

2003

Understanding sexual prejudice : heterosexual attitudes toward lesbians and gay men

Summer Lyn Brandt
San Jose State University

Follow this and additional works at: https://scholarworks.sjsu.edu/etd_theses

Recommended Citation

Brandt, Summer Lyn, "Understanding sexual prejudice : heterosexual attitudes toward lesbians and gay men" (2003). *Master's Theses*. 2509.

DOI: <https://doi.org/10.31979/etd.pcnn-d34r>

https://scholarworks.sjsu.edu/etd_theses/2509

This Thesis is brought to you for free and open access by the Master's Theses and Graduate Research at SJSU ScholarWorks. It has been accepted for inclusion in Master's Theses by an authorized administrator of SJSU ScholarWorks. For more information, please contact scholarworks@sjsu.edu.

UNDERSTANDING SEXUAL PREJUDICE:
HETEROSEXUAL ATTITUDES TOWARD LESBIANS AND GAY MEN

A Thesis

Presented to

The Faculty of the Department of Psychology

San Jose State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

Summer Lyn Brandt

December 2003

UMI Number: 1418738

INFORMATION TO USERS

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleed-through, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

UMI[®]

UMI Microform 1418738

Copyright 2004 by ProQuest Information and Learning Company.

All rights reserved. This microform edition is protected against unauthorized copying under Title 17, United States Code.

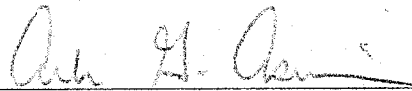
ProQuest Information and Learning Company
300 North Zeeb Road
P.O. Box 1346
Ann Arbor, MI 48106-1346

© 2003

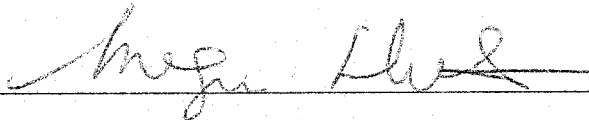
Summer Lyn Brandt

ALL RIGHTS RESERVED

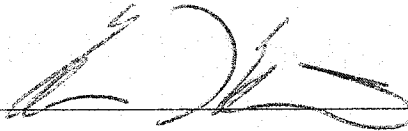
APPROVED FOR THE DEPARTMENTS OF PSYCHOLOGY



Dr. Arlene Asuncion



Dr. Megumi Hosoda



Dr. Elena Klaw

APPROVED FOR THE UNIVERSITY



ABSTRACT

UNDERSTANDING SEXUAL PREJUDICE:

HETEROSEXUAL ATTITUDES TOWARDS LESBIANS AND GAY MEN

by Summer L. Brandt

The present study examined how heterosexual attributions as to the nature of non-heterosexual sexual orientation differentially effected levels of sexual prejudice toward lesbians and gay men. Participants were 281 self-identified heterosexual female and male San Jose State University students. The data indicated that heterosexual attitudes toward lesbians and gay men differed in regards to participant gender, target sexual orientation, participant attribution to sexual orientation, as well as a number of other demographic, psychological, and social variables. Men expressed more sexual prejudice than women and, overall, participants expressed more sexual prejudice toward gay men than lesbians. More negative attitudes toward lesbians were reported when a fictitious news story presented an environmental attribution to sexual orientation than a biological attribution. Participants' attribution to sexual orientation was also significantly correlated with their attitudes toward lesbians and gay men. Implications for these findings were discussed.

ACKNOWLEDGMENTS

Special appreciation goes to my committee, Dr. Arlene Asuncion, Dr. Megumi Hosoda, and Dr. Elena Klaw who offered me an opportunity explore my ideas and excellent guidance during this process. Thank you for your ideas, suggestions and superb support. For your generous assistance, I would like to acknowledge Stacie Granada who shared her time, patience, and energy with me. And to Tammy Ngyuen, you will not be forgotten. You provided the ultimate motivation to finish this project. My gratitude also to my friends and co-workers, Jolene Bishoff, Laura Colletti, Amy Lynn, and Yuri Tada, you all came to my rescue at different times, helping me with each new challenge. To Christopher Black, thank you for sharing this with me from start to finish. Finally, I would like to thank my parents, David and Marsha Brandt, for your constant love and support. Thank you for always believing in me. This project has been a remarkable experience. Without the constant love and support from my parents, friends, and family, this would not have been possible. Thank you everyone!

TABLE OF CONTENTS

SECTION	PAGE
INTRODUCTION	3
Demographic Variables	3
Psychological Variables	5
Social Variables	5
METHOD	11
Participants	11
Materials	11
Procedure	15
RESULTS	16
DISCUSSION	30
REFERENCES	40
APPENDIXES	44
Appendix A. Fictitious News Stories	45
Appendix B. Attribution to Sexual Orientation	50
Appendix C. Attitudes Toward Lesbians and Gay Men Scale	52
Appendix D. Demographic Questionnaire	55
Appendix E. Consent Form	57
Appendix E. Mean, Standard Deviation, Frequency, and Percentage by Item for the Attitudes Toward Lesbians and Gay Men Scale	59
Appendix F. Signed Approval Form	62

LIST OF TABLES

TABLE	PAGE
1. Mean and Standard Deviations Scores for Experimental Conditions	17
2. Multivariate Analysis of Variance for Experimental Conditions	18

LIST OF FIGURES

FIGURE	PAGE
1. Percent of Responses for each Response Option by Attribution Item	22
2. Mean ATL and ATG Scores by Participant Gender	25

Understanding Sexual Prejudice:
Heterosexual Attitudes Toward Lesbians and Gay Men

Summer L. Brandt

San Jose State University

Running head: UNDERSTANDING SEXUAL PREJUDICE

Footnotes

Requests for reprints should be sent to Summer L. Brandt, Department of Psychology,
San Jose State University, San Jose, California 95192.

Abstract

The present study examined how heterosexual attributions as to the nature of non-heterosexual sexual orientation differentially effected levels of sexual prejudice toward lesbians and gay men. Participants were 281 self-identified heterosexual female and male San Jose State University students. The data indicated that heterosexual attitudes toward lesbians and gay men differed in regards to participant gender, target sexual orientation, participant attribution to sexual orientation, as well as a number of other demographic, psychological, and social variables. Men expressed more sexual prejudice than women and overall, participants expressed more sexual prejudice toward gay men than lesbians. More negative attitudes toward lesbians were reported when a fictitious news story presented a social/environmental attribution to sexual orientation than a biological attribution. Participants' attribution to sexual orientation was also significantly correlated with their attitudes toward lesbians and gay men. Implications for these findings were discussed.

Understanding Sexual Prejudice: Heterosexual Attitudes Toward Lesbians and Gay Men

Understanding sexual prejudice is key to effecting a more positive environment and reducing stigmatization for non-heterosexual persons. Sexual prejudice refers to negative attitudes toward an individual based on their sexual orientation (Herek, 2000a). Within social psychological research, an emphasis is often placed on heterosexual attitudes toward lesbians and gay men. Public opinion polls show that although the majority of Americans support equal treatment for lesbians and gay men in terms of equal employment and housing opportunities, most adults hold negative attitudes toward lesbian and gay male familial behavior (e.g., same-sex marriages, adoption rights) viewing it as immoral or unnatural (Herek, 2002a; Yang, 1998). Consistent with public opinion polls, laboratory and survey research has found a number of demographic, psychological, and social variables that reliably correlate with heterosexual attitudes toward lesbians and gay men. The following sections briefly review the literature on the relationship between demographic, psychological, and social variables and heterosexual attitudes toward lesbians and gay men.

Demographic Variables

Gender is correlated with heterosexual attitudes toward lesbians and gay men. Heterosexual men consistently report higher levels of sexual prejudice than do heterosexual women (Herek, 1988; Herek & Capitanio, 1999; Whitley, 1987). This difference is a function of the gender of the respondent as well as the gender of the target. That is, heterosexuals tend to report higher levels of sexual prejudice toward non-heterosexuals of their same gender than of the opposite gender. Men express more

negative attitudes toward gay men than lesbians, and women express more negative attitudes toward lesbians than gay men (Herek, 2002a; Whitley, 1990). This effect is stronger for heterosexual men than women.

From a social construction framework, the gender difference in sexual prejudice toward gay men stems from a societal emphasis that violating gender roles is more serious for men than it is for women (Kite & Whitley, 1996). Sexual prejudice derives, in part, from perceptions that same-sex sexual orientation threatens society's traditional gender role structure. Additionally, men and women may think about sexual orientation differently. According to Herek (2000b, 2002a), men may organize their attitudes in terms of gender and sexual identity. For heterosexual men, expressing sexual prejudice, especially toward gay men, functions to define what one is not – homosexual. Women, on the other hand, may organize their attitudes in terms of a minority group paradigm. The minority group paradigm views non-heterosexuals as a quasi-ethnic minority group. As such, men and women are viewed as members of the same group, thus reducing the distinction between lesbians and gay men. By means of different organizational processes, sexual prejudice functions differently for men and women, thus leading to different levels of expression toward lesbians and gay men.

In addition to gender, research shows that other demographic variables are also related to sexual prejudice including age, education, and geographic location.

Heterosexuals with negative attitudes, as compared to heterosexuals with more positive attitudes, are more likely to be older, less well-educated, and reside in communities

where negative attitudes toward lesbians and gay men are the norm, such as the rural Midwest or Southern United States (Herek, 1984).

Psychological Variables

Psychological variables include religious and political values as well as personality and attitudinal characteristics. In terms of religion, heterosexuals who report more negative attitudes in comparison to heterosexuals who report favorable attitudes toward lesbians and gay men are more likely to report frequent attendance of religious services and belonging to a conservative or fundamentalist religion (Herek, 1988). Similarly, those who describe themselves as politically more conservative than liberal or moderate are more likely to hold negative attitudes toward lesbians and gay men (Herek, 1994). In terms of attitudinal characteristics, heterosexuals with more traditional gender role beliefs and behaviors (Whitley, 1987) and those who display a higher level of authoritarianism (Whitley & Ægisdóttir, 2000) hold more negative attitudes toward lesbians and gay men.

Social Variables

Social variables include interpersonal contact with lesbians and gay men as well as attributional beliefs to sexual orientation. Research suggests that heterosexual men and women with favorable attitudes toward lesbians and gay men are more likely to report having a lesbian or gay male friend or family member (Herek, 1994; Herek & Capitanio, 1996). Herek and Capitanio (1996) found that heterosexuals manifested more positive attitudes toward lesbians and gay men when they reported more interpersonal contact with a lesbian or gay man. However, significantly more positive attitudes were

consistently reported by participants who knew a multiple number of lesbians or gay men, had closer relationships with them, and received direct disclosure about the person's sexual orientation compared to those with no contacts.

A growing body of research also suggests that heterosexuals who believe that a non-heterosexual sexual orientation is freely chosen, as opposed to having no choice, report higher levels of sexual prejudice (Aguero, Bloch, & Byrne, 1984; Ernulf, Innala, & Whitam, 1989; Herek & Capitanio, 1995; Whitley, 1990). To help explain this finding, the attribution model of prejudice has been applied to heterosexual attitudes toward non-heterosexuals.

The attribution model explains how individuals use certain cues to make causal judgments for an event. According to this model, beliefs of stability (reversibility) and controllability (responsibility) determine emotional experiences of the perceiver. Weiner, Perry, and Magnusson (1988) found that when the cause of an outcome or stigma was perceived as onset-controllable (controllable at the onset of the problem), anger was directed toward the stigmatized person. When the cause of an outcome or stigma was perceived as onset-uncontrollable (uncontrollable at the onset of the problem), pity, liking, and help-giving behaviors by the perceiver toward the stigmatized person occurred. Affective reactions and behavioral judgments depended upon the belief of controllability by the perceiver. For example, when having heart disease was presented as onset-uncontrollable (from heredity factors), pity was elicited by the perceiver. In contrast, when heart disease was presented as onset-controllable (from excessive smoking and bad diet), anger was elicited by the perceiver.

The attribution model can be applied to sexual prejudice. Beliefs about the nature of non-heterosexual sexual orientation have shown to be related to attitudes toward lesbians and gay men. In a study by Ernulf, Innala, and Whitman (1989), when perceivers believed that homosexuals “chose to be that way” or “learn to be that way,” higher levels of negative attitudes toward homosexuals were reported than when they believed homosexuals “are born that way.” Research suggests that when heterosexuals view non-heterosexual sexual orientation as genetic, this produces similar attitudes toward lesbians and gay men as toward people with genetically caused disabilities (e.g., blindness; Agüero, Bloch, & Byrne, 1984). In both cases, the cause of the outcome or stigma is perceived as uncontrollable, thus eliciting more positive feelings. Furthermore, Piskur and Degelman (1992) found that participants who were exposed to an article summarizing research that supported a biological explanation of sexual orientation reported more positive attitudes toward homosexuals than participants who were exposed to an article stating no biological support. The present study examined in more detail how heterosexuals’ attributions about the nature of non-heterosexuals’ sexual orientation would influence their reports of sexual prejudice.

A limitation of previous studies in this area is that they have not differentiated between attitudes toward lesbians and attitudes toward gay men (Herek, 1988; 1994). Numerous sexual prejudice measures consist of items describing attitudes and beliefs toward “homosexuals” without differentiating lesbians from gay men. These measures have been criticized and are problematic because the term “homosexual,” without specifying lesbians from gay men, usually elicits the image of a gay man (Haddock,

Zanna, & Esses, 1993). The current study addressed this issue by measuring attitudes toward lesbians and attitudes toward gay men differentially.

As another limitation, only recently have studies begun to reexamine the effect of item order when assessing attitudes toward lesbians and gay men (Herek, 2000b, 2002a). Specifically, when heterosexual men are presented with items regarding gay men first and lesbian items second, reported levels of sexual prejudice are higher than when the lesbian items are presented first and gay male items second. This effect does not seem to occur for women (Herek, 2002b). In the attribution of sexual prejudice literature reviewed, again, the target non-heterosexual was either identified as a homosexual or gay man (e.g., Hegarty & Pratto, 2001). In effect, this primes heterosexuals to think about gay men but then report attitudes toward lesbians and gay men. As Herek (2002b) has pointed out, when heterosexual men think about gay men first, more negative attitudes toward lesbians and gay men are reported. Thus, it is important to continue to examine item order effects as well as target gender to better understand how heterosexual men and women organize their attitudes toward lesbians and gay men.

The purpose of the present study was to examine how heterosexual attributions as to the nature of non-heterosexual sexual orientation differentially effected levels of sexual prejudice toward lesbians and gay men. Attitudes were operationalized as the degree of positive or negative feelings expressed toward the target non-heterosexual. Data were collected from a Northern California University in questionnaire format. Participants were primed to think about either lesbians or gay men. For each non-heterosexual target, participants read a fictitious news story attributing the individual's

sexual orientation to either social/environmental (choice) causes or biological (no choice) causes.

The first goal of the study was to examine differences in heterosexual attitudes toward lesbian and gay male sexual orientation based on the fictitious news story received. Derived from the attribution model rationale above, it was hypothesized that heterosexual men and women who read about a biological attribution would report lower levels of sexual prejudice than those who read about a social/environmental attribution.

The second goal of this study was to establish heterosexuals' attributions as to the nature of lesbian and gay male sexual orientation and how this affects their attitudes toward lesbians and gay men. It was hypothesized that heterosexuals who believe non-heterosexual sexual orientation is a choice would report more negative attitudes toward lesbians and gay men than those who believe non-heterosexual sexual orientation is not a choice. Furthermore, heterosexuals who believe non-heterosexual sexual orientation is not a choice, would be more likely to endorse that non-heterosexual orientation is inborn or biologically determined as opposed to socially/environmentally determined (Herek, 2002a).

The third goal was to examine the interaction between gender of the participants and gender of the target non-heterosexuals. It was hypothesized that individuals would report more negative attitudes toward targets of the same gender than of the opposite gender. Specifically, heterosexual men would report more negative attitudes toward gay men than lesbians and heterosexual women would report more negative attitudes toward lesbians than gay men. Finally, it was hypothesized that, overall, heterosexual men

would report more negative attitudes than would heterosexual women (for review Herek, 2000a).

The fourth goal of this study was to examine the effect of item order when assessing attitudes toward lesbians and gay men. It was hypothesized that heterosexual men would report more negative attitudes toward lesbians and gay men when gay male items were presented first and lesbian items second than when lesbian items were presented first and gay male items second (Herek, 2000b, 2002a). For heterosexual female participants, no differences in attitudes toward lesbians and gay men due to item order were hypothesized.

Based on previous correlates, hypotheses were developed concerning the relationship of heterosexual attitudes toward non-heterosexuals with certain variables (Herek, 2002b):

1. Demographic correlates: Older heterosexuals, as opposed to younger, would express more negative attitudes toward lesbians and gay men.
2. Religious and political correlates: Highly religious and politically conservative heterosexuals would express more negative attitudes toward lesbians and gay men than mildly religious and politically liberal heterosexuals.
3. Contact knowledge correlates: Heterosexuals who lack previous knowledge of contact with non-heterosexuals would express more negative attitudes toward lesbians and gay men than heterosexuals who have had knowledge of interpersonal contact with lesbians and gay men.

Method

Participants

Participants were 306 female and male San Jose State University students enrolled in a psychology course. All completed a paper-and-pencil packet containing a short story, questionnaires regarding attitudes and beliefs about lesbians and gay men, and a request for demographic information. Of these participants, 281 (91.83%) self-identified as heterosexual, 6 (1.96%) as lesbian/gay male, 6 (1.96%) as bisexual, and 13 (4.25%) as other. Only data completed by participants who self-identified as heterosexual on the demographic questionnaire were analyzed.

Of the 281 self-identified heterosexual participants, 165 (58.72%) were female and 116 (41.28%) were male. All were between the ages of 17 and 55 ($M = 20.54$, $SD = 4.69$) with 93.9% of the participants 25 years of age or younger. The majority of participants identified as Asian/Pacific Islander ($n = 123$, 43.78%). For the remaining participants, 79 (28.11%) identified as White/Caucasian, 46 (16.37%) as Hispanic/Latino(a), 17 (6.05%) as Black/African American, and 16 (5.69%) as other. Nearly half ($n = 132$, 46.98%) were freshman in college. Seventy-three (25.98%) of the participants were sophomores, 47 (16.73%) were juniors, 22 (7.83%) were seniors, and 7 (2.49%) indicated other. All participants received research credit for their participation.

Materials

Experimental manipulations. The materials presented to participants included a series of experimental manipulations within a fictitious news story involving target sexual orientation and target attribution to sexual orientation. Participants were randomly

assigned to one of four possible story conditions. The order of items assessing attitudes toward lesbians and gay men were also manipulated. Participants were randomly assigned to one of two item order conditions.

Target sexual orientation. Research has historically presented the target homosexual as a gay man (e.g., Hegarty & Pratto, 2001; Piskur & Degelman, 1992). To explore the possible effects of target sexual orientation on heterosexual attitudes toward lesbians and gay men, parallel forms of a fictitious news report were used. Participants were randomly assigned to read a fictitious news story about either lesbian daughters or gay male sons.

Target attribution to sexual orientation. Within the fictitious news story, participants were primed to attribute non-heterosexual sexual orientation to either the social/environment or biology. The biological determinist argument was developed by Hegarty and Pratto (2001), which describes a scientific study on birth order and sexual orientation. The social learning/environmental determinist argument paralleled the biological argument, but presented a scientific study on play style and sexual orientation. Participants were randomly assigned to read one of the four fictitious news stories (see Appendix A): “Study Links Gay Sons to Birth Order,” “Study Links Lesbian Daughters to Birth Order,” “Study Links Gay Sons to Play Style,” or “Study Links Lesbian Daughters to Play Style.”

Item order. The order of items assessing participants’ attitudes toward lesbians and gay men was manipulated. All participants received the same 20 items, however, half of the participants were first presented with items assessing attitudes toward lesbians

and then attitudes toward gay men, and half of the participants were first presented with items assessing attitudes toward gay men and then attitudes toward lesbians.

Dependent measures. The dependent measures included participant attribution to sexual orientation, attitudes toward lesbians and gay men, religiosity, political values, contact knowledge and general demographic information.

Participant attribution to sexual orientation. Four items assessed participants' attribution to sexual orientation (see Appendix B). Participants were asked to indicate on a 7-point Likert scale, ranging from 1 = "strongly disagree" to 7 = "strongly agree," the degree to which they supported the following statements: "Lesbian and gay male sexual orientation is something people chose for themselves," "Lesbian and gay male sexual orientation is something people have no control over," "Lesbians and gay men are born with their sexual orientation," and "Lesbian and gay male sexual orientation develops as a result of upbringing or the environment." The internal consistency for the scale reached a satisfactory level ($\alpha = .82$; Spector, 1992). Items were summed and an index score was created to examine the relationship between participant attribution to sexual orientation and participant attitudes toward lesbians and gay men. A higher score indicates support for a social/environmental (choice) attribution.

Attitudes Toward Lesbians and Gay Men. Heterosexual attitudes toward lesbians and gay men were measured using the Attitudes Toward Lesbians and Gay Men scale (ATLG; Herek, 1988), which is a 20-item scale that measures respondents' attitudes toward lesbians and gay men (see Appendix C). This scale is divided into two 10-item subscales: Attitudes Toward Lesbians (ATL) and Attitudes Toward Gay Men (ATG).

The internal consistency for the scale and subscales indicated satisfactory levels in the current work ($\alpha = .95$ for the ATLG, $.90$ for the ATL, and $.92$ for the ATG; Spector, 1992). The statements were presented on a 7-point Likert scale ranging from 1 = “strongly disagree” to 7 = “strongly agree.” Scoring was accomplished by summing the numerical values across each subscale. The possible range of scores by subscale varied from 10 (extremely negative attitudes) to 70 (extremely positive attitudes). Example items include, “Lesbians just can’t fit into our society” and “I think gay males are disgusting.” In accordance with the American Psychological Association to avoid heterosexual bias in language, the term “female homosexuality” was replaced with “lesbian sexual orientation” and male homosexuality was replaced with “gay male sexual orientation” (Committee on Lesbian and Gay Concerns, 1991). The term “male homosexual” was also replaced with “gay male.”

Demographic Questionnaire. Participants were asked to list their age and identify their gender, ethnicity, educational level, and sexual orientation (heterosexual, lesbian/gay man, bisexual, or other) through a series of items within the Demographic Questionnaire (see Appendix D). Psychological (religiosity, political values) and Social (contact knowledge experiences) variables were also incorporated into the questionnaire.

Religiosity. Two items within the Demographic Questionnaire assessed religiosity. The first question asked participants to indicate their religion and the second question asked “How often did you attend religious services in the past year?” Response options include: never; once, few times; 1-3 times/month; and weekly or more often.

Responses to the second item were summed with possible scores ranging from 0 (no religiosity) to 4 (high religiosity).

Political values. Political values were assessed with a single item embedded in the Demographic Questionnaire. Participants were asked to indicate, "Which of the following best describes your political ideology?" Response options included "liberal," "conservative," and "moderate."

Contact knowledge. The extent of personal contact knowledge with lesbians and gay men was assessed with four items in the Demographic Questionnaire. Participants were asked, "Do you have any female [male] friends or acquaintances who are lesbian [gay male]?" and "Are any of your family members lesbian [gay men]?" Possible scores for each item ranged from 0 (no contact knowledge) to 1 (contact knowledge).

Procedure

Participants were administered the experimental packet by a female experimenter in sessions ranging from 1 to 25 participants. After completing a research participation form to receive research credit, participants read a brief description of the study (an investigation of attitudes toward sexuality) and consent form guidelines (see Appendix E). Following participant consent, experimental packets were distributed in the following order: participant attribution to sexual orientation, fictitious news story, Attitudes Toward Lesbians and Gay Men scale, and the Demographic Questionnaire. Upon completion, a debriefing summary was distributed, and participants were thanked for their participation.

Results

Table 1 presents means and standard deviations of Attitudes Toward Lesbians (ATL) and Attitude Toward Gay Men (ATG) scores for all experimental conditions. Scores were analyzed in a 2 x 2 x 2 x 2 between-subjects Multivariate Analysis of Variance (MANOVA) with ATL/ATG scores as dependent variables (see Table 2). Independent variables were ATLG item order (lesbian items first, gay male items first), participant gender (female, male), target sexual orientation (lesbian, gay man), and target attribution (social/environmental, biological).

Recent research suggests that reported attitudes toward lesbians and gay men are influenced by the order in which items are presented on the ATLG scale (2000b, 2002a). Specifically, this research has found that when items regarding gay men are presented first, as opposed to items regarding lesbians, heterosexual men tend to report more negative attitudes toward lesbians and gay men. The current research found no significant order effect for the ATLG scores at the multivariate level, $F(1, 264) = .37, p = .69$. There was also no significant interaction between participant gender and item order on ATLG scores, $F(1, 264) = 2.49, p = .09$. For all subsequent analyses the ATLG item order conditions were collapsed.

Goal 1: Fictitious news story differences. It was hypothesized that attitudes toward lesbians and gay men would differ depending upon the fictitious news story received. Current data showed no significant multivariate effect for target attribution ($F(1, 264) = 1.92, p = .15$) on attitudes toward lesbians and gay men. Contrary to the hypothesis, participants' attitudes did not differ based on the presentation of a biological

Table 1

Means and Standard Deviations Scores for Experimental Conditions

	ATL			ATG		
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>
ATLG Item Order						
Lesbian Items 1st	27.08	10.07	139	32.36	13.22	139
Gay Male Items 1st	25.32	11.17	142	30.32	13.85	142
Participant Gender						
Female	25.23	11.28	116	27.68	12.66	116
Male	27.55	10.39	165	36.52	13.13	165
Target Sexual Orientation						
Lesbian	25.93	11.45	143	30.85	14.14	143
Gay Male	26.46	10.46	138	31.83	12.96	138
Target Attribution						
Social/Environmental	27.19	11.20	140	31.73	13.62	140
Biological	25.18	10.66	141	30.92	13.52	141

Note. Maximum score = 70. The higher the score is, the more negative attitudes toward lesbians and gay men reported.

Table 2

Multivariate Analysis of Variance for Experimental Conditions

Effect	Wilks' Lambda	df ₁	df ₂	Multivariate F
ATLG Item Order	0.98	2	264	0.37
Participant Gender	0.80	2	264	32.69*
Target Sexual Orientation	1.00	2	264	0.10
Target Attribution	0.99	2	264	1.92
Target Sexual Orientation x Target Attribution	0.94	2	264	7.79*

Note. * $p = .001$. All 10 other possible interactions between the independent variables did not yield significant effects and have been removed for simplicity purposes.

or social/environmental attribution to sexual orientation. There was also no significant multivariate effect of the target sexual orientation ($F(1, 264) = .10, p = .91$) on attitudes toward lesbians and gay men. Attitudes toward lesbians and gay men did not differ based on the presentation of a gay man versus a lesbian.

There was, however, a significant interaction between target sexual orientation and target attribution at the multivariate level, $F(1, 264) = 7.79, p < .001$. The between-subjects Analysis of Variance (ANOVA) revealed a significant interaction on ATL scores, $F(1, 264) = 5.32, p < .05$. Post hoc analyses revealed that when the target sexual orientation was lesbian, attitudes toward lesbians were affected by the article received, $F(1, 264) = 6.90, p < .01$. There was no effect on attitudes toward lesbians when the target sexual orientation was gay male, $F(1, 264) = .41, p = .52$. Overall, male and female participants reported more positive attitudes toward lesbians when the fictitious news story presented a biological (birth order) perspective ($M = 23.39, SD = 9.92$) than when the fictitious news story presented an social/environmental (play style) perspective ($M = 28.37, SD = 12.32$), thus partially supporting the hypothesis that lower levels of sexual prejudice would be reported with the presentation of a biological attribution of non-heterosexual sexual orientation.

Finally, based on the between-subjects ANOVA, there was no significant interaction between target attribution and target sexual orientation on ATG scores, $F(1, 561) = .12, p = .79$. Although there was no significant effect of fictitious news story on ATG scores, attitudes toward gay men appeared slightly more negative when the social/environmental target attribution was presented for both lesbian ($M = 31.41, SD =$

14.25) and gay male ($M = 32.07$, $SD = 13.01$) targets than when the biological target attribution was presented for both lesbian ($M = 30.26$, $SD = 14.10$) and gay male ($M = 31.59$, $SD = 12.99$) targets. The direction of mean scores, although not significant, were nonetheless consistent with the hypothesis that lower levels of sexual prejudice would be reported with the presentation of a biological attribution of non-heterosexual sexual orientation.

Goal 2: Participant attributions. The second goal of this study was to explore participants' attributions of non-heterosexual sexual orientation on attitudes toward lesbians and gay men. The belief that lesbian and gay male sexual orientation is "something people chose for themselves" was highly correlated with the belief that lesbian and gay male sexual orientation is "something people have no control over," $r(280) = .60$, $p < .001$. Therefore, these two items relating to choice were combined and correlations between items within the attribution scale were examined. The belief in lesbian and gay male sexual orientation being a choice was positively correlated with the belief that the sexual orientation is a result of upbringing/environment ($r(280) = .53$, $p < .001$) and negatively correlated with the belief that the sexual orientation is a result of biology ($r(280) = -.63$, $p < .001$). Support for the biological attribution was negatively correlated with support for the social/environmental attribution ($r(280) = -.56$, $p < .001$).

It was hypothesized that heterosexual attitudes toward lesbians and gay men would differ depending upon their attribution to sexual orientation. Items within the attribution scale were summed and an index was created. The mean score on the attribution scale was $M = 4.16$ ($SD = 1.46$) indicating neither agreement nor disagreement

with the social/environmental (choice) or biological (no choice) perspectives (see Figure 1). Correlational analyses did reveal, however, a moderate relationship between participants' social/environmental (choice) attribution score and negative attitudes toward lesbians ($r(280) = .47, p < .001$) and gay men ($r(280) = .47, p < .001$). The greater the support for a social/environmental (choice) attribution, the more negative the attitudes were toward lesbians and gay men.

To explore a possible interaction between participant attribution and target attribution on attitudes toward lesbians and gay men, a variable was created indicating either a match or a mismatch between participant attribution and the target attribution within the fictitious news story received. A match was operationalized as the participant attribution being consistent with the target attribution received. For example, if a participant supported the social/environmental (choice) attribution and received the social/environmental determinist argument, then this was a match. A mismatch was operationalized as the participant attribution being inconsistent with the target attribution received. For example, if a participant supported the social/environmental (choice) attribution and received the biological determinist argument, then this was a mismatch.

A 2 (target sexual orientation) x 2 (participant gender) x 2 (attribution match) MANOVA was then conducted¹. There was no main effect for target sexual orientation

Footnotes

¹Being that the indexed responses indicated neither agreement nor disagreement with the social/environmental (choice) attribution, analyses were also conducted using each attribution item to indicate participant support of a choice (social/environmental) attribution of lesbian and gay male sexual orientation. For each possible comparison, a 2 (target attribution) x 2 (participant gender) x 2 (attribution match) MANOVA was conducted. Again, no significant main effects or interactions were present for target sexual orientation or attribution match.

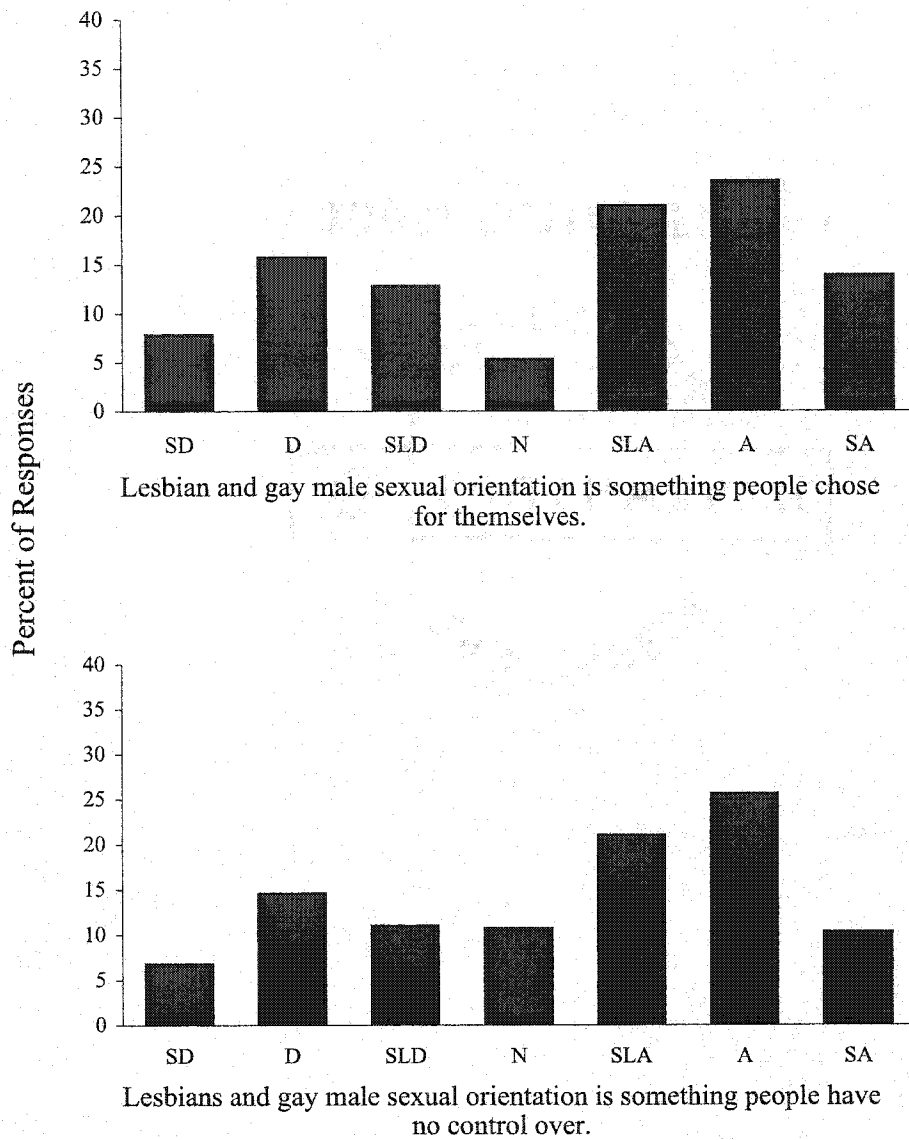


Figure 1. Percent of reponses for each response option by attribution item.

Note. SD = strongly disagree; D = disagree; SLD = slightly disagree; N = neither disagree nor agree; SLA = slightly agree; A = agree; SA = strongly agree.

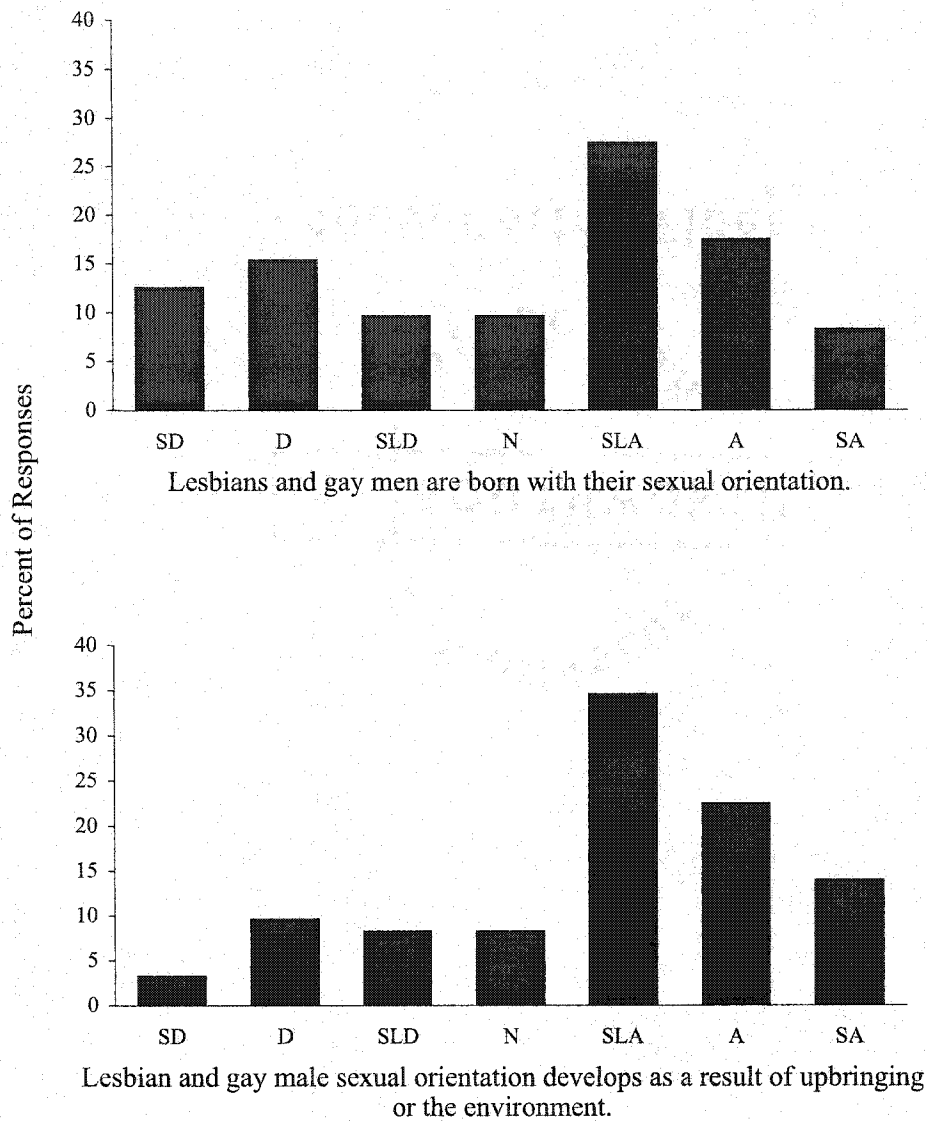


Figure 1. Percent of responses for each response option by attribution item.

Note. SD = strongly disagree; D = disagree; SLD = slightly disagree; N = neither disagree nor agree; SLA = slightly agree; A = agree; SA = strongly agree.

($F(1, 272) = .04, p = .96$) or attribution match ($F(1, 272) = .40, p = .67$) on ATLG scores. Participant gender produced the only significant effect on attitudes toward lesbians and gay men, ($F(1, 272) = 36.06, p < .001$) where heterosexual men reported more negative attitudes than heterosexual women. Further discussion and analyses for gender are presented below. No significant interactions between target sexual orientation, participant gender, or attribution match were present.

Goal 3: Gender differences. It was hypothesized that there would be gender differences in reported attitudes toward lesbians and gay men. Based on the multivariate analyses, a significant main effect of gender of the participant ($F(1, 264) = 32.69, p < .001$) was obtained. At the univariate level, a between-subjects ANOVA indicated a significant effect of gender on attitudes toward gay men ($F(1, 264) = 31.53, p < .001$), but not attitudes toward lesbians ($F(1, 264) = 3.44, p = .07$; see Figure 2). Male participants reported more negative attitudes toward gay men ($M = 36.52, SD = 13.13$) than did female participants ($M = 27.68, SD = 12.66$), thus partially supporting a gender difference hypothesis. Although attitudes toward lesbians did not significantly differ by participant gender, male participants tended to report more negative attitudes toward lesbians ($M = 27.55, SD = 10.39$) than did female participants ($M = 25.23, SD = 11.28$).

It was also hypothesized that heterosexuals would report more negative attitudes toward a target of the same gender than of the opposite gender. To test this, heterosexual male and female participants were analyzed separately in a t-test. For heterosexual male participants, reported attitudes toward gay men ($M = 36.52, SD = 13.13$) were significantly more negative than reported attitudes toward lesbians ($M = 27.55, SD =$

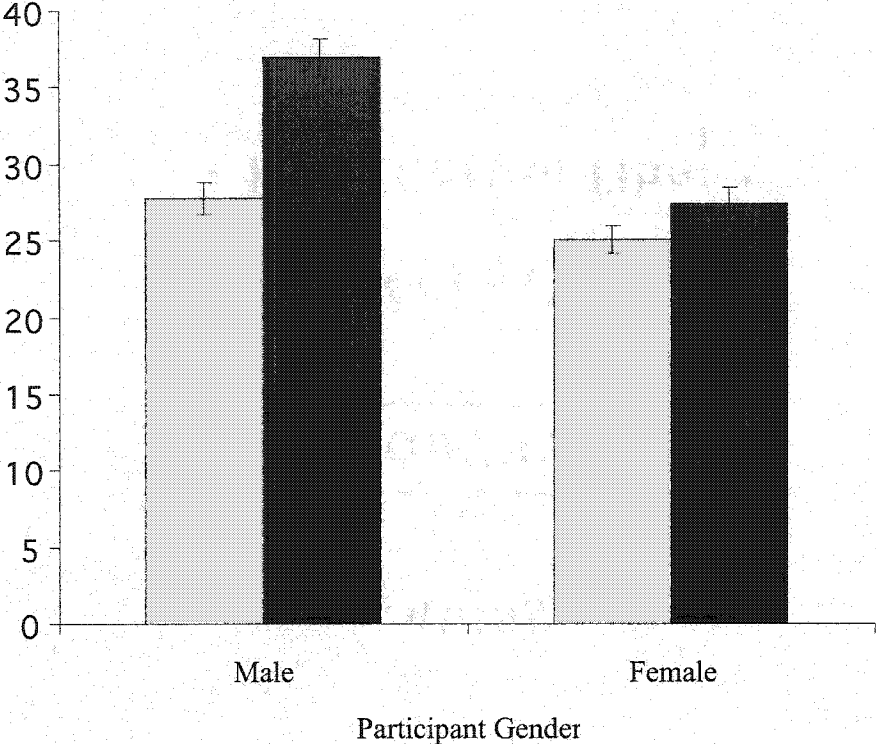


Figure 2. Mean ATL and ATG scores by Participant Gender.

10.39; $t(115) = -12.09, p < .001$). The direction and significance of this finding was consistent with the hypothesis. For heterosexual female participants, reported attitudes toward lesbians ($M = 25.23, SD = 11.28$) were significantly less negative than reported attitudes toward gay men ($M = 27.68, SD = 12.66; t(164) = -5.78, p < .001$). Females reported more negative attitudes toward gay men than lesbians. The direction of the mean scores was contrary to the hypothesis that female participants would report more negative attitudes toward lesbians than gay men.

Finally, it was reasoned that since the ATL and ATG subscales are highly correlated ($r(280) = .84, p < .001$), the subscales should be combined to analyze the effects of target sexual orientation and participant gender on heterosexual participants' overall attitudes toward non-heterosexuals. An ANOVA was conducted with target sexual orientation and participant gender as the independent variables and the ATLG scores as the dependent variable. Heterosexual participants reported more negative attitudes toward lesbians and gay men when the target non-heterosexual was a gay man ($M = 58.28, SD = 22.45$) than a lesbian ($M = 56.78, SD = 24.59; F(1, 277) = 274.08, p < .05$). Again, heterosexual male participants ($M = 64.07, SD = 22.29$) reported more negative attitudes toward lesbians and gay men than did heterosexual female participants ($M = 52.91, SD = 23.36; F(1, 277) = 24,682.50, p < .01$). There was no significant interaction between participant gender and target sexual orientation, $F(1, 277) = .001, p = .98$. Taken as a whole, men reported more negative attitudes toward gay men than did women and more negative attitudes were expressed when the target non-heterosexual was a gay man than a lesbian.

Goal 4: Item order. It was hypothesized that heterosexual men would report more negative attitudes toward lesbians and gay men when gay male items were presented first and lesbian items second than when lesbian items were presented first and gay male items second. As previously stated, there was no significant effect of item order on ATLG scores, $F(1, 264) = .37, p = .69$. Furthermore, no significant interaction between participant gender and item order on ATLG scores was present, $F(1, 264) = 2.49, p = .09$. Participants' attitudes toward lesbians and gay men did not differ depending upon the order of items on the ATLG scale.

Correlates

Age. It was hypothesized that older rather than younger participants would express more negative attitudes toward lesbians and gay men. Correlational results indicated a weak negative relationship between age and attitudes toward lesbians ($r(280) = -.145, p < .05$) and gay men ($r(280) = -.13, p < .05$). Based on the limited age range (17-25) for more than 94% of the sample, caution must be used when interpreting these results.

Religiosity. It was hypothesized that highly religious (those who attend services on a weekly basis) participants would express more negative attitudes toward lesbians and gay men. Of the 280 participants who responded to this item, 56 (20%) reported never attending religious services in the past year, 97 (34.64%) attended once or a few times, 65 (23.21%) attended 1-3 times/month, and 62 (22.06%) attended weekly or more. A moderate correlation between religiosity and negative attitudes toward lesbians (r

(280) = .31, $p < .001$) and gay men ($r(280) = .24, p < .001$) was found. With increased attendance of religious services there were increased reported sexual prejudice.

Political values. It was hypothesized that politically conservative participants would express more negative attitudes toward lesbians and gay men. In terms of politics, 275 participants responded to the item indicating their political ideology. Overall, 94 (34.18%) identified best as liberal, 136 (49.45%) as moderate, and 45 (16.36%) as conservative. A conservative ideology was significantly correlated with negative attitudes toward lesbians ($r(274) = .21, p < .001$) and gay men ($r(274) = .14, p < .05$). Overall, indicating a politically conservative ideology was correlated with the expression of more sexual prejudice, as hypothesized.

Contact knowledge correlates. It was hypothesized that having knowledge of contact with lesbians and gay men would negatively correlate with attitudes toward lesbians and gay men, where knowledge of contact would be related to decreased sexual prejudice. Overall, 149 (53.02%) participants reported having knowledge of a friend or acquaintance that is lesbian and 25 (8.90%) participants reported having knowledge of a family member that is lesbian, which was significantly negatively correlated with attitudes toward lesbians ($r(280) = -.119, p < .05$ and $r(280) = -.218, p < .001$, respectively). Having knowledge of a lesbian family member, but not friend or acquaintance was also negatively correlated with attitudes toward gay men ($r(280) = -.187, p < .01$ and $r(280) = -.087, p = .147$, respectively). Having contact knowledge of lesbian friends, acquaintances, or family was correlated with less sexual prejudice.

In terms of contact knowledge of gay men, 168 (59.79%) participants reported having knowledge of a friend or acquaintance that is gay male and 46 (16.37%) participants reported having knowledge of a family member that is gay male, which was significantly negatively correlated with attitudes toward gay men ($r(280) = -.155, p < .01$ and $r(280) = -.178, p < .01$, respectively). Having knowledge of a gay male family member, but not friend or acquaintance was also negatively correlated with attitudes toward lesbians ($r(280) = -.103, p < .01$ and $r(280) = -.09, p = .10$, respectively) Having contact knowledge of gay male friends, acquaintances, or family was correlated with less sexual prejudice. The results were consistent with the hypothesis that contact knowledge of a friend, acquaintance, or family member that is lesbian or gay male would correlate with decreased sexual prejudice.

Supplemental analyses:

ATLG item analysis. Attitudes toward lesbians and gay men were also examined by individual item. A detailed report of the frequencies and mean scores per item are presented in Appendix F. In terms of attitudes toward lesbians, 22.78% ($n = 64$) of the heterosexual participants indicated that lesbian sexual orientation is a sin, 20.28% ($n = 57$) believed that lesbians are sick, 17.78% ($n = 50$) agreed that the growing numbers of lesbians indicates a decline in American morals, and 13.88% ($n = 39$) indicated that lesbians sexual orientation is an inferior form of sexuality. However, only 3.91% ($n = 11$) participants agreed with job discrimination based on a woman's lesbian sexual orientation. In terms of attitudes toward gay men, 49.82% ($n = 140$) of the heterosexual participants indicated that they would be upset if their son were a gay male, 32.74% ($n =$

92) believe that gay male couples should not be allowed to adopt children the same as heterosexual couples, 27.75% ($n = 78$) believe that gay male sexual behavior is wrong, and 26.69% ($n = 75$) indicated that the idea of a gay male marriage is ridiculous. In contrast, only 6.76% ($n = 19$) agreed that gay males should not be allowed to teach school.

Ethnicity. Data were collected on participants' ethnicity purely for descriptive purposes. However, when it was discovered that the majority of participants identified as Asian/Pacific Islander ($n = 123$, 43.8%), the question of ethnic difference arose. For exploratory purposes, heterosexual participants' self-identified ethnicity was dummy coded and t-tests were conducted comparing the different ethnic categories. Self-identified White/Caucasian participants reported significantly fewer negative attitudes toward lesbians and gay men ($M = 52.24$, $SD = 24.69$) than did all other ethnic categories ($M = 59.32$, $SD = 22.75$; $t(277) = p < .05$). No other differences were significant.

Discussion

The purpose of the current study was to examine how heterosexual attributions as to the nature of non-heterosexual sexual orientation differentially effected levels of sexual prejudice toward lesbians and gay men. Contrary to Herek's (2000b, 2002a) recent findings, the present sample did not report differing attitudes toward lesbians and gay men based on the order in which the Attitudes Toward Lesbians and Gen Men scale items were presented. It is not clear why some research samples have produced a difference in attitudes toward lesbians and gay men based on item order and others have not. One potential difference may be attributed to the sample population. Previous findings of

item order have come from national probability samples (Herek, 2000b, 2002a) as opposed to the present college student sample. It is also possible that the results were due to difference in data collection, where the national probability samples were conducted over the phone and the present study was conducted as a paper-and-pencil survey. No significant difference in item order is nonetheless consistent with Herek's earlier work (Herek, 1994). Furthermore, the data indicated that heterosexual attitudes toward lesbians and gay men differed in regards to participant gender, target sexual orientation, participant attribution to sexual orientation, as well as a number of other demographic, psychological, and social variables.

The first goal of the study examined the effects of the fictitious news story received on heterosexual attitudes toward lesbians and gay men. Contrary to the hypothesis, reported attitudes toward gay men did not differ by the fictitious news story condition. Attitudes toward gay men were consistent regardless of target sexual orientation (lesbian, gay man) or target attribution to sexual orientation (biological, social/environmental). Attitudes toward lesbians differed based on target attribution to sexual orientation (biological, social/environmental) when the target sexual orientation was a lesbian, but not a gay man. Specifically, heterosexual attitudes toward lesbians were more positive when presented with the biological attribution regarding lesbian daughters than the social/environmental attribution. This effect was consistent with the hypothesis that lower levels of sexual prejudice would be reported by participants who read about a biological attribution than a social/environmental attribution to sexual orientation. It is unclear why the present study did not produce a significant effect of

target attribution on attitudes toward gay men, when previous research found an effect (Aguero, Bloch, & Byrne, 1984; Piskur & Degelman, 1992). It is speculated that attitudes toward gay men may be better developed than attitudes toward lesbians (Herek, 2000b) due to the societal emphasis that violating gender roles is more serious for men than for women (Kite & Whitley, 1996), and thus less susceptible to contextual influences. Nonetheless, the present finding that attitudes toward lesbians are affected by target attribution supports and extends previous research findings.

It is interesting to note that the current sample only partially supported previous research. For example, Piskur and Degelman (1992) manipulated a written summary article of research on homosexual orientation. Participants who were exposed to research supporting biological determinants of gay male sexual orientation reported more positive attitudes toward homosexuals compared to participants in the control conditions (article finding no biological support or no article). For Piskur and Degelman's study, the target sexual orientation was exclusively gay male and sexual prejudice was assessed using a measure of attitudes toward homosexuals, and not lesbians and gay men. The present study did not find an effect on attitudes toward lesbians and gay men when the target sexual orientation in the fictitious news story was a gay male. Only when the target sexual orientation in the fictitious news story was a lesbian did the biological attribution perspective affect attitudes toward lesbians and gay men.

Although the present study did not yield a significant difference in attitudes toward gay men based on the fictitious news story received, it is still important to draw attention to the effect of the fictitious news story on attitudes toward lesbians. Previous

research has not examined attributions to sexual orientation with a lesbian target. It has been standard procedure to either use a gay male or “homosexual” target as opposed to examining potential differences in attitudes toward lesbians and gay men due to the target non-heterosexual presented. This is important because the present study extended previous findings by demonstrating that attributions to sexual orientation can affect heterosexual attitudes toward lesbians differentially from gay men.

The second goal of this study was to establish heterosexuals’ attributions to sexual orientation and its relation to their attitudes toward lesbians and gay men. Consistent with previous research, the belief that non-heterosexual sexual orientation is freely chosen was significantly correlated with negative attitudes toward lesbians and gay men (Herek & Capitanio, 1995). The potential interaction between participant attribution and target attribution to sexual orientation on attitudes toward lesbians and gay men was examined. The question at hand was whether there would be a difference in reported attitudes toward lesbians and gay men depending upon if the participant’s attribution was consistent or matched with the target attribution presented in the fictitious news story. This interaction was not present.

It is believed that the findings were not as hypothesized due to endorsement of both a biological and social/environmental perspective by a large portion of the participants (see Figure 1). Just over 70.82% ($n = 199$) of the participants endorsed the statement that lesbian and gay male sexual orientation develops as a result of upbringing or the environment and 53.02% (149) endorsed the statement that lesbians and gay men are born with their sexual orientation. Nearly 25% ($n = 69$) of the participants endorsed

both statements. Similarly, 58.36% ($n = 164$) of the participants endorsed lesbian and gay male sexual orientation being a choice and 56.94% ($n = 160$) endorsed the statement that lesbian and gay males sexual orientation is something people have no control over. Again, 27.76% ($n = 78$) of the participants endorsed both statements. This suggests that participants' attribution to sexual orientation takes on an interactionist approach, whereby both biological and social/environmental factors lead to the development of lesbian and gay male sexual orientation. As a potential consequence of using psychology student participants, it is possible that participants, having previously learned about interactionist approaches, had a greater appreciation for biological and social/environmental influences. As a result, it is more difficult to interpret the present findings. It is possible that the endorsement of both biological (no choice) and social/environmental (choice) attributions muted the interaction between the participants' attribution to sexual orientation and the target attribution to sexual orientation presented. Research should continue to explore in more detail heterosexuals' attribution to sexual orientation to determine the reliability of the present findings.

The third goal was to examine the interaction between participant gender and target gender on attitudes toward lesbians and gay men. The data partially supported the hypothesis that heterosexuals report more negative attitudes toward a target non-heterosexual of the same gender than of the opposite gender, such that men reported more negative attitudes toward gay men than lesbians. Women, as well, reported more negative attitudes toward gay men than lesbians, however, this was contrary to the hypothesis. Consistent with previous research, men reported more negative attitudes than

did women, and more negative attitudes were expressed toward gay men than lesbians (Herek, 1988; Herek, 1994; Herek & Capitanio, 1999; Whitely, 1987). Men and women did not differ in their attitudes toward lesbians, but men did report more negative attitudes toward gay men than did women.

It is argued that men are more concerned about appropriate sex roles than are women and derogate members of their same sex who are in violation of the sex roles (Herek, 1986; Whitely & Kite, 1995). Thus, it is consistent with the present findings that men reported more negative attitudes overall, than did women. It was unexpected to find women reporting more negative attitudes toward gay men than lesbians, but this is not inconsistent with other studies (for review, Herek, 1994). The effect of gender tends to be stronger for men than women. It appears that in general, there is less tolerance of gay men than of lesbians.

A number of other demographic, psychological, and social variables were also examined. Based on previous research findings, it was hypothesized that older participants would report more negative attitudes toward lesbians and gay men than would younger participants (Herek, 1984). Data from the present study resulted in an inverse relationship than hypothesized; older participants reported less sexual prejudice than younger participants. It is important to note that the restricted age range with nearly 94% of the participants between the ages of 17 and 25. The current sample did not accurately capture the potential variation in attitudes toward lesbians and gay men across different age groups.

In terms of religious and political correlates, the data were consistent with previous research (Herek, 1988, 1994). Negative attitudes toward lesbians and gay men were correlated with increased religiosity and conservative political values. There was also a significant relationship between increased interpersonal contact knowledge with lesbians and gay men with less sexual prejudice. As Herek and colleagues have suggested (1994, 1996), attitudes toward lesbians and gay men are more likely to be favorable by heterosexuals who know multiple lesbians or gay men, have closer relationships, and receive direct disclosure about the person's sexual orientation compared to those with no contact knowledge.

To help elucidate heterosexual sexual prejudice based on the components addressed in the Attitudes Toward Lesbians and Gay Men scale, individual items were reviewed. Nearly 23% of the respondents supported statements of sexual prejudice toward lesbians. Statements regarding lesbian sexual orientation being a sin and lesbians being sick received the greatest support. In terms of sexual prejudice toward gay men, half of the participants would be upset if their son were a gay male and roughly 30% take issue with gay male sexual behavior, adoption rights, or gay male marriage. Sizable levels of sexual prejudice were present in the current study.

There were a few shortcomings that need to be addressed. First, a limitation inherent in the present study is that the sample consisted of college students in the Bay Area. Although this group is limited geographically as well as by age, the overall results are comparable to previous findings with college samples as well as national public opinion polls (Herek, 2000a). It is probable that other geographic locations may report

higher levels of sexual prejudice, but the overall trend in attitudes is not expected to significantly differ.

A second limitation within the study design includes the potential for participants to respond in a socially desirable manner in reporting their attitudes toward lesbians and gay men. It is difficult to find research addressing attitudes toward lesbians and gay men as it correlates to social desirability. One potential reason for this lack of interest is that little evidence suggests this connection exists (Morrison & Morrison, 2002).

Nonetheless, it is a potential factor affecting heterosexual attitudes that has been neglected. There is a heightened awareness of lesbian and gay male sexual orientation in the Bay Area being that it is the number one metropolitan area for lesbians and gay couples (Ness, 2001). As a result of this heightened awareness, participants may be driven to appear more tolerant than they actually are of non-heterosexual sexual orientations. With at least half of the participants not endorsing negative statements within the Attitudes Toward Lesbians and Gay Male scale, it is unclear to what extent this reflects their drive to be politically correct and tolerant of people with a different sexual orientation from themselves. Without measuring social desirability, it is difficult to evaluate heterosexual attitudes toward non-heterosexual persons more accurately.

Another factor possibly affecting the composition of the results may involve the assessment of sexual orientation of participants. Participants were asked to self identify as either heterosexual, lesbian/gay male, bisexual, or other. A single item, self-report assessment can be less reliable and valid than a multi-item objective assessment (Spector, 1992). Furthermore, research suggests that sexual orientation is best described as a

continuum (Mohr & Rochlen, 1999). Specifically, in terms of present research participants, there are varying degrees of heterosexual sexual orientation, where some heterosexuals have had past same-sex sexual experiences and other heterosexuals have not had same-sex sexual experiences. In terms of research, a single item assessment of sexual orientation presents challenges in understanding differences between groups of people when a large degree of variability may exist within a single group. The variability within the heterosexual classification could have reduced the negative attitudes expressed toward lesbians and gay men. To reduce this variability, use of multi-item objective assessments is suggested for future research.

Finally, the strength of participants' attitudes toward lesbians and gay men is unknown, limiting the ability to interpret the data. Without knowing how well formed these attitudes were, it is a challenge to determine if the participants lacked sensitivity to the manipulations due to the strength of their attitudes or due to the nature of the manipulations. Future research should explore the strength of heterosexual attitudes toward lesbians and gay men more fully to determine to what extent the attitudes are susceptible to manipulation and change.

An unforeseen contribution of this study included a diverse ethnic sample of participants. Research within this domain typically utilizes a predominantly White/Caucasian participant sample (Herek, 1995). Although the intent of this study was not to examine the data by ethnicity, when the sample of participants resulted in a predominantly Asian/Pacific Islander sample, the topic of ethnicity became of interest. The data indicated that White/Caucasian participants reported less sexual prejudice than

did all other participants of different ethnic categories. There has been scant quantitative research available to examine other ethnic groups' heterosexual attitudes toward lesbians and gay men. The limited data available on comparing Black/African American with White/Caucasian heterosexuals on attitudes toward lesbians and gay men suggests little differences between the ethnic groups (Herek, 1995). The present findings suggest that ethnic differences should be examined further as a potential factor influencing heterosexual attitudes toward lesbians and gay men. One potential direction to examine, in terms of ethnicity, is the extent to which social desirability influences heterosexual White/Caucasian participants to respond in a more tolerant manner than participant of other ethnicities. Research should continue to further explore the theoretical basis for sexual prejudice.

References

- Aguero, J. E., Bloch, L., & Byrne, D. (1984). The relationship among sexual beliefs, attitudes, experience, and homophobia. *Journal of Homosexuality, 10*, 95-107.
- Committee in Lesbian and Gay Concerns. (1991). Avoiding heterosexual bias in language. *American Psychologist, 46*(9), 973-974.
- Eliason, M. J. (1997). The prevalence and nature of biphobia in heterosexual undergraduate students. *Archives of Sexual Behavior, 26*(3), 317-326.
- Ernulf, K. E., Innala, S. M., & Whitam, F. L. (1989). Biological explanation, psychological explanation, and tolerance of homosexuals: A cross-national analysis of beliefs and attitudes. *Psychological Reports, 65*, 1003-1010.
- 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.
- Hegarty, P., & Pratto, F. (2001). Sexual orientation beliefs: Their relationship to anti-gay attitudes and biological determinist arguments. *Journal of Homosexuality, 41*(1), 121-135.
- Herek, G. M. (1984). Attitudes toward lesbians and gay men: A factor analytic study. *Journal of Homosexuality, 10*(1/2), 39-51.
- Herek, G. M. (1986). On heterosexuality masculinity. *American Behavioral Scientist, 29*(5), 563-577.
- Herek, G. M. (1988). Heterosexuals' attitudes toward lesbians and gay men: Correlates and gender differences. *The Journal of Sex Research, 25*(4), 451-477.

- Herek, G. M. (1994). Assessing 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* (pp. 206-228). Thousand Oaks, CA: Sage.
- Herek, G. M. (1995). Black heterosexuals' attitudes toward lesbians and gay men in the United States. *The Journal of Sex Research*, 32(2), 95-105.
- Herek, G. H. (2000a). The psychology of sexual prejudice. *Current Directions in Psychological Science*, 9, 19-22.
- Herek, G. M. (2000b). Sexual prejudice and gender: Do heterosexuals' attitudes toward lesbians and gay men differ? *Journal of Social Issues*, 56(2), 251-266.
- Herek, G. M. (2002a). Gender gaps in public opinion about lesbians and gay men. *Public Opinion Quarterly*, 66(1), 40-66.
- Herek, G. M. (2002b). Heterosexuals' attitudes toward bisexual men and women in the United States. *The Journal of Sex Research*, 39(4), 264-274.
- Herek, G. M., & Capitano, J. P. (1995). Black heterosexuals' attitudes toward lesbians and gay men in the United States. *The Journal of Sex Research*, 32(2), 95-105.
- Herek, G. H., & Capitano, J. P. (1996). "Some of my best friends": Intergroup contact, concealable stigma, and heterosexuals' attitudes toward gay men and lesbians. *Personality and Social Psychology Bulletin*, 22(4), 412-424.
- 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(4), 348-360.

- Kite, M. E., & Whitley, B. E., Jr. (1996). Sex difference in attitudes toward homosexual persons, behaviors, and civil rights: A meta-analysis. *Personality and Social Psychology Bulletin*, 22(4), 336-353.
- Ness, C. (2001, August 8). Census 2000: S.F. upstaged as gay mecca. *San Francisco Chronicle*. Retrieved July 31, 2003 from <http://www.gaydemographics.org>.
- Mohr, J., & Rochlen, A. B. (1999). Measuring attitudes regarding bisexuality in lesbian, gay male, and heterosexual populations. *Journal of Counseling Psychology*, 46(3), 353-369.
- Morrison, M. A., & Morrison, T. G. (2002). Development and validation of a scale measuring modern prejudice toward gay men and lesbian women. *Journal of homosexuality*, 43(2), 15-23.
- Piskur, J., & Degelman, D. (1992). Effects of reading a summary of research about biological bases of homosexual orientation on attitudes toward homosexuals. *Psychological Reports*, 71, 1219-1225.
- Spector, P. E. (1992). *Summated rating scale construction*. Newbury Park, CA: Sage
- Weiner, B., Perry, R. P., & Magnusson, J. (1988). An attributional analysis of reactions to stigmas. *Journal of Personality and Social Psychology*, 55(5), 738-748.
- Whitley, B. E., Jr. (1987). The relationship of sex-role orientation to heterosexuals' attitudes toward homosexuals. *Sex Roles*, 17(1/2), 103-113.
- Whitley, B. E., Jr. (1990). The relationship of heterosexuals' attributions for the causes of homosexuality to attitudes toward lesbians and gay men. *Personality and Social Psychology Bulletin*, 16(2), 369-377.

Whitley, B. E., Jr., & Ægisdóttir, S. (2000). The gender belief system, authoritarianism, social dominance orientation, and heterosexuals' attitudes toward lesbians and gay men. *Sex Roles, 42*(11/12), 947-967.

Whitley, B. E., Jr., & Kite, M. E. (1995). Sex differences in attitudes toward homosexuality: A comment on Oliver and Hyde (1993). *Psychological Bulletin, 117*(1), 146-154.

Yang, A. S. (1998). *From wrongs to rights: Public opinion on gay and lesbian Americans moves toward equality*. Washington, DC: National Gay and Lesbian Task Force Policy Institute. Retrieved from http://psychology.ucdavis.edu/rainbow/html/prej_prev.html on January 17, 2003.

Appendix

Appendix A

Fictitious News Stories

Instructions: *Here is a short report of a scientific study from a newspaper. Please read through the study as carefully as you can and answer the questions below. You may refer back to the study and re-read parts of it while you are answering these questions. There are no right or wrong answers to these items, but I am interested in your true impressions of the study.*

STUDY LINKS GAY SONS TO BIRTH ORDER

Religious leaders, political figures and psychotherapists have long debated – often in purely emotional terms – the difficult issue of sexual orientation. Do some people choose to be gay, or is there a deeper underlying biological reason for this behavior? A new study by Harvard biologist linking gay male sexual orientation to birth order suggests that the latter answer to this question might be the one borne out of scientific research. The research team contacted over 500 exclusively gay men, recruited through various gay organizations and publications. A matched sample of 500 heterosexual men was also included for comparison. Because this study was the first of its kind, only men who were exclusively “gay” or “straight” rather than “bisexual,” were included in the study. In addition to the in-depth questioning about their own sexual behavior, the gay male and heterosexual men were asked about their family structure. The results? Firstly, the gay men were more likely to be born later in the family than were heterosexual men. Secondly, the study found that even in large families, gay sons were more likely to be born to older mothers. In general, gay male babies are born to women in their later forties, who have usually had one or more previous children. For example, in one family a mother gave birth to three sons after her fortieth birthday and two of the three brothers were gay.

“While this study is a great breakthrough, further research is clearly needed in this area,” said Dr. Zillstein, the head of the Harvard research team. “We are working with the hypothesis that hormonal influences on sexual orientation operate before birth. Older mothers often have altered immune systems, particularly if they have endured previous pregnancies and this may lead to the hormonal balance responsible for gay male sexual orientation.” Zillstein also noted that his study was limited in that it only examined gay male sexual orientation and ignored lesbian sexual orientation. He also acknowledged that other influences, such as genetics, could play a role in determining gay male sexual orientation.

Instructions: *Here is a short report of a scientific study from a newspaper. Please read through the study as carefully as you can and answer the questions below. You may refer back to the study and re-read parts of it while you are answering these questions. There are no right or wrong answers to these items, but I am interested in your true impressions of the study.*

STUDY LINKS LESBIAN DAUGHTERS TO BIRTH ORDER

Religious leaders, political figures and psychotherapists have long debated – often in purely emotional terms – the difficult issue of sexual orientation. Do some people choose to be gay, or is there a deeper underlying biological reason for this behavior? A new study by Harvard biologist linking lesbian sexual orientation to birth order suggests that the latter answer to this question might be the one borne out of scientific research. The research team contacted over 500 exclusively lesbian women, recruited through various lesbian organizations and publications. A matched sample of 500 heterosexual women was also included for comparison. Because this study was the first of its kind, only women who were exclusively “lesbian” or “straight” rather than “bisexual,” were included in the study. In addition to the in-depth questioning about their own sexual behavior, the lesbian and heterosexual women were asked about their family structure. The results? Firstly, lesbians were more likely to be born later in the family than were heterosexual women. Secondly, the study found that even in large families, lesbians were more likely to be born to older mothers. In general, lesbian babies are born to women in their later forties, who have usually had one or more previous children. For example, in one family a mother gave birth to three daughters after her fortieth birthday and two of the three daughters were lesbian.

“While this study is a great breakthrough, further research is clearly needed in this area,” said Dr. Zillstein, the head of the Harvard research team. “We are working with the hypothesis that hormonal influences on sexual orientation operate before birth. Older mothers often have altered immune systems, particularly if they have endured previous pregnancies and this may lead to the hormonal balance responsible for lesbian sexual orientation.” Zillstein also noted that his study was limited in that it only examined lesbian sexual orientation and ignored gay male sexual orientation. He also acknowledged that other influences, such as genetics, could play a role in determining lesbian sexual orientation.

Instructions: *Here is a short report of a scientific study from a newspaper. Please read through the study as carefully as you can and answer the questions below. You may refer back to the study and re-read parts of it while you are answering these questions. There are no right or wrong answers to these items, but I am interested in your true impressions of the study.*

STUDY LINKS GAY SONS TO PLAY STYLE

Religious leaders, political figures and psychotherapists have long debated – often in purely emotional terms – the difficult issue of sexual orientation. Do some people choose to be gay, or is there a deeper underlying social learning reason for this behavior? A new study by Harvard psychologist linking gay male sexual orientation to play style suggests that the latter answer to this question might be the one borne out of scientific research. The research team contacted over 500 exclusively gay men, recruited through various gay organizations and publications. A matched sample of 500 heterosexual men was also included for comparison. Because this study was the first of its kind, only men who were exclusively “gay” or “straight” rather than “bisexual,” were included in the study. In addition to the in-depth questioning about their own sexual behavior, the gay men and heterosexual men were asked about their childhood. The results? Firstly, the gay men were more likely to have enjoyed sex-atypical activities as children (e.g. hopscotch, play house, and jacks) than were heterosexual men. Secondly, the study found that even when playing sex-typical activities (e.g. baseball and football), gay sons were more likely to behave effeminately (having feminine qualities). In general, gay male sons prefer female-typical activities. For example, in one family, two of the three brothers who used to play house with the neighborhood girls were gay.

“While this study is a great breakthrough, further research is clearly needed in this area,” said Dr. Zillstein, the head of the Harvard research team. “We are working with the hypothesis that play style influences sexual orientation early in development. Boys who typically like to play traditionally female games behave more effeminately and are more likely to play with girls over boys, which may influence gay male sexual orientation.” Zillstein also noted that his study was limited in that it only examined gay male sexual orientation and ignored lesbian sexual orientation. He also acknowledged that other influences, such as gay role-models, could play a role in determining gay male sexual orientation.

Instructions: *Here is a short report of a scientific study from a newspaper. Please read through the study as carefully as you can and answer the questions below. You may refer back to the study and re-read parts of it while you are answering these questions. There are no right or wrong answers to these items, but I am interested in your true impressions of the study.*

STUDY LINKS LESBIAN DAUGHTERS TO PLAY STYLE

Religious leaders, political figures and psychotherapists have long debated – often in purely emotional terms – the difficult issue of sexual orientation. Do some people choose to be gay, or is there a deeper underlying social learning reason for this behavior? A new study by Harvard psychologist linking lesbian sexual orientation to play style suggests that the latter answer to this question might be the one borne out of scientific research. The research team contacted over 500 exclusively lesbian women, recruited through various lesbian organizations and publications. A matched sample of 500 heterosexual women was also included for comparison. Because this study was the first of its kind, only women who were exclusively “lesbian” or “straight” rather than “bisexual,” were included in the study. In addition to the in-depth questioning about their own sexual behavior, the lesbian and heterosexual women were asked about their childhood. The results? Firstly, the lesbians were more likely to have enjoyed sex-atypical activities as children (e.g. baseball and football) than were heterosexual women. Secondly, the study found that even when playing sex-typical activities (e.g. hopscotch, play house, and play dolls), lesbians were more likely to behave like a tomboy. In general, lesbian daughters prefer male-typical activities. For example, in one family, two of the three daughters who used to play baseball with the neighborhood boys were lesbian.

“While this study is a great breakthrough, further research is clearly needed in this area,” said Dr. Zillstein, the head of the Harvard research team. “We are working with the hypothesis that play style influences sexual orientation early in development. Girls who typically like to play traditionally male games behave more tomboyish and are more likely to play with boys over girls, which may influence lesbian sexual orientation.” Zillstein also noted that his study was limited in that it only examined lesbian sexual orientation and ignored gay male sexual orientation. He also acknowledged that other influences, such as lesbian role-models, could play a role in determining lesbian sexual orientation.

Appendix B

Attribution to Sexual Orientation Scale

Instructions: *Please indicate your agreement or disagreement with the following questions by circling the number that best represents your opinion about the question. These questions ask about your personal beliefs, so there are no right or wrong answers. No matter how you answer each question, you can be assured that many people will answer it the same way.*

Some people think that lesbian and gay male sexual orientation is something that people choose for themselves, while others feel it is something over which women and men do not have any control. How do you feel? Would you say being a lesbian or gay male is something women and men choose for themselves, or is it something over which they have no control?

	Strongly Disagree	Disagree	Slightly Disagree	Neither	Slightly Agree	Agree	Strongly Agree
1. Lesbian and gay male sexual orientation is something people chose for themselves.	1	2	3	4	5	6	7
2. Lesbian and gay male sexual orientation is something people have no control over.	1	2	3	4	5	6	7

Do you believe that women and men are born with lesbian and gay male sexual orientation, or that lesbian and gay male sexual orientation develops as a result of upbringing or the environment?

	Strongly Disagree	Disagree	Slightly Disagree	Neither	Slightly Agree	Agree	Strongly Agree
3. Lesbians and gay men are born with their sexual orientation.	1	2	3	4	5	6	7
4. Lesbian and gay male sexual orientation develops as a result of upbringing or the environment.	1	2	3	4	5	6	7

Appendix C

Attitudes Toward Lesbians and Gay Men Scale

Instructions: Please indicate your agreement or disagreement with the following questions by **circling** the number that best represents your opinion about the question. These questions ask about your personal beliefs, so there are no right or wrong answers. No matter how you answer each question, you can be assured that many people will answer it the same way.

	Strongly Disagree	Disagree	Slightly Disagree	Neither	Slightly Agree	Agree	Strongly Agree
1. Lesbians just can't fit into our society.	1	2	3	4	5	6	7
2. A woman's lesbian sexual orientation should <i>not</i> be a cause for job discrimination.	1	2	3	4	5	6	7
3. Lesbian sexual orientation is detrimental to society because it breaks down the natural division between the sexes.	1	2	3	4	5	6	7
4. State laws regulating private, consenting lesbian behavior should be loosened.	1	2	3	4	5	6	7
5. Lesbian sexual orientation is a sin.	1	2	3	4	5	6	7
6. The growing number of lesbians indicates a decline in American morals.	1	2	3	4	5	6	7
7. Lesbian sexual orientation in itself is no problem, but what society makes of it can be a problem.	1	2	3	4	5	6	7
8. Lesbian sexual orientation is a threat to many of our basic social institutions.	1	2	3	4	5	6	7
9. Lesbian sexual orientation is an inferior form of sexuality.	1	2	3	4	5	6	7
10. Lesbians are sick.	1	2	3	4	5	6	7
11. Gay male couples should be allowed to adopt children the same as heterosexual couples.	1	2	3	4	5	6	7
12. I think gay males are disgusting.	1	2	3	4	5	6	7

	Strongly Disagree	Disagree	Slightly Disagree	Neither	Slightly Agree	Agree	Strongly Agree
13. Gay males should <i>not</i> be allowed to teach school.	1	2	3	4	5	6	7
14. Gay male sexual orientation is a perversion.	1	2	3	4	5	6	7
15. Just as in other species, gay male sexual orientation is a natural expression of sexuality in human men.	1	2	3	4	5	6	7
16. If a man has gay male feelings, he should do everything he can to overcome them.	1	2	3	4	5	6	7
17. I would <i>not</i> be too upset if I learned that my son were a gay male.	1	2	3	4	5	6	7
18. Gay male sexual behavior between two men is just plain wrong.	1	2	3	4	5	6	7
19. The idea of gay male marriages seems ridiculous to me.	1	2	3	4	5	6	7
20. Gay male sexual orientation is merely a different kind of lifestyle that should <i>not</i> be condemned.	1	2	3	4	5	6	7

Appendix D
Demographic Questionnaire

Instructions: *To better understand the results of this study, please answer the following background questions.*

1. What is your age? _____
2. What is your gender? Male _____ Female _____
3. Which of the following best describes your sexual orientation?
 Heterosexual _____ Bisexual _____
 Lesbian/Gay Male _____ Other _____
4. Do you have any female friends or acquaintances who are lesbian?
 Yes _____ I don't know _____
 No _____
5. Do you have any male friends or acquaintances who are gay men?
 Yes _____ I don't know _____
 No _____
6. Are any of your family members lesbian?
 Yes _____ I don't know _____
 No _____
7. Are any of your family members gay men?
 Yes _____ I don't know _____
 No _____
8. What is your religion? _____ I do not have a religion _____
9. How often did you attend religious services in the past year?
 Never _____ 1-3 times/month _____
 Once, few times _____ Weekly or more often _____
10. Which of the following best describes your political ideology?
 Liberal _____ Moderate _____
 Conservative _____
11. Which of the following best describes your ethnic background?
 Asian/Pacific Islander _____ White/Caucasian _____
 Hispanic/Latino(a) _____ Other _____
 Black/African American _____
12. What is your class standing?
 Freshman _____ Senior _____
 Sophomore _____ Other _____
 Junior _____

Appendix E

Consent Form

Agreement to Participate in Research – Consent Form

Responsible Investigators: Dr. Arlene Asuncion, Summer Brandt

Title of Protocol: Attitudes Toward Sexuality

1. I have been asked to participate in a research study investigating attitudes toward sexuality.
2. I will be asked to read a short article and then answer a written questionnaire regarding my beliefs and attitudes toward lesbians and gay men.
3. There are no anticipated risks associated with taking part in this study.
4. All data I provide will be treated as confidential. The results of this study may be published, but no information that could identify me will be included.
5. Participation in this study will contribute to further research in this area.
6. I may quit the study at any time. No service of any kind, to which I am otherwise entitled, will be lost or jeopardized if I choose not to participate.
7. Consent is given voluntarily. I may refuse to take part in this study or in any part of this study. If I decide to take part in this study, I am free to withdraw at any time without prejudice to my relation with San Jose State University or any other participating institutions.
8. Any questions about the research may be addressed to the principal investigator, Summer Brandt via email: summerbrandt@yahoo.com. Complaints about the research may be presented to the Arlene Asuncion, Ph.D. (Professor of Psychology, 408.924.5609). Questions or complaints about research, subjects' rights, or research-related injury may be presented to Nabil Ibrahim, Ph.D. (Associate Academic Vice President for Graduate Studies Research, SJSU: 408.924.2480).
9. I have received a signed and dated copy of this consent form.

The signature of a participant on this document indicates agreement to be included in the study. The signature of a researcher on this document indicates agreement to include the above named participant in the research and attestation that the participant has been fully informed of his or her rights.

Signature

Date

Investigator's Signature

Date

Appendix F

Mean, Standard Deviation, Frequency, and Percentage by Item for the Attitudes Toward
Lesbians and Gay Men Scale

Items	Frequency					Mean (SD)	
	Strongly Disagree	Disagree	Slightly Disagree	Neither	Slightly Agree		Strongly Agree
1. Lesbians just can't fit into our society.	116 (41.3)	95 (33.8)	38 (13.5)	18 (6.4)	7 (2.5)	3 (1.1)	4 (1.4)
2. A woman's lesbian sexual orientation should <i>not</i> be a cause for job discrimination. [R]	5 (1.8)	4 (1.4)	2 (0.7)	7 (2.5)	20 (7.1)	85 (30.2)	158 (56.2)
3. Lesbian sexual orientation is detrimental to society because it breaks down the natural division between the sexes.	54 (19.2)	77 (27.4)	34 (12.1)	63 (22.4)	34 (12.1)	11 (3.9)	8 (2.8)
4. State laws regulating private, consenting lesbian behavior should be loosened. [R]	9 (3.2)	15 (5.3)	17 (6.0)	88 (31.3)	60 (21.4)	56 (19.9)	36 (12.8)
5. Lesbian sexual orientation is a sin.	82 (29.2)	66 (23.5)	27 (9.6)	42 (14.9)	16 (5.7)	23 (8.2)	25 (8.9)
6. The growing number of lesbians indicates a decline in American morals.	68 (24.2)	90 (32.0)	37 (13.2)	36 (12.8)	26 (9.3)	15 (5.3)	9 (3.2)
7. Lesbian sexual orientation in itself is no problem, but what society makes of it can be a problem. [R]	9 (3.2)	10 (3.6)	20 (7.1)	19 (6.8)	68 (24.2)	97 (34.5)	58 (20.6)
8. Lesbian sexual orientation is a threat to many of our basic social institutions.	67 (23.8)	94 (33.5)	47 (16.7)	38 (13.5)	19 (6.8)	10 (3.6)	6 (2.1)
9. Lesbian sexual orientation is an inferior form of sexuality.	68 (24.2)	76 (27.0)	32 (11.4)	66 (23.5)	27 (9.6)	10 (3.6)	2 (0.7)
10. Lesbians are sick.	54 (19.2)	70 (24.9)	42 (14.9)	58 (20.6)	28 (10.0)	13 (4.6)	16 (5.7)
11. Gay male couples should be allowed to adopt children the same as heterosexual couples. [R]	27 (9.6)	31 (11.0)	34 (12.1)	24 (8.5)	45 (16.0)	59 (21.0)	61 (21.7)
12. I think gay males are disgusting.	102 (36.3)	58 (20.6)	23 (8.2)	44 (15.7)	27 (9.6)	10 (3.6)	17 (6.0)

Mean, Standard Deviation, Frequency, and Percentage by Item for the Attitudes Toward Lesbians and Gay Men scale ($N = 281$)

Items	Mean (SD)	Frequency (Percentage)						
		Strongly Disagree	Disagree	Slightly Disagree	Neither	Slightly Agree	Agree	Strongly Agree
13. Gay males should <i>not</i> be allowed to teach school.	1.9 (1.3)	142 (50.5)	78 (27.8)	29 (10.3)	13 (4.6)	12 (4.3)	3 (1.1)	4 (1.4)
14. Gay male sexual orientation is a perversion.	2.8 (1.7)	88 (31.3)	57 (20.3)	23 (8.2)	65 (23.1)	24 (8.5)	18 (6.4)	5 (1.8)
15. Just as in other species, gay male sexual orientation is a natural expression of sexuality in human men. [R]	4.6 (1.7)	17 (6.0)	24 (8.5)	28 (10.0)	56 (19.9)	50 (17.8)	72 (25.6)	34 (12.1)
16. If a man has gay male feelings, he should do everything he can to overcome them.	3.1 (1.7)	54 (19.2)	70 (24.9)	42 (14.9)	58 (20.6)	28 (10.0)	13 (4.6)	16 (5.7)
17. I would <i>not</i> be too upset if I learned that my son were a gay male. [R]	3.7 (1.9)	47 (16.7)	44 (15.7)	49 (17.4)	37 (13.2)	35 (12.5)	45 (16.0)	24 (8.5)
18. Gay male sexual behavior between two men is just plain wrong.	3.2 (1.9)	71 (25.3)	60 (21.4)	37 (13.2)	35 (12.5)	34 (12.1)	25 (8.9)	19 (6.8)
19. The idea of gay male marriages seems ridiculous to me.	3.3 (1.9)	65 (23.1)	56 (19.9)	40 (14.2)	45 (16.0)	37 (13.2)	9 (3.2)	29 (10.3)
20. Gay male sexual orientation is merely a different kind of lifestyle that should <i>not</i> be condemned. [R]	4.9 (1.8)	18 (6.4)	18 (6.4)	29 (10.3)	36 (12.8)	53 (18.9)	69 (24.6)	58 (20.6)

Appendix G
Signed Approval Form




San José State
UNIVERSITY

**Office of the Academic
Vice President**

**Academic Vice President
Graduate Studies and Research**

One Washington Square
San José, CA 95192-0025
Voice: 408-283-7500
Fax: 408-924-2477
E-mail: gradstudies@sjsu.edu
<http://www.sjsu.edu>

To: Summer Brandt
79 N. 10th Street, Apt. #A
San José, CA 95112

From: Nabil Ibrahim, 
AVP, Graduate Studies & Research

Date: January 29, 2003

The Human Subjects-Institutional Review Board has approved your request to use human subjects in the study entitled:

“Heterosexual Attitudes toward Lesbians and Gay Men:
Effects of a Biological Determinist Argument versus
a Social Learning Argument.”

This approval is contingent upon the subjects participating in your research project being appropriately protected from risk. This includes the protection of the anonymity of the subjects' identity when they participate in your research project, and with regard to any and all data that may be collected from the subjects. The approval includes continued monitoring of your research by the Board to assure that the subjects are being adequately and properly protected from such risks. If at any time a subject becomes injured or complains of injury, you must notify Nabil Ibrahim, Ph.D. immediately. Injury includes but is not limited to bodily harm, psychological trauma, and release of potentially damaging personal information. This approval for the human subjects portion of your project is in effect for one year, and data collection beyond January 29, 2004 requires an extension request.

Please also be advised that all subjects need to be fully informed and aware that their participation in your research project is voluntary, and that he or she may withdraw from the project at any time. Further, a subject's participation, refusal to participate, or withdrawal will not affect any services that the subject is receiving or will receive at the institution in which the research is being conducted.

If you have any questions, please contact me at (408) 924-2480.