M 6	4	6.25 (2.87)	6.50 (1.43)	6.50 (3.00)	6.00 (2.71)	6.75 (2.06)	6.00 (2.94)
M/M 7	3	7.33 (1.53)	6.56 (1.40)	7.00 (1.73)	7.33 (1.53)	7.00 (1.73)	6.00 (2.65)
M/M 8	3	4.67 (1.53)	5.11 (.51)	3.67 (1.53)	4.33 (2.08)	4.00 (1.00)	3.00 (1.73)
M/M 9	3	4.00 (2.65)	5.00 (1.59)	4.33 (2.08)	5.00 (2.00)	4.67 (2.08)	4.00 (3.00)
M/M 10	4	5.25 (1.50)	6.04 (1.25)	4.00 (2.45)	6.25 (1.71)	5.00 (1.63)	3.50 (1.29)
M/M 11	3	7.33 (2.08)	7.00 (2.29)	7.67 (1.53)	7.67 (2.31)	7.33 (2.08)	6.67 (3.21)
M/M 12	4	6.50 (1.00)	6.13 (1.03)	6.75 (1.71)	6.50 (1.00)	6.50 (1.29)	6.00 (1.41)
M/M 13	3	7.33 (1.53)	6.50 (2.42)	7.33 (1.53)	7.00 (2.00)	6.67 (2.08)	6.67 (2.08)

Note: Ratings were made on a 9 point Likert scale, ranging from 1 (not at all) to 9 (extremely); midpoint 5. Ratings of Performers are average scores of the six items assessing the sexual attractiveness of the male performers. The highest three average ratings for each item is in bold (equal values are also bolded).

Table A.6
Means and Standard Deviations for Neutral Video Ratings

	<i>N</i>	Happy <i>M (SD)</i>	Sad <i>M (SD)</i>	Angry <i>M (SD)</i>	Anxious <i>M (SD)</i>	Sexually Aroused <i>M (SD)</i>	Scared <i>M (SD)</i>	Excited <i>M (SD)</i>
N 1	19	3.53 (2.67)	3.05 (1.93)	1.16 (.37)	1.42 (.77)	1.00 (.00)	1.47 (.84)	2.53 (2.27)
N 2	20	5.10 (2.38)	1.65 (.93)	1.00 (.00)	1.00 (.00)	1.00 (.00)	1.35 (1.35)	3.15 (2.41)
N 3	20	4.90 (2.25)	1.90 (1.41)	1.00 (.00)	1.30 (.66)	1.00 (.00)	1.10 (.31)	3.25 (2.27)
N 4	19	2.53 (2.57)	1.53 (1.07)	1.05 (.22)	1.58 (.90)	1.00 (.00)	1.47 (.90)	2.84 (2.54)

Note: Ratings were made on a 9 point Likert scale, ranging from 1 (not at all) to 9 (extremely); midpoint 5. Lowest three average scores for each item are in bold (equal values are also bolded).

Appendix J
Video Selection Rating Form- Sexual Videos

Please remain consistent with which performer you rate as “Performer 1” and “Performer 2” as you complete the scale for each video.

1. How sexually arousing did you find the video overall?

1-----2-----3-----4-----5-----6-----7-----8-----9
Not at All Mildly Very Extremely

2. How physically attractive did you find the performers?

Performer 1:

1-----2-----3-----4-----5-----6-----7-----8-----9
Not at All Mildly Very Extremely

Performer 2:

1-----2-----3-----4-----5-----6-----7-----8-----9
Not at All Mildly Very Extremely

3. How sexually arousing did you find the performers’ non-verbal vocalizations (e.g., moaning)

Performer 1:

1-----2-----3-----4-----5-----6-----7-----8-----9
Not at All Mildly Very Extremely

Performer 2:

1-----2-----3-----4-----5-----6-----7-----8-----9
Not at All Mildly Very Extremely

4. How sexually arousing did you find the performers’ facial expressions?

Performer 1:

1-----2-----3-----4-----5-----6-----7-----8-----9
Not at All Mildly Very Extremely

Performer 2:

1-----2-----3-----4-----5-----6-----7-----8-----9
Not at All Mildly Very Extremely

5. How sexually arousing did you find the depiction of oral sex?

1-----2-----3-----4-----5-----6-----7-----8-----9
Not at All Mildly Very Extremely

6. How sexually arousing did you find the depiction of intercourse?

1-----2-----3-----4-----5-----6-----7-----8-----9
Not at All Mildly Very Extremely

Appendix K

Video Selection Pilot Study Rating Form – Neutral Videos

Please rate how the video you just watched made you feel:

1. Happy

1-----2-----3-----4-----5-----6-----7-----8-----9
Not at All Mildly Very Extremely

2. Sad

1-----2-----3-----4-----5-----6-----7-----8-----9
Not at All Mildly Very Extremely

3. Angry

1-----2-----3-----4-----5-----6-----7-----8-----9
Not at All Mildly Very Extremely

4. Anxious

1-----2-----3-----4-----5-----6-----7-----8-----9
Not at All Mildly Very Extremely

5. Sexually Aroused

1-----2-----3-----4-----5-----6-----7-----8-----9
Not at All Mildly Very Extremely

6. Scared

1-----2-----3-----4-----5-----6-----7-----8-----9
Not at All Mildly Very Extremely

7. Excited

1-----2-----3-----4-----5-----6-----7-----8-----9
Not at All Mildly Very Extremely

Other: _____



Appendix L
Video Selection Pilot Study Consent Form

You are invited to participate in a research program entitled “Video Selection Pilot Study.” Please read this form carefully.

Researcher(s): Dr. Melanie Morrison, University of Saskatchewan, Department of Psychology
Lesley Terry, University of Saskatchewan, Department of Psychology

Purpose and Procedure: The purpose of the current study is to determine how different videos are rated by participants in order to select the best videos for future sexual arousal studies. You will be asked to watch and rate 9 videos. Some videos will depict scenes of nature and landscapes. Other videos will depict a man and a woman engaged in explicit sexual activity or two men engaged in explicit sexual activity. The sexually explicit activity will include oral sex, vaginal penetration, and anal penetration in a variety of sexual positions within the categories just listed. After viewing each video, you will be asked to rate them on a variety of characteristics such as how sexually arousing you found each video and how attractive you found the actors in each video to be. This study will take approximately 45 minutes to complete.

Potential Benefits: On the basis of your evaluation and that of other participants, we will be able to select video material that has been systematically matched for content along a number of dimensions. We will then be able to use this material in our upcoming sexual arousal studies. Thus, you may benefit from knowing that you have contributed to the scientific research process and our specific goal of showing video material that is evaluated similarly by a number of people. It also is possible that you will receive very little benefit from participating or perceive no benefit at all. Finally, you will be entered into a draw for the chance to win \$50.00.

Potential Risks: You may find it uncomfortable to view some of the videos due to their sexual content. If you would like to withdraw from the study at any point during the video ratings or debriefing you may do so without penalty by telling the researcher via the intercom.

Storage of Data: In order to protect the confidentiality of your responses, they will be saved on a non-network, password-protected computer for a minimum of 5 years.

Confidentiality: Only the experimenters will have access to your data. All of the information that you will provide during the experiment will be stored confidentially. You will be assigned an identification number and all information you provide will only be identified by this number, not your name. Your name will never be mentioned in any publications, papers, or presentations that come from this study. Furthermore, your data will not be analyzed individually; but, will be combined with other participants’ data in order to obtain an overall rating.

Right to Withdraw: Your participation in this study is completely voluntary. As such, you may withdraw from the research project for any reason, without penalty. To withdraw from the study, simply tell the researcher you wish to discontinue the study and your data will be destroyed. It should be noted, however, that your right to withdraw your data from the study will apply until the data have been pooled and data analysis has begun. After this time it is possible that some form of research dissemination will have already occurred and it may not be possible to withdraw your data.

Questions: If you have any questions concerning the research project, please feel free to ask at any point; you are also free to contact the researchers at the numbers provided if you have other questions. This research project has been approved on ethical grounds by the University of Saskatchewan Behavioural Research Ethics Board on April 10, 2012. Any questions regarding your rights as a participant may be addressed to that committee through the Ethics Office (966-2084).

Follow-Up: If you have any questions about this study following your participation or would like information about the results of the study, please contact the student researcher, Lesley Terry, at the University of Saskatchewan, (306) 966-1773.

Consent to Participate: I have read and understood the description provided. I have had an opportunity to ask questions and my questions have been answered. I consent to participate in the research project, understanding that I may withdraw my consent at any time.

(Name of Participant)

(Date)

(Signature of Participant)

(Signature of Researcher)

Appendix M

Invitation to Participate/Consent Form: Contact for Study 2

In the coming months, we will be conducting a more in-depth study on the relationship between social attitudes and sexual arousal. This study will require participants to come into a laboratory on the University of Saskatchewan campus and have their genital sexual arousal measured while they view videos depicting sexually explicit material. If you are interested in learning more about this study or would like the opportunity to possibly participate, you are invited to provide your contact information.

Participants for the upcoming study will be selected based on responses to the questionnaires you just completed. Therefore, by providing your contact information your responses to the questionnaire will no longer be anonymous. However, steps will be taken to protect your confidentiality. For example, once data from the online questionnaire is linked to the data from the second study by an identification number, your contact information will be destroyed. Your name will never appear in any publications of this research and your data will not be analyzed individually.

If you do not wish to be contacted for the follow-up study, as indicated previously, your responses to the online questionnaire will remain anonymous and we thank you again for your contribution to this research project.

Would you like to be contacted about participating in future research projects? Often times, monetary compensation is provided.

Yes

No

(Their response to this item will link them to one of the following pages)

If Yes, Participants will be shown:

You have indicated that you are interested in being contacted about future research opportunities. Please provide your contact information below.

Name: _____

Phone Number: _____

Or Email Address: _____

If No, participants will be shown:

Thank you for taking the time to complete this survey.

Appendix N
Study 2 Telephone Script

Hi _____, my name is Lesley Terry and I am a Ph.D. student in the clinical psychology program at the University of Saskatchewan. You recently completed a questionnaire online regarding social attitudes and behaviors and indicated that you would be interested in learning more about future studies being conducted in our laboratory. Do you have time right now to go over some of the details of an upcoming study?

Preliminary information:

“The purpose of the study is to investigate the relationship between homonegativity and men’s sexual arousal in response to different videos. If you decide to participate in this study, you will come to a laboratory at the University of Saskatchewan. In the laboratory, you will complete several questionnaires and view different videos while your sexual arousal is measured using medical instruments. Would you be interested in finding out more about the study?”

If No: The individual will be thanked for his interest in the study and his contact information destroyed.

If Yes: “To make sure you are eligible to participate in this study, I am going to read a list of things that must be true for you in order to be eligible to participate. If one or more of these criteria is not true for you, then you are not eligible to participate in this study. You do not need to tell me which one is not true, just let me know at the end of the list if you are or are not eligible. Do you understand?”

List of statements:

1. You are between 18 and 35 years of age.
2. Your sexual attractions are predominately directed toward women.
3. You do not have a history of serious mental illness.
4. You do not have a history of substance abuse.
5. You are not currently taking any of the following types of medications: medications to treat a mental illness, medications to treat high blood pressure, medications to treat a cold or allergy, or medications to treat sexual dysfunctions.
6. You have not and do not currently have a sexually transmitted infection.
7. You speak or write English fluently.
8. You have had sexual intercourse before.
9. You have watched erotic movies or looked at erotic magazines.

“Are all of these statements true for you?”

If No (meets one or more exclusion criteria), he will be thanked for his interest in the study.

If Yes (does not meet any exclusion criteria), the following will be read:

Detailed study information:

“Now that we have ensured that you meet the participation criteria, I am going to tell you more about the study so you can decide if you want to participate. If you participate in

this study, you will view several types of videos while your physical sexual arousal and your feelings of sexual arousal are measured.

The videos you will view while your sexual arousal is being measured will depict a man and women or two men engaged in sexual activity. You will also view neutral videos of nature scenes.

Your physical sexual arousal will be measured using a penile gauge. This instrument is a small rubber band that goes around the middle of your penis. It measures changes in the penis during erection. In a private room, you will undress from the waist down and put on the gauge yourself. Most men say the gauge is not uncomfortable and that they can't tell they are wearing the gauge once it is on. You will also rate your subjective sexual arousal, or how "turned on or off" you feel by the videos by pressing a button on a computer keypad. You will also be asked to answer questions following each video about your sexual and emotional reactions to each video.

Do you have any questions about any of that?

All the information that you provide during the study is strictly confidential and we have safeguards in place to protect your anonymity (e.g., only one individual will participate in the study at a time). Furthermore, the sexual arousal data will not be coded until all the data for the study has been collected and it will be analyzed in combination with the other participants', rather than on an individual basis.

Based on the information I just provided to you, do you still think you are interested in participating?

If No, he will be thanked for his time.

If Yes, the following will be read:

Ok, even if you agree to participate and come to our lab, you are free to change your mind at any point. The whole procedure takes about one hour and as a thank you for your time, you will receive \$20.

A date and time to participate will be set and then the following information will be provided:

On the day of testing, please avoid:

- 1) physical exercise of all types for one hour prior to your study appointment.
- 2) using alcohol, tobacco products, caffeine, cold medications, or recreational drugs.

Also, please refrain from engaging in sexual activity of all types for 24 hours prior to the testing session.

I will email this information to you the day before your appointment as a friendly reminder.

Do you have any questions before we end our conversation?

Thank you for your interest in the study and I look forward to meeting you.



Study 2 Consent Form

You are invited to participate in a research project entitled “Examining the functions of homonegativity among males: Testing the correspondence between psychophysiological sexual arousal, subjective arousal, and other affective states.” Please read this form carefully, and feel free to ask any questions you might have.

Researchers: Dr. Melanie Morrison, University of Saskatchewan, Department of Psychology, melanie.morrison@usask.ca, (306) 966-2564
Lesley Terry, University of Saskatchewan, Department of Psychology, llt632@mail.usask.ca, (306) 966-1773

Purpose and Procedure: The purpose of the current study is to determine if individuals who endorse negative attitudes towards gay men respond differently to sexually explicit videos (i.e., heterosexual and gay couples) than men who do not endorse similar negative attitudes towards gay men.

Previously, you completed a questionnaire online made up of several measures of attitudes and behaviours. Some of your responses to these questionnaires will be incorporated into the data analysis following your participation in the current study. In the current study, you will be asked to continuously report your subjective level of sexual arousal to sexually explicit videos, while your genital (i.e., penile) sexual arousal is continuously measured. You will also be asked to rate your affective reactions to each video following their presentation.

Before you complete this consent form, you will have a chance to look at the testing room and the genital gauges, as well as, ask any questions. The study should take approximately one hour to complete.

The study involves measuring your genital (i.e., penile) sexual arousal and subjective ratings of sexual arousal to a variety of videos, both sexual and nonsexual (8 videos X two minutes each = 16 minutes total viewing time). The sexual videos will depict interactions between a man and a woman or two men. The non-sexual videos will depict scenes of landscapes and nature.

The experimenter will explain how to use the equipment to measure your genital responses. Once you understand how to do this, you will be left alone in a private testing room. You will be able to undress from the waist down, and attach the genital gauge yourself in private. You will place the strain gauge on the shaft of your penis. The experimenter will remain in a separate room for the duration of the study, using an intercom and text messages that will appear on the monitor in front of you if communication is needed. You will view 8 short video clips that are about two minutes long in duration. After each video, you will be asked to answer questions regarding your subjective sexual arousal and affective responses to the videos using a self-report keypad.

After you have watched all of the videos, you will remove the genital gauge, place it in a plastic bag, and re-dress.

Potential Benefits: There are no direct benefits to you for participating in this study. Your participation will, however, inform future research in the study of sexual arousal and social attitudes.

Potential Risks: You may feel awkward using the genital gauge, especially if you are not comfortable touching your genitals. You may also feel uncomfortable viewing the videos, especially if you find sexually explicit content unappealing. You may also be surprised or uncomfortable with how you sexually respond to some videos, especially if you have not viewed similar material previously. If at any time during the experiment you would like to stop, please let me know immediately and we will discontinue the session.

Because the gauges are re-usable there is a risk of contracting a sexually transmitted infection (STI). The risk of this has been addressed in two ways: (1) all gauges go through an extensive cleaning and high-level disinfection process that is used in medical clinics to clean similar instruments. This procedure virtually eliminates all risks of transmission of infections, and (2) all potential participants have been screened over the phone by directly asking if they have a history of or are currently diagnosed with having an STI. Those who had or have an STI have been excluded from this study.

In the event that you are unable to return to a baseline level of sexual arousal you will be escorted to the emergency room at University Hospital.

Following the experiment you will also be provided with a list of resources in the event that you want to speak to someone about any physical or emotional concerns that may arise following your completion of the study.

You may also have been a student, colleague, or acquaintance of the researchers conducting the study. There is also the potential you will become a student, colleague or acquaintance of the researchers in the future. Please consider this in your decision to participate in this study. If you are at all uncomfortable, feel free not to participate in the study.

Storage of Data: In order to protect the confidentiality of your responses, consent forms completed for the sexual arousal study will be stored separately from your psychophysiological (e.g., subjective and genital sexual arousal) data. All electronic (e.g., the online questionnaire you completed previously and psychophysiological data) materials will be saved on a non-network, password-protected computer. All paper materials (e.g., consent forms) will be stored in a locked filing cabinet in a separate, locked office.

Confidentiality: Only the experimenters will have access to information about your identity and your data. All of the information that you will provide during the experiment will be stored anonymously. When you entered the study, you were assigned a participant identification number and all information you provide will only be identified by this

number, not your name. Your name will never be mentioned in any publications, papers, or presentations that come from this study. Furthermore, your data will not be analyzed individually but, will be combined with other participants' data in order to obtain a global picture. Your contact information will be destroyed following your participation in the study.

Right to Withdraw: Your participation in this study is completely voluntary. As such, you may withdraw from the research project for any reason, without penalty of any sort, and you will receive \$20.00 for your time. To withdraw from the study, simply tell the researcher you do not wish to continue at any point during the experimental session or debriefing. If you withdraw from the research project at any time during the experimental session or debriefing, any data that you have contributed will be destroyed at your request.

Questions: If you have any questions concerning the research project, please feel free to contact the researchers at the numbers provided (see above). This research project was approved on ethical grounds by the University of Saskatchewan Behavioural Research Ethics Board on January 30th, 2012. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics Office: ethics.office@usask.ca or (306) 966-2975. Out of town participants may call toll free (888) 966-2975.

Follow-Up: If you have any questions about this study following your participation or would like information about the results of the study, please contact the student researcher, Lesley Terry, at the University of Saskatchewan, (306) 966-1773.

Consent to Participate: I have read and understood the description provided; I have had an opportunity to ask questions and my questions have been answered. I consent to participate in the research project, understanding that I may withdraw my consent at any time. A copy of this Consent Form has been given to me for my records.

(Name of Participant) _____ (Date) _____

(Signature of Participant) _____ (Signature of Researcher) _____

Appendix P

Study 2 Room Script

The purpose of the experiment is to look at the relationship between attitudes towards gay men and sexual arousal to different video stimuli. While you are viewing videos, your physical and self-reported sexual arousal will be measured.

This is the device that will be used to measure your physical sexual arousal (show participant gauge). It is called a penile gauge. You will place the gauge onto the middle of your penis in private. The penile gauge measures changes in the penis that occur during erection.

Description of Procedure

During this study, you will watch different short videos while your physical and subjective sexual arousal are measured.

This room will be locked while the experimental procedures are going on. There are no mirrors or cameras in the room. There is one window in the room with a set of blinds on both sides that will remain down at all times. Throughout the experiment I will be in a separate room. You can ask me questions throughout the experiment by using the intercom system. You do not have to push a button for the intercom to work, just simply say something out loud, and I will be able to hear you. I will respond to your questions using text messages that will appear on the computer monitor. I may not be able to answer you immediately after you ask a question because I will be unable to use the text messaging program during the short clips, but I will always be in the room next to you, and will respond as soon as possible. However, please remember that you are allowed to stop the experiment at any time you would like to, just let me know via the intercom and we will stop immediately.

Before the experiment begins, I will ask you to use the washroom across the hall. After you have returned and are seated in the recliner, you will put on these headphones and attach the genital gauge. Once you are comfortably seated in the recliner with the headphones and gauge in place, you will view a number of videos, each two minutes long, and answer a series of questions after each video. The study will take approximately 40 minutes to complete.

Some of the videos you will be viewing will depict nature scenes, while others will depict a man and a woman or two men engaged in non-violent consensual explicit sexual activity.

While you are viewing the videos, please rate how sexually aroused or how “turned on” you feel by pressing these buttons on the keypad located on the arm of the chair (indicate arrow buttons on keypad). If you are feeling more aroused as the video progresses, then you will press the up button, indicating that you are more aroused, and if you are feeling less aroused, then you will press the down button. Please remember to continually rate

how sexually aroused you feel during each video. You can think of the lowest level of the bar to be 1 and the highest level to be 9, where 1 reflects no arousal at all and 9 is equal to the level of arousal you associate with orgasm. Please remember that there is no correct response, and just try to respond as honestly as possible.

At the end of each video, you will be asked several questions about your responses to the video. You will use the same keypad that you used to rate how sexually aroused you felt during the videos to answer these questions. To answer these questions, you will use a scale of 1 to 9, where 1 is the lowest level of response, meaning that the emotion or feeling is not at all present, 5 is the moderate or average level of response, meaning that the emotion or feeling is present, but not extremely high or low, and 9 is the highest level of response, meaning that the emotion or feeling is definitely present. For example, if you were asked how pleasant you found the video, and you thought it was very pleasant to watch, you would respond with an 8 or 9, because those numbers mean that you thought the video was very pleasant to listen to. To answer, press a number on the keypad and then hit OK. The instructions for these questions are also on the poster beside the monitor.

Here are the questions that you will be asked. Do you have any questions about them? (Show participant the list of question to make sure they understand them)

Please remember that there are no right or wrong answers to these questions. Try to answer the questions as honestly as possible. Also, after you have finished answering the questions, please return the subjective sexual arousal bar to the starting position.

Between videos you may be asked to complete simple tasks, like read from a magazine out loud, or count backwards from 100. Sometimes there is a lot of time between videos and we don't want you to get bored.

After you have viewed all of the videos, a message will appear on your screen telling you that the experiment is over. You can remove the gauge and place it in the re-sealable plastic bag that is in the black case. After you have removed the gauge, you can get dressed and let me know when you are ready for me to re-enter the room.

Attaching the Gauge:

Before I leave the room and lock the door, I will turn off the overhead lights. It is all right to leave the small lamp on. After I leave, please undress from the waist down. After you have undressed, please sit in the recliner in the fully reclined position. To do this, you will need to grip the arms (while seated in the chair) and push backwards. Once you have the chair in the fully reclined position, you can take the penile gauge out of the black case on the table beside the chair. To attach the gauge, lie back in the recliner and gently stretch the rubber and place it directly on the mid-shaft of your penis. Do not roll the gauge down as this will damage the gauge. Please try to place the cable from the penile gauge on your leg, so that there is no stretch in the cable. There is a light blanket that you can use to cover your lower legs. Place the headphones on your ears and say "ready" when you are ready to begin the experiment.

How to Sit

While you are viewing the videos, you should be fully reclined in the recliner with your legs about shoulder-width apart and covered with a blanket. It is important that you try to sit as still as possible, as movements can interfere with the measurements I am taking. If you have to move, please try to avoid doing so during the videos. Also, please avoid any attempts to voluntarily contract your genitals as they will interfere with the device.

Please try to avoid talking or coughing during the videos, as well, as this can interfere with the measurements I am taking. If you do need to move or cough, please let me know, and I will make a note of it.

If you are uncomfortable and wish to stop the experiment, however, please let me know immediately and we will stop.

Cleaning of the Gauge/Room

The instruments that we use to measure sexual arousal are re-used. Each device goes through a thorough high-level disinfectant process that is identical to the process used to clean plastic medical devices in a hospital. This vigorous cleaning process virtually eliminates any chance of contracting a disease.

Likewise, all surfaces that participants come into contact with are wiped with hydrogen peroxide cloths that kill any bacteria present. This includes the recliner (arms, seat, back, lever), headphones, keypad, desk, doorknob, etc. The sheets and blankets are washed in bleach after every use.

Overview of Procedure

- Consent
- Rest room
- experimenter leaves room
- undress from the waist down
- attach/insert genital gauge while reclined in chair
- cover up with blanket
- say ready
- watch videos, rate emotions/arousal
- re-dress
- experimenter re-enters room with permission; offers participant a break and then discusses questionnaires
- complete questionnaire package
- experimenter re-enters room with permission and escorts participant to experimenter room
- debriefing/compensation
- TURN OFF cell phone.

Appendix Q
Study 2 Debriefing Form

**Examining the functions of homonegativity among males:
Testing the correspondence between psychophysiological sexual arousal,
subjective arousal, and other affective states**

Purposes of the Study

Research on human sexuality has utilized a variety of methodologies to assess sexual interest and desire for many decades, including the use of implicit physiological methods such as penile plethysmography (a.k.a., penile strain gauge). Previous research on male sexual arousal has overwhelmingly indicated that males respond in a categorically specific way, such that they become sexually aroused to material depicting sexual activity that matches their self-reported sexual orientation.

In recent years research in other areas, such as social attitudes or prejudicial attitudes, has begun to move away from solely relying on explicit forms of measurement (e.g., questionnaires) towards more implicit and physiological methods. In 1996, Adams et al. found that certain social attitudes were related to variations in the aforementioned category-specificity found among male participants. They found that some men demonstrated arousal to videos depicting sexual activities in contrast to their self-reported sexual orientation. They suggested this discrepancy may have impacted by affective states associated with strong negative attitudes. This research has not yet been replicated.

Therefore, the purpose of the current study was to repeat the Adams et al. (1996) study to determine if their findings could be reproduced with a new sample of participants, and to determine if particular affective reactions correlated with measures of physiological arousal to different stimuli.

Note: If you are concerned about your responses to the various videos that you have seen or if you experienced any emotional and/or psychological concerns as a result of this study, you are encouraged to contact the agencies listed below to help you work through your concerns.

Student Help Centre
University of Saskatchewan
Rm 27 Place Riel (In the Arts tunnel)
Phone: 966-6981
Email: help.centre@usask.ca
Web site: <http://www.ussu.ca/helpcentre/>

Student Counselling Centre
University of Saskatchewan
104 Qu'Appelle Hall Addition
Phone: 966-4920
Web site: <http://students.usask.ca/wellness/counselling/scs/>

Adult Community Mental Health Services
715 Queen Street
Saskatoon, SK
Phone: 655-7950
Web site: http://www.saskatoonhealthregion.ca/your_health/ps_mh_services.htm

Thank you

Thank you for participating in this study. Your time and effort is greatly appreciated. Because the study is ongoing, we ask you not to tell others about the specific research questions of the study.

If you have any further comments or questions about this research project, please contact Lesley Terry by e-mail at lesley.terry@usask.ca or by telephone at (306) 966-1773 or Dr. Melanie Morrison by e-mail at melanie.morrison@usask.ca or by telephone at (306) 966-2564.

Appendix R

Comparison Analysis between Study 1 and Study 2 Participants

To determine if the sample of participants who completed Study 2 significantly differed from those who did not (i.e., Study 1 Only participants) on the various measures administered, 12 *t*-tests were conducted using a more conservative alpha of .01 to control for Type I error (See Table A.7). Participants in Study 2 appeared to be an appropriate representation of the larger sample of participants from Study 1, as they scored similarly on almost every measure and subscale. The subscales of the DSQ-40 were the exception, with the Study 2 participants scoring significantly higher on the DSQ-Mature, $t[387] = -2.68, p = .008, d = .46$, the DSQ-Neurotic, $t[382] = 3.03, p = .003, d = .46$, and the DSQ-Immature, $t[368] = 2.80, p = .005, d = .51$, than the male participants who participated only in Study 1.

Table A.7

Comparison Analysis between Study 1 and Study 2 Participants on the Cognitive, Affective, and Defensive/Functional Measures

Measure	Study 1 Only	Study 2	<i>t</i>	<i>p</i>	<i>d</i>
	(<i>n</i> = 348)	(<i>n</i> = 37)			
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)			
ATG	19.37 (9.08)	18.57 (10.14)	-.21	.83	-0.04
MHS-G	31.84 (10.38)	29.30 (9.18)	-.67	.50	-0.12
SDMH	8.87 (5.04)	7.27 (3.85)	-.98	.33	-0.17
ABI-A.I.	4.17 (2.00)	3.57 (0.79)	-.78	.44	-0.31
ABI-G.S.	4.97 (1.94)	5.00 (1.15)	.04	.97	0.02
ABI-T.S.	4.23 (1.97)	4.00 (1.29)	-.30	.76	-0.12
ABI-P. C.	2.87 (1.31)	2.60 (1.28)	-1.15	.25	-0.22
ABI-P.V.	9.73 (2.13)	9.90 (1.84)	.45	.65	0.08
AFI-E.D.	1.67 (1.01)	1.47 (0.91)	-.70	.48	-0.12
AFI-Exp.	1.95 (0.86)	2.10 (0.96)	-.17	.86	-0.03
AFI-S.E.	2.02 (1.07)	2.01 (1.16)	-.86	.39	-0.15
AFI-V.E.	3.37 (1.22)	3.69 (1.23)	2.52	.01	0.44
DSQ-40- Mature	28.02 (4.22)	29.95 (4.24)	-2.68	.008	0.46
DSQ-40-Neurotic	22.93 (4.32)	24.95 (4.92)	3.03	.003	0.46
DSQ-40-Immature	60.25 (9.83)	65.29 (10.64)	2.80	.005	0.51
SCS	29.33 (8.58)	31.24 (8.68)	1.61	.11	0.28

Note: ATG = Attitudes Toward Gay Men; MHS-G = Modern Homonegativity Scale-Gay Men; SDMH = Social Distance Measure of Homophobia. ABI-SF = Anti-gay Behaviour Inventory (ABI-A.I. = ABI-Antigay Ideology; ABI-G.S. = ABI-Gain Status; ABI-T.S. = ABI-Thrill Seeking; ABI-P.C. = Personal Contact; ABI-P.V. = ABI- Personal Values); AFI = Attitude Function Inventory (AFI- E.D. = AFI- Ego-defensiveness; AFI- Exp. = AFI - Experiential; AFI- V.E. = AFI- Value Expressive); DSQ-40 = Defence Style Questionnaire-40; SCS = Self Concealment Scale.

Appendix S

Intercorrelation Among Defensive/Functional Measures Using Study 1 Sample

Given the smaller sample size, and thus reduced power, in Study 2, it was considered prudent to conduct additional correlational analyses using the larger sample that completed the online questionnaire in Study 1 to determine if the ego-defensive function (AFI-Ego-defensive) is comparable to more traditionally accepted defensive styles (DSQ-40). The ego-defensive function strongly correlated with the DSQ-40 Immature subscale among the self-identified heterosexual males ($n = 393$) and females ($n = 317$) from Study 1 (See Table A.8).

Additional correlational and comparative analyses were conducted among heterosexual men higher (i.e., top 25% of scorers) and lower (i.e., bottom 25% of scorers) in homonegativity, as measured by the ATG and MHS-G on their defensive scores (See Table A.9). The only significant correlations between the AFI-Ego-defensiveness scores and the defensive styles were found among men who scored higher and lower on the ATG, but not the MHS-G. Among men lower in old-fashioned homonegativity, as measured by the ATG, the AFI-Ego-defensive subscale was significantly correlated with the DSQ-40-Immature subscale. This correlation was also found to be significantly greater than the correlation found among men higher in old-fashioned homonegativity. Among men higher in old-fashioned homonegativity, the AFI-Ego-defensive subscale was significantly correlated with the DSQ-40-Neurotic subscale, and this interaction was significantly stronger among men higher in homonegativity than among men lower in homonegativity.

Table A.8
 Intercorrelations among the defensive/functional measures stratified by gender ($N = 710$; n for Men = 393; n for women = 317)

	1	2	3	4	5	6	7	8
1. AFI-E.D		.08	.10*	-.18*	-.05	.04	.16**	.05
2. AFI-Exp.	.25**		.59**	.10	.15**	.13*	.06	.07
3. AFI-S.E	.26**	.69**		.24**	.15**	.14**	-.03	.00
4. AFI-V.E.	.09	.19**	.27**		.18**	.06	-.08	.10*
5. DSQ-40- Mature	-.06	.11	.06	.14*		.24**	.11*	.01
6. DSQ-40- Neurotic	-.01	.20**	.21**	.02	.38**		.28**	.09
7. DSQ-40- Immature	.18**	.19**	.11	.00	.18**	.36		.45**
8. SCS	.04	.08	.01	.02	.06	.17**	.45**	

Note: ** $p < 0.01$, * $p < 0.05$. Heterosexual men above the diagonal; Heterosexual women below the diagonal. AFI = Attitude Function Inventory (AFI-E.D. = AFI- Ego-defensiveness; AFI- Exp. = AFI-Experiential; AFI-V.E. = AFI- Value Expressive); DSQ-40 = Defence Style Questionnaire-40; SCS = Self-Concealment Scale.

Table A.9

Comparisons between men higher (top 25% of scorers) and lower (bottom 25% of scorers) in homonegativity as measured by ATG and MHS-G on the correlation between Ego-defensiveness (i.e., AFI-Ego-defensiveness) and Defensive Styles (i.e., DSQ-40).

	ATG		Fisher's <i>r-z</i>
	Bottom 25% <i>r</i> (<i>n</i>)	Top 25% <i>r</i> (<i>n</i>)	
DSQ-40-Mature	.04 (182)	.00 (109)	.33 (.37)
DSQ-40-Neurotic	.04 (180)	.25** (108)	-1.75 (.04)*
DSQ-40-Immature	.20** (172)	-.02 (104)	1.77 (.04)*
SCS	.12 (179)	-.04 (109)	1.31 (.10)
	MHS-G		Fisher's <i>r-z</i>
	Bottom 25% <i>r</i> (<i>n</i>)	Top 25% <i>r</i> (<i>n</i>)	
DSQ-40-Mature	-.09 (184)	.05 (98)	-1.11 (.13)
DSQ-40-Neurotic	.09 (182)	-.03 (96)	.94 (.17)
DSQ-40-Immature	.08 (174)	-.08 (94)	1.24 (.11)
SCS	-.00 (180)	.00 (99)	0.00 (.50)

Note: ** $p < 0.01$, * $p < 0.05$. AFI = Attitude Function; DSQ-40 = Defence Style Questionnaire-40; SCS = Self-Concealment Scale. Correlations in the table are between the listed measures and scores on the AFI-Ego-defensiveness scale.

Appendix T
A Proposed Model of Homonegativity

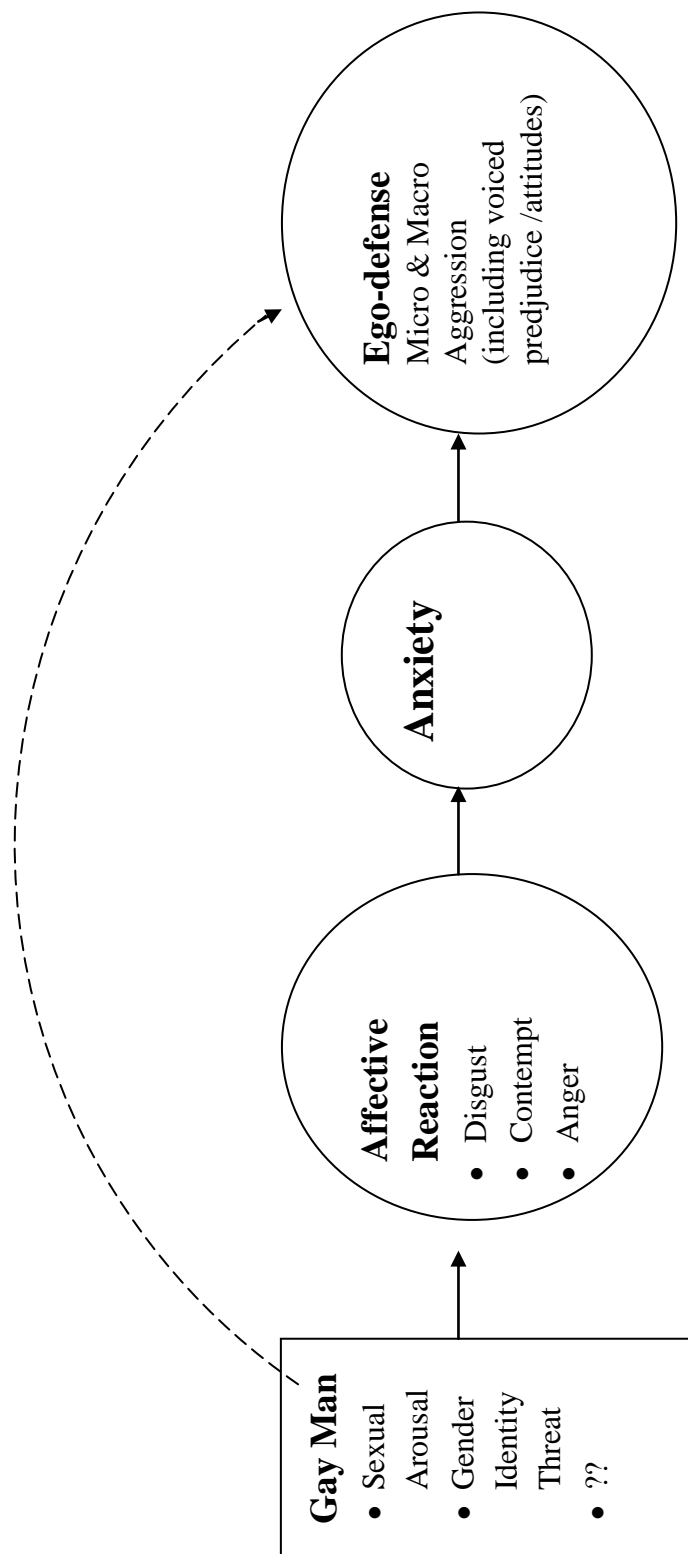


Table 2.1
Demographics of Study 1 participants stratified by gender

	Overall (<i>N</i> =710) <i>n</i> (%)	Male (<i>n</i> =393) <i>n</i> (%)	Female (<i>n</i> =317) <i>n</i> (%)
<i>Academic Major</i>			
Humanities or social sciences	167 (23.5)	83 (21.1)	84 (26.5)
Natural or health sciences	299 (42.1)	206 (52.4)	93 (29.3)
Business	60 (8.5)	32 (8.1)	28 (8.8)
Undeclared	154 (21.7)	61 (15.5)	93 (29.3)
<i>Ethnicity</i>			
My ethnic background is:			
Aboriginal (e.g., First Nations, Inuit, Metis)	27 (3.8)	14 (3.6)	13 (4.1)
Black (e.g., African American, African Canadian)	19 (2.7)	13 (3.3)	6 (1.9)
East Asian (e.g., Chinese, Japanese, Korean)	39 (5.5)	27 (6.9)	12 (3.8)
South Asian (e.g., Indian, Pakistani, Sri Lankan)	35 (4.9)	19 (4.8)	16 (5)
Southeast Asian (e.g., Burmese, Cambodian, Thai)	13 (1.8)	5 (1.3)	8 (2.5)
West Asian (e.g., Arabian, Armenian, Iranian)	10 (1.4)	7 (1.8)	3 (.9)
Latin American (e.g., Mexican, Central American)	6 (.8)	1 (.3)	5 (1.6)
Caucasian	539 (75.9)	293 (74.6)	246 (77.6)
Other	19 (2.7)	12 (3.1)	7 (2.2)
<i>Political Conservatism</i>			
By my own definition, I would consider myself to be:			
Very liberal	47 (6.6)	35 (8.9)	12 (3.8)
Liberal	169 (23.8)	104 (26.5)	65 (20.5)
Somewhat liberal	192 (27)	102 (26)	90 (28.4)
Somewhat conservative	174 (24.5)	87 (22.1)	87 (27.4)
Conservative	86 (12.1)	45 (11.5)	41 (12.9)
Very conservative	12 (1.7)	7 (1.8)	5 (1.6)
<i>Religious Services Attendance</i>			
I attend religious services:			
Regularly	99 (13.9)	44 (11.2)	55 (17.4)
Now and then	134 (18.9)	64 (16.3)	70 (22.1)
On special occasions	200 (28.2)	99 (25.2)	101 (31.9)
Never	277 (39)	186 (47.3)	91 (28.7)
<i>Religious Self-Schema</i>			
By my own definition, I am:			
Very religious	43 (6.1)	21 (5.3)	22 (6.9)
Quite religious	97 (13.7)	38 (9.7)	59 (18.6)
Somewhat religious	265 (37.3)	119 (30.3)	146 (46.1)
Not at all religious	304 (42.8)	215 (54.7)	89 (28.1)

...continued

Table 2.1
(Continued)

	<i>Overall</i> (<i>N=710</i>) <i>n (%)</i>	<i>Male</i> (<i>n=393</i>) <i>n (%)</i>	<i>Female</i> (<i>n=317</i>) <i>n (%)</i>
<i>Sexual Orientation</i>			
By my own definition, I would consider myself to be:			
Exclusively heterosexual	555 (78.2)	306 (77.9)	249 (78.5)
Primarily heterosexual	134 (18.9)	78 (19.8)	56 (17.7)
More heterosexual than homosexual	21 (3)	9 (2.3)	12 (3.8)
<i>Marital Status</i>			
I am currently:			
Single	375 (52.8)	220 (56)	155 (48.9)
Dating	271 (38.2)	126 (32.1)	145 (45.7)
Common-law	30 (4.2)	19 (4.8)	11 (3.5)
Married	33 (4.6)	28 (7.1)	5 (1.6)
<i>Average Income</i>			
The average income in my (parent's) household before taxes is:			
Less than \$10,000	38 (5.4)	13 (3.3)	25 (7.9)
\$10,001 - \$19, 999	64 (9)	43 (10.9)	21 (6.6)
\$20,000 - \$29, 999	52 (7.3)	33 (8.4)	19 (6)
\$30,000 - \$39, 999	31 (4.4)	21 (5.3)	10 (3.2)
\$40,000 - \$49, 999	32 (4.5)	19 (4.8)	13 (4.1)
\$50,000 - \$59, 999	30 (4.2)	16 (4.1)	14 (4.4)
\$60,001 - \$69, 999	37 (5.2)	19 (4.8)	18 (5.7)
\$70,000 - \$79, 999	40 (5.6)	21 (5.3)	19 (6)
\$80,000 - \$89, 999	35 (4.9)	18 (4.6)	17 (5.4)
\$90,000 - \$99, 999	31 (4.4)	14 (3.6)	17 (5.4)
\$100,000 or more	193 (27.2)	116 (29.5)	77 (24.3)
Do not know	116 (16.3)	55 (14)	61 (19.2)

Table 2.2

Means, standard deviations, ranges, and alpha coefficients for measures of homonegativity components and homonegative motivations and functions ($N = 710$; n for Men = 393; n for women = 317)

Measures		M (SD)	Possible range; midpoint	Obtained Range	Alpha Coefficient (95% CI)
Cognitive					
<u>ATG</u>	Overall	18.38 (8.34)	10-50; 30	10-50	.92 (.91-.93)
	Men	19.25 (9.14)	10-50; 30	10-50	.94 (.93-.95)
	Women	17.32 (7.13)	10-50; 30	10-47	.89 (.87-.91)
<u>MHS</u>	Overall	29.90 (9.72)	12-60; 36	12-60	.91 (.90-.92)
	Men	31.55 (10.31)	12-60; 36	12-60	.92 (.90-.93)
	Women	27.83 (8.49)	12-60; 36	12-56	.87 (.87-.90)
Affective					
<u>ARHS</u>					
Positive	Overall	6.94 (2.08)	6-24; 15	6-24	.82 (.79-.84)
	Men	6.74 (1.92)	6-24; 15	6-24	.82 (.80-.85)
	Women	7.20 (2.24)	6-24; 15	6-21	.81 (.77-.84)
Negative	Overall	5.25 (2.42)	3-12; 7.5	3-12	.79 (.77-.82)
	Men	5.47 (2.54)	3-12; 7.5	3-12	.80 (.76-.83)
	Women	4.97 (2.24)	3-12; 7.5	3-12	.78 (.73-.82)
Disgrace	Overall	3.20 (1.62)	2-8, 5	2-8	$\rho = .68$
	Men	2.87 (1.39)	2-8; 5	2-8	$\rho = .63$
	Women	3.63 (1.78)	2-8; 5	2-8	$\rho = .69$
Discomposure	Overall	6.90 (1.51)	2-8, 5	2-8	$\rho = .57$
	Men	6.98 (1.46)	2-8; 5	2-8	$\rho = .54$
	Women	6.81 (1.58)	2-8; 5	2-8	$\rho = .60$
<u>SDMH</u>	Overall	8.02 (4.54)	5-25; 15	5-25	.92 (.91-.93)
	Men	8.71 (4.95)	5-25; 15	5-25	.93 (.92-.94)
	Women	7.16 (3.79)	5-25; 15	5-25	.89 (.87-.91)
Behavioural					
<u>ABI-SF</u>	Overall	0.31 (1.29)	0-19; 9.5	0-16	.69 (.65-.72)
	Men	0.40 (1.53)	0-19; 9.5	0-16	.71 (.67-.75)
	Women	0.20 (0.90)	0-19; 9.5	0-9	.60 (.53-.66)
<u>SBS-R</u>	Overall	2.96 (5.48)	0-80; 40	0-62	.90 (.89-.91)
	Men	3.81 (6.07)	0-80; 40	0-62	.90 (.88-.91)
	Women	1.92 (4.46)	0-80; 40	0-46	.91 (.89-.92)

...Continued

Table 2.2
(continued)

Measures		<i>M (SD)</i>	Possible range; midpoint	Obtained Range	Alpha Coefficient (95% CI)
<u>Motivations/ Functions</u>					
<u>ABI-SF Assailants (N = 72; n for men = 49; n for women = 23)</u>					
Gain Status	Overall	4.97 (1.87)	4-16; 10	4-16	.81 (.72-.87)
	Men	5.21 (2.14)	4-16;10	4-16	.82 (.73-.89)
	Women	4.48 (.95)	4-16; 10	4-7	.58 (.21-.80)
Thrill Seeking	Overall	4.21 (1.91)	3-12; 7.5	3-11	.71 (.57-.81)
	Men	4.29 (1.97)	3-12; 7.5	3-11	.64 (.42-.78)
	Women	4.04 (1.80)	3-12; 7.5	3-11	.90 (.79-.95)
Anti-gay Ideology	Overall	4.11 (1.92)	3-12; 7.5	3-12	.70 (.55-.80)
	Men	4.33 (2.22)	3-12; 7.5	3-12	.74 (.59-.85)
	Women	3.64 (.85)	3-12; 7.5	3-6	
<u>ABI-SF Non-Assailants (N = 638; n for Men = 343; n for women = 293)</u>					
Contact with Gay Men	Overall	2.85 (1.31)	2-8; 5	2-8	$\rho = .68$
	Men	2.83 (1.33)	2-8; 5	2-8	$\rho = .75$
	Women	2.89 (1.28)	2-8; 5	2-8	$\rho = .61$
Personal Value	Overall	9.74 (2.12)	3-12; 7.5	3-12	.58 (.51-.63)
	Men	9.66 (2.09)	3-12; 7.5	3-12	.58 (.50-.66)
	Women	9.84 (2.15)	3-12; 7.5	3-12	.60 (.51-.67)
<u>AFI</u>					
Experiential	Overall	2.09 (.95)	1-5; 3	1-5	.77 (.74-.80)
	Men	1.96 (.87)	1-5; 3	1-5	.72 (.67-.76)
	Women	2.24 (1.04)	1-5; 3	1-5	.81 (.77-.84)
Social Expressive	Overall	2.18 (1.14)	1-5; 3	1-5	$\rho = .80$
	Men	2.02 (1.07)	1-5; 3	1-5	$\rho = .79$
	Women	2.38 (1.20)	1-5; 3	1-5	$\rho = .80$
Ego-Defensive	Overall	1.55 (.93)	1-5; 3	1-5	$\rho = .80$
	Men	1.65 (1.00)	1-5; 3	1-5	$\rho = .81$
	Women	1.43 (.83)	1-5; 3	1-5	$\rho = .76$
Value Expressive	Overall	3.22 (1.24)	1-5; 3	1-5	$\rho = .57$
	Men	3.40 (1.22)	1-5; 3	1-5	$\rho = .56$
	Women	2.98 (1.23)	1-5; 3	1-5	$\rho = .58$

Note: ATG = Attitudes Toward Gay Men; MHS-G = Modern Homonegativity Scale-Gay Men; ARHS = Affective Reactions to Homosexuality Scale; SDMH = Social Distance Measure of Homophobia; SBS-R = Self-Report of Behavior Scale-Revised; ABI-SF = Anti-gay Behaviour Inventory- Short Form; AFI = Attitude Functions Inventory. No alpha value was calculated for the ABI-Anti-gay ideology subscale for women due to the limited variability in total scores within this group.

Table 2.3

Frequency of anti-gay behaviours measured by the ABI-SF stratified by gender ($N = 710$; n for Men = 93; n for women = 317)

ABI-SF Items	Overall N (%)	Men n (%)	Women n (%)
Spat at a gay man	1 = 5 (.7)	1 = 4 (1.0)	1 = 1 (.3)
Threatened to hit a gay man	1 = 8 (1.1) 2 = 4 (.6) 3+ = 4 (.6)	1 = 7 (1.8) 2 = 3 (.8) 3+ = 4 (1.0)	1 = 1 (.3) 2 = 1 (.3)
Chased a gay man	1 = 1 (.1) 3+ = 2 (.3)	1 = 1 (.3) 3+ = 2 (.5)	
Followed a gay man	1 = 4 (.6) 3+ = 4 (.6)	1 = 1 (.3) 3+ = 3 (.8)	1 = 3 (1.0) 3+ = 1 (.3)
Damaged the property of a gay man	1 = 1 (.1) 2 = 1 (.1)	2 = 1 (.3)	1 = 1 (.3)
Hit a gay man	1 = 4 (.6) 3+ = 2 (.3)	1 = 3 (.8) 3+ = 2 (.5)	1 = 1 (.3)
Kicked a gay man	1 = 3 (.4) 3+ = 1 (.1)	1 = 2 (.5) 3+ = 1 (.3)	1 = 1 (.3)
Beat up a gay man	1 = 3 (.4) 2 = 1 (.1) 3+ = 1 (.1)	1 = 1 (.3) 2 = 1 (.3) 3+ = 1 (.3)	1 = 2 (0.6)
Used an object to strike a gay man	1 = 2 (.3) 2 = 2 (.3) 3+ = 1 (.1)	1 = 1 (.3) 2 = 1 (.3) 3+ = 1 (.3)	1 = 1 (.3) 2 = 1 (.3)
Called a gay man an insulting name	1 = 33 (4.6) 2 = 15 (2.1) 3+ = 23 (3.2)	1 = 21 (5.3) 2 = 9 (2.3) 3+ = 17 (4.3)	1 = 12 (3.8) 2 = 6 (1.9) 3+ = 6 (1.9)
Thrown an object at a gay man	1 = 6 (.8) 2 = 2 (.3) 3+ = 2 (.3)	1 = 3 (.8) 2 = 1 (.3) 3+ = 2 (.5)	1 = 3 (.9) 2 = 1 (.3)

Note: ABI-SF = Anti-gay Behaviour Inventory-Short Form. Only response options that had endorsement rates > 0 are shown. Frequency of anti-gay behaviours reflected lifetime engagement.

Table 2.4

Frequency of anti-gay behaviours measured by the SBS-R stratified by gender ($N = 710$; n for Men = 393; n for women = 317)

SBS-R Items	Overall N (%)	Men n (%)	Women n (%)
I have spread negative talk about someone because I suspected that he was a gay man.	Rarely = 143 (20.1) Occasionally = 34 (4.8) Frequently = 2 (.3) Always = 2 (.3)	Rarely = 87 (22.1) Occasionally = 20 (5.1) Frequently = 1 (.3) Always = 2 (.5)	Rarely = 56 (17.7) Occasionally = 14 (4.4) Frequently = 1 (.3)
I have participated in playing jokes on someone because I suspected that he was a gay man.	Rarely = 87 (12.3) Occasionally = 38 (5.4) Frequently = 4 (.6) Always = 4 (.6)	Rarely = 47 (12.0) Occasionally = 26 (6.6) Frequently = 3 (.8) Always = 4 (1.0)	Rarely = 40 (12.6) Occasionally = 12 (3.8) Frequently = 1 (.3)
I have changed roommates and/or rooms because I suspected my roommate to be a gay man.	Rarely = 14 (2.0) Occasionally = 6 (.8) Frequently = 1 (.1) Always = 3 (.4)	Rarely = 9 (2.3) Occasionally = 4 (1.0) Frequently = 1 (.3) Always = 3 (.8)	Rarely = 5 (1.6) Occasionally = 2 (.6)
I have warned gay men whom I thought were gay, and who were a little too friendly with me, to keep away from me.	Rarely = 59 (8.3) Occasionally = 17 (2.4) Frequently = 3 (.4) Always = 5 (.7)	Rarely = 52 (13.2) Occasionally = 14 (3.6) Frequently = 2 (.5) Always = 5 (1.3)	Rarely = 7 (2.2) Occasionally = 3 (.9) Frequently = 1 (.3)
I have attended anti-gay protests.	Rarely = 13 (1.8) Occasionally = 11 (1.5) Frequently = 2 (.3) Always = 4 (.6)	Rarely = 5 (1.3) Occasionally = 3 (.8) Frequently = 1 (.3) Always = 3 (.8)	Rarely = 8 (2.5) Occasionally = 8 (2.5) Frequently = 1 (.3) Always = 1 (.3)
I have been rude to someone because I thought he was a gay man.	Rarely = 32 (4.5) Occasionally = 11 (1.5) Frequently = 2 (.3) Always = 2 (.3)	Rarely = 24 (6.1) Occasionally = 9 (2.3) Frequently = 1 (.3) Always = 2 (.5)	Rarely = 8 (2.5) Occasionally = 2 (.6) Frequently = 1 (.3)

... continued

Table 2.4
(Continued)

SBS-R Items	Overall N (%)	Men n (%)	Women n (%)
I have changed seat locations because I suspected the man sitting next to me was gay.	Rarely = 20 (2.8) Occasionally = 5 (.7) Frequently = 2 (.3) Always = 3 (.4)	Rarely = 17 (4.3) Occasionally = 3 (.8) Frequently = 2 (.5) Always = 2 (.5)	Rarely = 3 (.9) Occasionally = 2 (.6) Always = 1 (.3)
I have had to force myself to stop from hitting someone because I thought he was a gay man and very near me.	Rarely = 16 (2.3) Occasionally = 7 (1.0) Frequently = 1 (.1) Always = 3 (.4)	Rarely = 12 (3.1) Occasionally = 5 (1.3) Frequently = 1 (.3) Always = 2 (.5)	Rarely = 4 (1.3) Occasionally = 2 (.6) Always = 1 (.3)
When someone I thought to be gay has walked towards me as if to start a conversation, I have deliberately changed directions and walked away.	Rarely = 31 (4.4) Occasionally = 3 (.4) Frequently = 4 (.6) Always = 2 (.3)	Rarely = 26 (6.6) Occasionally = 2 (.5) Frequently = 3 (.8) Always = 2 (.5)	Rarely = 5 (1.6) Occasionally = 1 (.3) Frequently = 1 (.3)
I have stared at a gay man in such a way as to convey my disapproval of his being too close to me.	Rarely = 37 (5.2) Occasionally = 9 (1.3) Frequently = 5 (.7) Always = 4 (.6)	Rarely = 27 (6.9) Occasionally = 7 (1.8) Frequently = 5 (1.3) Always = 3 (.8)	Rarely = 10 (3.2) Occasionally = 2 (.6) Always = 1 (.3)
I have yelled insulting comments to a gay man or a group of gay men.	Rarely = 21 (3.0) Occasionally = 7 (1.0) Frequently = 2 (.3) Always = 3 (.4)	Rarely = 17 (4.3) Occasionally = 5 (1.3) Frequently = 1 (.3) Always = 3 (.8)	Rarely = 4 (1.3) Occasionally = 2 (.6) Frequently = 1 (.3)
I have changed my normal behaviour in a restroom because a man I believed to be gay was in there at the same time.	Rarely = 40 (5.6) Occasionally = 17 (2.4) Frequently = 4 (.6) Always = 3 (.4)	Rarely = 32 (8.1) Occasionally = 15 (3.8) Frequently = 4 (1.0) Always = 3 (.8)	Rarely = 8 (2.5) Occasionally = 2 (.6)

235

... continued

Table 2.4
(Continued)

SBS-R Items	Overall N (%)	Men n (%)	Women n (%)
When a gay man has “checked” me out, I have verbally threatened him.	Rarely = 14 (2.0) Occasionally = 13 (1.8) Frequently = 1 (.1) Always = 1 (.1)	Rarely = 9 (2.3) Occasionally = 9 (2.3) Frequently = 1 (.3) Always = 1 (.3)	Rarely = 5 (1.6) Occasionally = 4 (1.3)
I have participated in damaging someone’s property because he was a gay man.	Rarely = 3 (.4) Occasionally = 6 (.8) Frequently = 1 (.1) Always = 1 (.1)	Rarely = 2 (.5) Occasionally = 3 (.8) Always = 1 (.3)	Rarely = 1 (.3) Occasionally = 3 (.9) Frequently = 1 (.3)
236 I have physically hit or pushed someone I thought was a gay man because he brushed his body against mine when passing by.	Rarely = 12 (1.7) Occasionally = 7 (1.0) Always = 1 (.1)	Rarely = 8 (2.0) Occasionally = 6 (1.5) Always = 1 (.3)	Rarely = 4 (1.3) Occasionally = 1 (.3)
I have told a joke that made fun of gay men.	Rarely = 222 (31.3) Occasionally = 153 (21.5) Frequently = 53 (7.5) Always = 16 (2.3)	Rarely = 125 (31.8) Occasionally = 122 (31.0) Frequently = 36 (9.2) Always = 14 (3.6)	Rarely = 97 (30.6) Occasionally = 31 (9.8) Frequently = 17 (5.4) Always = 2 (.6)
I have gotten into a physical fight with a gay man because I thought he had been making moves on me.	Rarely = 5 (.7) Occasionally = 5 (.7) Frequently = 2 (.3) Always = 1 (.1)	Rarely = 1 (.3) Occasionally = 4 (1.0)	Rarely = 4 (1.3) Occasionally = 1 (.3) Frequently = 2 (.6) Always = 1 (.3)
I have refused to work on school and/or other work projects with a man because I thought he was gay.	Rarely = 11 (1.5) Occasionally = 4 (.6) Frequently = 1 (.1)	Rarely = 6 (1.5) Occasionally = 2 (.5)	Rarely = 5 (1.6) Occasionally = 2 (.6) Frequently = 1 (.3)

... continued

Table 2.4
(Continued)

SBS-R Items	Overall <i>N</i> (%)	Men <i>n</i> (%)	Women <i>n</i> (%)
I have written negative graffiti about gay men or homosexuality.	Rarely = 10 (1.4) Occasionally = 9 (1.3) Frequently = 1 (.1) Always = 1 (.1)	Rarely = 7 (1.8) Occasionally = 6 (1.5) Frequently = 1 (.3) Always = 1 (.3)	Rarely = 3 (.9) Occasionally = 3 (.9)
When a gay man has been near me, I have moved away to put more distance between us.	Rarely = 49 (76.9) Occasionally = 18 (2.5) Frequently = 4 (.6) Always = 3 (.4)	Rarely = 38 (9.7) Occasionally = 15 (3.8) Frequently = 3 (.8) Always = 3 (.8)	Rarely = 11 (3.5) Occasionally = 3 (.9) Frequently = 1 (.3)

Note: SBS-R = Self-Report of Behaviour Scale-Revised. Only response options that had endorsement rates > 0 are shown.

Table 2.5

Intercorrelations among the measures of homonegativity components and homonegative motivations and functions stratified by gender ($N = 710$; n for men = 393; n for women = 317)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. ATG		.66**	-.01	.59**	.15**	-.02	.66**	.35**	.14**	.02	.70**	.07	.14**	-.29**	-.13**	-.09	.58**	-.28**
2. MHS-G	.69**		-.12*	.51**	.02	-.00	.54**	.32**	.17**	-.16	.51**	.07	.17**	-.26**	-.10*	-.09	.56**	-.29**
3. ARHS- P.	-.05	-.18**		-.00	.12*	-.14**	.01	.20**	-.05	.61**	.16	.19	-.09	.06	.04	.03	-.10	.00
4. ARHS- N.	.43**	.45**	-.03		.20**	.20**	.49**	.30**	.13**	.23	.57**	.21	.16**	-.06	-.05	-.00	.50**	-.13*
5. ARHS- D1	.14*	-.18**	.11	.25**		.06	.17**	.06	-.02	.49**	.13	.14	.08	.06	.03	.08	.07	-.04
6. ARHS-D2	-.21**	-.05	-.13*	.10	.13*		-.05	-.10*	-.08	-.09	-.31*	-.02	.04	.24**	.15**	.13*	.02	.18**
7. SDMH	.58**	.46**	.07	.42**	.20**	-.17**		.49**	.22**	.08	.60**	.10	.22**	-.27**	-.08	-.04	.54**	-.26**
8. SBS-R	.23**	.17**	.31**	.11	.06	-.25**	.31**		.40**	.28	.67**	.24	.11*	-.13**	.04	.03	.31**	-.17**
9. ABI-Beh.	.09	.16**	-.03	.04	.08	-.25**	.15**	.33**		-.10	.17	.44**	.09	-.06	.09	.02	.14**	-.11*
10. ABI-G.S.	-.06	.14	.13	.27	.13	.26	.06	.34	.30		.03	.33*	-	-	-.07	.03	-.04	.17
11. ABI-A.I.	.59**	.37	.45*	.52*	.19	-.59**	.44	.20	.21	-.20		.15	-	-	-.30*	-.04	.23	.08
12. ABI-T.S.	.61**	.39	.09	.30	.08	-.15	.69**	.32	.18	.15	.19		-	-	.32*	.00	.01	-.03
13. ABI-P.C.	.21**	.22**	-.10	.14*	.15*	.06	.30**	.10	-.01	-	-	-		.03	-.05	.10	.24**	-.06
14. ABI-P.V	-.32**	-.31**	.09	-.09	-.03	.20**	-.25**	-.22**	-.06	-	-	-	.06		.17**	.21**	-.12*	.38**
15. AFI-Exp.	-.10	.07	.06	.10	.24**	.04	-.08	.02	.11	-.11	.31	-.07	.05	.14*		.59**	.08	.10
16. AFI-S.E.	-.05	.03	.07	.10	.18**	.08	.02	.01	.02	.24	-.01	-.20	.12*	.21**	.69**		.10	.24**
17. AFI-E.D.	.46**	.44**	.07	.30**	.12*	-.16**	.36**	.23**	.07	-.14	.36	.58**	.15**	-.12*	.25**	.26**		-.12*
18. AFI-V.E.	-.23**	-.23**	.15**	-.15**	-.00	.11	-.12*	-.07	-.11*	.26	.06	.02	.04	.34**	.19**	.27**	.09	

Note: ** $p < 0.01$, * $p < 0.05$. Heterosexual men above the diagonal; Heterosexual women below the diagonal. ATG = Attitudes Toward Gay Men; MHS-G = Modern Homonegativity Scale-Gay Men; ARHS = Affective Reactions to Homosexuality Scale (ARHS-P.= ARHS-Positive; ARHS-N. = ARHS-Negative; ARHS-D1 = ARHS-Disgrace; ARHS-D2 = ARHS-Discomfort); SDMH = Social Distance Measure of Homophobia; SBS-R = Self-Report of Behavior Scale-Revised; ABI = Anti-gay Behaviour Inventory (ABI-Beh. = ABI-Behaviours; ABI-G.S = ABI-Gain Status; ABI-A.I. = ABI-Antigay Ideology; ABI-T.S.- ABI-Thrill Seeking; ABI-P.C. = Personal Contact; ABI-P.V. = ABI-Personal Values); AFI = Attitude Function Inventory (AFI-E.D. = AFI-Ego-defensiveness; AFI-Exp. = AFI-Experiential; AFI-S.E. = AFI-Social Expressive; AFI-V.E. = AFI-Value Expressive).

Table 2.6

Frequency of anti-gay behaviour motivations of *Assailants* stratified by gender ($N = 72$; n for men = 49; n for women = 23)

ABI Items	Overall N (%)	Men n (%)	Women n (%)
Because of my religious beliefs.	Not at all true = 55 (7.7) Somewhat true = 9 (1.3) True = 4 (.6) Very true = 4 (.6)	Not at all true = 39 (9.9) Somewhat true = 4 (1.0) True = 4 (1.0) Very true = 2 (.5)	Not at all true = 16 (5.0) Somewhat true = 5 (1.6) True = 2 (.6)
To have fun.	Not at all true = 46 (6.5) Somewhat true = 14 (2.0) True = 4 (.6) Very true = 8 (1.1)	Not at all true = 13 (4.1) Somewhat true = 9 (2.8) True = 1 (.3)	Not at all true = 33 (8.4) Somewhat true = 5 (1.3) True = 4 (1.0) Very true = 7 (1.8)
Because I don't want gay men in my neighborhood.	Not at all true = 60 (8.5) Somewhat true = 5 (.7) True = 5 (.7) Very true = 2 (.3)	Not at all true = 40 (10.2) Somewhat true = 3 (.8) True = 4 (1.0) Very true = 2 (.5)	Not at all true = 20 (6.3) Somewhat true = 2 (.6) True = 1 (.3)
Because my friends expected me to.	Not at all true = 40 (5.6) Somewhat true = 23 (3.2) True = 5 (.7) Very true = 4 (.6)	Not at all true = 30 (7.6) Somewhat true = 13 (3.3) True = 5 (1.3) Very true = 1 (.3)	Not at all true = 10 (3.2) Somewhat true = 10 (3.2) Very true = 3 (.9)
To prove I am not gay.	Not at all true = 54 (7.6) Somewhat true = 13 (1.8) True = 3 (.4) Very true = 1 (.1)	Not at all true = 34 (8.7) Somewhat true = 10 (2.5) True = 3 (.8) Very true = 1 (.3)	Not at all true = 20 (6.3) Somewhat true = 3 (.9)
Because I hate gay men.	Not at all true = 61 (8.6) Somewhat true = 7 (1.0) True = 2 (.3) Very true = 2 (.3)	Not at all true = 40 (10.2) Somewhat true = 6 (1.5) True = 2 (.5) Very true = 1 (.3)	Not at all true = 21 (6.6) Somewhat true = 1 (.3) Very true = 1 (.3)

... continued

Table 2.6
(Continued)

ABI Items	Overall N (%)	Men n (%)	Women n (%)
Because I was bored.	Not at all true = 60 (8.5) Somewhat true = 7 (1.0) True = 2 (.3) Very true = 3 (.4)	Not at all true = 41 (10.4) Somewhat true = 4 (1.0) True = 2 (.5) Very true = 2 (.5)	Not at all true = 19 (6.0) Somewhat true = 3 (.9) Very true = 1 (.3)
Because of previous bad experiences with gay men.	Not at all true = 60 (8.5) Somewhat true = 7 (1.0) True = 3 (.4) Very true = 2 (.3)	Not at all true = 41 (10.4) Somewhat true = 4 (1.0) True = 2 (.5) Very true = 2 (.5)	Not at all true = 19 (6.0) Somewhat true = 3 (.9) True = 1 (.3)
To show my friends I'm tough.	Not at all true = 59 (8.3) Somewhat true = 11 (1.5) True = 1 (.1) Very true = 1 (.1)	Not at all true = 39 (9.9) Somewhat true = 8 (2.0) True = 1 (.3) Very true = 1 (.3)	Not at all true = 20 (6.3) Somewhat true = 3 (.9)
Because of my moral beliefs.	Not at all true = 51 (7.2) Somewhat true = 8 (1.1) True = 5 (.7) Very true = 7 (1.0)	Not at all true = 34 (8.7) Somewhat true = 3 (.8) True = 5 (1.3) Very true = 7 (1.8)	Not at all true = 17 (5.4) Somewhat true = 5 (1.6)
To feel closer to my friends.	Not at all true = 54 (7.6) Somewhat true = 11 (1.5) True = 5 (.7) Very true = 2 (.3)	Not at all true = 35 (8.9) Somewhat true = 8 (2.0) True = 4 (1.0) Very true = 2 (.5)	Not at all true = 19 (6.0) Somewhat true = 3 (.9) True = 1 (.3)
Because the gay man/men started a fight.	Not at all true = 51 (7.2) Somewhat true = 10 (1.4) True = 8 (1.1) Very true = 3 (.4)	Not at all true = 32 (8.1) Somewhat true = 8 (2.0) True = 6 (1.5) Very true = 3 (.8)	Not at all true = 19 (6.0) Somewhat true = 2 (.6) True = 2 (.6)
To feel strong.	Not at all true = 65 (9.2) Somewhat true = 3 (.4) True = 3 (.4)	Not at all true = 45 (11.5) Somewhat true = 2 (.5) True = 1 (.3)	Not at all true = 20 (6.3) Somewhat true = 1 (.3) True = 2 (.6)

... continued

Table 2.6
(Continued)

ABI Items	Overall <i>N</i> (%)	Men <i>n</i> (%)	Women <i>n</i> (%)
Because the gay man/men looked like he/they had a lot of money.	Not at all true = 70 (9.9) Somewhat true = 1 (.1) Very true = 1 (.1)	Not at all true = 47 (12.0) Somewhat true = 1 (.3) Very true = 1 (.3)	Not at all true = 23 (7.3)
Because gay men disgust me.	Not at all true = 56 (7.9) Somewhat true = 8 (1.1) True = 5 (.7) Very true = 3 (.4)	Not at all true = 37 (9.4) Somewhat true = 6 (1.5) True = 3 (.8) Very true = 3 (.8)	Not at all true = 19 (6.0) Somewhat true = 2 (.6) True = 2 (.6)
For excited	Not at all true = 56 (7.9) Somewhat true = 12 (1.7) True = 3 (.4) Very true = 1 (.1)	Not at all true = 38 (9.7) Somewhat true = 8 (2.0) True = 2 (.5) Very true = 1 (.3)	Not at all true = 18 (5.7) Somewhat true = 4 (1.3) True = 1 (.3)
Because gay men spread AIDS.	Not at all true = 63 (8.9) Somewhat true = 4 (.6) True = 4 (.6)	Not at all true = 44 (11.2) Somewhat true = 3 (.8) True = 2 (.5)	Not at all true = 19 (6.0) Somewhat true = 1 (.3) True = 2 (.6)
Because I was actually angry at someone else.	Not at all true = 58 (8.2) Somewhat true = 6 (.8) True = 7 (1.0) Very true = 1 (.1)	Not at all true = 38 (9.7) Somewhat true = 5 (1.3) True = 5 (1.3) Very true = 1 (.3)	Not at all true = 20 (6.3) Somewhat true = 1 (.3) True = 2 (.6)
Because of the opinions of people I respect.	Not at all true = 56 (7.9) Somewhat true = 7 (1.0) True = 6 (.8) Very true = 2 (.3)	Not at all true = 39 (9.9) Somewhat true = 5 (1.3) True = 4 (1.0)	Not at all true = 17 (5.4) Somewhat true = 2 (.6) True = 2 (.6) Very true = 2 (.6)

Note: ABI = Antigay Behaviour Inventory. Only response options that had endorsement rates > 0 are shown.

Table 2.7

Frequency of anti-gay behaviour motivations of *Non-Assailants* stratified by gender ($N = 638$; n for Men = 343; n for women = 293)

ABI Items	Overall N (%)	Men n (%)	Women n (%)
of my religious beliefs.	Not at all true = 409 (57.6) Somewhat true = 79 (11.1) True = 64 (9.0) Very true = 84 (11.8)	Not at all true = 247 (62.8) Somewhat true = 28 (7.1) True = 29 (7.4) Very true = 39 (9.9)	Not at all true = 162 (51.1) Somewhat true = 51 (16.1) True = 35 (11.0) Very true = 45 (14.2)
there are no gay people in my neighborhood.	Not at all true = 417 (58.7) Somewhat true = 119 (16.8) True = 66 (9.3) Very true = 32 (4.5)	Not at all true = 234 (59.5) Somewhat true = 65 (16.5) True = 28 (7.1) Very true = 16 (4.1)	Not at all true = 183 (57.7) Somewhat true = 54 (17.0) True = 38 (12.0) Very true = 16 (5.0)
my friends would not approve.	Not at all true = 296 (41.7) Somewhat true = 117 (16.5) True = 134 (18.9) Very true = 87 (12.3)	Not at all true = 170 (43.3) Somewhat true = 63 (16.0) True = 69 (17.6) Very true = 40 (10.2)	Not at all true = 126 (39.7) Somewhat true = 54 (17.0) True = 65 (20.5) Very true = 47 (14.8)
I do not want to get in trouble with authorities.	Not at all true = 334 (47.0) Somewhat true = 100 (14.1) True = 116 (16.3) Very true = 87 (12.3)	Not at all true = 175 (44.5) Somewhat true = 60 (15.3) True = 63 (16.0) Very true = 46 (11.7)	Not at all true = 159 (50.2) Somewhat true = 40 (12.6) True = 53 (16.7) Very true = 41 (12.9)
I avoid places where gay people might be.	Not at all true = 536 (75.5) Somewhat true = 63 (8.9) True = 24 (3.4) Very true = 15 (2.1)	Not at all true = 267 (67.9) Somewhat true = 48 (12.2) True = 20 (5.1) Very true = 9 (2.3)	Not at all true = 269 (84.9) Somewhat true = 15 (4.7) True = 4 (1.3) Very true = 6 (1.9)
I might get hurt.	Not at all true = 492 (69.3) Somewhat true = 72 (10.1) True = 45 (6.3) Very true = 27 (3.8)	Not at all true = 265 (67.4) Somewhat true = 40 (10.2) True = 23 (5.9) Very true = 15 (3.8)	Not at all true = 227 (71.6) Somewhat true = 32 (10.1) True = 22 (6.9) Very true = 12 (3.8)

... continued

Table 2.7
(Continued)

ABI Items	Overall N (%)	Men n (%)	Women n (%)
of my moral beliefs.	Not at all true = 51 (7.2) Somewhat true = 28 (3.9) True = 117 (16.5) Very true = 442 (62.3)	Not at all true = 20 (5.1) Somewhat true = 16 (4.1) True = 61 (15.5) Very true = 247 (62.8)	Not at all true = 31 (9.8) Somewhat true = 12 (3.8) True = 56 (17.7) Very true = 195 (61.5)
a gay person has never approached me in a threatening way.	Not at all true = 117 (16.5) Somewhat true = 59 (8.3) True = 183 (25.8) Very true = 279 (39.3)	Not at all true = 62 (15.8) Somewhat true = 42 (10.7) True = 110 (28.0) Very true = 130 (33.1)	Not at all true = 55 (17.4) Somewhat true = 17 (5.4) True = 73 (23.0) Very true = 149 (47.0)
I am against violence.	Not at all true = 52 (7.3) Somewhat true = 112 (15.8) True = 210 (29.6) Very true = 259 (36.5)	Not at all true = 37 (9.4) Somewhat true = 83 (21.1) True = 105 (26.7) Very true = 117 (29.8)	Not at all true = 15 (4.7) Somewhat true = 29 (9.1) True = 105 (33.1) Very true = 142 (44.8)
I have friends that are gay.	Not at all true = 166 (23.4) Somewhat true = 98 (13.8) True = 150 (21.1) Very true = 221 (31.1)	Not at all true = 112 (28.5) Somewhat true = 59 (15.0) True = 82 (20.9) Very true = 90 (22.9)	Not at all true = 54 (17.0) Somewhat true = 39 (12.3) True = 68 (21.5) Very true = 131 (41.3)
I have family members who are gay.	Not at all true = 439 (761.8) Somewhat true = 43 (6.1) True = 49 (6.9) Very true = 104 (14.6)	Not at all true = 244 (62.1) Somewhat true = 26 (6.6) True = 29 (7.4) Very true = 43 (10.9)	Not at all true = 195 (61.5) Somewhat true = 17 (5.4) True = 20 (6.3) Very true = 61 (19.2)
I never see gay people.	Not at all true = 488 (68.7) Somewhat true = 112 (15.8) True = 26 (3.7) Very true = 10 (1.4)	Not at all true = 258 (65.6) Somewhat true = 62 (15.8) True = 17 (4.3) Very true = 6 (1.5)	Not at all true = 230 (72.6) Somewhat true = 50 (15.8) True = 9 (2.8) Very true = 4 (1.3)

... continued

Table 2.7
(Continued)

SBS-R Items	Overall <i>N</i> (%)	Men <i>n</i> (%)	Women <i>n</i> (%)
I might get AIDS.	Not at all true = 605 (85.2) Somewhat true = 19 (2.7) True = 4 (.6) Very true = 8 (1.1)	Not at all true = 321 (81.7) Somewhat true = 15 (3.8) True = 2 (.5) Very true = 4 (1.0)	Not at all true = 284 (89.6) Somewhat true = 4 (1.3) True = 2 (.6) Very true = 4 (1.3)
I believe gay people have a right to be left alone.	Not at all true = 76 (10.7) Somewhat true = 56 (7.9) True = 181 (25.5) Very true = 323 (45.5)	Not at all true = 38 (9.7) Somewhat true = 28 (7.1) True = 102 (26.0) Very true = 176 (44.8)	Not at all true = 38 (12.0) Somewhat true = 28 (8.8) True = 79 (24.9) Very true = 147 (46.4)

Note: ABI = Antigay Behaviour Inventory. Only response options that had endorsement rates > 0 are shown.

Table 2.8
Univariate logistic regression analysis of predictors of anti-gay behaviour.

Independent Variable	OR	SE	95% CI for Odds Ratio		<i>p</i> -value
			Lower	Upper	
Gender (1=male)	1.82	.27	1.08	3.06	.024 *
ATG	1.05	.01	1.02	1.08	<.001**
MHS-G	1.05	.01	1.03	1.08	<.001**
SDMH	1.10	.02	1.06	1.16	<.001**
ARHS-Positive	1.08	.05	0.98	1.19	.120
ARHS-Negative	1.16	.05	1.07	1.27	.001**
ARHS-Disgrace	1.08	.07	0.94	1.25	.281
ARHS-Discomposure	0.83	.07	0.72	0.96	.012*
AFI-Experiential	1.13	.13	0.88	1.45	.344
AFI-Social Expressive	0.96	.11	0.77	1.19	.721
AFI-Defensive	1.43	.11	1.16	1.78	.001**
AFI-Value Expressive	0.61	.11	0.50	0.76	<.001**

Note: ** $p < 0.01$, * $p < 0.05$.

Table 2.9

Logistic regression analysis of the unique predictive value of the ATG and MHS-G in determining anti-gay behaviour.

Independent Variable	OR	SE	95% CI for Odds Ratio		<i>p</i> -value
			Lower	Upper	
<u>Block 1</u>					
ATG	1.05	.01	1.02	1.08	<.001**
<u>Block 2</u>					
ATG	1.03	.02	.99	1.07	.141
MHS-G	1.03	.02	.99	1.07	.110

Note: ** $p < 0.01$, * $p < 0.05$.

Table 2.10

Logistic regression analysis of the unique predictive value of the gender and MHS-G in determining anti-gay behaviour.

Independent Variable	OR	SE	95% CI for Odds Ratio		<i>p</i> -value
			Lower	Upper	
<u>Block 1</u>					
Gender	1.73	.27	1.02	2.91	.041*
<u>Block 2</u>					
Gender	1.43	.28	.83	2.45	.196
MHS-G	1.05	.01	1.02	1.07	<.001**

Note: ** $p < 0.01$, * $p < 0.05$.

Table 2.11

Logistic regression analysis of the predictive value of the MHS-G, SDMH, and ARHS subscales in determining anti-gay behaviour.

Independent Variable	OR	SE	95% CI for Odds Ratio		<i>p</i> -value
			Lower	Upper	
<u>Block 1</u>					
MHS-G	1.05	.01	1.02	1.07	<.001**
<u>Block 2</u>					
MHS-G	1.03	.02	.99	1.06	.118
SDMH	1.08	.03	1.02	1.14	.008**
<u>Block 3</u>					
MHS-G	1.02	.02	.99	1.06	.193
SDMH	1.07	.03	1.00	1.13	.038*
ARHS-Negative	1.05	.06	.93	1.19	.427
ARHS-Discomposure	.85	.08	.73	.99	.041*

Note: ** $p < 0.01$, * $p < 0.05$.

Table 2.12

Logistic regression analysis of the unique predictive value of the attitude functions (AFI) in determining anti-gay behaviour.

Independent Variable	OR	SE	95% CI for Odds Ratio		<i>p</i> -value
			Lower	Upper	
<u>Block 1</u>					
AFI-Defensive	1.44	.11	1.16	1.79	.001*
<u>Block 2</u>					
AFI-Defensive	1.54	.12	1.22	1.94	<.001**
AFI-Value Expressive	.59	.11	.47	.73	<.001**

Note: ** $p < 0.01$, * $p < 0.05$.

Table 2.13

Logistic regression analysis of the predictive value of the SDMH, ARHS- subscales and the AFI- subscales in determining anti-gay behaviour.

Independent Variable	OR	SE	95% CI for Odds Ratio		<i>p</i> -value
			Lower	Upper	
<u>Block 1</u>					
SDMH	1.11	.02	1.06	1.16	<.001**
ARHS-Discomposure	.87	.08	.75	1.01	.058
<u>Block 1</u>					
SDMH	1.08	.03	1.02	1.14	.007**
ARHS-Discomposure	.90	.08	.78	1.05	.189
AFI-Defensive	1.22	.15	.92	1.62	.174
AFI-Value-expressive	.63	.12	.50	.79	<.001**

Note: ** $p < 0.01$, * $p < 0.05$.

Table 3.1
Demographics of Study 2 participants

	Overall (<i>N</i> =37) <i>n</i> (%)	Top 35% on ATG (<i>n</i> =14) <i>n</i> (%)	Bottom 35% on ATG (<i>n</i> =13) <i>n</i> (%)	Top 35% on MHS (<i>n</i> =15) <i>n</i> (%)	Bottom 35% on MHS (<i>n</i> =14) <i>n</i> (%)
<i>Academic Major</i>					
Humanities or social sciences	12 (32.4)	3 (21.4)	6 (46.2)	2 (13.3)	6 (42.9)
Natural or health sciences	16 (43.2)	5 (35.7)	5 (38.5)	8 (53.3)	6 (42.9)
Business	4 (10.8)	3 (21.4)	1 (7.7)	3 (20.0)	
Undeclared	5 (13.5)	3 (21.4)	1 (7.7)	2 (13.3)	2 (14.3)
<i>Ethnicity</i>					
My ethnic background is:					
Aboriginal (e.g., First Nations, Inuit, Metis)	4 (10.8)	3 (21.4)		2 (13.3)	1 (7.1)
Black (e.g., African American, African Canadian)	2 (5.4)	2 (14.3)		1 (6.7)	1 (7.1)
East Asian (e.g., Chinese, Japanese, Korean)	1 (2.7)	1 (7.1)		1 (6.7)	
South Asian (e.g., Indian, Pakistani, Sri Lankan)	2 (5.4)	1 (7.1)	1 (7.7)	1 (6.7)	
Southeast Asian (e.g., Burmese, Cambodian, Thai)	1 (2.7)	1 (7.1)			1 (7.1)
Caucasian	23 (62.2)	4 (28.6)	11 (84.6)	8 (53.3)	10 (71.4)
Other	4 (10.8)	2 (14.3)	1 (7.7)	2 (13.3)	1 (7.1)
<i>Political Conservatism</i>					
By my own definition, I would consider myself to be:					
Very liberal	3 (8.1)		2 (15.4)		2 (14.3)
Liberal	23 (62.2)	9 (64.3)	9 (69.2)	8 (53.3)	9 (64.3)
Somewhat liberal	6 (16.2)	1 (7.1)	2 (15.4)	3 (20.0)	2 (14.3)
Somewhat conservative	3 (8.1)	2 (14.3)		2 (13.3)	1 (7.1)
Conservative	2 (5.4)	1 (14.3)		2 (13.3)	
<i>Religious Services Attendance</i>					
I attend religious services:					
Regularly	3 (8.1)	2 (14.3)		1 (6.7)	1 (7.1)
Now and then	12 (32.4)	9 (64.3)	2 (15.4)	8 (53.3)	3 (21.4)
On special occasions	7 (18.9)		2 (15.4)	1 (6.7)	5 (35.7)
Never	15 (40.5)	3 (21.4)	9 (69.2)	5 (33.3)	5 (35.7)
<i>Religious Self-Schema</i>					
By my own definition, I am:					
Very religious	1 (2.7)				
Quite religious	6 (16.2)	5 (35.7)	1 (7.7)	5 (33.3)	
Somewhat religious	10 (27.0)	6 (42.9)	2 (15.4)	5 (33.3)	4 (28.6)
Not at all religious	20 (54.1)	3 (21.4)	10 (76.9)	5 (33.3)	10 (71.4)

...continued

Table 3.1
(Continued)

	Overall (N=37) n (%)	Top 35% on ATG (n=14) n (%)	Bottom 35% on ATG (n=13) n (%)	Top 35% on MHS (n=15) n (%)	Bottom 35% on MHS (n=14) n (%)
<i>Sexual Orientation</i>					
By my own definition, I would consider myself to be:					
Exclusively heterosexual	26 (70.3)	11 (78.6)	8 (61.5)	11 (73.3)	10 (71.4)
Primarily heterosexual	10 (27.0)	3 (21.4)	4 (30.8)	4 (28.6)	4 (28.6)
More heterosexual than homosexual	1 (2.7)		1 (7.7)		
<i>Marital Status</i>					
I am currently:					
Single	26 (70.3)	9 (64.3)	10 (76.9)	11 (73.3)	11 (78.6)
Dating	8 (21.6)	3 (21.4)	3 (23.1)	2 (13.3)	3 (21.4)
Married	3 (8.1)	2 (14.3)		2 (13.3)	
<i>Average Income</i>					
The average income in my (parent's) household before taxes is:					
Less than \$10,000	1 (2.7)	1 (7.1)			1 (7.1)
\$10,001 - \$19, 999	3 (8.1)	1 (7.1)	2 (15.4)	1 (6.7)	1 (7.1)
\$20,000 - \$29, 999	6 (16.2)	2 (14.3)	3 (23.1)	3 (20.0)	2 (14.3)
\$30,000 - \$39, 999	3 (8.1)	2 (14.3)		2 (13.3)	
\$70,000 - \$79, 999	2 (5.4)				1 (7.1)
\$80,000 - \$89, 999	3 (8.1)	1 (7.1)	1 (7.7)	2 (13.3)	1 (7.1)
\$90,000 - \$99, 999	1 (2.7)		1 (7.7)	1 (6.7)	
\$100,000 or more	10 (27.0)	4 (28.6)	5 (38.5)	3 (20.0)	4 (28.6)
Do not know	8 (21.6)	3 (21.4)	1 (7.7)	3 (20.0)	4 (28.6)

Table 3.2

Means, standard deviations, ranges, and alpha coefficients for attitudinal and defensive/functional measures of homonegativity.

Measures		<i>n</i>	<i>M (SD)</i>	Possible range; midpoint	Obtained Range	Alpha Coefficient (95% CI)
Attitudes						
<u>ATG</u>	Overall	37	18.57 (10.14)	10-50; 30	10-50	.95 (.92-.97)
	Top ATG	14	28.57 (9.99)	10-50; 30	19-50	
	Bottom ATG	13	10.54 (0.88)	10-50; 30	10-12	
	Top MHS	15	23.93 (10.10)	10-50; 30	10-41	
	Bottom MHS	14	15.50 (10.60)	10-50; 30	10-50	
	Study 1 Only	345	19.37 (9.08)	10-50; 30	10-50	.92 (.91-.93)
	<u>MHS</u>					
Overall	37	29.30 (9.18)	12-60; 36	13-52	.90 (.84-.94)	
Top ATG	14	36.93 (9.43)	12-60; 36	19-50		
Bottom ATG	13	23.85 (5.89)	12-60; 36	13-32		
Top MHS	15	37.80 (7.72)	12-60; 36	30-52		
Bottom MHS	14	21.29 (3.71)	12-60; 36	13-25		
Study 1 Only	348	31.84 (10.38)	12-60; 36	12-60	.91 (.90-.92)	
Functions						
<u>ABI-SF</u>						
<u>Assailants</u>						
Anti-gay Ideology	Overall	7	3.57 (.79)	3-12; 7.5	3-5	
	Top ATG	4	3.50 (.58)	3-12; 7.5	3-4	
	Bottom ATG	2	4.00 (1.41)	3-12; 7.5	3-5	
	Top MHS	4	3.25 (.50)	3-12; 7.5	3-4	
	Bottom MHS	2	4.50 (.71)	3-12; 7.5	4-5	
	Study 1 Only		4.17 (2.00)	3-12; 7.5	3-12	.71 (.56-.81)
	<u>Gain status</u>					
Overall	7	5.00 (1.15)	4-16; 10	4-7		
Top ATG	4	5.50 (1.29)	4-16; 10	4-7		
Bottom ATG	2	4.00 (-)	4-16; 10	-		
Top MHS	4	5.25 (1.50)	4-16; 10	4-7		
Bottom MHS	2	4.50 (.71)	4-16; 10	4-5		
Study 1 Only	64	4.97 (1.94)	4-16; 10	4-16	.84 (.76-.90)	
<u>Thrill Seeking</u>						
Overall	7	4.00 (1.29)	3-12; 7.5	3-6		
Top ATG	4	4.00 (1.15)	3-12; 7.5	3-5		
Bottom ATG	2	3.00 (-)	3-12; 7.5	-		
Top MHS	4	4.00 (1.15)	3-12; 7.5	3-5		
Bottom MHS	2	3.00 (-)	3-12; 7.5	-		
Study 1 Only	65	4.23 (1.97)	3-12; 7.5	3-11	.72 (.58-.82)	

...continued

Table 3.2
(Continued)

Measures		<i>n</i>	<i>M (SD)</i>	Possible range; midpoint	Obtained Range	Alpha Coefficient (95% CI)
<u>Non-Assailants:</u>						
Contact with gay men	Overall	30	2.60 (1.28)	2-8; 5	2-8	.88 (.76-.95)
	Top ATG	10	3.40 (1.90)	2-8; 5	2-8	
	Bottom ATG	11	2.18 (.60)	2-8; 5	2-4	
	Top MHS	11	3.18 (1.83)	2-8; 5	2-8	
	Bottom MHS	12	2.25 (.62)	2-8; 5	2-4	
	Study 1 Only	603	2.87 (1.31)	2-8; 5	2-8	.65(.59-.70)
Personal values	Overall	30	9.90 (1.84)	3-12; 7.5	5-12	.50 (0.08-.74)
	Top ATG	10	9.20 (2.53)	3-12; 7.5	5-12	
	Bottom ATG	11	10.00 (1.67)	3-12; 7.5	7-12	
	Top MHS	11	9.18 (2.31)	3-12; 7.5	5-12	
	Bottom MHS	12	10.67 (.98)	3-12; 7.5	9-12	
	Study 1 Only	601	9.73 (2.13)	3-12; 7.5	3-12	.58 (.52-.64)
<u>AFI</u>						
Defensive	Overall	37	1.47 (.91)	1-5; 3	1-4	.83 (.66-.91)
	Top ATG	14	2.14 (2.00)	1-5; 3	1-4	
	Bottom ATG	13	1.00 (-)	1-5; 3	-	
	Top MHS	15	1.97 (1.25)	1-5; 3	1-4	
	Bottom MHS	14	1.18 (.37)	1-5; 3	1-2	
	Study 1 Only	351	1.67 (1.01)	1-5; 3	1-5	.79 (.76-.82)
Experiential Schematic	Overall	36	2.10 (0.96)	1-5; 3	1-5	.73 (0.55-.85)
	Top ATG	14	2.36 (1.08)	1-5; 3	1-5	
	Bottom ATG	12	1.71 (0.64)	1-5; 3	1-2.75	
	Top MHS	15	2.25 (1.19)	1-5; 3	1-5	
	Bottom MHS	14	1.96 (.78)	1-5; 3	1-3.50	
	Study 1 Only	348	1.95 (.86)	1-5; 3	1-5	.77 (.75-.80)
Social-Expressive	Overall	36	2.01 (1.16)	1-5; 3	1-5	.85 (.70-.92)
	Top ATG	13	2.15 (1.13)	1-5; 3	1-4	
	Bottom ATG	13	1.69 (1.13)	1-5; 3	1-4	
	Top MHS	15	2.03 (1.04)	1-5; 3	1-4	
	Bottom MHS	14	1.64 (.93)	1-5; 3	1-3.50	
	Study 1 Only	352	2.02 (1.07)	1-5; 3	1-5	.79 (.76-.82)
Value-Expressive	Overall	36	3.69 (1.23)	1-5; 3	1-5	.57 (.16-.78)
	Top ATG	13	2.85 (1.01)	1-5; 3	1-5	
	Bottom ATG	13	4.04 (1.14)	1-5; 3	2-5	
	Top MHS	15	2.97 (1.08)	1-5; 3	1-5	
	Bottom MHS	14	4.21 (1.09)	1-5; 3	2-5	
	Study 1 Only	351	3.37 (1.22)	1-5; 3	1-5	.57 (.50-.63)

...continued

Table 3.2
(Continued)

Measures		<i>n</i>	<i>M</i> (<i>SD</i>)	Possible Range; Midpoint	Obtained Range	Alpha Coefficient (95% CI)
<u>DSQ-40</u> Mature	Overall	37	29.95 (4.24)	8-40; 24	21-38	.63 (.41-.78)
	Top ATG	14	30.14 (4.75)	8-40; 24	21-38	
	Bottom ATG	13	30.46 (3.26)	8-40; 24	24-36	
	Top MHS	15	29.13 (5.00)	8-40; 24	21-38	
	Bottom MHS	14	30.93 (3.99)	8-40; 24	24-37	
	Study 1 Only	350	28.02 (4.22)	8-40; 24	9-40	
Neurotic	Overall	37	24.95 (4.92)	8-40; 24	13-39	.65 (.44-.80)
	Top ATG	14	24.93 (5.95)	8-40; 24	13-39	
	Bottom ATG	13	24.15 (3.39)	8-40; 24	20-32	
	Top MHS	15	23.27 (3.97)	8-40; 24	13-29	
	Bottom MHS	14	27.00 (5.75)	8-40; 24	22-39	
	Study 1 Only	345	22.93 (4.32)	8-40; 24	10-37	
Immature	Overall	34	65.29 (10.64)	24-120; 72	41-86	.74 (.59-.85)
	Top ATG	13	66.46 (10.03)	24-120; 72	51-86	
	Bottom ATG	13	64.23 (11.31)	24-120; 72	41-80	
	Top MHS	14	65.21 (8.09)	24-120; 72	51-77	
	Bottom MHS	13	67.00 (13.56)	24-120; 72	41-86	
	Study 1 Only	334	60.25 (9.83)	24-120; 72	36-88	
<u>SCS</u>	Overall	37	31.24 (8.68)	10-50; 30	13-47	.87 (.80-.92)
	Top ATG	14	30.86 (7.37)	10-50; 30	22-44	
	Bottom ATG	13	30.85 (7.51)	10-50; 30	21-44	
	Top MHS	15	31.13 (7.25)	10-50; 30	22-44	
	Bottom MHS	14	33.43 (10.13)	10-50; 30	13-47	
	Study 1 Only	348	29.33 (8.58)	10-50; 30	10-50	
<u>SDS-17</u>	Overall	36	8.86 (2.76)	0-16; 8	3-14	.59 (.36-.76)
	Top ATG	13	9.46 (2.79)	0-16; 8	3-13	
	Bottom ATG	13	9.46 (2.26)	0-16; 8	6-14	
	Top MHS	14	9.50 (2.82)	0-16; 8	3-14	
	Bottom MHS	14	8.93 (2.06)	0-16; 8	6-13	
	Study 1 Only	343	8.39 (3.09)	0-16; 8	0-15	
<u>SDMH</u>	Overall	37	7.27 (3.85)	5-25; 15	5-21	.89 (.82-.94)
	Top ATG	14	9.57 (5.17)	5-25; 15	5-21	
	Bottom ATG	13	5.00 (.00)	5-25; 15	-	
	Top MHS	15	8.80 (5.16)	5-25; 15	5-21	
	Bottom MHS	14	5.71 (1.54)	5-25; 15	5-10	
	Study 1 Only	353	8.87 (5.04)	5-25; 15	5-25	

Note: ATG = Attitudes Toward Gay Men; MHS-G = Modern Homonegativity Scale-Gay Men; ABI-SF = Anti-gay Behaviour Inventory; AFI = Attitude Function Inventory; DSQ-40 = Defence Style Questionnaire-40; SCS = Self Concealment Scale; SDS-17 = Social Desirability Scale-17.

Table 3.3
 Frequency of anti-gay behaviour motivations of *Assailants* (N = 7)

ABI Items	Overall N (%)
Because of my religious beliefs.	Not at all true = 4 (57.1) Somewhat true = 1 (14.3) True = 2 (28.6)
To have fun.	Not at all true = 4 (57.1) Somewhat true = 1 (14.3) True = 2 (28.6)
Because I don't want gay men in my neighborhood.	Not at all true = 7 (100)
Because my friends expected me to.	Not at all true = 6 (85.7) Very true = 1 (14.3)
To prove I am not gay.	Not at all true = 5 (71.4) Somewhat true = 1 (14.3) True = 1 (14.3)
Because I hate gay men.	Not at all true = 6 (85.7) Somewhat true = 1 (14.3)
Because I was bored.	Not at all true = 6 (85.7) Somewhat true = 1 (14.3)
Because of previous bad experiences with gay men.	Not at all true = 7 (100)
To show my friends I'm tough.	Not at all true = 6 (85.7) Somewhat true = 1 (14.3)
Because of my moral beliefs.	Not at all true = 4 (57.1) Somewhat true = 2 (28.6) True = 1 (14.3)
To feel closer to my friends	Not at all true = 5 (71.4) Somewhat true = 1 (14.3) True = 1 (14.3)
Because the gay man/men started a fight.	Not at all true = 5 (71.4) Somewhat true = 2 (28.6)
To feel strong.	Not at all true = 7 (100)
Because the gay man/men looked like he/they had a lot of money.	Not at all true = 7 (100)

... continued

Table 3.3
(Continued)

ABI Items	Overall <i>N</i> (%)
Because gay men disgust me.	Not at all true = 6 (85.7) True = 1 (14.3)
For excited	Not at all true = 6 (85.7) Somewhat true = 1 (14.3)
Because gay men spread AIDS.	Not at all true = 5 (85.7) True = 2 (14.3)
Because I was actually angry at someone else.	Not at all true = 5 (71.4) Somewhat true = 1 (14.3) True = 1 (14.3)
Because of the opinions of people I respect.	Not at all true = 6 (85.7) Somewhat true = 1 (14.3)
Note: ABI = Antigay Behaviour Inventory. Only response options that had endorsement rates > 0 are shown.	

Table 3.4

Intercorrelations among the measures of the cognitive and defensive/functional measures of homonegativity stratified by level of homonegativity ($N = 27$; n for Top 35% ATG = 14; n for Bottom 35% ATG = 13)

	Non-Assailants ($n = 10$; $n = 11$)													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. ATG		.42	-.26	-.04	.51	-.09	.46	.28	.34	.37	.30	.00	.15	.12
2. MHS-G	.59*		.34	.62	.60*	-.30	-.00	-.29	.04	-.32	-.12	.15	-.33	.43
3. ABI-P.C.	-.19	-.30		-.22	.39	.06	-.42	-.46	.09	-.08	-.06	.76*	-.11	.66*
4. ABI-P.V.	.75**	-.29	.00		-.09	.42	.71*	.67*	.64*	.30	.03	-.44	.68*	-.52
5. AFI-E.D.	-	-	-	-		.25	.33	-.05	.45	.04	.05	.50	-.16	.54*
6. AFI-Exp.	.51	.06	-.12	-.22	-		.46	.37	.14	.48	.21	.24	.05	.03
7. AFI-S.E.	.14	.13	.33	-.36	-	-.11		.67*	.40	.24	.14	-.26	.28	-.19
8. AFI-V.E.	-.54	-.09	.27	.37	-	-.24	.06		.45	.40	.49	-.04	.27	-.38
9. DSQ-40 Mature	.38	.35	.51	-.34	-	-.05	-.01	-.37		.14	.37	.07	.43	.18
10. DSQ-40 Neurotic	-.03	-.10	-.05	-.02	-	.49	-.03	.18	-.11		.68**	.15	.11	-.03
11. DSQ-40 Immature	.10	.14	.50	-.10	-	.37	.08	.06	.58*	.37		.13	-.07	.30
12. SCS	-.24	-.19	.40	.27	-	.28	.05	.38	-.16	.01	.52		-.24	.46
13. SDS-17	.25	.20	.00	.15	-	.19	-.37	-.15	.28	-.10	.19	.08		-.35
14. SDMH	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: ** $p < 0.01$, * $p < 0.05$. Top 35% ATG scorers above the diagonal; Bottom 35% ATG scorers below the diagonal. ATG = Attitudes Toward Gay Men; MHS-G = Modern Homonegativity Scale-Gay Men; ABI = Anti-gay Behaviour Inventory (ABI-P.C. = Personal Contact; ABI-P.V. = ABI-Personal Values); AFI = Attitude Function Inventory (AFI-E.D. = AFI-Ego-defensiveness; AFI-Exp. = AFI-Experiential; AFI-S.E. = AFI-Social Expressive; AFI-V.E. = AFI-Value Expressive); DSQ-40 = Defence Style Questionnaire-40; SCS = Self Concealment Scale; SDS-17 = Social Desirability Scale-17; SDMH = Social Distance Measure of Homophobia.

Table 3.5

Intercorrelations among the measures of the cognitive and defensive/functional measures of homonegativity stratified by level of homonegativity. ($N = 29$; n for Top 35% MHS-G = 15; n for Bottom 35% MHS-G = 14)

	Non-Assailants ($n = 11$; $n = 12$)													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. ATG		.83**	.26	-.49	.85	.32	.43	-.39	.18	.28	-.02	.12	-.25	.49
2. MHS-G	.49		.42	-.52	.71**	-.01	.05	-.59*	.22	.11	.04	-.02	-.30	.57*
3. ABI-P.C.	-.13	-.27		-.31	.42	-.09	-.23	-.13	.15	.18	-.01	.54	-.08	.58
4. ABI-P.V.	.09	-.18	-.09		-.19	-.08	.27	.62*	.21	-.18	-.37	.02	.69*	-.67*
5. AFI-E D.	.47	.22	-.20	-.34		.30	.48	-.15	.50	.24	.11	.28	-.15	.56*
6. AFI-Exp.	.27	.46	-.27	-.02	.48		.64*	-.07	.06	.70**	.19	-.04	-.31	.10
7. AFI-S.E.	.29	.13	.39	-.11	-.12	.29		.02	.02	.42	-.15	.01	-.13	.17
8. AFI-V.E.	-.10	.24	.10	-.23	-.18	-.02	.32		.32	.08	.31	.36	.45	-.28
9. DSQ-40 Mature	.46	.30	-.06	-.24	.36	.12	.33	.06		-.09	.33	.06	.22	.10
10. DSQ-40 Neurotic	.60*	.59*	-.33	.12	.58*	.75**	.36	.18	.51		.50	.20	-.25	.28
11. DSQ-40 Immature	.48	.37	.10	-.14	.15	.49	.77**	.13	.64*	.66*		.21	-.36	.34
12. SCS	.14	.07	.27	-.29	-.13	.16	.20	.08	-.11	-.03	.29		.11	.31
13. SDS-17	.15	.07	-.26	.39	-.09	-.24	-.32	.08	.41	.11	.09	-.21		-.46
14. SDMH	.45	.27	-.20	-.34	.63*	.68**	.25	-.39	.17	.45	.44	.14	-.41	

Note: ** $p < 0.01$, * $p < 0.05$. Top 35% MHS-G scorers above the diagonal; Bottom 35% MHS-G scorers below the diagonal. ATG = Attitudes Toward Gay Men; MHS-G = Modern Homonegativity Scale-Gay Men; ABI = Anti-gay Behaviour Inventory (ABI-P.C. = Personal Contact; ABI-P.V. = ABI- Personal Values); AFI = Attitude Function Inventory (AFI-E.D. = AFI-Ego-defensiveness; AFI- Exp. = AFI - Experiential; AFI-S.E. = AFI-Social Expressive; AFI-V.E. = AFI-Value Expressive); DSQ-40 = Defence Style Questionnaire-40; SCS = Self Concealment Scale; SDS-17 = Social Desirability Scale-17; SDMH = Social Distance Measure of Homophobia.

Table 3.6

Means and standard deviations of the raw genital sexual arousal (PPG) data in millimeters across videos stratified by scores on the ATG and MHS-G. ($N = 37$)

Video	ATG		MHS-G	
	Bottom 35% ($n = 13$) <i>M (SD)</i>	Top 35% ($n = 14$) <i>M (SD)</i>	Bottom 35% ($n = 14$) <i>M (SD)</i>	Top 35% ($n = 15$) <i>M (SD)</i>
Male/Male	6.61 (10.48)	12.39 (17.19)	8.46 (14.38)	11.15 (15.29)
Female/Male	25.33 (15.15)	23.44 (16.49)	26.18 (14.75)	24.79 (17.33)
Neutral	.90 (1.03)	1.67 (2.46)	1.12 (1.97)	1.21 (1.74)

Note: ATG = Attitudes Toward Gay Men; MHS-G = Modern Homonegativity Scale-Gay Men.

Table 3.7

Means and standard deviations of the standardized genital sexual arousal (PPG) across videos stratified by scores on the ATG and MHS-G. ($N = 37$)

Video	ATG			MHS-G			Overall				
	Bottom 35% ($n = 13$)	Top 35% ($n = 14$)		Bottom 35% ($n = 14$)	Top 35% ($n = 15$)		$N = 37$				
	$M (SD)$	$M (SD)$	t	p	d	$M (SD)$	$M (SD)$	t	p	d	$M (SD)$
Male/Male	-.40 (.37)	-.15 (.53)	-1.39	.18	-0.56	-.37 (.45)	-.19 (.49)	-1.02	.31	-0.39	-.32 (.43)
Female/Male	1.18 (.17)	1.03 (.28)	1.59	.13	0.64	1.17 (.21)	1.08 (.27)	.99	.33	0.38	1.10 (.25)
Neutral	-.78 (.22)	-.88 (.27)	1.06	.30	-0.35	-.79 (.25)	-.89 (.24)	1.02	.32	0.39	-.79 (.26)

Note: ATG = Attitudes Toward Gay Men; MHS-G = Modern Homonegativity Scale-Gay Men.

Table 3.8

Means and standard deviations of the continuous subjective sexual arousal response (CSR) across videos stratified by scores on the ATG and MHS-G. ($N = 37$)

Video	ATG		<i>t</i>	<i>p</i>	<i>d</i>	MHS-G		<i>t</i>	<i>p</i>	<i>d</i>
	Bottom 35% (<i>n</i> = 13) <i>M</i> (<i>SD</i>)	Top 35% (<i>n</i> = 14) <i>M</i> (<i>SD</i>)				Bottom 35% (<i>n</i> = 14) <i>M</i> (<i>SD</i>)	Top 35% (<i>n</i> = 15) <i>M</i> (<i>SD</i>)			
Male/Male	7.71 (13.27)	8.31 (18.67)	-.09	.93	-0.04	7.71 (11.27)	8.28 (18.13)	-.10	.92	-0.04
Female/Male	59.15 (29.67)	62.08 (21.96)	-.29	.77	-0.12	66.54 (31.98)	60.38 (26.16)	.57	.57	0.22
Neutral	.15 (.55)	.85 (2.82)	-.87	.39	-0.38	1.53 (4.90)	1.12 (2.97)	.28	.78	0.11

Note: ATG = Attitudes Toward Gay Men; MHS-G = Modern Homonegativity Scale-Gay Men; CSR = subjective sexual arousal as measured by continuous space bar pushing.

Table 3.9

Means and standard deviations of within-subjects correlations between genital sexual arousal and continuous subjective arousal response (CSR) in response to Male/Male sexually explicit material.

		<i>N</i>	<i>M (SD)</i>
	Overall	14	0.33 (0.21)
ATG	Higher Scoring	7	0.38 (0.24)
	Lower Scoring	7	0.27 (0.17)
MHS-G	Higher Scoring	6	0.45 (0.19)
	Lower Scoring	8	0.23 (0.17)

Note: ATG = Attitudes Toward Gay Men; MHS-G = Modern Homonegativity Scale-Gay Men; CSR = subjective sexual arousal as measured by continuous space bar pushing. Correlations represent 121 data points for each participant and were only calculated for men who endorsed increased subjective sexual arousal while watching Male/Male sexually explicit videos.

Table 3.10

Means, standard deviations, and obtained ranges of post-video question responses. ($N = 37$)

	Male/Male Video		Neutral Video		Male/Female Video	
	<i>M (SD)</i>	Obtained Range	<i>M (SD)</i>	Obtained Range	<i>M (SD)</i>	Obtained Range
How sexually arousing did you find the video? ^{a, b, c}	2.14 (1.82)	1.00-7.50	1.03 (0.11)	1.00-1.50	6.05 (2.16)	1.00-8.50
How sexually aroused did your genitals feel in response to the video? ^{a, b, c}	2.26 (1.88)	1.00-7.50	1.01 (0.08)	1.00-1.50	5.66 (2.21)	1.50-9.00
How anxious did you feel while watching the video? ^{a, c}	2.19 (1.38)	1.00-6.00	1.28 (0.95)	1.00-6.50	1.80 (1.64)	1.00-7.50
How angry did you feel while watching the video?	1.39 (1.25)	1.00-7.50	1.00 (0.00)	-	1.03 (0.11)	1.00-1.50
How stressed did you feel while watching the video? ^{a, b}	2.05 (1.40)	1.00-6.50	1.08 (0.25)	1.00-2.00	1.14 (0.33)	1.00-2.50
How happy did you feel while watching the video? ^{a, b, c}	1.95 (1.59)	1.00-6.00	4.14 (1.35)	1.00-6.00	4.27 (2.39)	1.00-8.00
How sad did you feel while watching the video?	1.39 (1.07)	1.00-5.50	1.09 (0.28)	1.00-2.50	1.18 (0.41)	1.00-3.00
How disgusted did you feel while watching the video? ^{a, b}	2.74 (2.22)	1.00-9.00	1.00 (0.00)	-	1.23 (0.52)	1.00-3.00

Note: Post-video questions were answered using a 9-point Likert scale ranging from 1 to 9, with 1 indicating no/low affect or sexual arousal to the stimuli and 9 indicating strong/high affect or sexual arousal to the stimuli.

^aStatistically significant difference ($p < .001$) between Neutral and Male/Male videos

^bStatistically significant difference ($p < .001$) between Male/Male and Male/Female videos

^cStatistically significant difference ($p < .001$) between Neutral and Male/Female videos

Table 3.11

Intercorrelations among the affective post-video questions, affective measures of homonegativity and genital sexual arousal to the Male/Male video stratified by level of genital sexual arousal as measured by the PPG to the Male/Male video ($N = 18$; n for Top 25% PPG responders = 9; n for Bottom 25% PPG responders = 9)

	1	2	3	4	5	6	7	8	9
1. Anxious		.04	-.18	.14	-.33	-.13	.19	.20	-.74*
2. Angry	-		.89**	-.42	.60	.56	.52	.58**	.02
3. Stressed	.81**	-		-.29	.51	.37	.25	.50*	.29
4. Happy	-.65	-	-.34		-.37	-.33	-.40	-.37	.42
5. Sad	-	-	-	-		.92**	.68*	-.15	.32
6. Disgusted	.52	-	.21	-.51	-		.69*	.70**	.17
7. SDMH	.34		-.16	-.48		.40		.22	-.29
8. ARHS-N	.71*	-	.63	.05	-.22	.83**	.10		.13
9. GSA to Male/Male Video	.50	-	.28	-.49	-	.52	.29	.25	

Note: ** $p < 0.01$, * $p < 0.05$. Top 25% PPG responders above the diagonal; Bottom 25% PPG responders below the diagonal. PPG = Penile Plethysmography; GSA = Genital Sexual Arousal; SDMH = Social Distance Measure of Homophobia; ARHS-N. = Affective Reactions to Homosexuality Scale-Negative. Correlations for post-video questions only in response to the Male/Male video.

Table 3.12

Intercorrelations among the measures of the defensive/functional, homonegativity, and genital sexual arousal to the male/male video stratified by level of genital sexual arousal as measured by the PPG to the Male/Male video ($N = 18$; n for Top 25% PPG responders = 9; n for Bottom 25% PPG responders = 9)

	1	2	3	4	5	6	7	8	9
1. AFI-E.D.		.43	.48	-.17	.91**	.36	.34	-.11	.09
2. AFI-Exp.	.00		.66	-.14	.48	.77*	.81*	.41	.08
3. AFI- S.E.	-.36	.35		-.02	.42	.16	.45	.14	-.32
4. AFI-V.E.	-.57	-.28	.21		.14	-.03	.07	.41	-.26
5. DSQ-40 Mature	-.41	-.25	.69*	.66*		.46	.44	.02	.03
6. DSQ-40 Neurotic	.07	.62	.64	-.03	.13		.82*	.52	.19
7. DSQ-40 Immature	-.21	.09	.87**	.25	.65	.57		.69	.18
8. SCS	.00	-.17	.03	.07	.25	-.35	.04		-.33
9. GSA.- M/M Video	.00	.02	.24	-.31	-.08	-.16	.35	.03	

Note: ** $p < 0.01$, * $p < 0.05$. Top 25% PPG responders above the diagonal; Bottom 25% PPG responders below the diagonal. PPG = Penile Plethysmography; GSA = Genital Sexual Arousal; ABI = Anti-gay Behaviour Inventory; AFI = Attitude Function Inventory (AFI-E.D. = AFI-Ego-defensiveness; AFI-Exp. = AFI-Experiential; AFI-S.E. = AFI-Social Expressive; AFI-V.E. = AFI-Value Expressive); DSQ-40 = Defence Style Questionnaire-40; SCS = Self Concealment Scale; GSA = Genital Sexual Arousal (i.e., PPG)

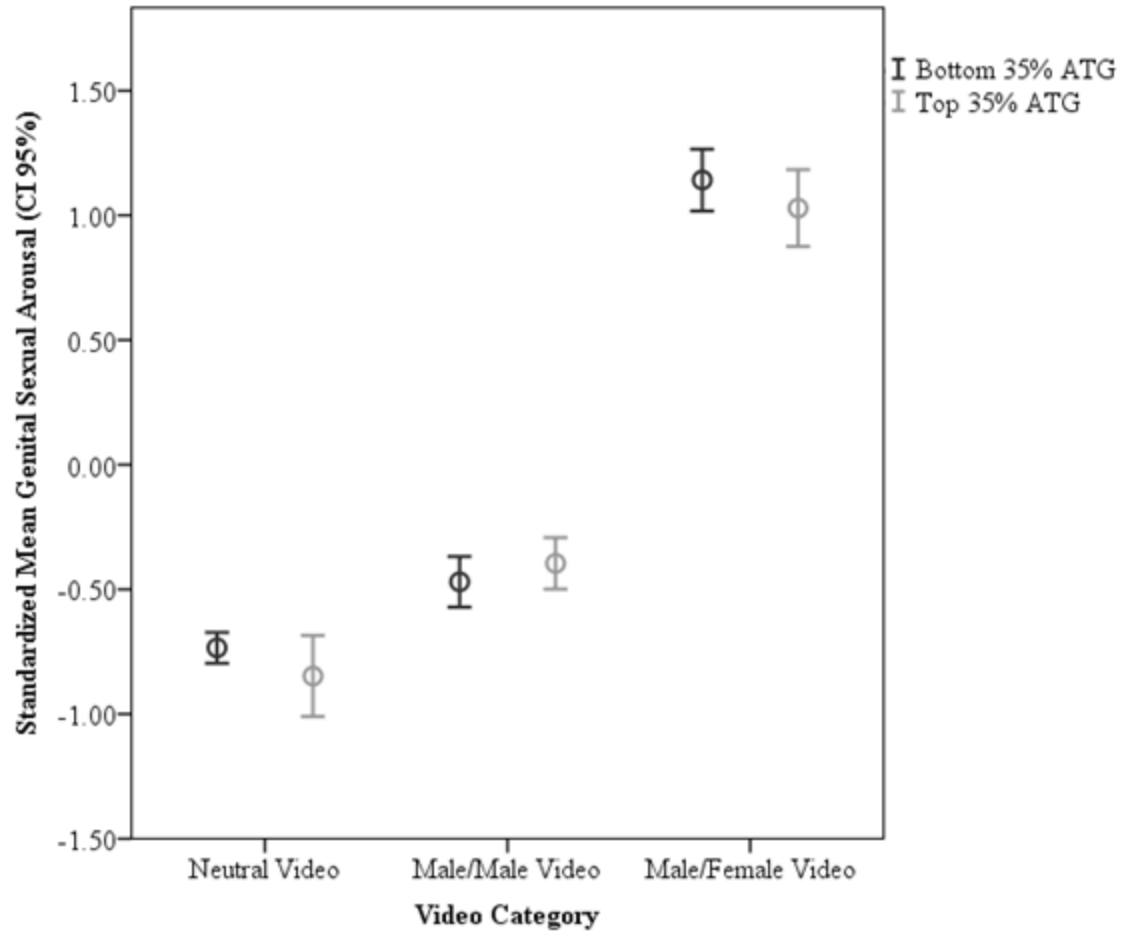


Figure 3.1. Standardized mean genital responses in men higher in homonegativity and lower in homonegativity as measured by the ATG and as a function of video category.

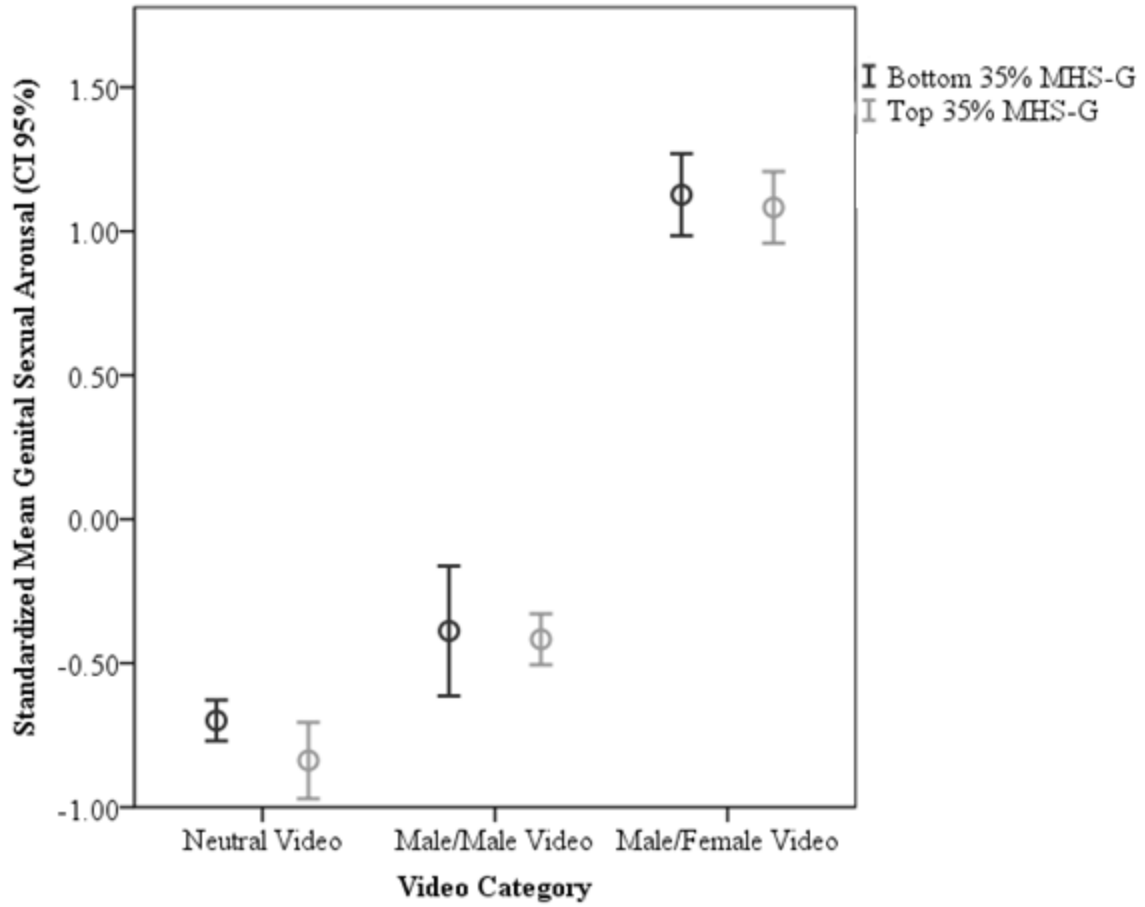


Figure 3.2. Standardized mean genital responses in men higher in homonegativity and lower in homonegativity as measured by the MHS-G and as a function of video category.

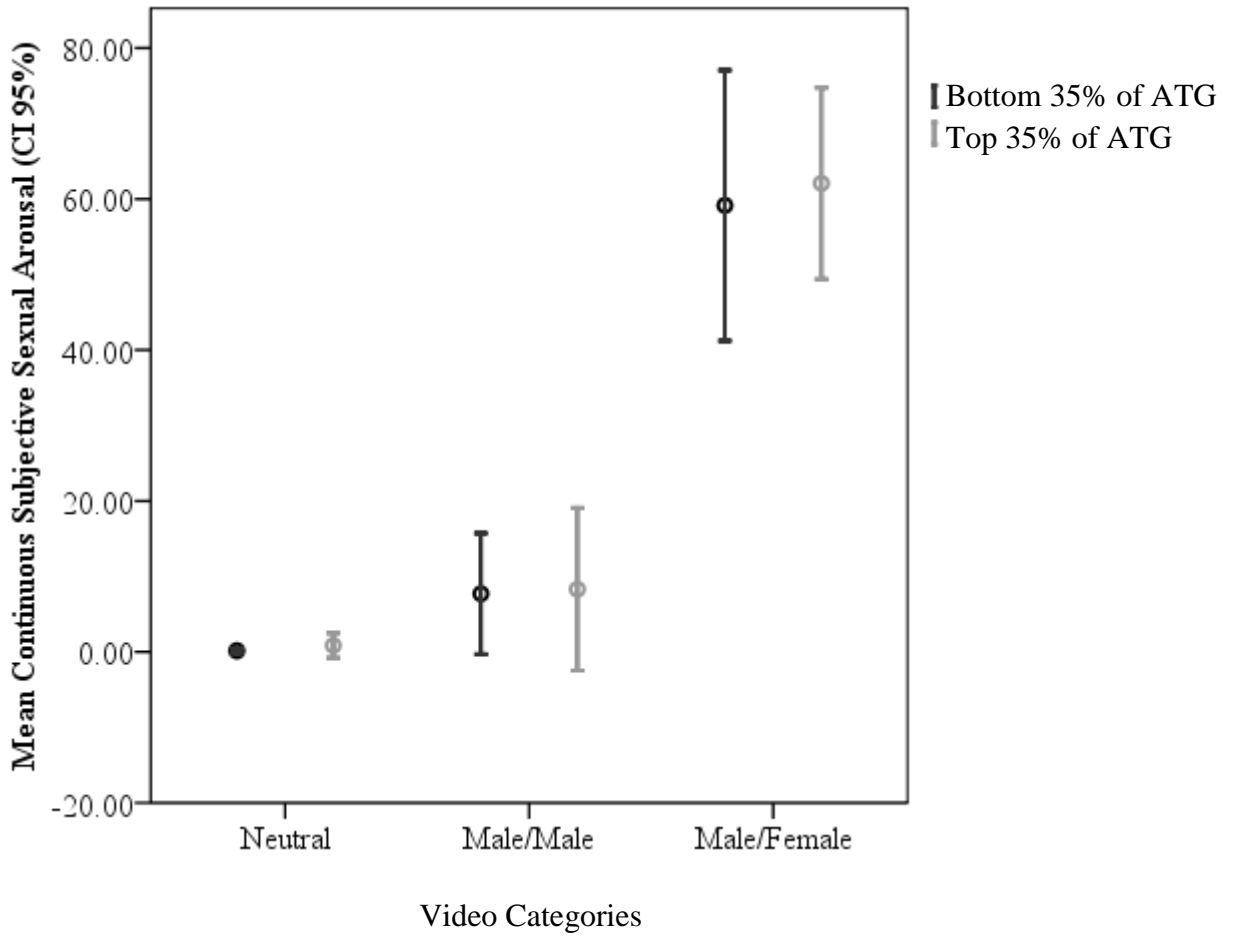


Figure 3.3. Mean subjective responses in men higher in homonegativity and lower in homonegativity as measured by the ATG and as a function of video category.

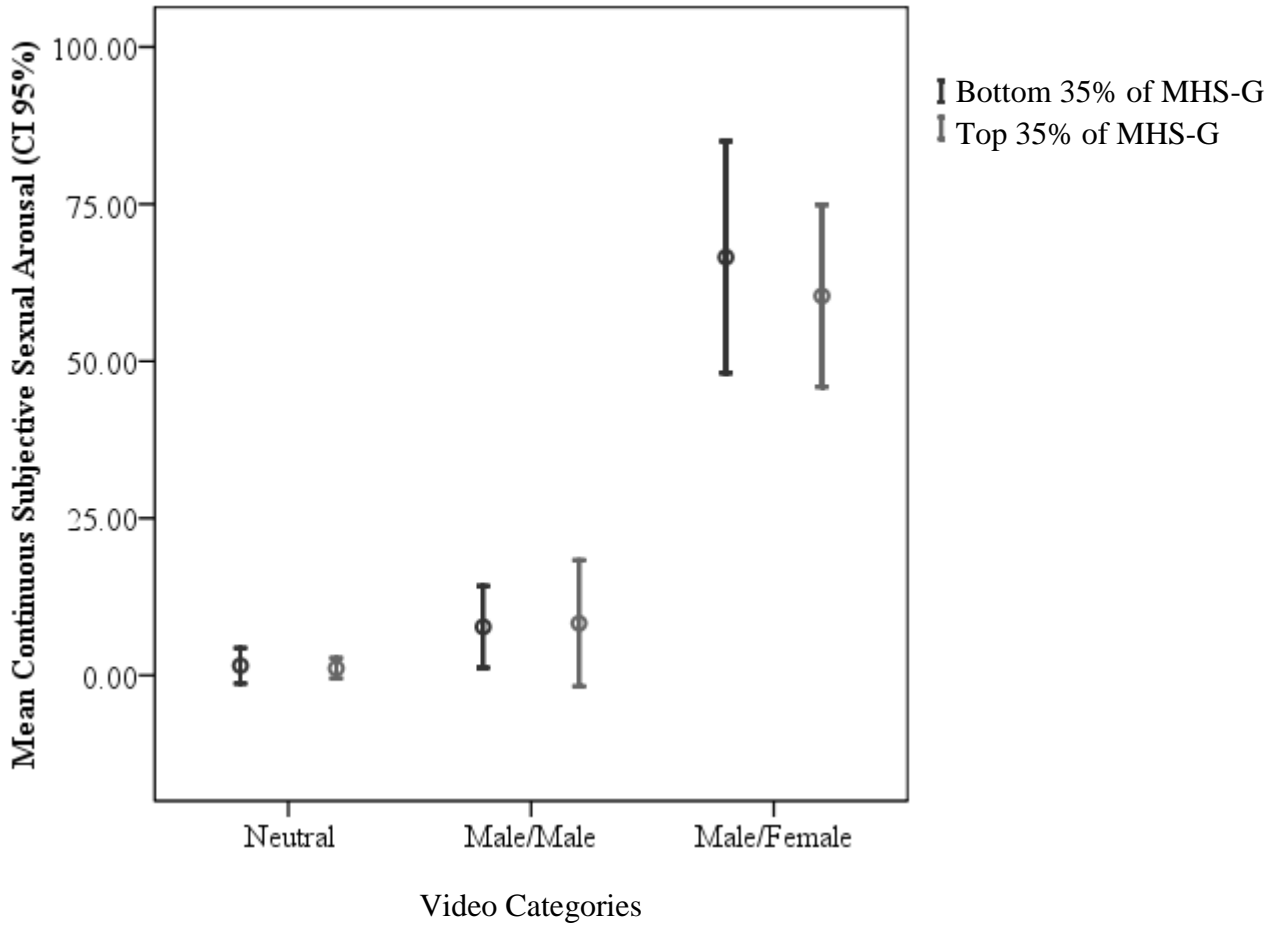


Figure 3.4. Mean subjective responses in men higher in homonegativity and lower in homonegativity as measured by the MHS-G and as a function of video category.