

Sexual Orientation: A Peripheral Cue in Advertising?

Adrienne Holz Ivory

Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in  
partial fulfillment of the requirements for the degree of

Master of Arts  
in  
Communication

John C. Tedesco, Chair  
Robert G. Magee  
Andrew Paul Williams

April 26, 2007  
Blacksburg, Virginia

Keywords: Advertising, Gay Males, Lesbians, Elaboration Likelihood Model, Social Identity  
Theory, Media Effects

Copyright 2007, Adrienne Holz Ivory

# Sexual Orientation: A Peripheral Cue in Advertising?

Adrienne Holz Ivory

## ABSTRACT

Although advertising featuring gay male and lesbian models can be an effective means of targeting the significant gay and lesbian market, few empirical studies examine how consumers respond to gay-themed advertisements. To address the absence of message-processing research dealing with heterosexual responses to gay-themed advertising, this thesis examines how sexual orientation of model couples featured in magazine advertisements affects heterosexual viewers' responses using the elaboration-likelihood model as a guiding framework. A 3x2x2x3 experiment tested the effects of model couples' sexual orientation (heterosexual, gay male, or lesbian), argument strength (strong or weak), involvement (high or low), and participants' attitudes towards homosexuality (high, medium, or low) on White heterosexual participants' attitudes toward the couple, attitudes toward the advertisement, attitudes toward the brand, attitudes toward the product, purchase intentions, and recall.

Results indicate that heterosexual consumers were accepting of ads with lesbian portrayals. Participants showed more negative attitudes toward gay male portrayals, but attitudes towards heterosexual and lesbian ads were similar. This effect was moderated by participants' attitudes toward homosexuals. Regarding message processing, low involvement consumers showed more negative attitudes toward homosexual portrayals than toward heterosexual portrayals, providing some indication that models' sexual orientation in ads may have served as a peripheral cue negatively impacting attitudes toward the couple and ad in situations where elaboration is low. However, such effects on attitudes toward couples and ads did not appear to carry over to attitudes toward the brand and product, purchase intentions, or recall. Implications, limitations, and areas for future research are also discussed.

## Table of Contents

Abstract .....	ii
Table of Contents .....	iii
List of Tables .....	v
List of Appendices.....	vi
List of Figures .....	vii
Chapter One: Introduction, Literature Review, and Research Questions.....	1
Advertising to Gay Male and Lesbian Consumers.....	2
Ad Processing by Consumers .....	4
Effects of Homosexual Imagery in Advertisements.....	6
Social Identity Theory .....	10
Elaboration Likelihood Model.....	13
Applying the ELM to Advertising Content.....	19
Race as a Peripheral Cue in Advertising.....	20
Research Questions .....	23
Chapter Two: Method.....	26
Participants.....	26
Stimulus Materials.....	27
Independent Variables.....	27
Dependent Measures.....	31
Manipulation Checks.....	32
Measures Not Included in Analyses.....	34
Procedures.....	34

Chapter Three: Results.....	37
Manipulation Checks.....	37
Attitude Toward the Couple.....	39
Attitude Toward the Ad.....	41
Attitude Toward the Brand.....	43
Attitude Toward the Product.....	44
Purchase Intentions.....	44
Recall.....	44
Results Summary.....	45
Chapter Four: Discussion.....	46
Limitations.....	55
Future Research.....	56
References.....	57
Tables.....	61
Appendices.....	62
Figures.....	84
Vita.....	90

## List of Tables

Table 1. Results of significance testing for main effects.....	61
--	----

## List of Appendices

Appendix A. Pretest photos.....	62
Appendix B. Photographs used in ads.....	64
Appendix C. Pretest arguments.....	65
Appendix D. Strong and weak arguments.....	67
Appendix E. Stimulus Material Examples.....	68
Appendix F. Study questionnaire.....	74

## List of Figures

Figure 1. Two-way interaction of argument strength and involvement on attitude toward the argument manipulation check measure.....	84
Figure 2. Two-way interaction of ad sexual orientation and ATLG scale on attitude toward the couple.....	85
Figure 3. Two-way interaction of ad sexual orientation and involvement on attitude toward the ad.....	86
Figure 4. Two-way interaction of ad sexual orientation and ATLG scale on attitude toward the ad.....	87
Figure 5. Three-way interaction of couple sexual orientation, argument strength, and involvement on attitude toward the ad.....	88
Figure 6. Three-way interaction of argument strength, involvement and ATLG scale on attitude toward the brand.....	89

## CHAPTER ONE

### INTRODUCTION, LITERATURE REVIEW, AND RESEARCH QUESTIONS

As gay male and lesbian consumers represent significant buying power in the U.S. market, advertising featuring gay male and lesbian models can be an effective means of targeting this significant market (Peñaloza, 1996). However, few empirical research studies examine how such gay-themed advertising could affect the perceptions of heterosexual consumers. Previous studies on another stigmatized minority group, Black consumers, show that including Black models in advertisements rarely has negative effects on White consumers' attitudes toward ads (Whittler, 1991; Whittler & Spira, 2002). However, findings indicate that when the source of a message is a member of a stigmatized group (e.g., the use of Black models in an advertising message), White message recipients may be more motivated to elaborate on the message (Petty et al., 2002, p. 173; White & Harkins, 1994), and Black viewers may be more likely to engage in biased message-processing (Whittler & Spira, 2002). In other words, such portrayals may either encourage more active, critical cognitive processing characterized by high thinking, or alternately may promote more biased processing characterized by quick message processing with low information scrutiny and little critical thinking. Such research dealing with message processing, however, does not incorporate the effects of including gay male and lesbian models in advertisements.

To address the absence of message-processing research dealing with heterosexual responses to gay-themed advertising, this thesis examines how sexual orientation of model couples featured in mainstream magazine advertisements affects heterosexual viewers' responses using the elaboration-likelihood model as a guiding theoretical framework. Specifically, this



thesis reports a 3 X 2 X 2 between-subjects factorial experiment where sexual orientation (heterosexual, gay male, and lesbian), argument strength (strong versus weak), and involvement (high versus low) were manipulated in mainstream advertisements to examine exposure effects on heterosexual participants' attitudes toward the couple, attitudes toward the advertisement, attitudes toward the brand, attitudes toward the product, purchase intentions, and advertisement recall. Additionally, participants' attitudes toward gay males and lesbians (high, medium, and low anti-gay and anti-lesbian attitudes) were recorded and used as a fourth factor in analyses (3 X 2 X 2 X 3) in order to determine how this important individual difference variable influenced the study's dependent measures—both alone and in concert with the three advertising content factors manipulated in the experiment. The remainder of this chapter is devoted to reviewing relevant literature and theoretical frameworks and presenting research questions guiding the experiment reported in this thesis. Chapter Two describes the method used in the experiment, and Chapter Three reports the results of statistical procedures performed to answer the research questions. Finally, Chapter Four includes a discussion of the findings and their implications for the field of advertising. Chapter Four concludes with a discussion of study limitations and offers suggestions for future research.

#### *Advertising to Gay Male and Lesbian Consumers*

In the last couple of decades, more research has focused on lesbians and gay male consumers, also termed the “Dream Market” (Peñaloza, 1996, p. 10), because gay and lesbian consumers constitute a sizeable and profitable market segment. Although some studies of gay and lesbian consumers find that they attain a higher income, higher education levels, and tend to hold more professional and managerial jobs than their heterosexual counterparts (Peñaloza, 1996, p. 25-26), others indicate that these findings are generally overstated (Wilke, 1998).

However, gay and lesbian consumers do represent the highest buying power per capita of any minority group in the United States (Oakenfull & Greenlee, 2005, p. 422).

As a result, several advertisers work to help their clients directly target gay and lesbian consumers by advertising in magazines, newspapers, cable television broadcasting, and radio programming with largely gay male and lesbian audiences. Gay and lesbian media include print magazines such as *The Advocate*, *Out*, *Genre*, *Passport*, *PRIDE & Equality*, *Curve*, *Echelon*, Web magazines such as *Cybersocket*, newspapers such as *Gay City News*, cable/satellite television programming such as *Logo* and *here!*, and radio stations such as *PrideNation Radio*, *TWIST* gay radio, and more. More mainstream companies are beginning to target gay male and lesbian communities with commercially popular brands such as Abercrombie & Fitch, American Airlines, Anheuser-Busch, Coors Brewing Company, Dolce & Gabbana, IBM Corporation, and the Procter & Gamble Company. There are various strategies used to target gay male and lesbian consumers, including use of GLBT themes, symbols, and appeals and gay male or lesbian characters within advertisements. According to Peñaloza (1996), these strategies “vary from the simple extrapolation of a marketing campaign developed for other market(s) to the gay/lesbian market, to modifications of ongoing campaigns to tailor them to the gay/lesbian market, to the development of campaigns tailored uniquely for gay/lesbian consumers” (p. 30).

Extending the presence of gay-themed advertising to mainstream media may also be profitable for advertisers. Placement of gay-targeted ads in only gay media fails to reach all gay male and lesbian consumers, as estimates show that more than half of gay males and lesbians in the U.S. do not read any type of gay media (Oakenfull & Greenlee, 2005; Poux, 1998). Not only does the inclusion of gay males and lesbians in mainstream media offer marketing firms a better way to reach this profitable audience segment, but it also helps to authenticate their place in

society (Peñaloza, 1996, p. 32). Although many firms target gay and lesbian consumers in gay media, other marketers avoid advertising in more mainstream media sources for fear of negative responses from heterosexual consumers. Fear of heterosexual consumer backlash from gay-themed ads is not unfounded, as a recent survey by the Pew Research Center (2003) found that nearly half of the U.S. population has an unfavorable opinion of gay men (50% unfavorable) and lesbians (48% unfavorable). Therefore, marketers may face difficulties in weighing the potential benefits and drawbacks of placing advertisements targeted toward gay males and lesbians in more mainstream media. While such ads will reach a large audience of gay male and lesbian consumers who may respond favorably, the ads will also reach an even larger audience of heterosexual consumers who may respond negatively.

#### *Ad Processing by Consumers*

Several studies find that consumers process ad information uniquely depending on experience, individual difference variables, individual motives, and group differences. Bhat, Leigh, & Wardlow (1998) state that “though homogeneity of audience responses to ad content and imagery often is assumed in advertising research, individual group membership and social identity may strongly affect audience responses to ad content and imagery” (p. 6). Research shows that individual consumers process ads differently depending on their ethnicity (Whittler, 1991; Whittler & Spira, 2002), their perceived homophily or similarity to models featured in advertisements (Simpson, Snuggs, Christiansen, & Simples, 2000), and their sexual orientation (Bhat et al., 1996, 1998; Grier and Brumbaugh, 1999; Oakenfull and Greenlee, 2004, 2005). Thus, individual and group differences may explain varied responses to advertising messages.

Previous research shows several group differences in advertisement processing and attitudes toward advertisements (Bhat et al., 1998; Fisher & Dubé, 2005; Scott, 1994). For

instance, social groups differ in their abilities, conventions, worldviews, and shared cultural meanings, and these differences affect their ad processing. For example, those in Western culture generally read from the upper left to lower right, and various cultures differ in shared symbols and vocabulary (Scott, 1994). There are also various gender differences in advertisement processing, as men and women tend to differ systematically in how they process and interpret a given ad (Bhat et al., 1998). Gender differences appear more pronounced when emotional content is isolated and measured for effects (Fisher & Dubé, 2005). There are also effects of consumer race on advertisement processing. Several studies investigated the effects of including product spokespersons or models in general advertising (Simpson et al., 2000; Wittler & Spira, 2002) and have found that people prefer advertisements that feature a model of their own race. This finding supports the principle of homophily, which asserts that “the degree to which pairs of individuals who interact are similar with respect to certain attributes, such as beliefs, values, education, social status, etc.” (Rogers & Bhowmik, 1970, p. 525) influences advertising effects. Thus, in advertising, the degree to which a person sees him or herself as similar to a person in an advertisement may affect their tendency to be persuaded by the advertisement.

There are also several important individual differences in how consumers process ad content and imagery. For instance, individual consumers may differ in how they retrieve memories or construct images in their minds (Scott, 1994), in their affective responses and emotions toward an advertisement (Petty & Wegener, 1999), and in how they respond to humor in messages (Zhang, 1996). Moreover, message processing may differ depending on a consumer’s level of processing, motivation, or ability to process an ad (Petty & Wegener, 1999) and their need for cognition or innate tendency to derive enjoyment in effortful information

processing (Petty & Wegener, 1999). Furthermore, individual consumer differences in degree of ethnic identification (Simpson et al., 2000; Whittler & Spira, 2002) and attitudes toward homosexuality (Bhat et al., 1996) may also effect how the consumer processes an advertisement.

#### *Effects of Homosexual Imagery in Advertisements*

As there are both individual and group differences in ad processing, leading to much variability in how different consumers process advertisements, it is important to investigate how both heterosexual consumers and gay male and lesbian consumers respond to homosexual imagery within advertisements. Although empirical research is limited regarding the effects of homosexual imagery on heterosexual, gay male, and lesbian consumer attitudes, a few studies found that different consumers derive differing meanings from homosexual imagery (Grier & Brumbaugh, 1999), that attitudes differ depending on consumers' attitudes toward homosexuality (Bhat et al., 1996, 1998), that attitudes toward the advertisement do not necessarily transfer to the brand's sponsor (Bhat et al., 1998), and that attitudes differ depending on the explicitness of homosexual imagery content (Oakenfull & Greenlee, 2004, 2005).

Bhat et al. (1996) examined homosexual visual imagery in the advertising context and its effects on attitudes toward the ad. In their experiment, participants were exposed to one of four print advertisements featuring male homosexual or heterosexual romantic couples in jean or shampoo ads. After exposure to the ads, participants were surveyed on their attitudes toward the ad, tolerance of homosexuality (using Herek's 1984 C-T scale), age, gender, and sexual orientation. As expected, major findings showed that attitudes toward homosexual ads were more positive for participants who have tolerant attitudes toward homosexuality than for individuals who have intolerant attitudes toward homosexuality. Interestingly, participants with more tolerant attitudes toward homosexuality showed poorer attitudes toward ads portraying

heterosexuals than homosexuals. The authors concluded, “Advertisers need to be aware that while using homosexual imagery in advertisements may alienate a segment of the population, it does create goodwill for the brand among homosexuals and those tolerant of homosexuality” (p. 173).

Bhat et al. (1998) examined how heterosexuals respond to homosexual portrayals in advertisements. Participants were exposed to one of two treatment groups (a gay male couple or a heterosexual couple) and to one of two stimulus brands (jeans and shampoo), and completed a questionnaire measuring emotional responses to the ad and brand, demographic information, and responses to the Herek (1984) C-T (tolerance for homosexuality) scale. Findings showed that homosexual imagery generates negative emotions from heterosexual participants in amounts corresponding to their attitude toward homosexuality. Additionally, in some cases the use of homosexual imagery resulted in negative effects on the ad’s brand sponsor, whereas in other cases there was little effect. Bhat et al. suggest, “Our findings of considerable variance in attitude toward homosexuality among heterosexuals and its role in ad evaluation suggest that ad segmentation strategies should address individual difference variables even within a group that has traditionally been treated homogeneously” (p. 24).

Hester and Gibson (2005) also examined the effects of gay and lesbian images and references on attitudes toward the ad and brand as well as the role of homosexuality as a moderating variable on heterosexual viewers. Heterosexual adult consumers were randomly assigned to conditions featuring actual advertisements from gay media directed at a GLBT audience or manipulations of these same ads which substituted gay-themed imagery and messages to create a general market version. Results showed that responses to gay-themed advertising were moderated by participants’ attitudes toward homosexuality. Participants who

were more tolerant towards homosexuality expressed more positive emotional responses to advertising messages than did those less tolerant of homosexuality.

Oakenfull and Greenlee (2004) investigated how heterosexual consumers' attitudes toward gay males and lesbians affect their attitudes toward advertisements featuring gay and lesbian content. Heterosexual participants were exposed to four ads containing gay male imagery, lesbian imagery, overtly gay male imagery, and overtly lesbian imagery, and answered a questionnaire to assess demographic variables and their attitude toward the advertisements. As the researchers used actual advertisements, the study did not control for product category or brand type. Findings showed that males liked the advertisement with overtly lesbian imagery significantly more than the advertisement with overtly gay male imagery, though there was no difference between females' attitudes towards overtly lesbian or gay male imagery. Males liked the overtly lesbian imagery significantly more than the ad with non-overt lesbian imagery whereas females preferred the non-overt lesbian imagery, and both males and females liked the ad with non-overt gay male imagery significantly more than the ad with overtly gay male imagery. Males also liked the overtly lesbian imagery significantly more than females, who liked the overtly gay male imagery significantly more than males. The authors conclude, "The key to targeting gays and lesbians without alienating unintended audiences is to use subtle lesbian imagery in the advertisements" (p. 1284).

Oakenfull and Greenlee (2005) examined the responses of heterosexual and homosexual consumers to advertising that includes mainstream imagery, implicit gay and lesbian imagery, and explicit gay and lesbian imagery to better understand targeting toward gays and lesbians in mainstream media without alienating heterosexual consumers. Heterosexual and homosexual participants were exposed to four advertisements—mainstream content (featuring a heterosexual

couple), explicit gay male imagery (featuring a gay couple), explicit lesbian imagery (featuring a lesbian couple), and implicit gay and lesbian imagery featuring gay and lesbian symbolism (e.g. pink triangle, rainbow flag)—and answered questions to determine their attitude toward the advertisement and demographic questions. As the study used actual advertisements, it did not completely control for product category or brand type. Results showed that heterosexuals liked the advertisement with mainstream imagery significantly more than the ad with explicit gay male or lesbian imagery, heterosexuals liked the ad with implicit gay and lesbian imagery significantly more than ads with explicit gay male or lesbian imagery, and there was no significant difference between scores for implicit gay and lesbian imagery and mainstream imagery. Homosexual participants liked the ad with implicit gay and lesbian imagery significantly more than the mainstream imagery ad, and there were no significant differences between scores for implicit gay or lesbian imagery and explicit gay or lesbian imagery. The researchers argue that “the key to targeting gays and lesbians in mainstream media may be to communicate with gay and lesbian consumers in a manner that goes undetected by mainstream consumers who are most likely to disapprove of the strategy” (p. 437). Hence, these findings provide evidence that marketers should perhaps feel less apprehension about including implicit gay male and lesbian imagery in advertising as heterosexual consumers do not appear to prefer mainstream imagery over implicit gay and lesbian imagery.

Grier and Brumbaugh (1999) investigated how target and non-target viewers derive meaning from ads meant to target certain audience members. White heterosexual, homosexual, and Black heterosexual participants viewed six ads, two of which were targeted to White heterosexuals, two targeted toward white homosexuals, and two targeted to Black heterosexuals. Participants then completed a questionnaire to determine their thoughts and feelings about the



ads, targeting perceptions, and responses to demographic questions. Findings showed that target viewers were more likely to take a positive stance than non-target viewers whereas non-target viewers were more likely to take a negative stance. Target viewers were also more likely to understand the specific targeting cues within the ad than were non-target audience members, and targeted Black and gay consumers were more likely to take a positive referential interpretive stance that related the ad positively to themselves than were White, heterosexual viewers.

### *Social Identity Theory*

One theoretical framework that offers insight regarding how race, gender, sexuality, or social group depictions in advertising affects consumers is social identity theory. Social identity theory began as an attempt for social psychologists to explain intergroup discrimination (Turner, 1999). The theory describes the phenomenon by which individuals categorize, or group, both themselves and others into social categories which share a common bond of belonging (Hogg & Abrams, 1988). These social categories, “which stand in power and status relations to one another” (p. 14), are comprised of such areas as nationality, sex, occupation, religion, class, and sexual orientation. One important result of people’s tendency to categorize others and themselves into groups is “an accentuation of similarities between self and other ingroupers and differences between self and outgroupers, that is self-stereotyping” (p. 21). In other words, as people place themselves and others in social categories, this in turn emphasizes their perceptions of stereotypic similarities and differences.

Furthermore, when individuals make comparisons between ingroup members (including themselves) and outgroup members, there is a notable tendency to maximize intergroup distinctiveness and likewise “accentuate intergroup differences especially on those dimensions which reflect favourably upon ingroup” (Hogg & Abrams, 1988, p. 23). Thus, the ingroup

maintains a generally positive and superior identity for the purposes of self-enhancement, whereas more negative characteristics are likely to be attributed to members of outgroups. Hence, ingroup stereotypes are generally favorable and outgroup stereotypes unfavorable because, as Hogg and Abrams explain, “Self-categorization imbues the self with all the attributes of the group, and so it is important that such attributes are ones which reflect well on self” (p. 74).

The manner in which individuals behave as the outcome of social identification and categorization result in what are termed intergroup and intragroup behaviors. Intergroup behavior describes the manner in which people behave towards members of social groups other than their own. Psychologists examining this area describe intergroup behaviors and resulting ethnocentrism as stemming from such areas as personality structures, cultural beliefs and upbringing, conformity to norms, frustration, sense of relative deprivation, conflicts of interests, and minimal groups, or the mere maximization of ingroup profit (Hogg & Abrams, 1988). In other words, the sole categorization of people into social groups may be sufficient enough to prompt intergroup behavior in which people favor ingroup over outgroup members and intergroup discrimination (Turner, 1999, p. 8). Not only does this categorization generate intergroup competition, but it also accentuates intergroup differences and exaggerates similarities between ingroup members. Complementary to this process, social comparison also occurs in which those accentuated characteristics central to the ingroup are responsible for amplifying the relative superiority of the ingroup over the outgroup (Hogg & Abrams, p. 53).

Central to intergroup behavior studies, advertising research provides much evidence that diverse social groups exhibit differing responses to advertising content, and individuals tend to favor ads featuring imagery from their own social group. For instance, as earlier discussed,

Whittler (1991) found that African-American viewers generally favor Black models in advertising messages, and Oakenfull and Greenlee (2005) found that heterosexual viewers generally favor heterosexual imagery whereas homosexual viewers generally favor gay male and lesbian imagery.

Beyond studies of intergroup behavior, intragroup behavior is also central to examining and predicting responses to media. Intragroup behavior describes the behaviors which take place within groups, or “interaction between two or more individuals that is governed by a common or shared social self-categorization or social identity” (Hogg & Abrams, 1988, p. 94). Generally speaking, the cohesiveness of the group, or interpersonal liking, has a reliable effect on group behavior—“One likes, is attracted to, and positively evaluates co-members of the group precisely because in general one likes and positively evaluates oneself” (p. 107). However, it is also important to note that although individuals may belong to a similar group, their identification with this category may vary significantly, and these differences may have substantial outcomes for behavior (Deaux, 2000, p. 3). For instance, person characteristics, or individual differences (those characteristics apart from social membership including personality traits, personal experiences, etc.), may also influence behaviors (Worchel, Iuzzini, Coutant, & Ivaldi, 2000, p. 18).

Regarding intragroup behavior studies and individual differences within groups, advertising research provides support that there are differences within groups on responses to advertising messages. For example, Bhat et al. (1996, 1998) and Hester and Gibson (2005) found attitudes toward advertisements featuring homosexual imagery are often moderated by attitudes toward homosexuality. These findings indicate that attitudes toward homosexual ads

are more positive for participants who have tolerant attitudes toward homosexuality than for individuals who have intolerant attitudes toward homosexuality.

*Elaboration Likelihood Model.*

The primary theoretical framework for this study is Petty and Cacioppo's (1981) elaboration likelihood model (ELM). Petty and Cacioppo (1981) outlined the ELM as a general framework for attitude change that incorporates many major approaches previously developed by psychologists to examine attitudes and persuasion. The theory examines "the processes underlying changes in perceptions of objects, the variables that induce these processes, and the strength of the perceptions resulting from these processes" (Petty & Wegener, 1999, p. 42). That is, it explains how internal and external variables impact evaluative and non-evaluative or probabilistic judgments such that a message source, the message, the recipient, and contextual variables may impact attitudes (Petty & Cacioppo, 1981; Petty & Wegener, 1999).

In an advertising context, the ELM states that persuasion occurs both in situations where thinking is high (active/central message processing) and in situations where thinking is low (passive/peripheral message processing). The ELM conceptualizes a dual route of persuasion to illustrate both high and low levels of message processing, involving central (active) and peripheral (passive) routes. Central route processing occurs when the individual's motivation or ability to process a message is high, and relies on active cognitive processing whereby the individual critically examines a message based on prior knowledge and experience. It is a thoughtful and effortful approach, where "the message recipient attends to the message arguments, attempts to understand them, and then evaluates them" (Petty & Cacioppo, 1981, p. 256). Peripheral processing, in contrast, occurs when the individual's motivation or ability to

process a message is low, and relies on quick processing focused on simple peripheral or contextual cues rather than the quality of the message.

Attitude change is determined by aspects such as possible punishments or rewards associated with the message, judgmental distortions that occur in message perception, or receiver inferences about message intent. Therefore, as elaboration likelihood is increased, issue-relevant information becomes more salient in the persuasion process, and when elaboration likelihood is decreased, peripheral cues become more salient in attitude change. Additionally, if persuasion results from effortful cognitive activity (central route), the attitude is likely to be enduring, whereas persuasion from peripheral cues is likely to be more transient (Petty & Cacioppo, 1981; Petty et al., 2002; Petty & Wegener, 1999).

The extent to which an individual thinks about or “elaborates” on a message is determined by his or her motivation and ability to process a message. If a message generates positive or negative attitude change, greater and more enduring persuasion occurs if it results from effortful cognitive activity, whereas peripheral processing relies on effortless, quick processing focused on contextual cues and results in less entrenched persuasive effects. Motivation to process a message may be determined by such factors as relevance (an individual will be more motivated to think about a message that has high personal relevance), incentive or reason to attend to a message (such as a subsequent exam or interview), level of congruity to existing beliefs (individuals often have greater motivation to think about incongruent information more than congruent information), and physiological levels of arousal or a person’s “need for cognition.” Moreover, many factors impinge on an individual’s ability to process a message, such as repetition (if a message is repeated, an individual will have greater time to think about it), levels of distraction (if distracted, a person will think less about a message), and the strength

of the argument (strong arguments will cause favorable thoughts and weak arguments will induce counterarguments) (Petty & Cacioppo, 1981; Petty et al., 2002).

Various other message characteristics can prompt central or peripheral processing by influencing recipients' ability and motivation to process a message. For instance, when the source of a message is a member of a stigmatized group, message recipients may be more motivated to elaborate on the message (Petty et al., 2002, p. 173), though other findings suggest that the same cue can cause recipients to engage in biased, peripheral message processing (Whittler & Spira, 2002).

Five years after its original conception, the ELM was translated into a set of seven formal postulates or assumptions (Petty & Cacioppo, 1986a, 1986b). The first three postulates describe underlying motivations, variations, and variables affecting elaboration. The first postulate states, "People are motivated to hold correct attitudes" (Petty & Cacioppo, 1986a, p. 127). Thus, the ELM assumes that people perform behaviors to help determine whether their opinions are correct by actively seeking out relevant information and considering the opinions of others. However, the assumption that people are motivated to be correct does not imply that they cannot be biased in their evaluations (Petty & Wegener, 1999). The second postulate states, "Although people want to hold correct attitudes, the amount and nature of issue-relevant elaboration in which people are willing or able to engage to evaluate a message vary with individual and situational factors" (Petty & Cacioppo, 1986b, p. 6). This implies that the best means to form attitudes is to elaborate on the relevant information or to access and scrutinize both internal and external sources, although individual and situational factors may enhance or mitigate this elaboration (such as mood states, prior knowledge, distractions, or issue relevance). Thus, when motivation and ability are high, cognitive effort will be high and vice-versa. Importantly, the amount of

message elaboration falls along a continuum rather than two endpoints of high and low (Petty & Cacioppo, 1986; Petty & Wegener, 1999). The third postulate deals with how variables affect persuasion and states, “Variables can affect the amount and direction of attitude change by: (a) serving as persuasive arguments, (b) serving as peripheral cues, and/or (c) affecting the extent or direction of issue and argument elaboration” (Petty & Cacioppo, 1986a, p. 132). This assumes that attitudes may be influenced by varying the quality of arguments and by including simple peripheral cues that may trigger certain states. More importantly, it asserts that any individual variable may impact attitude change through multiple mechanisms, such that one variable may work via both the central and peripheral routes.

The fourth and fifth postulates describe both objective and biased message elaboration. The fourth postulate explains objective elaboration in which an individual is motivated to discover the validity of the message. It states, “Variables affecting motivation and/or ability to process a message in a relatively objective manner can do so by either enhancing or reducing argument scrutiny” (Petty & Cacioppo, 1986b, p. 19). That is, some variables influence the extent to which a message is scrutinized by invoking motivational or ability factors. Therefore, when arguments in a message are strong, persuasion can be intensified by increasing message scrutiny and be inhibited by decreasing message scrutiny. Conversely, for weak arguments, persuasion can be increased by lessening scrutiny and decreased by enhancing scrutiny (Petty & Cacioppo, 1986a). For example, with a strong argument, distraction will reduce persuasion whereas repetition and relevance will increase persuasion. On the other hand, the fifth postulate deals with biased elaboration, where people prefer one judgment over another. It maintains, “Variables affecting message processing in a relatively biased manner can produce either a positive (favorable) or negative (unfavorable) motivational and/or ability bias to the issue-

relevant thoughts attempted” (p. 163). This assumption primarily encompasses how a person’s initial attitude may guide processing, such that stored knowledge is generally biased towards an initial opinion and will activate biased message scrutiny. Therefore, “Prior knowledge enables counterarguing of incongruent messages and bolstering of proattitudinal ones” (p. 166). Moreover, simple cues will have greater effect on attitudes when knowledge is low rather than high.

The sixth postulate integrates both elaboration and peripheral cues and asserts, “As motivation and/or ability to process arguments is decreased, peripheral cues become relatively more important determinants of persuasion. Conversely, as argument scrutiny is increased, peripheral cues become relatively less important determinants of persuasion” (Petty & Cacioppo, 1986a, p. 152). In sum, a variable is less likely to affect persuasion by the peripheral route as elaboration likelihood is increased, but with low information scrutiny, peripheral cues will have a greater effect. As both source and message factors can be peripheral cues, source credibility and the number of arguments will be less influential on persuasion when personal relevance or message scrutiny is high. The seventh and final postulate describes the consequences of elaboration and states, “Attitude changes that result mostly from processing issue-relevant arguments (central route) will show greater temporal persistence, greater prediction of behavior, and greater resistance to counterpersuasion than attitude changes that result mostly from peripheral cues” (p. 175). Hence, attitude change by the central route involves greater cognitive work and greater accessing of schema, which renders the attitude more accessible and cognitively integrated. This increased accessibility and integration causes the attitude to be more enduring, more likely to be used upon counterattacks, and more likely to predict future behaviors.



### *Involvement in the ELM*

Overall, there is a lack of consensus on the conceptualization of message involvement (Laczniak, Muehling, and Grossbart, 1998), as it is defined with numerous terms, conceptualizations, and operational measures such as attention, cognitive processing levels, and relevance. Laczniak et al. (1989) describe a procedure to develop better measures of marketing construct of involvement, the manipulation of involvement, and the ensuing manipulation checks consistent with theoretical and methodological advances. In their study, the authors define involvement as “the motivational state of an individual induced by a particular advertising stimulus or situation” (p. 30), with the additional dimensions of intensity (level of attention given to a message) and direction reflected in the receiver’s processing strategy (brand strategy processing or nonbrand processing strategy). Thus, the goal of the high-involvement manipulation should be to direct subjects’ attention to the message aspects of an ad for the purpose of evaluating the advertised brand, and the goal of low involvement manipulations should be to limit attention to and processing of message points and restrict the possibility that subjects will evaluate the merits of the ad and brand (Laczniak et al., 1989). Additionally, the authors identify several considerations to best develop proper involvement manipulations in advertising research including specification of the domain of the construct, manipulation and manipulation checks based on the given definition, and the assessment of both reliability and validity of the manipulation checks.

Andrews, Durvasula, & Akhter (2001) propose a framework to study and measure the concept of involvement and investigated its various conceptualizations in past studies. The authors take the position that “involvement is an individual, internal state of arousal with intensity, direction, and persistence properties” (p. 28) which determines how the consumer

reacts to some stimuli, such as products or advertisements. They conceptualize involvement as a framework which is comprised of antecedents to involvement (e.g. personal needs or goals and situational factors), the actual act of involvement (composed of intensity or arousal, direction or attention to stimulus, and persistence or duration of involvement), and consequences (e.g. search behaviors, information processing, and persuasion). Through reviewing past literature, they identify four major groupings of involvement conceptualizations, labeled as: “(1) attention/processing strategies, (2) personal/situational involvement, (3) audience/process involvement, and (4) enduring/product involvement” (p. 30). Briefly, attention/processing strategies deals with the level of attention and the direction of processing (e.g., brand versus non-brand processing), personal/situation involvement delineates the concept by basis of personal relevance or ego-involvement, audience/process involvement accounts for the level of attention and direction of processing, and enduring/product involvement includes the role of existing experience and knowledge (Andrews et al., 2001).

#### *Applying the ELM to Advertising Content*

In a typical experiment exploring ELM dimensions in an advertising setting, Petty et al. (1983) examined the effects of involvement, argument strength, and product endorser on attitudes toward a fictional razor brand and purchase intentions. This experimental design, where involvement, argument strength, and a third message characteristic are manipulated in concert to determine main and interaction effects on outcome variables, is an effective way to assess whether the third characteristic is a central or peripheral cue in the predictive structure of the ELM framework. Involvement was manipulated by offering participants a free gift for participation and varying product availability (either a razor/high involvement or toothpaste/low involvement), argument strength was manipulated by using pretested strong and weak

arguments for the razor in the ad, and the peripheral cue was manipulated with the inclusion of either a celebrity endorser or an average citizen in the ad. Participants responded to questions concerning their impressions of the product, their intention to purchase product, their recall about ad attributes, all of their thoughts concerning the ad, and their ability to recall the free gift they were told to expect. Findings showed that the peripheral cue of celebrity endorser had a greater effect on attitudes under low versus high involvement conditions, that argument quality had more impact under high than low involvement conditions, that argument quality was a more important determinant of purchase intentions under high involvement, that high involvement conditions produced greater recall, and that exposure to the famous endorser increased recall under the low involvement condition.

#### *Race as a Peripheral Cue in Advertising*

When individuals are in a low-involvement state, peripheral ad cues (such as source characteristics) become primary determinants of ad and brand attitudes whereas under high-involvement states, message cues (e.g. the quality of ad claims) are more important determinants of attitude toward the brand (Laczniak et al., 1998). To date, there is little research examining how and which source variables affect message credibility, particularly when the sources are members of a stigmatized group. There is, however, some guidance in this area in the form of research on race as a cue in persuasive messages. For example, research has shown that when the source of a message is a member of a stigmatized group (e.g., the use of Black models in an advertising message), White message recipients may be more motivated to elaborate on the message (Petty et al., 2002; White & Harkins, 1994), and Black viewers may be more likely to engage in biased message-processing (Whittler & Spira, 2002).

Some studies examine the effects of consumer attitudes toward the use of Black models in advertising (Simpson et al., 2000; Whittler, 1991; Whittler & Spira, 2002), or perceived homophily to the model (Simpson et al., 2000). In general, findings show that most White audience members do not react negatively to advertisements when Black models are included, although some White viewers are less positive towards Black than to White models, and others are unaffected by Black models in advertising (Whittler, 1991; Whittler & Spira, 2002). In contrast, studies report that African-American viewers generally favor the use of Black models in advertising in terms of attitudes toward the model and product evaluations (Whittler, 1991), particularly if they show a high degree of ethnic identification with other Blacks (Simpson et al., 2000; Whittler & Spira, 2002). Hence, advertisers may target African-American consumers by featuring Black models in advertisements, while at the same time continuing to attract White viewers.

Whittler and Spira (2002) used the ELM to examine minority viewers' applications of racial cues on exposure to product advertising. Black participants were exposed to product advertisements containing a White or Black model and either a strong or weak argument, and were later asked to assess the advertisement, the product, the model, intentions to buy the product, and their identification with Black culture. The results showed that high-identification Blacks had more favorable evaluations of the model, product, and advertisement when the model was Black rather than White, whereas low-identification Blacks' evaluations did not depend on the model's race. The White model's race also appeared to increase the amount of elaboration for Black viewers, as they rated strong argument advertisements more favorably than weak arguments for the White models and showed higher brand recall for the product. Participants' evaluations did not vary between weak and strong arguments when the model was Black. In

terms of the ELM, the authors argue that the Black model positively biased high-identification Blacks' message cognition, causing them to interpret the advertisement in a positive manner regardless if it contained a weak or strong argument. Thus, in accord with the ELM, a variable (such as race) may act as both a peripheral cue and also produce a positive or negative motivational bias.

White and Harkins (1994) examined the effects of race, message involvement, and argument strength on attitudes toward a school policy report. Participants (all White) read a school policy report concerning mandatory comprehensive exams. Involvement was manipulated by policy implementation in the participants' school (high involvement) versus a distant school (low involvement), argument strength was manipulated by strong or weak arguments, and race was manipulated by the inclusion of a profile sheet by a Black or White student reporter. Findings showed that participants who read the White source were more persuaded than those who read the Black source, participants who were exposed to the strong arguments were more persuaded than those exposed to weak arguments, and high-involvement participants were more persuaded by strong arguments than weak arguments whereas there were no differences in low-involvement participants, and both high and low involvement participants who read the Black source were more persuaded by the strong arguments than those who read the weak arguments. Thus, the authors conclude that participants reacted differently to Black and White source. Participants appeared to be motivated to process messages under low involvement with the Black source, indicating that perhaps "race of source may be a motivator variable in the ELM" (p. 795). In other words, these results suggest that White viewers may be concerned about not appearing unfavorable toward Black imagery, which leads them to be highly motivated to process messages from a Black source.

Based on such findings indicating that race can be a cue with effects on processing employed by message recipients and that the effects on processing can vary depending on both group membership and individual differences, there is reason to explore the possibility that sexual orientation in an advertisement can also influence message processing. As described above, social identity theory and previous findings on the effects of race and sexual orientation in ads on recipients' attitudes both suggest that sexual orientation can prompt intragroup and intergroup stereotypes, and the ELM outlines how effects of message characteristics on attitudes can be a function of processing strategies the message characteristics elicit. As found with race, the inclusion of sexual minorities in mainstream advertisements may have effects on participants' processing and attitudes, but message-processing research examining sexual orientation as a cue is lacking at present. To address this need, message-processing research is needed to examine how sexual orientation in advertising works in concert with ELM dimensions. This thesis aims to build on existing message-processing research through investigating the effects of sexual orientation, argument strength, and involvement, as well as individual difference variables pertaining to attitudes toward homosexuality on viewers' attitudes, purchase intentions, and recall.

### *Research Questions*

Although a number of effects of argument strength and involvement on attitudes, purchase intentions, and recall are observed in previous research, these effects were not previously explored in concert with sexual orientation and attitudes toward homosexuality, the novel independent factors of interest to this thesis. Therefore, the main and interaction effects of all factors are approached with broad research questions rather than a series of hypotheses:

RQ<sub>1</sub>: How do featured couples' sexual orientation, ad argument strength, participants' involvement, and participants' attitudes toward lesbians and gay males affect attitudes toward the couple?

RQ<sub>2</sub>: How do featured couples' sexual orientation, ad argument strength, participants' involvement, and participants' attitudes toward lesbians and gay males affect attitudes toward the ad?

RQ<sub>3</sub>: How do featured couples' sexual orientation, ad argument strength, participants' involvement, and participants' attitudes toward lesbians and gay males affect attitudes toward the brand?

RQ<sub>4</sub>: How do featured couples' sexual orientation, ad argument strength, participants' involvement, and participants' attitudes toward lesbians and gay males affect attitudes toward the product?

RQ<sub>5</sub>: How do featured couples' sexual orientation, ad argument strength, participants' involvement, and participants' attitudes toward lesbians and gay males affect purchase intentions?

RQ<sub>6</sub>: How do featured couples' sexual orientation, ad argument strength, participants' involvement, and participants' attitudes toward lesbians and gay males affect recall?

To examine how the sexual orientation cue affects attitudes toward the couple, attitudes toward the advertisement, attitudes toward the brand, attitudes toward the product, purchase intentions, and advertisement recall—both individually and in concert with argument strength, involvement, and individual differences pertaining to attitudes toward gay males and lesbians—this study reported in this thesis employed a factorial experiment to manipulate featured couples' sexual orientation, argument strength, and viewer involvement as independent factors while also

including participants' attitudes toward gays and lesbians as a fourth, quasi-independent, factor. Chapter Two describes the design and implementation of this 3 (couple sexual orientation: heterosexual, gay male, or lesbian) X 2 (argument strength: strong or weak) X 2 (involvement: high or low) X 3 (participant attitudes toward lesbians and gay males: high, medium, or low) between-subjects factorial experiment.



## CHAPTER TWO

### METHOD

#### *Participants*

Initially, participants in the study included 522 undergraduate students enrolled in undergraduate courses offered by the Department of Communication at Virginia Polytechnic Institute and State University in Blacksburg, Virginia. Students were recruited from a large research participant pool, comprised of approximately 1,400 students in communication courses. Most of the courses in the pool were students enrolled in other majors taking communication courses as part of the university's general education curriculum. Thus, the students represent a wide cross-section of majors. Researchers notified professors of student participation and students received pre-arranged course extra credit from their professors in exchange for their participation. Participants signed up for the study, for which twenty sessions were conducted between October 26, 2006, and November 9, 2006, from among a number of studies offered by the researchers in the department. Participants ranged in age from 18 to 42 ( $M = 19.67$ ,  $SD = 1.66$ ).

Before analyses were conducted, a number of participants ( $N = 78$ ) were removed from the sample to hold participant race and sexual orientation constant. Initially, participants of any race or sexual orientation were included in the study, but a low proportional frequency of non-White, gay, or lesbian participants (based on self-reported race and sexual orientation data collected during the study) prevented a sample sufficiently diverse in terms of race and sexual orientation to justify varying these participant characteristics as quasi-independent variables or control variables. To maintain constancy of participant race and sexual orientation and keep a conceptual focus on the responses of White heterosexual participants, all other participants were therefore removed from

analyses. All results reported here, therefore, pertain only to the self-described Caucasian and heterosexual student responses ( $N = 444$ ) in the final sample used in final analyses.

### *Stimulus Materials*

A full-color, print advertisement for the product Dentyne Ice® gum was developed for this study. This product was chosen based on its similar relevancy for participants within this age group and for both male and female participants. To maximize external validity, an actual print advertisement for this product was used as the primary experimental stimulus. Digital photograph and image editing software were used to manipulate the experimental conditions by altering text and images in the advertisement. This study's 3 (couple sexual orientation: heterosexual, gay male, or lesbian) X 2 (argument strength) X 2 (involvement: high or low) X 3 (participants' attitudes toward gays and lesbians: high, medium, or low) between-subjects factorial design was accomplished by varying photographs (couple sexual orientation manipulation) and text (argument strength manipulation) in the ad, varying accompanying instructions and a provided incentive (involvement manipulation), and creating quasi-independent variable groups using a questionnaire measure (attitude toward lesbians and gay males manipulation) as described in the following section.

### *Independent Variables*

*Couple sexual orientation.* Couple sexual orientation was manipulated through embedding photographs of heterosexual, gay male, and lesbian couples into an actual print advertisement for Dentyne Ice®. The "couples" were composed of separate photographs of young adults enclosed in a heart to signify romantic involvement. In order to control for attitudes toward the model, photographs were first pretested using a photograph rating task completed by graduate student volunteers from the Department of Communication ( $N = 15$ ). Participants in the pretest rated 36 photographs (18 male, 18 female) found via Web searches

using three seven-point semantic differential scales anchored by unfavorable/favorable, unattractive/attractive, and unlikeable/likeable. The photographs selected for this pretest are shown in Appendix A. For those photographs where reliable scores across the three attitude items (Cronbach's  $\alpha > .80$ ) indicated consistency in perceptions of all three attributes, the scores for all three items were averaged to create a single attitude index. Photographs were rank-ordered by their mean scores on the attitude index, and the group of four photos (two male and two female) with the smallest range between lowest and highest attitude index scores (range = .09 across the group of four photos) was selected. A series of six paired-samples *t* tests was conducted to test the significance of the differences in attitude scores between all possible pairs of the four photos, with no differences approaching significance (all *ps*  $\geq .80$ ). The photographs selected for the study, based on their consistent scores on the attitude index, are shown in Appendix B.

The four photographs were used in varying combinations in the ad to achieve the heterosexual, lesbian, and gay male conditions. The two female photos were used in the lesbian condition, the two male photos were used in the gay male condition, and one female and one male photo were used together in the heterosexual condition (with the heterosexual condition alternately using each of the four possible male-female pairs in equal numbers).

*Argument strength.* Argument strength was manipulated by varying text inserted into the Dentyne Ice® advertisement. Arguments were pretested with a rating task completed by the same graduate student participants ( $N = 15$ ) who participated in the photograph rating task pretest. Participants in the pretest rated 21 arguments on four seven-point semantic differential scales anchored by unpersuasive/persuasive, weak/strong, non-convincing/convincing, and not logical/logical. The arguments selected for this pretest are shown in Appendix C. For those

arguments where reliable scores across measures (Cronbach's  $\alpha > .80$ ) indicated consistency in perceptions of argument strength attributes, the scores for all three items were averaged to create a single argument strength index. Arguments were rank-ordered by their scores on the argument index, and the four strongest and four weakest arguments were selected. Then, a series of 16 paired-samples  $t$  tests was conducted to test the differences between all strong-weak argument pairs to ensure that all strong-weak pair differences were significant (all  $ps < .005$ ). The strong and weak arguments selected for the study are shown in Appendix D.

A sample of each advertisement version, representing all couple sexual orientation and argument strength conditions, is included in Appendix E.

*Involvement.* Involvement was manipulated by closely modeling past research on involvement (Andrews et al., 2001; Andrews & Shimp, 1990, Laczniak et al., 1989, Petty et al., 1983). It was first manipulated by the instructions (adapted from Laczniak et al., 1989) given to participants regarding how to view the advertisement. Participants in the high-involvement condition read the following instructions:

This booklet contains several ads which are similar to those in a magazine which will be published in the near future. Because the ads are similar to those which will be in the magazine, the publisher is interested in your reactions to the ads. Therefore, please pay close attention to the *claims in the ads*. Read them carefully—to *help you evaluate each advertised brand*. After you finish reading these ads, I'll be asking you to evaluate the brands featured in them and to recall some of the arguments listed in the ads. So pay attention to the claims made by the advertisers.

Participants in the low-involvement conditions read the following instructions:

This booklet contains several ads which are similar to those in a magazine which will be published in the near future. Because the ads are similar to those which will be in the magazine, the publisher is interested in your reactions to the overall appearance and the writing style in the ads. Therefore, please pay attention to the *overall appearance* and *writing style* of the ads. After you finish looking at the booklet, I'll be asking you questions about the appearance of the ads and how easy they are to read. So pay attention to the appearance and style of the ads.

Involvement was further manipulated by offering participants a free gift for participating in the experiment, similar to the manipulation used in Petty and Cacioppo's (1983) design. Subjects were informed that they will be allowed to choose between two particular brands of gum (high-involvement condition) or that they would be allowed to choose between two particular brands of candy (low-involvement condition). A candy ad appeared in the booklet, but it was the same for all participants.

*Anti-homosexual attitudes.* To assess attitudes toward homosexuality as an individual difference variable, participants completed at the end of the experimental session questionnaire a 20-item Attitudes Toward Lesbians and Gay Men (ATLG) Scale (Herek, 1984), which previously produced internally reliable results when administered to college students. The full questionnaire used in this study is shown in Appendix F. Items on the ATLG scale tap affective responses toward gay male and lesbians, such as general approval of lifestyle and behaviors. Sample statements include, "Male homosexual couples should be allowed to adopt children the same as heterosexual couples," "Male homosexuality is a perversion," "I think female homosexuals are disgusting," and "Homosexual behavior between two women is just plain

wrong.” The scores for each item in the present study ranged from 1 (strongly disagree) to 5 (strongly agree), and the average score for each question was calculated after reverse-coding negatively worded items, with higher scores representing stronger anti-lesbian and gay male attitudes (Cronbach’s  $\alpha = .97$ ). To create the variable for use as a quasi-independent experiment factor, participants’ mean scores on the ATLG index and were split into “high” ( $N = 149$ ), “medium” ( $N = 148$ ), or “low” ( $N = 148$ ) condition groups of as close to equal size as possible.

### *Dependent Measures*

*Attitude toward the couple.* Attitude toward the couple was measured using the same three attitude index items (unfavorable/favorable, unattractive/attractive, and unlikeable/likeable) that were previously used in the pretest to select the main experiment’s photographs, with the only difference being that the measures were used to rate the couple as a whole rather than individual photographs. Reliability was high for the attitude index (Cronbach’s  $\alpha = .91$ ).

*Attitude toward the ad, brand, and product.* Attitude toward the advertisement, attitude toward the brand, and attitude toward the product were measured by questionnaire items asking participants to indicate their evaluation of the ad, brand, and product using three seven-point semantic differential scale items for each (good/bad, pleasant/unpleasant, and favorable/unfavorable). Reliability was high for the three-item groups measuring attitudes toward couple (Cronbach’s  $\alpha = .91$ ), ad (Cronbach’s  $\alpha = .94$ ), brand (Cronbach’s  $\alpha = .95$ ), and product (Cronbach’s  $\alpha = .95$ ), so indexes were created for attitude toward the couple, ad, brand, and product using the mean of the three scores for each.

*Purchasing intent.* Intention to purchase the product was measured by asking participants the probability that they would purchase the product and was assessed by three seven-point semantic differential items (likely/unlikely, probable/improbable, possible/impossible). These measures were adapted and modified from scales used by Mackenzie and Spreng (1992). As

with previous research (Mackenzie & Spreng, 1992), reliability was high (Cronbach's  $\alpha = .95$ ) for the three purchase intention items, which were averaged to create a purchasing intent index.

*Recall.* To assess recall, participants were asked to list as many of the attributes about the ad for Dentyne Ice as they could recall (Petty et al., 1983). More specifically, participants were asked:

List as many of the attributes, arguments, or reasons for using the product Dentyne Ice® as you can recall reading in the Dentyne Ice® advertisement. Simply write the first argument you can remember for chewing Dentyne Ice® next to the first number, the second reason for chewing Dentyne Ice® next to the second number, etc. Please put only one reason next to each number.

The number of correct arguments listed served as the measure of recall for this study.

#### *Manipulation Checks*

*Couple sexual orientation.* To be sure that participants identified the correct sexual orientation for the couple feature in the ad, participants were asked the sexual orientation of the couple featured in the Dentyne Ice® ad (gay male, lesbian, heterosexual, or not sure).

*Involvement.* Several manipulation checks were used to assess the manipulation of involvement. To assess message attention as a function of involvement, a five-item index (adapted from Laczniak et al., 1989) was constructed from items including:

How much attention did you pay to the written message in the Dentyne Ice ad?,  
How much did you notice the written message in the Dentyne Ice ad?, How much did you concentrate on the written message in the Dentyne Ice ad?, How involved were you with the written message in the Dentyne Ice ad?, How much thought did you put into evaluating the written message in the Dentyne Ice ad?

Each item was measured using a seven-point scale with the anchors none/very much. The five items yielded high reliability (Cronbach's  $\alpha = .93$ ), so they were averaged to create an index of message attention. To assess processing strategies, two sets of manipulation check items served to assess brand processing and nonbrand processing (Laczniak et al., 1998). Brand processing was assessed by a four-item index including:

I paid attention to what was said in the Dentyne Ice ad...so I could evaluate the advertised brand, so that I could determine the attributes of the brand featured in it, so that I could determine the benefits of the brand featured in it, and so that I could rate the quality of the brand featured in it

Nonbrand processing was assessed by a four-item index including:

I paid attention to what was said in the Dentyne Ice ad...to evaluate the writing style in the ad, to help me determine how easy it was to read, to evaluate its overall appearance, and to help me determine how the ad looked.

High reliability was found for both the brand processing (Cronbach's  $\alpha = .82$ ) and nonbrand processing (Cronbach's  $\alpha = .82$ ) item groups, so scores for each group were averaged to create the brand and nonbrand processing indexes. As a final manipulation check for involvement, participants were also asked to recall the free gift they were told to expect for participating in the experiment.

*Argument strength.* For the argument strength manipulation check, participants in the experiment assessed ad message claims using four seven-point scales anchored by persuasive/unpersuasive, strong/weak (Whittler & Spira, 2000), convincing/not convincing, and



logical/not logical (Munch & Swasy, 1988). Reliability was high for these four items (Cronbach's  $\alpha = .93$ ), which were averaged to create the argument strength index.

#### *Measures Not Included in Analyses*

*Thought listing.* As an additional measure allowing interpretive evaluation of analysis results, participants were asked to list any thoughts they had in response to the Dentyne Ice advertisement, a procedure adopted by Cialdini et al. (1976) and Andrews and Shimp (1990).

Participants were asked:

List the thoughts that crossed your mind as you examined the advertisement for Dentyne Ice®. Simply write next to the first number the first idea that comes to your mind about the Dentyne Ice® advertisement, the second idea that comes to your mind about the Dentyne Ice® ad next to the second number, etc. Please put only one idea or thought next to each number. Your ideas about the advertisement may be favorable, unfavorable, or neutral. *Remember.* Your thoughts listed should be about the Dentyne Ice® advertisement, not the product.

Thoughts were not scored as a variable in analysis, but served as a qualitative supplement to the empirical dependent measures to aid interpretation, especially in the event of unexpected results.

#### *Procedures*

Participants arrived at the experimental sessions in groups of thirty, minus no-shows. Each participant was handed a booklet including four full-color print advertisements and the study questionnaire, with one advertisement manipulated to represent once of the 12 experimental conditions: (1) Heterosexual couple, high involvement, strong argument, (2) Heterosexual couple, high involvement, weak argument, (3) Heterosexual couple, low involvement, strong argument, (4) Heterosexual couple, low involvement, weak argument, (5)

Gay male couple, high involvement, strong argument, (6) Gay male couple, high involvement, weak argument, (7) Gay male couple, low involvement, strong argument, (8) Gay male couple, low involvement, weak argument, (9) Lesbian couple, high involvement, strong argument, (10) Lesbian couple, high involvement, weak argument, (11) Lesbian couple, low involvement, strong argument, (12) Lesbian couple, low involvement, weak argument. Inclusion of the Dentyne Ice® ad conditions and varied involvement manipulation instructions in booklets was randomized, and booklets were the same other than the randomized ad and instruction manipulations.

The four advertisements in the booklet included the manipulated Dentyne Ice® ad and three additional ads in order to divert participants from the actual intent of the study. The manipulated ad appeared second in each booklet, and data collected from questionnaires about the additional advertisements were not scored. Before participants opened the booklets, the experimenter instructed participants to read the instructions in the booklet and view each of the advertisements within the booklet before filling out the questionnaire placed at the end of the booklet. After viewing the advertisements, participants were instructed to remove the questionnaire from the booklet, close the booklet, and refrain from referring back to the booklet after beginning the questionnaire. Participants first read the set of instructions on how to view the advertisements in order to manipulate involvement, and participants then proceeded to view each of the four ads. For participants in the high involvement condition, the second set of instructions was included directly before the Dentyne Ice® ad, informing them that they would get to choose between two brands of gum as a gift for their participation in the experiment. For the low involvement participants, the second set of instructions was included directly before a

candy ad, informing them that they would get to choose between two brands of candy as a gift for their participation in the experiment.

After viewing all advertisements, participants completed a questionnaire measuring their attitudes toward the couple, advertisement, and brand, their purchase intentions, their advertisement recall, the manipulation check items, demographic questions, and the ATLG scale. Questions regarding the manipulated advertisement were placed early in the questionnaire in order to avoid participant fatigue and to maximize the effectiveness of the manipulations. Questions regarding two of the additional advertisements were placed before and after questions for Dentyne Ice® to divert participants from the intent of the study. After completing the questionnaire, participants were dismissed, after first being allowed to choose between the gum and candy product samples as a gift for their participation. Participants were allowed to choose either the gum or the candy regardless of which involvement condition they were assigned.

Chapter Three describes statistical tests employed to answer this study's research questions and the results of those tests.

## CHAPTER THREE

### RESULTS

#### *Manipulation Checks*

*Message attention.* To test the efficacy of the involvement manipulation, as well as to explore whether involvement was influenced by other independent factors, a four-way ANOVA was run with ad sexual orientation, argument strength, involvement, and the ATLG scale as independent factors and the attention index as the dependent variable. There was a significant main effect of involvement,  $F(1, 409) = 8.44, p = .04$ , with more attention paid in the high involvement condition ( $M = 4.62, SE = .10$ ) than in the low involvement condition ( $M = 4.24, SE = .10$ ). The involvement manipulation was therefore successful. There was also a significant effect of couple sexual orientation,  $F(2, 209) = 5.89, p = .003$ , with participants paying more attention to the message in advertisements featuring heterosexual couples ( $M = 4.71, SE = .19$ ) than in ads featuring lesbian couples ( $M = 4.43, SE = .12$ ) or gay male couples ( $M = 4.15, SE = .12$ ). Post hoc LSD analyses, however, showed only a significant difference between heterosexual couples (Least sq.  $M = 4.75, SE = .12$ ) and gay male couples (Least sq.  $M = 4.18, SE = .12$ ). There was also a significant effect of message strength on attention to the advertising message,  $F(1, 409) = 9.14, p = .003$ , with participants paying more attention in the weak argument condition ( $M = 4.62, SE = .10$ ) than in the strong argument condition ( $M = 4.24, SE = .10$ ).

*Brand processing.* As a second involvement manipulation check, a four-way ANOVA was run with ad sexual orientation, argument strength, involvement, and the ATLG scale as independent factors and the brand processing index as the dependent variable. There was a significant effect of involvement,  $F(1, 408) = .46, p < .001$ , with participants in the high

involvement condition reporting higher attention to brand-related characteristics of the ad ( $M = 4.61, SE = .09$ ) than participants in the low involvement condition ( $M = 4.13, SE = .09$ ). Thus, the brand processing manipulation check was also successful. There were no further main or interaction effects.

*Nonbrand processing.* As a final involvement manipulation check, a four-way ANOVA was run with ad sexual orientation, argument strength, involvement, and the ATLG scale as independent factors and the nonbrand processing index as the dependent variable. There was a significant main effect of involvement,  $F(1, 409) = 86.07, p < .001$ , with participants in the high involvement condition reporting less attention to nonbrand-related characteristics of the ad ( $M = 4.22, SE = .09$ ) than participants in the low involvement condition ( $M = 4.38, SE = .09$ ). Thus, the nonbrand processing manipulation check was also successful. There were no further main or interaction effects.

*Argument strength.* To test the argument strength manipulation and assess whether perceived argument strength was influenced by other independent factors, a four-way ANOVA was run with ad sexual orientation, argument strength, involvement, and the ATLG scale as independent factors and the perceived argument strength index as the dependent variable. There was a significant main effect of argument strength,  $F(1, 408) = 87.18, p < .001$ , such that participants rated the strong argument ( $M = 4.26, SE = .10$ ) higher than the weak argument ( $M = 2.93, SE = .10$ ). There was also a significant two-way interaction between argument strength and involvement,  $F(1, 408) = 4.89, p = .03$  (Figure 1). Post hoc LSD analyses, however, indicated only significant differences between the strong and weak argument conditions regardless of involvement condition.

*Identification of couple sexual orientation and gift.* Finally, 423 of the 445 participants (95%) correctly identified the gift offer, and 405 of the 445 participants (91%) correctly identified the sexual orientation of the couple in the advertisement. Because of these high proportions, no ANOVA tests were used to compare conditions.

In sum, manipulation of experimental factors was successful.

#### *Attitude Toward the Couple*

The first research question asked how featured couples' sexual orientation, ad argument strength, participant involvement, and participant attitudes toward lesbians and gay males affect attitudes toward the couple. A four-way ANOVA was run with ad sexual orientation, argument strength, involvement, and the ATLG scale as independent factors and attitude toward the couple as the dependent variable. Analyses showed a significant main effect of sexual orientation,  $F(2, 409) = 3.47, p = .03$  on attitudes toward the couple, with the mean scores for the heterosexual couple condition ( $M = 4.09, SE = .13$ ) and the lesbian couple ( $M = 4.00, SE = .12$ ) higher than the gay male couple condition ( $M = 3.57, SE = .12$ ). Post hoc LSD comparisons, however, showed that only the difference between the heterosexual couple (Least sq.  $M = 4.15, SE = .13$ ) and gay male couple (Least sq.  $M = 3.70, SE = .12$ ) was significant. Additionally, there was a significant main effect of the ATLG scale,  $F(2, 409) = 35.49, p < .001$ . Participants with low anti-homosexual attitudes had the highest mean score for attitudes toward the couple ( $M = 4.63, SE = .12$ ), which was higher than those with medium anti-homosexual attitudes ( $M = 4.03, SE = .13$ ), which was higher than participants with higher anti-homosexual attitudes ( $M = 3.01, SE = .13$ ). Post hoc LSD analyses showed that means for each of these conditions were significantly different from each other.

Finally, there was two-way interaction between sexual orientation and the ATLG scale,  $F(4, 409) = 15.92, p < .001$  (Figure 2). Post hoc LSD comparisons showed that participants with high anti-homosexual attitudes who viewed advertisements featuring gay male and lesbian couples reported significantly lower attitudes toward the couple than did participants with low anti-homosexual attitudes who viewed ads with gay male and lesbian couples. Moreover, participants with high anti-homosexual attitudes reported significantly higher attitudes toward the couple in the heterosexual condition than the gay male or lesbian conditions, while participants with low anti-homosexual attitudes reported significantly higher attitudes toward the couples in the gay male and lesbian conditions than the heterosexual couple condition. Attitudes did not tend to differ across ad sexual orientation condition for participants with medium anti-homosexual attitudes.

In sum, there was a significant main effect of sexual orientation on attitude toward the couple with significantly higher scores for the heterosexual couple than the gay male couple. There was also a significant main effect of the ATLG scale, and participants with low anti-homosexual attitudes showed the highest mean score for attitudes toward the couple. Finally, there was a two-way interaction between sexual orientation and the ATLG scale. Participants with high anti-homosexual attitudes who viewed homosexual ads reported significantly lower attitudes toward the couple than participants with low anti-homosexual attitudes. Participants with high anti-homosexual attitudes showed significantly higher attitudes toward heterosexual couples than homosexual couples, and those with low anti-homosexual attitudes showed significantly higher attitudes toward homosexual couples than heterosexual couples.

### *Attitude toward the Ad*

The second research question asked whether featured couples' sexual orientation, ad argument strength, participant involvement, and participant attitudes toward lesbians and gay males affect attitudes toward the ad. A four-way ANOVA was run with ad sexual orientation, argument strength, involvement, and the ATLG scale as independent factors and attitude toward the couple as the dependent variable. There was a significant main effect of ad sexual orientation,  $F(2, 408) = 4.86, p = .01$ , with the mean score for the heterosexual couple ( $M = 3.81, SE = .11$ ) higher than the mean score for the lesbian couple ( $M = 3.63, SE = .11$ ) and the gay male couple ( $M = 3.28, SE = .11$ ). However, post hoc LSD comparisons found only the difference between means for the heterosexual couple (Least sq.  $M = 3.85, SE = .11$ ) and the gay male couple (Least sq.  $M = 3.36, SE = .11$ ) to be significant. The effect of involvement on attitudes toward the ad was also significant,  $F(1, 408) = 6.08, p = .01$ , with the mean score for the high involvement condition ( $M = 3.76, SE = .09$ ) significantly higher than for the low involvement condition ( $M = 3.46, SE = .39$ ). Significance was also found for the main effect of the ATLG scale,  $F(2, 408) = 10.58, p < .001$ . Post hoc LSD comparisons showed the mean attitude score for the high anti-homosexual attitudes condition (Least sq.  $M = 3.21, SE = .11$ ) to be significantly lower than for the medium anti-homosexual attitudes condition (Least sq.  $M = 3.77, SE = .11$ ) and low anti-homosexual attitudes condition (Least sq.  $M = 3.89, SE = .11$ ).

There was also a statistically significant interaction effect between ad sexual orientation and involvement,  $F(2, 408) = 6.83, p = .01$  (Figure 3). Post hoc LSD comparisons found that under low involvement, the mean for heterosexual couples (Least sq.  $M = 4.00, SE = .11$ ) was significantly higher than the mean for gay male (Least sq.  $M = 3.18, SE = .11$ ) or lesbian couples (Least sq.  $M = 3.21, SE = .11$ ). Additionally, the mean for lesbian couples was significantly



higher under high involvement (Least sq.  $M = 4.09$ ,  $SE = .11$ ) than low involvement (Least sq.  $M = 3.21$ ,  $SE = .11$ ). There was also a significant two-way interaction between ad sexual orientation and ATLG,  $F(4, 408) = 12.47$ ,  $p < .001$  (Figure 4). The mean for the gay male condition was significantly lower for those with high anti-homosexual attitudes (Least sq.  $M = 2.38$ ,  $SE = .11$ ) than those with medium (Least sq.  $M = 3.43$ ,  $SE = .11$ ) or low (Least sq.  $M = 4.27$ ,  $SE = .11$ ) anti-homosexual attitudes. Interestingly, participants with low anti-homosexual attitudes reported significantly higher attitudes for ads featuring gay male couples (Least sq.  $M = 4.27$ ,  $SE = .11$ ) than heterosexual couples (Least sq.  $M = 3.30$ ,  $SE = .11$ ), but participants with high anti-homosexual attitudes showed significantly lower attitudes for gay male couples (Least sq.  $M = 2.38$ ,  $SE = .11$ ) than lesbian couples (Least sq.  $M = 3.23$ ,  $SE = .11$ ) and significantly lower attitudes for gay male couples than heterosexual couples (Least sq.  $M = 4.01$ ,  $SE = .11$ ).

Finally, there was a significant three-way interaction between ad sexual orientation, argument strength, and involvement,  $F(2, 408) = 3.43$ ,  $p = .03$  (Figure 5). According to post hoc LSD analyses, in the strong argument condition, there was no significant difference for sexual orientation or level of involvement. However, for the weak argument condition, the mean for the heterosexual condition (Least sq.  $M = 4.21$ ,  $SE = .11$ ) was significantly higher than the means for both gay male (Least sq.  $M = 3.11$ ,  $SE = .11$ ) and lesbian couples (Least sq.  $M = 2.95$ ,  $SE = .11$ ) under low involvement, whereas there were no significant differences of means for sexual orientation under the high involvement condition. Furthermore, in the weak argument condition, the mean for lesbian couples was significantly higher under the high involvement condition than the low involvement condition.

Thus, findings for research question two indicate a significant main effect of ad sexual orientation on attitudes toward the ad with significantly higher scores for the heterosexual ad

than the gay male ad. There was a main effect of involvement on attitudes toward the ad with a significantly higher score for high involvement conditions than low involvement conditions.

There was also a significant main effect of the ATLG scale, and participants with medium and low anti-homosexual attitudes showed higher attitudes toward the ad than those with high anti-homosexual attitudes. There was a significant interaction between ad sexual orientation and involvement. Under low involvement, the mean for heterosexual ads was significantly higher than gay male and lesbian ads, and the mean for lesbian ads was significantly higher under high involvement than low involvement. There was a significant two-way interaction between ad sexual orientation and ATLG. The gay male ad score was significantly lower for those with high anti-homosexual attitudes than those with medium or low anti-homosexual attitudes.

Participants with low anti-homosexual attitudes showed significantly higher attitudes for gay male ads than heterosexual ads, but participants with high anti-homosexual attitudes showed significantly lower attitudes for gay ads than lesbian ads and significantly lower attitudes for gay ads than heterosexual ads. Finally, there was a significant three-way interaction between ad sexual orientation, argument strength, and involvement. For strong arguments, there was no significant difference for sexual orientation or involvement. For weak arguments, the heterosexual ad mean was significantly higher than homosexual ads under low involvement, and the lesbian ad mean was significantly higher under high involvement than low involvement.

#### *Attitude toward the Brand*

The third research question asked how featured couples' sexual orientation, ad argument strength, participant involvement, and participant attitudes toward lesbians and gay males affect attitudes toward the brand. A four-way ANOVA was run with ad sexual orientation, argument strength, involvement, and the ATLG scale as independent factors and attitude toward the brand

as the dependent variable. No one-way or two-way interactions were statistically significant, but there was a significant three-way interaction between argument strength, involvement, and the ATLG scale,  $F(2, 408) = .08, p = .93$  (Figure 6). However, post hoc LSD analyses showed no statistically significant differences between any pair of individual conditions.

#### *Attitudes toward the Product*

The fourth research question asked how featured couples' sexual orientation, ad argument strength, participant involvement, and participant attitudes toward lesbians and gay males affect attitudes toward the product. A four-way ANOVA was run with ad sexual orientation, argument strength, involvement, and the ATLG scale as independent factors and attitude toward the product as the dependent variable. There were no significant main or interaction effects.

#### *Purchase Intentions*

The fifth research question asked how featured couples' sexual orientation, ad argument strength, participant involvement, and participant attitudes toward lesbians and gay males affect purchase intentions. A four-way ANOVA was run with ad sexual orientation, argument strength, involvement, and the ATLG scale as independent factors and purchase intent as the dependent variable. There were no significant main or interaction effects.

#### *Recall*

The sixth research question asked how featured couples' sexual orientation, ad argument strength, participant involvement, and participant attitudes toward lesbians and gay males affect recall. A four-way ANOVA was run with ad sexual orientation, argument strength, involvement, and the ATLG scale as independent factors and recall as the dependent variable. There was a significant main effect of involvement on the number of correct arguments recalled from the advertisements  $F(1, 409) = 20.27, p < .001$ . Participants in the high involvement condition

correctly recalled significantly more arguments ( $M = 2.35, SE = .07$ ) than did participants in the low involvement condition ( $M = 1.92, SE = .07$ ). There was also a significant effect of the ATLG scale,  $F(2, 409) = 3.43, p = .03$ . Participants with low anti-homosexual attitudes ( $M = 2.22, SE = .08$ ) and medium anti-homosexual attitudes ( $M = 2.20, SE = .08$ ) recalled more correct arguments than those with high-anti-homosexual attitudes ( $M = 1.97, SE = .08$ ), but post hoc LSD comparisons showed only the difference between low anti-homosexual attitudes (Least sq.  $M = 2.25, SE = .08$ ) and high anti-homosexual attitudes (Least sq.  $M = 1.95, SE = .08$ ) to be significant.

### *Results Summary*

Overall, attitude toward the couple was predicted by both ad sexual orientation and the ATLG scale, and attitude toward the advertisement was predicted by couple sexual orientation, the ATLG scale, and level of involvement. However, these effects do not transfer to attitude toward the brand, attitude toward the product, and intentions to purchase the product. Recall was predicted by level of involvement and the ATLG scale (See Table 1 for a summary of main effects). Moreover, there was a two-way interaction effect of ad sexual orientation on attitudes toward the couple and attitudes toward the advertisement, and a two-way interaction effect of ad sexual orientation and involvement on attitude toward the ad. Finally, there was a three-way interaction effect of ad sexual orientation, argument strength, and involvement on attitude toward the ad, and a three-way interaction effect of argument strength, involvement, and the ATLG scale on attitude toward the brand.

Chapter Four offers interpretation of these results and their implications and discusses the study's limitations, as well as opportunities for future research.

## CHAPTER FOUR

### DISCUSSION

Although gay male and lesbian consumers embody noteworthy buying power in the U.S., marketers often hesitate to include homosexual imagery in mainstream media from the fear of alienating or even offending the mainstream market of heterosexual consumers. Although few empirical studies examine the effects of gay-themed advertising on heterosexual, previous studies show attitudes toward homosexual ads are more positive for participants who have tolerant attitudes toward homosexuality than for individuals who have intolerant attitudes toward homosexuality (Bhat et al., 1996), and heterosexuals viewers prefer advertisements with mainstream or heterosexual imagery significantly more than ads with explicit gay male or lesbian imagery (Oakenfull & Greenlee, 2005).

Previous studies regarding another stigmatized minority group, Black consumers, show that while advertisements featuring Black models seldom result in negative effects on White consumers (Whittler, 1991; Whittler & Spira, 2002), processing of these messages often differs by a consumer's motivation and ability to process the message (Petty et al., 2002; Whittler & Spira, 2002). However, since such research regarding message processing does not extend to advertisements featuring gay male and lesbian models in advertisements, this area is worthy of attention. Hence, this study examined the effects of model sexual orientation (heterosexual, gay male, and lesbian), argument strength (weak versus strong), and involvement (high versus low) in mainstream advertisements on participant attitudes toward the couple, advertisement, brand, product, purchase intentions, and advertisement recall. Additionally, the interaction of participants' attitudes toward gay males and lesbians (high, medium, and low) with the

manipulated experimental factors was explored to determine the role of this important individual difference variable.

### *Summary of Findings and Implications*

The present study showed that attitude toward the couple was predicted by both the sexual orientation of the couple featured in the ad and the ATLG scale, which measures anti-homosexual attitudes. Overall, participants tended to have more favorable attitudes toward the heterosexual than the gay male couple. Not surprisingly, these attitudes were moderated by attitudes towards lesbians and gay men, as participants with high anti-homosexual attitudes viewing homosexual portrayals showed more negative attitudes toward the couple than did participants with low anti-homosexual attitudes. Likewise, these participants with high anti-homosexual attitudes tended to show higher attitudes toward heterosexual couple portrayals than the gay male or lesbian couples. Interestingly, participants with low anti-homosexual attitudes actually showed even higher attitudes toward the gay male and lesbian couple portrayals than heterosexual portrayals. Thus, these findings show evidence that heterosexual viewers who are accepting of homosexuality may actually prefer gay male and lesbian couple portrayals over heterosexual couple portrayals.

Attitudes toward couple featured in the ad appeared to transfer to attitudes toward the ad—Attitude toward the advertisement was predicted by both couple sexual orientation and the ATLG scale. Although ad sexual orientation impacted attitudes toward the advertisement, only the difference between the heterosexual couple and the gay male couple was significant. In other words, it appears that participants showed similar attitudes toward heterosexual couples and lesbian couples in advertising messages, but lower attitudes for gay male portrayals. Therefore, while marketers may benefit from featuring lesbians in their advertisements, these findings show that perhaps including gay male couples in advertising may prove more risky regarding

heterosexual viewer response. Thus, as scholars report having found that gay males and lesbians consumers respond similarly to advertisements featuring either gay or lesbian imagery (Oakenfull & Greenlee, 2005), marketers may profit from featuring lesbian characters in advertisements in order to target homosexual consumers, but still maintain positive responses from heterosexual audience members.

As predicted by past research (Bhat et al., 1996, 1998; Hester & Gibson, 2005), this study's findings showed attitudes toward lesbians and gay men affected attitudes toward the advertisement, such that attitudes toward homosexuality moderated attitudes toward the ad. In general, participants with high anti-homosexual attitudes rated the couples lower than participants with medium and low anti-homosexual attitudes. These findings are better interpreted in light of an important two-way interaction between sexual orientation and the ATLG scale. While those participants with high anti-homosexual attitudes rated gay male ads lower than those with medium or low anti-homosexual attitudes, participants with low anti-homosexual attitudes actually reported significantly higher attitudes for ads featuring gay male couples than heterosexual couples. These findings are in agreement with findings (Bhat et al., 1996) that participants with a more tolerant attitude toward homosexuality may actually show more positive attitudes toward ads portraying homosexual imagery than heterosexual imagery. Thus, the present study's findings show that while advertisers may possibly alienate the segment of the population with high anti-homosexual attitudes by including homosexual portrayals in advertising messages, they might also consider that such portrayals can garner increasingly positive responses from both gay male and lesbian viewers and heterosexual viewers more tolerant of homosexuality.

Argument strength did not affect liking of the advertisement in this study. Although previous research generally shows that participants have more favorable attitudes of strong arguments versus weak arguments (Petty et al., 1983; White and Harkins, 1994), this was not the case for the present study. Although arguments selected for the study were pretested for potency and the manipulation check showed participants rated the strong argument as significantly more persuasive than the weak argument, there was no apparent preference for strong arguments versus weak arguments. Although the reasons for this finding are unclear, it may be speculated that the weak arguments were so specious that participants actually found them humorous. This may have increased overall liking, as several participants commented on the use of humor in the weak argument advertisement in the thought-listing item. It may have also been the case that extremely strong arguments for a trivial product like gum may backfire in that such potent arguments might be overkill for such an inexpensive and disposable product.

Furthermore, findings showed that level of involvement also predicted attitudes toward the advertisement. High involvement participants consistently rated the advertisements more positively than participants in the low involvement condition. This main effect, however, must be interpreted and qualified in light of a significant two-way interaction. The interaction between sexual orientation and involvement showed that under low involvement, participants preferred ads featuring heterosexual couples over ads featuring gay male or lesbian couples. Yet under high involvement, participants showed more favorable attitudes toward lesbian couples than both heterosexual and gay male couples. Therefore, the results of this study show that low involvement participants favor heterosexual couple portrayals, but these findings are reversed for high involvement participants that favor lesbian couple portrayals.



These results are somewhat in accord with the predictions of the Elaboration Likelihood Model. Peripheral processing, which occurs when the individual's motivation or ability to process a message is low, relies on rapid processing focused on simple peripheral or contextual cues. The ELM's sixth postulate asserts that as motivation and ability to process a message is decreased, peripheral cues become more significant determinants of persuasion, but as argument scrutiny is increased, peripheral cues become less important determinants of persuasion (Petty & Cacioppo, 1986a). Thus, as shown by the present study's results, under low information scrutiny or low involvement, the peripheral cue of sexual orientation did appear to have an effect—Under low involvement, participants provided less favorable evaluations of the advertisements when they featured homosexual couple portrayals than mainstream heterosexual portrayals. However, the findings were more surprising and somewhat puzzling for the high involvement condition. As mentioned, the ELM predicts that under high involvement, peripheral cues become relatively less important determinants of persuasion. Yet this study's findings show that while participants displayed approximately equal attitudes toward heterosexual and gay male portrayals under high involvement as is predicted by the ELM, participants actually reported significantly higher attitudes toward lesbian portrayals in the high involvement condition. Thus, although sexual orientation (e.g., gay male and lesbian couple portrayals) appeared to act as a peripheral cue for low involvement participants by negatively-biasing message processing, sexual orientation (e.g., lesbian couple portrayals) appeared to positively bias message processing under high involvement.

Additionally, findings showed a significant three-way interaction between sexual orientation, argument strength, and involvement on attitude toward the advertisement. In the strong argument condition, there were no effects for ad sexual orientation or level of

involvement on participant attitudes. The finding of no significant effect for sexual orientation under high involvement supports the ELM's prediction that peripheral cues (e.g., sexual orientation) become less important determinants of persuasion under high involvement than low involvement. However, the finding of no effects for sexual orientation on attitudes toward the ad under low involvement is somewhat inconsistent. According to Petty and Cacioppo's fourth postulate (1986b, p. 19), with strong arguments, persuasion can be intensified by increasing message scrutiny and be inhibited by decreasing message scrutiny. Thus, it would seem unexpected that there were no effects for ad sexual orientation or differences between high and low involvement participants regarding attitudes toward the ad.

Although there were no effects for sexual orientation or level of involvement in the strong argument condition, effects varied regarding weak arguments. For the weak argument condition, low involvement participants had more favorable attitudes toward the ad for the heterosexual couple condition than the gay male and lesbian couple conditions. Conversely, under high involvement there were no effects for sexual orientation. The ELM's fourth postulate predicts that for weak arguments, persuasion can be increased by lessening scrutiny and decreased by enhancing scrutiny (Petty & Cacioppo, 1986a). However, for the present study attitudes were similar under both high involvement and low involvement; hence, this prediction via the ELM is not supported in these findings. While attitudes remained similar for heterosexual and gay male portrayals under both high and low involvement, findings interestingly showed more positive attitudes for lesbian couples under high versus low involvement.

Potential recommendations for advertisers and marketers from this study's findings regarding attitudes toward the couple and ad show increased support that advertisers attempting

to reach both heterosexual and homosexual consumers may risk little backlash from mainstream audience members by featuring ads with lesbian images and portrayals. It is also important to note that responses toward ads with homosexual portrayals are moderated by attitudes toward homosexuality, and this study's findings show heterosexual viewers with low anti-homosexual attitudes may have even higher regard toward homosexual portrayals than heterosexual portrayals. Reader profile studies may benefit from including questions regarding attitudes toward homosexuality so that publishers will be better informed about what ads work best in their magazines. Finally, findings show low involvement consumers may show more negative attitudes toward gay male and lesbian portrayals than heterosexual portrayals. Thus, marketers may be wise to intensify means for consumer involvement if featuring homosexual portrayals in advertising by directing increased attention to the message or enhancing personal relevance of the advertised product.

In general, findings regarding attitude toward the couple and the advertisement did not appear to translate to the brand or the product itself. In fact, there was no effect of sexual orientation, argument strength, level of involvement, or the ATLG scale on participant attitudes toward the brand or on attitudes toward the product. Since participants likely already had much experience with the brand and product Dentyne Ice®, it is not surprising that the involvement and message strength components of the ELM featured in this advertisement played no effect in participant reactions to the brand or product. More important to this study's focus, gay male and lesbian portrayals had no effect on attitudes toward the product or brand. Thus, advertisers may find some comfort in the fact that attitudes toward advertisements featuring a homosexual couple do not seem to carry over to consumers' feelings about the actual brand or product. Therefore, for advertisers wishing to extend mainstream advertisements into the homosexuality community,

the results of this study show evidence that the inclusion of homosexual portrayals will not tarnish brand loyalty among heterosexual consumers.

Like participant attitudes toward the product and brand, sexual orientation, argument strength, involvement, and the ATLG scale had no effect on intentions to purchase the product. Since participants likely had prior experience with Dentyne Ice®, it is not unexpected that the involvement and message strength components of the ELM featured in this advertisement played no effect in participant behavioral intentions. Furthermore, the inclusion of gay male and lesbian portrayals seem to play no role in purchase intentions, so this study's findings provide support that marketers should not expect to see any decline in sales as a result of including gay male and lesbian portrayals in advertising messages.

Finally, the results of this study showed that involvement predicted the number of correct arguments recalled from the advertisements. Participants exposed to the high involvement condition correctly recalled more arguments than did participants in the low involvement condition. Furthermore, findings showed participants with low anti-homosexual attitudes recalled more correct arguments than those with high anti-homosexual attitudes. Although this finding is a bit arbitrary, perhaps participants with particularly negative attitudes towards homosexuality were so shocked or appalled by homosexual portrayals in ads that their attention was distracted from the actual message. The peripheral cue of sexual orientation may have distracted those participants less approving of homosexuality from the actual advertisement message.

In sum, this study provides support that advertisers may consider extending homosexual portrayals most often seen in gay media into more mainstream advertising. Although marketers have often been reluctant to include gay and lesbian-themed images in general advertising

messages, marketers may possibly be less cautious of including homosexual imagery in mainstream advertisements as a result of this study's findings and other related studies' conclusions. In fact, this study showed participants to have similar attitudes toward heterosexual couples and lesbian couples in advertising messages. Practical implications for marketers may suggest they use lesbian images over gay male portrayals in mainstream advertising messages, as heterosexual viewers were found to favor lesbian portrayals over gay male portrayals.

Additionally, previous research shows homosexual consumers to react similarly to gay male and lesbian portrayals (Oakenfull & Greenlee, 2005). The present study also confirms previous findings (Bhat et al., 1996, 1998; Hester & Gibson, 2005) that attitudes toward gay-themed advertisements are moderated by attitudes toward homosexuality. In fact, it was found that participants with low anti-homosexual attitudes actually reported significantly higher attitudes for ads featuring gay male couples than heterosexual couples. Thus, to avoid backlash from consumers with high anti-homosexual attitudes, marketers may benefit from expanding gay-themed advertising messages to audiences who are more tolerant towards homosexuality.

Marketers wishing to expand their messages to gay male and lesbian markets may also benefit from attention to consumer involvement level. This study's findings showed that under low involvement participants showed more positive reactions to heterosexual couples than gay male or lesbian couples, but under high involvement participants showed more positive reactions to lesbian portrayals than heterosexual and gay male portrayals. Thus, marketers should perhaps take extra care with gay male and lesbian portrayals in advertising to emphasize product relevance to the consumer as a means to encourage consumer involvement. Additionally, the inclusion of homosexual portrayals in mainstream advertising may be less of a risky undertaking than advertisers may think, as the results of this study indicate that the incorporation of

homosexual portrayals in advertising will not damage consumer attitudes toward the actual brand, product, or consumers' behavioral purchase intentions. Thus, even though some consumers may not prefer a gay-themed ad over a mainstream, heterosexual ad, it appears unlikely that such an ad will elicit detrimental effects toward the actual product, brand, or behavioral intentions.

### *Limitations*

Certain limitations to this study should be mentioned, which may influence the degree to which the results of this study are generalizable to other advertising contexts. Because this study used a sample of college students, findings may not reflect other adults' attitudes towards homosexuality and responses to advertising content. For instance, college students may be more accepting of unconventional advertising strategies than the general population, as college students may have greater exposure to a more diverse social group than other participants. The age of respondents in this thesis may also be considered a limitation. Older audiences may react differently, perhaps more critically, to appeals including gay male or lesbian models and may have differing effects on brand, products, and purchase intentions. It is also possible that regional differences (e.g., urban, rural, northern, southern) could magnify or nullify effects.

Additionally, the product in this study, Dentyne Ice®, was chosen with regard to its relevance to young adults. The use of another product may certainly produce dissimilar results. For instance, a product with a sexual connotation or with more serious usage (e.g., medication) may show different results. Moreover, the present study looked at a product of great familiarity to participants. Reactions may be different to an unknown product by which participants lack previous experience. Regarding the involvement manipulation, it is also possible that some participants considered gum and candy to be very similar conceptually. Therefore, although

high-involvement participants were meant to choose between two brands of gum and low-involvement participants were meant to choose between two brands of candy, the involvement manipulation may have been thwarted because participants may have viewed these products as similar. Given the success of the involvement manipulation, though, as indicated by two separate manipulation check measures—self-reported involvement and number of thoughts listed—there appears to be little reason for concern about manipulation check problems based on selection of the similar gum and candy rewards. Additionally, although the manipulation for argument strength was successful, it is unclear why there was no main effect for argument strength. Thus, future studies might examine whether there is truly an interaction between argument strength and advertisements featuring sexual minorities. Finally, stimuli were presented to participants in the form of a booklet containing four print advertisements. External validity would be increased by encasing advertisements in actual magazines or other forms of media.

#### *Further Research*

This study has many implications for further research in advertising. Future studies should also examine the effects of involvement and message strength on gay male and lesbian consumers. Moreover, consumer responses to various portrayals of lesbian and gay male models in advertising might also be considered—for example, heterosexual consumers may respond differently to a “butch” lesbian portrayal than a “femme” lesbian portrayal. Finally, further studies might examine possible interactions between the type of products featured in advertisements and sexual orientation portrayals, as reactions may differ between crucial products like heart medication versus a more trivial product like gum.

## REFERENCES

- Andrews, J. C., Durvasula, S., & Akhter, S. H. (2001). A framework for conceptualizing and measuring the involvement construct in advertising research. *Journal of Advertising, 19* (4), 27-40.
- Andrews, J. C. & Shimp, T. A. (1990). Effects of involvement, argument strength, and source characteristics on central and peripheral processing of advertising. *Psychology & Marketing, 7*(3), 195-214.
- Bhat, S., Leigh, T. W., & Wardlow, D. L. (1996). The effect of homosexual imagery in advertising on attitude toward the ad. In D.L. Wardlow (Ed.), *Gays, Lesbians, and Consumer Behavior: Theory, Practice, and Research Issues in Marketing*. New York: The Haworth Press, Inc., 161-176.
- Bhat, S., Leigh, T. W., & Wardlow, D. L. (1998). The effect of consumer prejudices on ad processing: Heterosexual consumers' responses to homosexual imagery in ads. *Journal of Advertising, 27*(4), 9-28.
- Cialdini, R. B., Herman, C. P., Levy, E., Koziowski, L. T. & Petty, R. E. (1976). Elastic shifts of opinion: Determinants of direction and durability. *Journal of Personality and Social Psychology, 34*, 663-672.
- Deaux, K. (2000). Theoretical perspectives: Models, meanings and motivations. In Capozza & Brown (Eds). *Social Identity Processes: Trends in Theory and Research*. London: Sage Publications, 1-14.
- Fisher, R. J. & Dubé, L. (2005). Gender differences in responses to emotional advertising: A social desirability perspective. *Journal of Consumer Research, 31*, 850-858.
- Grier, S. A. & Brumbaugh, A. M. (1999). Noticing cultural differences: Ad meanings created by



- target and non-target marketers. *Journal of Advertising*, 28(1), 79-93.
- Herek, G. M. (1984). Attitudes towards lesbians and gay men: A factor analytic study. *Journal of Homosexuality*, 10(1/2), 39-51.
- Herek, G. M. (1998). Heterosexuals' attitudes toward lesbians and gay men: Correlates and gender differences. *The Journal of Sex Research*, 25(4), 451-477.
- Hester, J. & Gibson, R. (2005, August). Effects of gay-themed advertising content on emotional response, attitude toward the ad, and changes in attitude toward the brand. Paper presented at the Association for Education in Journalism and Mass Communication Conference, San Antonio, TX.
- Hogg, M. A. & Abrams, D. (1988). *Social identifications: A social psychology of intergroup relations and group processes*. London: Routledge.
- Laczniak, R. N., Muehling, D. D., & Grossbard, S. (1989). Manipulating message involvement in advertising research. *Journal of Advertising*, 18(2), 28-38.
- Mackenzie, S. B., & Spreng, R. A. (1992). How does motivation moderate the impact of central and peripheral processing on brand attitudes and intentions? *Journal of Consumer Research*, 18(4), 519-529.
- Munch, J. M. & Swasy, J. L. (1988). Rhetorical question, summarization frequency, and argument strength effects on recall. *Journal of Consumer Research*, 15(1), 69-76.
- Oakenfull, G. & Greenlee, T. (2004). The three rules of crossing over from gay media to mainstream media advertising: Lesbians, lesbians, lesbians. *Journal of Business Research*, 57, 1276-1285.
- Oakenfull, G. & Greenlee, T. (2005). Queer eye for a gay guy: Using market-specific symbols in advertising to attract gay consumers without alienating the mainstream. *Psychology &*

- Marketing*, 22(5), 421-439.
- Peñaloza, L. (1996). We're here, we're queer, and we're going shopping! A critical perspective on the accommodation of gays and lesbians in the U.S. marketplace. In D. L. Wardlow (Ed.), *Gays, Lesbians, and Consumer Behavior: Theory, Practice, and Research Issues in Marketing*. New York: The Haworth Press, Inc., 9-42.
- Petty, R. E. & Cacioppo, J. T. (1981). *Attitudes and Persuasion: Classic and Contemporary Approaches*. Dubuque, IA: Wm. C. Brown.
- Petty, R. E. & Cacioppo, J. T. (1986a). The elaboration likelihood model of persuasion. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (Vol. 19, pp. 123-205). New York: Academic Press.
- Petty, R. E. & Cacioppo, J. T. (1986b). *Communication and Persuasion: Central and Peripheral Routes to Persuasion*. New York: Springer-Verlag.
- Petty, R. E., Cacioppo, J. T., & Schumann, D. (1983). Central and peripheral routes to advertising effectiveness: The moderating role of involvement. *Journal of Consumer Research*, 10(2), 135-146.
- Petty, R., Priester, J., & Brinol, P. (2002). Mass media attitude change: Implications of the elaboration likelihood model of persuasion. In Bryant, J. & Zillmann, D. (Eds.), *Media Effects: Advances in Theory and Research*. (2<sup>nd</sup> ed.). Mahwah, NJ: Lawrence Erlbaum Associates, 155-198.
- Petty, R. E., & Wegener, D. T. (1999). The elaboration likelihood model: current status and controversies. In S. Chaiken & Y. Trope (Eds.), *Dual-Process Theories in Social Psychology*. New York: Guilford Press, 41-72.
- Poux, P. (1998). Gay consumers MIA from media surveys. *Advertising Age*, 69, 26.

- Scott, L. M. (1994). Images in advertising: The need for a theory of visual rhetoric. *Journal of Consumer Research*, 21, 252-273.
- Simpson, E. M., Snuggs, T., Christiansen, T., & Simples, K. E. (2000). Race, homophily, and purchase intentions and the black consumer. *Psychology & Marketing*, 17(10), 877-889.
- The Pew Research Center for the People and the Press. (2003). Religious beliefs underpin opposition to homosexuality: Republicans unified, democrats split on gay marriage. Retrieved October 7, 2006 from <http://people-press.org/reports/display.php3?PageID=764>
- Turner, J. C. (1999). Some current issues in research social identity and self-categorization theories. In N. Ellemers, R. Spears, & B. Doosje (Eds). *Social Identity Context, Commitment, Content*. Oxford: Blackwell Publishers, Inc., 6-34.
- White, P. H. & Harkins, S. G. (1994). Race of source effects in the elaboration likelihood model. *Journal of Personality and Social Psychology*, 67(5), 790-807.
- Whittler, T. E. & Spira, J. S. (2002). Model's race: A peripheral cue in advertising messages? *Journal of Consumer Psychology*, 12(4), 291-301.
- Wilke, M. (1998). Fewer gays are wealthy, data say household product companies enter the market, *Advertising Age*, 69(42), p. 58.
- Worchel, S., Iuzinni, J., Coutant, D., & Ivaldi, M. (2000). A multidimensional model of identity: Relating individual and group identities to intergroup behaviour. In D. Capozza & R. Brown (Eds). *Social Identity Processes: Trends in Theory and Research*. London: Sage Publications, 1-14.
- Zhang, Y. (1996). The effect of humor in advertising: An individual-difference perspective. *Psychology & Marketing*, 13(6), 531-545.

Table 1. Results of significance testing for main effects.

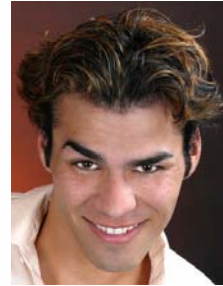
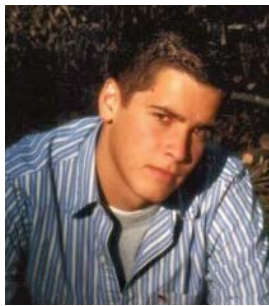
	<i>Dependent Variables</i>					
	Attitude Toward Couple	Attitude Toward Ad	Attitude Toward Brand	Attitude Toward Product	Intention To Purchase	Recall
<i>Independent Variables</i>						
Ad Sexual Orientation	<b>Significant</b>	<b>Significant</b>	N.S.	N.S.	N.S.	N.S.
Argument Strength	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
Involvement	N.S.	<b>Significant</b>	N.S.	N.S.	N.S.	<b>Significant</b>
<i>Individual Difference Variables</i>						
ATGL Scale	<b>Significant</b>	<b>Significant</b>	N.S.	N.S.	N.S.	<b>Significant</b>

Appendix A. Pretest Photos

Female Photos



Male Photos



Appendix B. Photographs used in ads.

Female



Male



## Appendix C. Pretest Arguments

Argument 1: “Dentyne Ice® is available at most convenience stores and grocery stores!”

Argument 2: “Dentyne Ice® is enjoyed by 75 million people throughout the United States!”

Argument 3: “Dentyne Ice® contains less than 5 calories per serving.”

Argument 4: “Dentyne Ice® will make you want to smile!”

Argument 5: “Our refreshing flavors provide a clean mouth feeling that will help you look and feel your best!”

Argument 6: “Dentyne Ice® comes in 6 refreshing flavors—Avalanche Mint, Vanilla Chill, Arctic Chill, Peppermint, Spearmint, and ShiverMint.”

Argument 7: “Dentyne Ice® helps get rid of those nasty coffee stains on your teeth!”

Argument 8: “4 out of 5 dentists surveyed would recommend Dentyne Ice® for their patients who chew gum.”

Argument 9: “Dentyne Ice® was the first intense, breath-freshening pellet gum.”

Argument 10: “Dentyne Ice® comes in 6 bold yet smooth flavors!”

Argument 11: “Dentyne Ice® helps freshen your breath!”

Argument 12: “As always, Dentyne Ice® is sugar-free!”

Argument 13: “Dentyne Ice® blows bigger bubbles than its competitors!”

Argument 14: “Dentyne Ice® has been shown to reduce cavities when chewed after meals!”

Argument 15: “Dentyne Ice® has long-lasting flavor!”

Argument 16: “Chewing Dentyne Ice® helps improve concentration and relieve stress!”

Argument 17: “Studies show chewing Dentyne Ice® helps reduce plaque formation on teeth.”

Argument 18: “In a recent blind taste test, Dentyne Ice® scored higher than its competitors 3 out of 4 times!”

Argument 19: “Chew Dentyne Ice® and more kisses will come your way!”

Argument 20: “Dentyne Ice® is one of the top three chewing gum brands in the United States!”



Argument 21: “Dentyne Ice® keeps its stickiness for easy disposal under your desk!”

## Appendix D. Strong and weak arguments.

### Strongest Arguments:

Dentyne Ice® helps freshen your breath!

Dentyne Ice® contains less than 5 calories per serving.

As always, Dentyne Ice® is sugar-free!

4 out of 5 dentists surveyed recommend Dentyne Ice® for their patients who chew gum.

### Weakest Arguments:

Dentyne Ice® keeps its stickiness for easy disposal under your desk!

Dentyne Ice® blows bigger bubbles than its competitors!

Chew Dentyne Ice® and more kisses will come your way!

Chewing Dentyne Ice® helps improve concentration and relieve stress!

Appendix E. Stimulus Material Examples

Strong Argument, Heterosexual



**THIS COUPLE CHEWS  
DENTYNE ICE<sup>®</sup>  
BECAUSE...**

- **IT HELPS FRESHEN YOUR BREATH**
- **IT CONTAINS LESS THAN 5 CALORIES  
PER SERVING**
- **AS ALWAYS, IT'S SUGAR-FREE**
- **4 OUT OF 5 DENTISTS SURVEYED RECOMMEND  
IT FOR THEIR PATIENTS WHO CHEW GUM**

**WHAT'S YOUR REASON?**



©2008 Wm. Wrigley Chewing Gum, Inc.

The advertisement features a blue background with a white heart shape containing a smiling man and woman. Below the heart is a list of four bullet points. At the bottom right is a pack of Dentyne Ice Peppermint gum, and at the bottom left is the text 'WHAT'S YOUR REASON?'. A small copyright notice is in the bottom left corner.

**THIS COUPLE CHEWS  
DENTYNE ICE®  
BECAUSE...**



- **IT KEEPS ITS STICKINESS FOR EASY DISPOSAL UNDER YOUR DESK**
- **IT BLOWS BIGGER BUBBLES THAN ITS COMPETITORS**
- **IF YOU CHEW IT, MORE KISSES WILL COME YOUR WAY**
- **CHEWING IT HELPS IMPROVE CONCENTRATION AND IT RELIEVES STRESS**

**WHAT'S YOUR REASON?**



**THIS COUPLE CHEWS  
DENTYNE ICE®  
BECAUSE...**



- **IT HELPS FRESHEN YOUR BREATH**
- **IT CONTAINS LESS THAN 5 CALORIES PER SERVING**
- **AS ALWAYS, IT'S SUGAR-FREE**
- **4 OUT OF 5 DENTISTS SURVEYED RECOMMEND IT FOR THEIR PATIENTS WHO CHEW GUM**

**WHAT'S YOUR REASON?**



**THIS COUPLE CHEWS  
DENTYNE ICE®  
BECAUSE...**



- **IT KEEPS ITS STICKINESS FOR EASY DISPOSAL UNDER YOUR DESK**
- **IT BLOWS BIGGER BUBBLES THAN ITS COMPETITORS**
- **IF YOU CHEW IT, MORE KISSES WILL COME YOUR WAY**
- **CHEWING IT HELPS IMPROVE CONCENTRATION AND IT RELIEVES STRESS**

**WHAT'S YOUR REASON?**

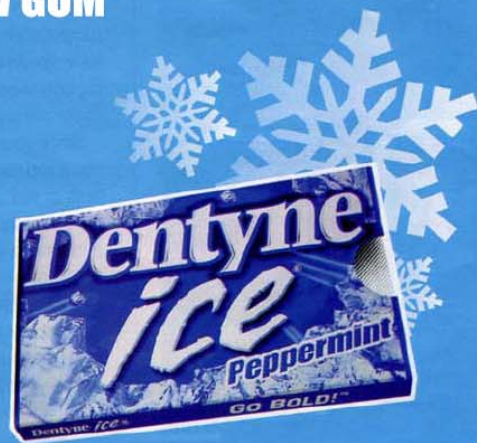


**THIS COUPLE CHEWS  
DENTYNE ICE®  
BECAUSE...**



- **IT HELPS FRESHEN YOUR BREATH**
- **IT CONTAINS LESS THAN 5 CALORIES PER SERVING**
- **AS ALWAYS, IT'S SUGAR-FREE**
- **4 OUT OF 5 DENTISTS SURVEYED RECOMMEND IT FOR THEIR PATIENTS WHO CHEW GUM**

**WHAT'S YOUR REASON?**



**THIS COUPLE CHEWS  
DENTYNE ICE®  
BECAUSE...**



- **IT KEEPS ITS STICKINESS FOR EASY DISPOSAL UNDER YOUR DESK**
- **IT BLOWS BIGGER BUBBLES THAN ITS COMPETITORS**
- **IF YOU CHEW IT, MORE KISSES WILL COME YOUR WAY**
- **CHEWING IT HELPS IMPROVE CONCENTRATION AND IT RELIEVES STRESS**

**WHAT'S YOUR REASON?**





Appendix F. Study Questionnaire.

**Please fill out this section of the questionnaire about the Dove® Nourishing Hand Wash ad you looked at.**

**This section contains an evaluation of your response to the Dove® Hand Wash advertisement you read. Please circle the answers that best represent your impression of *the overall advertisement* based on the following scales. Some of the *scales* are *reversed*, so read both ends of the scale before making a choice.**

1. Indicate your overall evaluation of the **advertisement** for Dove® Hand Wash. Circle your answers.

<b>Bad</b>	1	2	3	4	5	6	7	<b>Good</b>
------------	---	---	---	---	---	---	---	-------------

<b>Unpleasant</b>	1	2	3	4	5	6	7	<b>Pleasant</b>
-------------------	---	---	---	---	---	---	---	-----------------

<b>Unfavorable</b>	1	2	3	4	5	6	7	<b>Favorable</b>
--------------------	---	---	---	---	---	---	---	------------------

<b>Boring</b>	1	2	3	4	5	6	7	<b>Interesting</b>
---------------	---	---	---	---	---	---	---	--------------------

<b>Appealing</b>	1	2	3	4	5	6	7	<b>Unappealing</b>
------------------	---	---	---	---	---	---	---	--------------------

2. Indicate your overall evaluation of the **brand** Dove®. Circle your answers.

<b>Bad</b>	1	2	3	4	5	6	7	<b>Good</b>
------------	---	---	---	---	---	---	---	-------------

<b>Unpleasant</b>	1	2	3	4	5	6	7	<b>Pleasant</b>
-------------------	---	---	---	---	---	---	---	-----------------

<b>Unfavorable</b>	1	2	3	4	5	6	7	<b>Favorable</b>
--------------------	---	---	---	---	---	---	---	------------------

<b>Boring</b>	1	2	3	4	5	6	7	<b>Interesting</b>
---------------	---	---	---	---	---	---	---	--------------------

<b>Appealing</b>	1	2	3	4	5	6	7	<b>Unappealing</b>
------------------	---	---	---	---	---	---	---	--------------------

3. Indicate your overall evaluation of the **product** Dove® Hand Wash. Circle your answers.

<b>Bad</b>	1	2	3	4	5	6	7	<b>Good</b>
------------	---	---	---	---	---	---	---	-------------

<b>Unpleasant</b>	1	2	3	4	5	6	7	<b>Pleasant</b>
-------------------	---	---	---	---	---	---	---	-----------------

<b>Unfavorable</b>	1	2	3	4	5	6	7	<b>Favorable</b>
--------------------	---	---	---	---	---	---	---	------------------

<b>Boring</b>	1	2	3	4	5	6	7	<b>Interesting</b>
---------------	---	---	---	---	---	---	---	--------------------

<b>Appealing</b>	1	2	3	4	5	6	7	<b>Unappealing</b>
------------------	---	---	---	---	---	---	---	--------------------

4. Indicate the probability that you would **purchase** Dove® Hand Wash in the future.

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

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

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

**Please fill out this section of the questionnaire about the Dentyne Ice® ad you looked at.**

5. List the thoughts that crossed your mind as you examined the advertisement for Dentyne Ice®. Simply write next to the first number the first idea that comes to your mind about the Dentyne Ice® advertisement, the second idea that comes to your mind about the ad next to the second number, etc. Please put only one idea or thought next to each number. Your ideas about the advertisement may be favorable, unfavorable, or neutral. Please list as many ideas as you want.

1.	2.
3.	4.
5.	6.
7.	8.
9.	10.

This section contains an evaluation of your response to the Dentyne Ice<sup>®</sup> advertisement you read. Please circle the answers that best represent your impression of *the overall advertisement* based on the following scales. Some of the *scales* are *reversed*, so read both ends of the scale before making a choice.

6. Indicate your overall evaluation of the **advertisement** for Dentyne Ice<sup>®</sup>. Circle your answers.

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

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

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

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

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

7. Indicate your overall evaluation of the **brand** Dentyne Ice<sup>®</sup>. Circle your answers.

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

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

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

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

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

8. Indicate your overall evaluation of the **product** Dentyne Ice<sup>®</sup> gum. Circle your answers.

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

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

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

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

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

9. Indicate the probability that you would **purchase** the brand Dentyne Ice® in the future. Circle your answers.

<b>Unlikely</b>	1	2	3	4	5	6	7	<b>Likely</b>
-----------------	---	---	---	---	---	---	---	---------------

<b>Improbable</b>	1	2	3	4	5	6	7	<b>Probable</b>
-------------------	---	---	---	---	---	---	---	-----------------

<b>Impossible</b>	1	2	3	4	5	6	7	<b>Possible</b>
-------------------	---	---	---	---	---	---	---	-----------------

10. List as many of the attributes, arguments, or reasons for using the product Dentyne Ice® as you can recall reading in the Dentyne® advertisement. Simply write the first argument you can remember for chewing Dentyne Ice® next to the first number, the second reason for chewing Dentyne Ice® next to the second number, etc.

1.	2.
3.	4.
5.	6.

11. Please give your overall evaluation of the reasons and arguments presented in the Dentyne Ice® advertisement for chewing this brand of gum. Circle your answers.

<b>Unpersuasive</b>	1	2	3	4	5	6	7	<b>Persuasive</b>
---------------------	---	---	---	---	---	---	---	-------------------

<b>Weak</b>	1	2	3	4	5	6	7	<b>Strong</b>
-------------	---	---	---	---	---	---	---	---------------

<b>Not Convincing</b>	1	2	3	4	5	6	7	<b>Convincing</b>
-----------------------	---	---	---	---	---	---	---	-------------------

<b>Not Logical</b>	1	2	3	4	5	6	7	<b>Logical</b>
--------------------	---	---	---	---	---	---	---	----------------

12. Please give your overall evaluation of the **couple** featured in the advertisement for Dentyne Ice®.

<b>Unfavorable</b>	1	2	3	4	5	6	7	<b>Favorable</b>
--------------------	---	---	---	---	---	---	---	------------------

<b>Unattractive</b>	1	2	3	4	5	6	7	<b>Attractive</b>
---------------------	---	---	---	---	---	---	---	-------------------

<b>Unlikeable</b>	1	2	3	4	5	6	7	<b>Likeable</b>
-------------------	---	---	---	---	---	---	---	-----------------

13. How much attention did you pay to the written message in the Dentyne Ice ad?

<b>None</b>	1	2	3	4	5	6	7	<b>Very Much</b>
-------------	---	---	---	---	---	---	---	------------------

14. How much did you notice the written message in the Dentyne Ice ad?

<b>None</b>	1	2	3	4	5	6	7	<b>Very Much</b>
-------------	---	---	---	---	---	---	---	------------------

15. How much did you concentrate on the written message in the Dentyne Ice ad?

None	1	2	3	4	5	6	7	Very Much
------	---	---	---	---	---	---	---	-----------

16. How involved were you with the written message in the Dentyne Ice ad?

None	1	2	3	4	5	6	7	Very Much
------	---	---	---	---	---	---	---	-----------

17. How much thought did you put into evaluating the written message in the Dentyne Ice ad?

None	1	2	3	4	5	6	7	Very Much
------	---	---	---	---	---	---	---	-----------

18. I examined what was said in the Dentyne Ice ad...

*...so I could evaluate the advertised brand.*

Not at all	1	2	3	4	5	6	7	Very Much
------------	---	---	---	---	---	---	---	-----------

*... so that I could determine the attributes of the brand featured in it.*

Not at all	1	2	3	4	5	6	7	Very Much
------------	---	---	---	---	---	---	---	-----------

*...so that I could determine the benefits of the brand featured in it.*

Not at all	1	2	3	4	5	6	7	Very Much
------------	---	---	---	---	---	---	---	-----------

*...so that I could rate the quality of the brand featured in it.*

Not at all	1	2	3	4	5	6	7	Very Much
------------	---	---	---	---	---	---	---	-----------

19. I examined the Dentyne Ice ad...

*...to evaluate the writing style in the ad.*

Not at all	1	2	3	4	5	6	7	Very Much
------------	---	---	---	---	---	---	---	-----------

*...to help me determine how easy it was to read.*

Not at all	1	2	3	4	5	6	7	Very Much
------------	---	---	---	---	---	---	---	-----------

*...to evaluate its overall appearance.*

Not at all	1	2	3	4	5	6	7	Very Much
------------	---	---	---	---	---	---	---	-----------

*...to help me determine how the ad looked.*

Not at all	1	2	3	4	5	6	7	Very Much
------------	---	---	---	---	---	---	---	-----------

20. What is the sexual orientation of the couple featured in the advertisement for Dentyne Ice<sup>®</sup>?  
Please circle your answer.

Heterosexual

Homosexual—Gay male

Homosexual—Lesbian

Unsure

Please fill out this section of the questionnaire about the Dove® Chocolate ad you looked at.

This section contains an evaluation of your response to the Dove® Chocolate advertisement you read. Please circle the answers that best represent your impression of *the overall advertisement* based on the following scales. Some of the *scales* are *reversed*, so read both ends of the scale before making a choice.

21. Indicate your overall evaluation of the **advertisement** for Dove® Chocolate. Circle your answers.

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

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

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

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

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

22. Indicate your overall evaluation of the **brand** Dove®. Circle your answers.

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

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

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

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

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

23. Indicate your overall evaluation of the **product** Dove® Chocolate. Circle your answers.

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

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

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

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

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

24. Indicate the probability that you would **purchase** Dove<sup>®</sup> Chocolate in the future. Circle your answers.

Unlikely	1	2	3	4	5	6	7	Likely
Improbable	1	2	3	4	5	6	7	Probable
Impossible	1	2	3	4	5	6	7	Possible

Please fill out this section of the questionnaire about the Kraft Parmesan cheese<sup>®</sup> ad you looked at.

This section contains an evaluation of your response to the Kraft Parmesan Cheese<sup>®</sup> advertisement you read. Please circle the answers that best represent your impression of *the overall advertisement* based on the following scales. Some of the *scales* are *reversed*, so read both ends of the scale.

25. Indicate your overall evaluation of the **advertisement** for Kraft Parmesan Cheese<sup>®</sup>. Circle your answers.

Bad	1	2	3	4	5	6	7	Good
Unpleasant	1	2	3	4	5	6	7	Pleasant
Unfavorable	1	2	3	4	5	6	7	Favorable
Boring	1	2	3	4	5	6	7	Interesting
Appealing	1	2	3	4	5	6	7	Unappealing

26. Indicate your overall evaluation of the **brand** Kraft<sup>®</sup>. Circle your answers.

Bad	1	2	3	4	5	6	7	Good
Unpleasant	1	2	3	4	5	6	7	Pleasant
Unfavorable	1	2	3	4	5	6	7	Favorable
Boring	1	2	3	4	5	6	7	Interesting
Appealing	1	2	3	4	5	6	7	Unappealing

27. Indicate your overall evaluation of the **product** Kraft® cheese. Circle your answers.

<b>Bad</b>	1	2	3	4	5	6	7	<b>Good</b>
------------	---	---	---	---	---	---	---	-------------

<b>Unpleasant</b>	1	2	3	4	5	6	7	<b>Pleasant</b>
-------------------	---	---	---	---	---	---	---	-----------------

<b>Unfavorable</b>	1	2	3	4	5	6	7	<b>Favorable</b>
--------------------	---	---	---	---	---	---	---	------------------

<b>Boring</b>	1	2	3	4	5	6	7	<b>Interesting</b>
---------------	---	---	---	---	---	---	---	--------------------

<b>Appealing</b>	1	2	3	4	5	6	7	<b>Unappealing</b>
------------------	---	---	---	---	---	---	---	--------------------

28. Indicate the probability that you would **purchase** Kraft Parmesan cheese® in the future.

<b>Unlikely</b>	1	2	3	4	5	6	7	<b>Likely</b>
-----------------	---	---	---	---	---	---	---	---------------

<b>Improbable</b>	1	2	3	4	5	6	7	<b>Probable</b>
-------------------	---	---	---	---	---	---	---	-----------------

<b>Impossible</b>	1	2	3	4	5	6	7	<b>Possible</b>
-------------------	---	---	---	---	---	---	---	-----------------

**Please answer the following questions by circling the answer that best fits your response.**

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

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*

30. I think male homosexuals are disgusting.

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*

31. Male homosexuals should not be allowed to teach school.

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*

32. Male homosexuality is a perversion.

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*

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

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*

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

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*



35. I would not be too upset if I learned that my son was a homosexual.

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*

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

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*

37. The idea of male homosexual marriages seems ridiculous to me.

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*

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

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*

39. Female homosexual couples should be allowed to adopt children the same as heterosexual couples.

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*

40. I think female homosexuals are disgusting.

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*

41. Female homosexuals should not be allowed to teach school.

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*

42. Female homosexuality is a perversion.

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*

43. Just as in other species, female homosexuality is a natural expression of sexuality in human women.

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*

44. If a woman has homosexual feelings, she should do everything she can to overcome them.

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*

45. I would not be too upset if I learned that my daughter was a homosexual.

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*

46. Homosexual behavior between two women is just plain wrong.

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*

47. The idea of female homosexual marriages seems ridiculous to me.

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*

48. Female homosexuality is merely a different kind of lifestyle that should not be condemned.

*Strongly Disagree*      *Disagree*      *Neither Agree nor Disagree*      *Agree*      *Strongly Agree*

49. What is your gender? Please circle your response.

Female                      Male

50. Which of the following best describes your sexual orientation?

Heterosexual              Bisexual                      Homosexual                      Prefer not to respond

51. Which of the following best represents your ethnic group? (Please check)

<input type="checkbox"/> Caucasian	<input type="checkbox"/> Black or African-American
<input type="checkbox"/> Asian or Asian American	<input type="checkbox"/> Native American or Alaska Native
<input type="checkbox"/> Hispanic or Latino/Latina	<input type="checkbox"/> Native Hawaiian or other Pacific Islander
<input type="checkbox"/> Bi- or Multi-Racial	Other (Please
List): _____	

52. What is your current age in years? \_\_\_\_\_

53. Please recall the free gift you were told to expect for completing this experiment:

\_\_\_\_\_

**When you have finished this questionnaire, please bring your booklet and questionnaire to the experiment administrator. Thank you for participating in this study.**

Figure 1. Two-way interaction of argument strength and involvement on attitude toward the argument manipulation check measure.

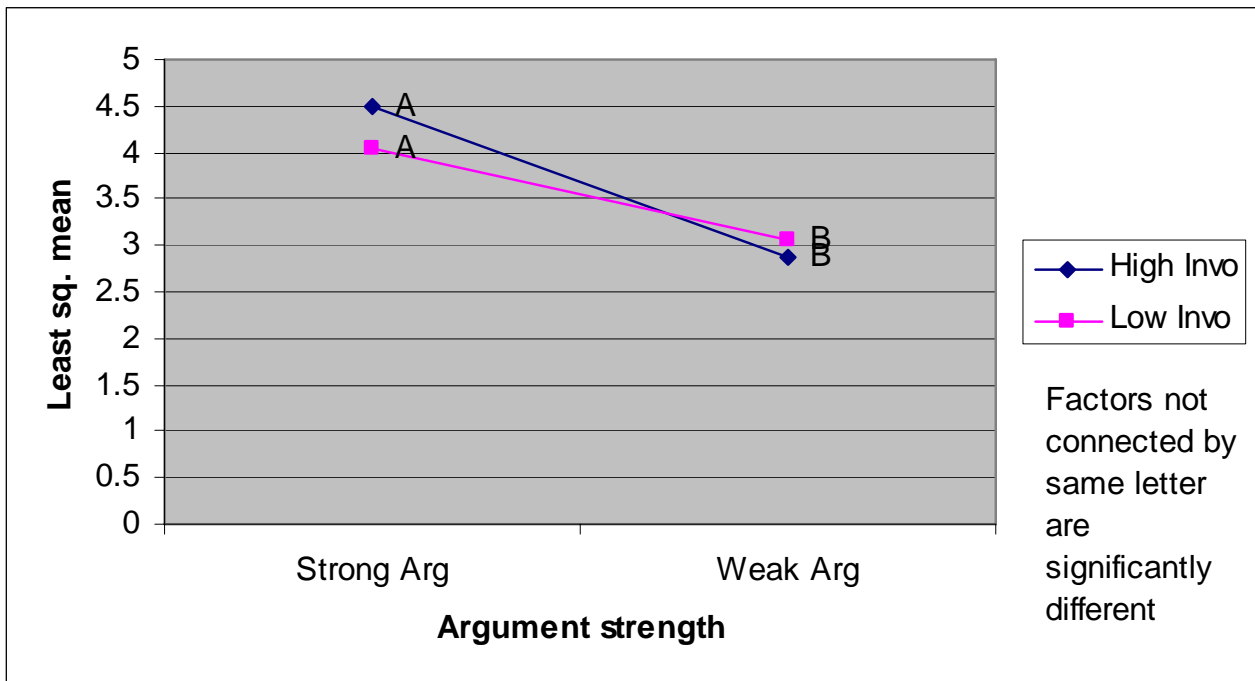


Figure 2. Two-way interaction of ad sexual orientation and ATLG scale on attitude toward the couple.

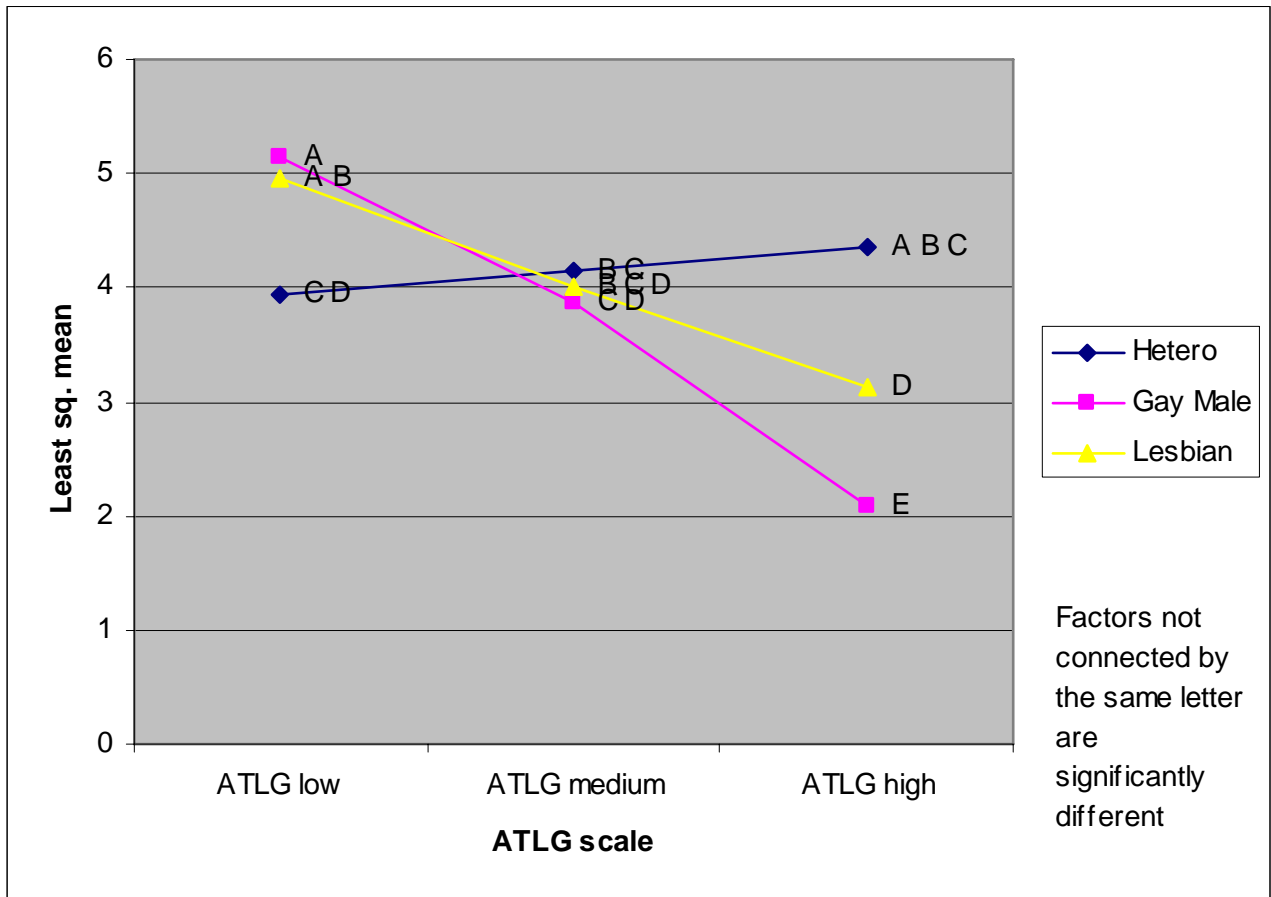


Figure 3. Two-way interaction of ad sexual orientation and involvement on attitude toward the ad.

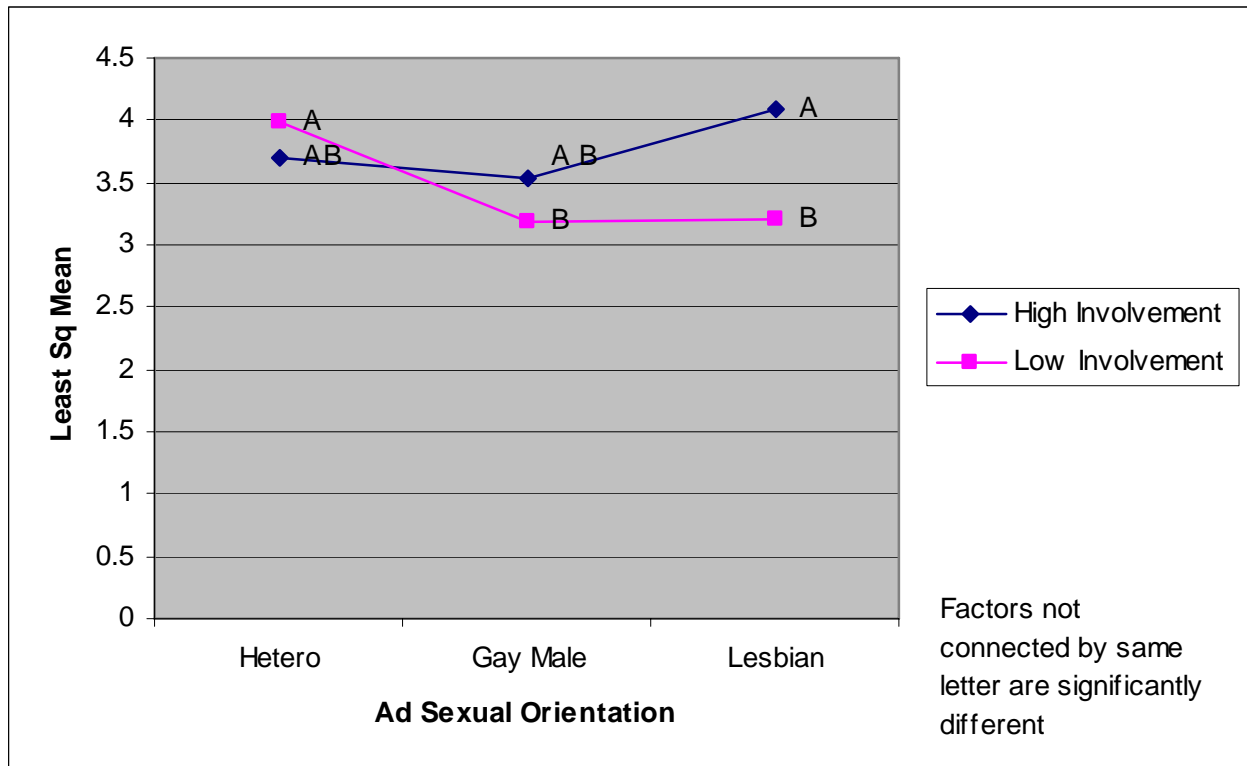


Figure 4. Two-way interaction of ad sexual orientation and ATLG scale on attitude toward the ad.

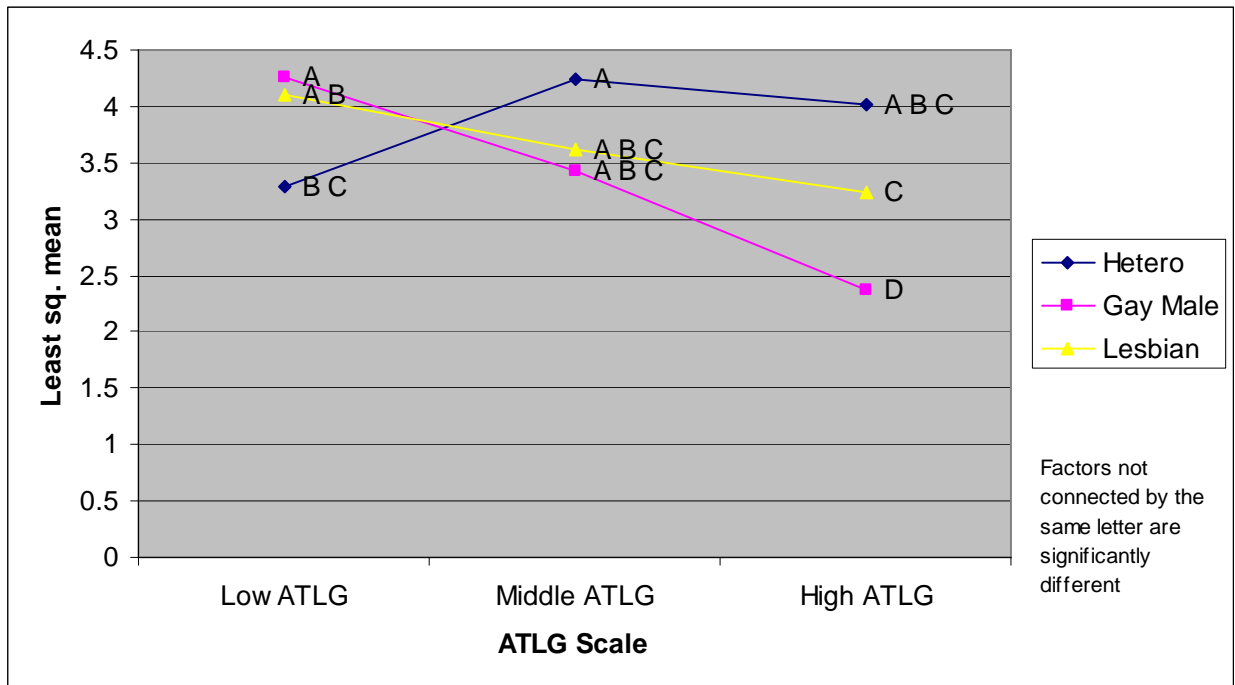


Figure 5. Three-way interaction of couple sexual orientation, argument strength, and involvement on attitude toward the ad.

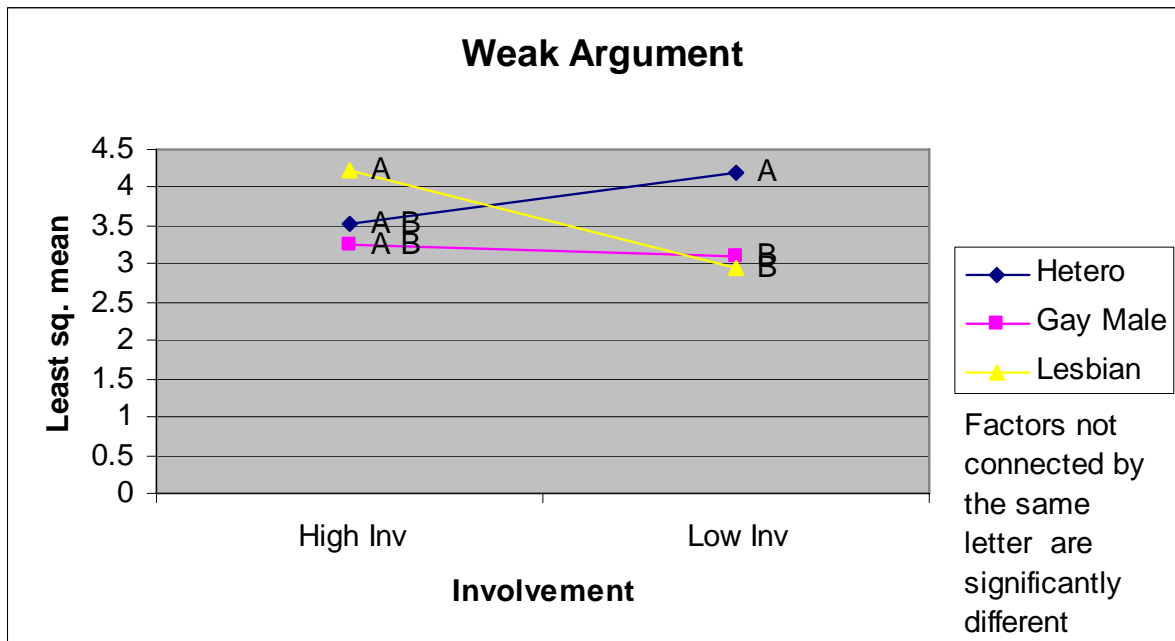
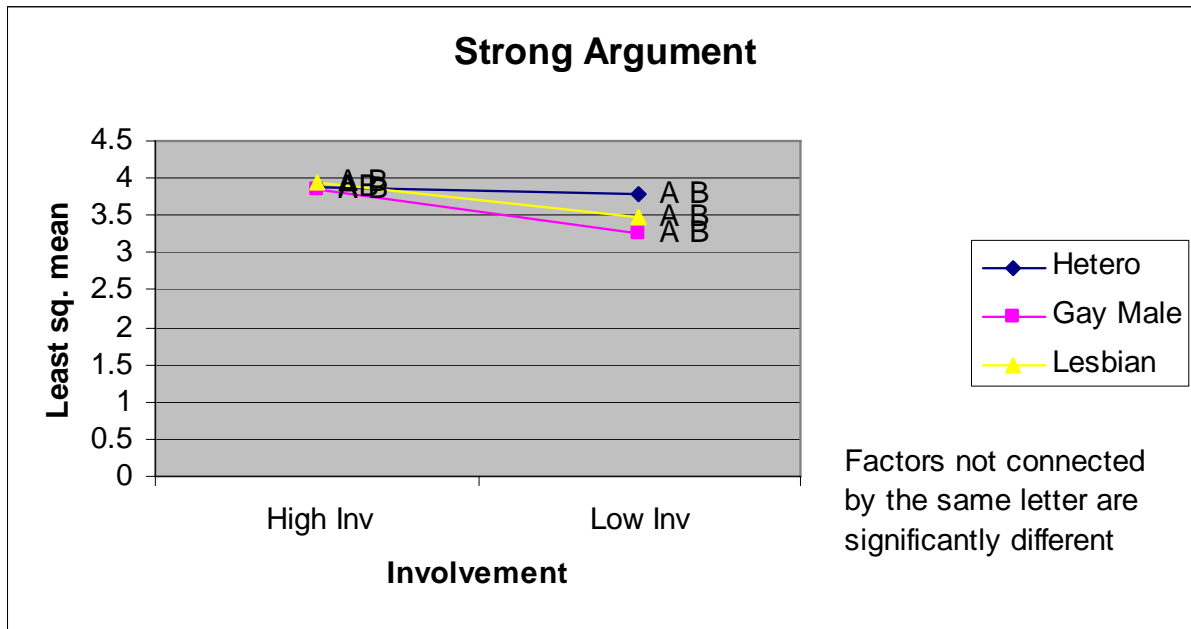
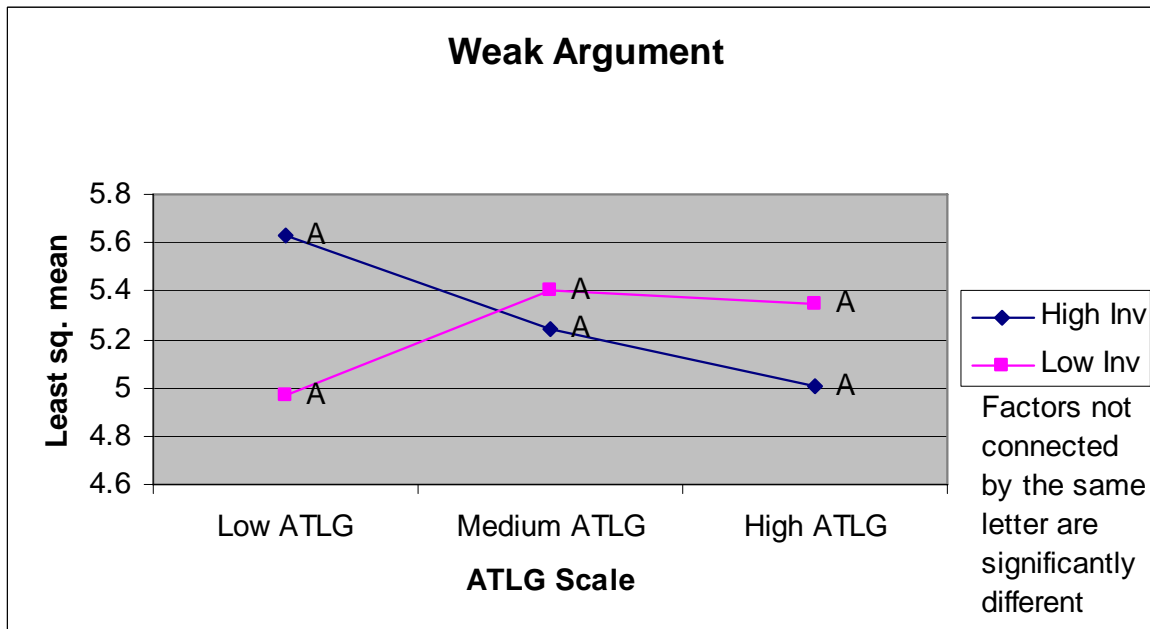
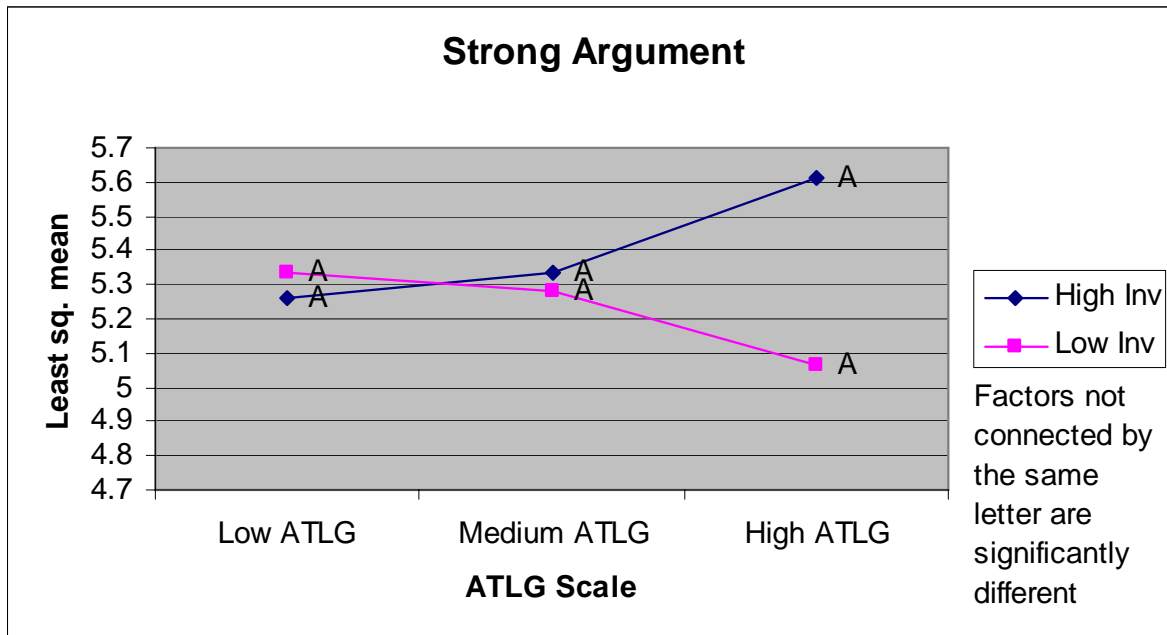


Figure 6. Three-way interaction of argument strength, involvement and ATLG scale on attitude toward the brand.





# Adrienne Holz Ivory

aivory@vt.edu

## Office:

148 Shanks Hall (0311)  
Blacksburg, VA 24061  
(540) 231-9826

## Home:

610 Ellett Road  
Blacksburg, VA 24060  
(540) 250-6708

## **EDUCATION**

2005-2007: M.A. Candidate, Virginia Polytechnic Institute and State University

Expected Graduation: May, 2007

Overall GPA: 4.00

Thesis: *Sexual Orientation: A Peripheral Cue in Advertising?* Chair: Dr. John Tedesco

2000-2004: B.A., University of North Carolina at Chapel Hill—Overall GPA: 3.46

Bachelor of Arts—Psychology, 2004, Major GPA: 3.76

Bachelor of Arts—Sociology, 2004, Major GPA: 4.00

## **RESEARCH INTERESTS**

Media effects on children and young adults

Portrayals of gender, race, and sexuality in the media

Cognitive and physiological responses to persuasive messages

Entertainment media content and effects

Media portrayals of mental and physical disabilities

Health communication

Individual and group decision making

Consumer behavior

## **TEACHING INTERESTS**

Media Effects

Communication Theory

Media and Sexual Health

Public Presentation and Speaking

## **RESEARCH**

### **Journal Articles:**

Ivory, A. H. and Tedesco, J.C. (forthcoming). The effects of health message primes on viewer responses to sexual health campaign web content. *Business Research Yearbook*.

### **Book Chapters:**

Tedesco, J. C., & Ivory, A. H. (manuscript in preparation, solicited by editors). Instant response analysis of social marketing advertising and web strategies. In *Empirical and methodological contributions to the social sciences*.

### **Refereed Research Presentations:**

Ivory, A. H. (2007, May). Viewer responses to race and sexual orientation in direct-to-consumer prescription drug advertisements. Paper to be presented to the Mass Communication Division at the annual conference of the International Communication Association, San Francisco, CA.

Ivory, A. H. (2007, March). The effects of health message primes on viewer responses to sexual health campaign web content. Paper to be presented to the International Academy of Business Disciplines, Orlando, FL.

Ivory, A. H. (2006, November). *A frame analysis of Think Sexual Health: Targeting a young adult audience*. Paper presented to the Health Communication Division at the annual conference of the National Communication Association, San Antonio, TX.

Ivory, A. H. (as Holz, A. M.), Gibson, R., & Ivory, J. D. (2005, August). *Gendered relationships on television: Comparing portrayals of heterosexual and same-sex couples*. Paper presented to the Gay, Lesbian, Bisexual, Transgender Interest Group at the annual convention of the Association for Education in Journalism and Mass Communication, San Antonio, TX.

### **Manuscripts Under Review:**

#### *Journal Submissions*

Ivory, A. H., Gibson, R., & Ivory, J. D. *Gendered relationships on television: Comparing portrayals of heterosexual and same-sex couples*. Paper submitted to Mass Communication & Society.

### **AWARDS & HONORS**

Virginia Tech Scholars Award for Academic Promise  
(November 2006)  
Department of Human Development,  
Virginia Tech, Blacksburg, Virginia

Virginia Tech Grant Writing Institute Participant  
(June 2006)  
Virginia Tech, Blacksburg, Virginia  
\$1,000.00 stipend

Dean's List (Undergraduate), University of North Carolina-Chapel Hill, Fall 2002-Spring 2004  
Alpha Kappa Delta Honor Society (Inducted 2004)

## **TEACHING EXPERIENCE**

### **Instructor:**

*Public Speaking*, COMM 2004 (Undergraduate Course), Virginia Tech (Summer 2006, Fall 2006; 2 sections per term).

### **Graduate Teaching Assistant:**

*Public Speaking*, COMM 2004 (Undergraduate Course), Virginia Tech (Fall 2005, Spring 2006; 2-3 sections per term).

Future Professoriate Graduate Certificate, Virginia Tech (Pending, Spring, 2007)

## **RESEARCH EXPERIENCE**

Research Associate, Virginia Tech Communication Research Facility, Fall 2006-Spring 2007.  
*Collected data on experiments as lead and second author; Designed and selected stimulus materials.*

*Fall, 2006: 32 sessions, 896 participants.*

*Spring, 2006: 18 sessions, 250 participants.*

Participant, Virginia Tech Grant Writing Institute, June 2006.

*Worked as an assistant to Dr. John Tedesco on an NSF grant submission and traveled to meet NSF representatives in Washington, D.C. as part of a competitively selected workshop group. Workshop training included modules on grant writing techniques and searching for appropriate funding.*

Coder, Special Olympics Content Analysis Project, January 2005.

*Coded content of newspaper articles featuring persons with intellectual disabilities for a funded study by Dr. Carol Pardun, School of Journalism and Mass Communication, University of North Carolina at Chapel Hill. (Temporary part-time assignment)*

## **SERVICE**

Virginia Tech Communication Graduate Student Association  
Community Service Chair, 2006-2007

Kappa Psi Professional Fraternity, UNC-CH, 2000-2004  
Vice-President, 2004  
Alumni Relations Chair, 2004

Red Cross Blood Drive Volunteer, August 2000-May 2004  
Adopt-A-Highway Volunteer, August 2000-May 2004  
Community Health Fairs Volunteer, August 2000-May 2004

## **ORGANIZATION AFFILIATIONS**

Association for Education in Journalism and Mass Communication.

International Communication Association.

National Communication Association.

## **SKILLS**

Software: Biopac physiological data collection software, SPSS, Adobe Photoshop, Macromedia  
Dreamweaver, Blackboard, ePortfolio, Microsoft

Access/Publisher/Excel/PowerPoint/Word.

Languages: Working knowledge of French.