Homosexual Representation Diversity in Media:
The Role of Associative Interference
in Diminishing Stereotypes and Improving Attitudes

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This thesis titled
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The Role of Associative Interference
in Diminishing Stereotypes and Improving Attitudes

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ABSTRACT

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Homosexual Representation Diversity in Media: The Use of Associative Interference to Diminish Stereotypes and Change Attitudes

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This study examines whether consuming a diversity of positively-traited homosexual TV characters can help to diminish sexuality-related stereotypes and facilitate positive attitude change at both the explicit and implicit levels. Priming Effects Theory suggests that one’s attention can be directed to recognize and focus on certain traits. To disperse traits of homosexuality, Associative Interference, which suggests an inverse relationship between the size and complexity of an associative network and the opportunity for a particular, stereotyped trait to be emphasized, is also examined. Results of the study suggest more positive attitudes for participants who received a diverse prime (N = 31) compared to those who didn’t (N = 32) both at the explicit and implicit levels. Implications of such findings for diminishing stereotypes, facilitating positive attitude change, and effectiveness of implicit measures are discussed.
DEDICATION

To my husband, Wenlong Yin

and my parents, Guoxing Liu & Guangxia Shang
ACKNOWLEDGMENTS

Special thanks go to the chair of my committee, Dr. Carson Wagner, whose insightful suggestions and constant guidance have helped me come this far, my committee members, Dr. Hans Meyer and Dr. Aimee Edmondson, who also make considerable contributions to this thesis.
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CHAPTER 1: INTRODUCTION

The aim of this thesis is to examine potential pro-social benefits of diverse homosexual character portrayals on TV. As a major source of sexuality information, television content plays an important role in forming and reforming social attitudes of the general public (Calzo & Ward, 2009; Wright, 2009). Over the past several decades, homosexuals have become more represented in films and shows, and while that may signal a growing acceptance of homosexual lifestyles (Bonds-Raacke, Cady, Schlegel, Harris, & Firebaugh, 2007; Fisher, Hill, Grube, & Gruber, 2007), questions remain as to whether homosexuals’ presence in media can help diminish the formation and use of homosexual stereotypes, whether it can promote positive interactions and relationships among heterosexuals and homosexuals, and how more positive attitudes can be formed as a function of consuming media content (Bonds-Raacke et al., 2007).

According to the annual report of Gay and Lesbian Alliance Against Defamation [GLAAD] (2011), portrayals of homosexual characters, when compared to the lived experience of homosexuality in United States, “still fall far behind in quantity and diversity” (GLAAD, 2011, p. 3). While being portrayed, beyond a dominant trait of their sexual orientation “being different,” several stereotypes such as immaturity and physical attractiveness are also emphasized and reinforced in some portrayals of homosexual characters (Fouts & Inch, 2005), and these stereotypical portrayals may cause serious problems for both homosexual and heterosexual groups. According to Bonds-Raacke, Cady, Schlegel, Harris, and Firebaugh (2007), homosexuals are the targets of considerable prejudice manifested in various behaviors from verbal to physical attacks,
and stereotypes about them are so widespread in society that they have prevented homosexuals from acknowledging and embracing their own sexual identities (Ivory, Gibson, & Ivory, 2009); yet stereotypical portrayals of homosexuals are still present in most TV shows (Netzley, 2010; Fouts & Inch, 2005), have also noticed a broader spectrum of homosexual character portrayals (Calzo & Ward, 2009; Harrington, 2003; Hart, 2004). A greater diversity of characters has been present, and such variation may help lead to stereotype change and more positive attitudes (Calzo & Ward, 2009).

To investigate such a possibility, the present thesis was designed to explore diverse media portrayals of homosexuals and demonstrate a process by which audiences may form more positive attitudes toward homosexuals in society. The study is based in part on Associative Interference (Anderson, 1983), which states that the establishment of a more complex associative network reduces the chance of activation of a particular concept such as “flamboyant” upon the activation of a central concept such as “homosexual.” Another major foundation for the study is Priming Effects Theory, which suggests that stimuli can be used to activate accessible concepts in individuals’ minds (Anderson, 1983; McNamara, 1994; Balota & Lorch, 1986). To be more specific, among various priming effects in the literature, Iyengar, Peters, and Kinder’s (1982) associative priming effect is utilized to develop a diverse stimulus. This priming effect hypothesis posits that stimulus elements in media messages can evoke “semantically related thoughts among viewers,” (Wagner & Sundar, 2008, p. 43) and by making certain issues more salient than others, media can exaggerate the prevalence and importance of such issues and various behaviors (Iyengar et al., 1982; Wagner & Sundar, 2008). An experiment
involving measuring participants’ explicit and implicit attitudes was conducted with the goal of examining the effects of diverse portrayals of homosexual characters on stereotyping and attitude change toward homosexuals.

The study is also designed to further explore how the interpretation of attitude change can be different when measuring attitudes explicitly and implicitly, especially for sensitive social issues such as homosexuality (Dovidio & Fazio, 1991; Wagner, 2001). Noted by Scherer and Lambert (2009), the main difference between explicit and implicit measures is that implicit measures do not involve direct queries about the attitude object—providing less opportunity for participants to exercise control over their responses—and are therefore more sensitive to detect the presence and changes in how the attitude objects are being evaluated. (Scherer & Lambert, 2009; Schwinghammer & Stapel, 2011).

An increasing number of social researchers argue that the obtrusive nature of explicit measures can prevent participants from revealing their underlying feelings and opinions and alter their responses according to social desirability, demand characteristics, situational norms, and/or self-presentational concerns, which may exaggerate the effectiveness of a stimulus (Gabriel, Banse, & Hug, 2007; Wagner, 2002; Wagner & Sundar, 2009). Accordingly, implicit attitudes are found to be better at predicting behaviors than are explicit attitudes (Dovidio & Fazio, 1991). Therefore, it is important to investigate effects on both types of attitudes, especially with respect to socially-sensitive issues such as homosexuality, toward a fuller understanding of the stereotyping process.

In short, the study involves randomly assigning all participants to one of two
groups—the experimental group and the control group. The participants in the experimental group receive a stimulus, which is a 14-minute video composed of diverse, relatively non-stereotypical portrayals of homosexual characters on television, whereas the participants in the control group do not. Each participant’s implicit and explicit attitudes toward homosexuals are measured, and their implicit and explicit attitudes are compared between groups. For the purpose of the study, a brief history of how homosexual characters are represented on television, current stereotypes identified in popular TV shows and movies, as well as prior research about media content stimulating attitude change toward homosexuality are included at first as background knowledge on the subject. Subsequently, in order to address more directly to the nature of homosexual stereotyping and psychological reasons of why negative attitudes are formed toward homosexuals, the study focuses on theoretical reviews of the nature of stereotyping and attitude formation, the mental mechanism of individuals, and the distinctions between explicit and implicit measures. This current thesis, in an attempt to explore mass media effects with theories rooted in social and experimental psychology, is also designed to offer practical solutions for ameliorating stereotyped perceptions of homosexuals and producing more positive attitudes. The results of the study may be used as evidence to support establishments of homosexual characters that can arouse more resonation among homosexuals in society, and ultimately helps improve social environment of homosexuals.
CHAPTER 2: LITERATURE REVIEW

History of Homosexual Portrayals on TV

According to former CNN correspondent Edward Alwood (1996), the first representation of gay men in the United States to a national audience occurred in 1967 with the airing of a documentary titled “The Homosexuals,” which is filled with harmful, derogatory stereotypes (Hart, 2004). In that documentary, homosexuals were portrayed as “being sick” (Alwood, 1996) and “perpetually unhappy” (Hart, 2004, p. 242). In the 1960s, homosexuals were often depicted as murderers or murder victims, and it is argued by some that their appearances on television not only generated uncomfortable feelings among audiences, but also reinforced stereotypes about homosexuals (Netzley, 2010; Hart, 2004).

In the 1970s, although the number of homosexual characters increased, stereotypical portrayals were not diminished considerably (Netzley, 2010). While homosexual characters such as those in the All in the Family were introduced as guest stars and interacted with heterosexuals (Netzley, 2010), it was still considered appropriate and even encouraged to include derogatory comments and jokes about homosexuals to enhance the entertainment effect (Hart, 2004). The fact that homosexual characters were mostly guest stars as opposed to leading characters also suggests that gay activists were taking a less radical approach by attempting to improve acceptance of homosexuals without forcing the audience to view homosexual portrayals week after week (Capsuto, 2000).
AIDS in the 1980s literally and figuratively put homosexual groups in an even more disadvantaged position (Hart, 2004). The already “stigmatized” gay men of the 1980s became further stigmatized as “lethally contagious” threats to “innocent heterosexuals,” and AIDS was socially constructed as a “gay plague” by the media, therefore adding another reason to consider homosexual love and marriage as immoral and harmful to the society (Hart, 2004, p. 243). However, the negativity connected to homosexuality and the AIDS virus didn’t stop the increase in visibility of homosexual characters in the media. With Ellen Morgan being the first gay title character on television in the United States, more homosexual characters began appearing on television at the end of 1980s (Netzley, 2010; Gapsuto, 2000).

Starting in the 1990s, the representations of homosexual characters on television were substantially improved (Hart, 2004). Not only did the number of roles increase, but there was a remarkable increase in variety of roles and personality types of homosexual characters, as well (Hart, 2004). More shows started to feature homosexuality, and by 1998, NBC’s situation comedy *Will & Grace* introduced American audiences to primetime television’s first gay male lead character, Will Truman, along with his gay friend, Jack McFarland (Hart, 2004; Netzley, 2010). Although the show had been criticized later as offering highly restrictive and stereotypical representation of gay men, some also argued that by pairing a gay character, Will Truman, with a straight character Grace Adler, it helped gay men be accepted by a wider audience (Netzley, 2010; Walters, 2001). With the success of the show, many other programs such as *Friends* and *Sex and the City* also started featuring gay characters throughout the 2000s (Netzley, 2010). It was
also noted that Samantha in *Sex and the City* advocated the notion of “hetero-flexibility,” which promoted the contemporary spirit of sexual diversity, as well as “chic lesbianism,” which had linked female homosexuality with a free and trendy lifestyle (Jackson & Gilbertson, 2009, p. 200; Diamond, 2005).

An analysis of characters for the 2011-2012 television schedule (GLAAD, 2011) found that 2.9% of series regulars to be lesbian, gay, bisexual or transgender (LGBT). Among the 91 scripted television programs on the five broadcast networks (ABC, CBS, The CW, Fox and NBC), 19 of them include LGBT regulars. Although that represents a huge step taken by media practitioners, including TV producers and creators, as well as television executives, it doesn’t signify that current portrayals and representations of homosexuality on television have ceased being problematic and potentially harmful. It is argued that stereotypes still exist in media, and positive portrayals of sexual minority relationships on television are still considered inadequate by many (Calzo & Ward, 2009).

*Current Portrayals and Stereotypes*

The most ingrained stereotype about homosexual characters is that they are gendered, with most possessing certain traits that have been socially labeled as more characteristic of the opposite gender as compared to their gender as a function of their biological sex (Boysen, Fisher, Dejesus, Vogel, & Madon, 2011). Posited by Implicit Inversion Theory (Kite & Deaux, 1987), portrayals of gay male characters were seen to resemble more closely a stereotypically-constructed female with traits such as vulnerable, submissive, flamboyant, and emotional, as well as behaviors, interests, or personalities
that typically have been connected to heterosexual women (Boysen et al., 2011; Kite & Deaux, 1987). In such portrayals, when same-sex couples and relationships are being depicted, one member must possess gender traits stereotypically associated with that of the opposite gender, and such gendered roles have been introduced and demonstrated unambiguously (Ivory et al., 2009).

While gay male characters with traits most resembling those associated with heterosexual men have appeared occasionally in shows and movies, they are portrayed less frequently as compared to those being portrayed as the opposite gender, and that was mainly because gay male characters were portrayed in a gendered relationship that required a manifestation of their particular roles in a relationship (Ivory et al., 2009). It is argued that, while being portrayed in a homosexual relationship, one partner in a couple was often portrayed as extremely masculine or athletic, while the other was portrayed as a “queen” and/or “fairy” yearning to be a woman; same situations also apply to lesbian couples, as most of them are portrayed either as “butches” who dress like a man or “femmes” who are extremely feminine (Ivory et al., 2009).

That allocation of gender roles is delivered by showing power imbalances within homosexual relationships, and it has been argued that homosexual couples in the United States are often portrayed as taking traditional roles of a wife and a husband in a relationship as heterosexual couples often do (Ivory et al., 2009). The dominance-submission depictions and the “heterosexual and gendered frame of reference,” both, are argued to be rather inaccurate in portraying homosexual relationships (Ivory et al., 2009, p. 175), as studies have shown that gay men and lesbian
couples in the United States share homemaking tasks and financial responsibilities, and are overall more likely than heterosexual couples to negotiate a balance in responsibilities (Peplau & Fingerhut, 2007; Kurdek, 2005).

Whether it is addressed by others or through the characters’ own verbal comments and behaviors, there is a dominant theme of image self-perfection and appearance enhancing among homosexual characters on TV (Sender, 2006). It is argued that programs such as Queer Eye for the Straight Guy have perpetuated such stereotypes by portraying their homosexual leads as experts in style, grooming, cuisine, and manners (Sender, 2006). In that show, the “Fab Five,” while wearing fashionable clothes, themselves, often belittle the subjects’ wardrobe and décor (Sender, 2006). That contrast, on the surface, shows their superior, dominant position, but simultaneously, it also reinforces the stereotypical expectations people generally have toward gay men (Sawyer, 2003). As argued by Hart (2004), these kinds of shows had feminized gay men with their “fairy godmother” images.

Homosexual characters’ sexual activities and sexual desire are often portrayed in two very different ways (Fisher, Hill, Grube, & Gruber, 2007). First, portrayals of homosexual characters in sexual situations are fairly rare, in relation to the large amount of time to heterosexual sex themes in TV shows and movies (Wright, 2009). Huntemann and Morgan (2002) argue that the “default setting” for sexual activities is heterosexual in current media content, and that could disempower non-heterosexual teenagers who are looking for role models in the media (Huntemann & Morgan, 2002; Netzley, 2010). When gay and lesbian characters are being portrayed on television, they are many times
shown in “asexual contexts” (Fisher et al., 2007, p. 3). Given a sample of more than 2,700 episodes from the 2001-2002 and 2002-2003 television seasons, approximately 15% of programs contained same-sex content, and among them, the overall amount of program time devoted to non-heterosexual sexual themes is significantly less than the time devoted to traditional, heterosexual sexual scenes, as well (Fisher et al., 2007).

At the same time, although direct sexual portrayals of homosexuals are rare, such characters are often portrayed as “sexual objects” or “promiscuous,” with extensive verbal comments and gestures reinforcing those stereotypes for comic or dramatic effects (Fisher et al., 2007, p. 3). That is especially the case for lesbian characters, as the “media lesbian is frequently defined by her embodied sexuality and constituted as a sexually desiring and desirable subject” (Jackson & Gilbertson, 2009, p. 199). Further, prior research has indicated that, when it comes to the frequency of homosexual characters’ sexual scenes, lesbian characters, when compared to gay male characters, are also twice as likely to be the subject (Netzley, 2010). It is argued that the sum of portrayals can simultaneously produce lesbian characters as commodities, or simply objects of desire (Jackson & Gilbertson, 2009). Such objectification and misleading representations of lesbian characters may have led adolescents to see female-female sexual activities as “hot” and “a performance based on stage,” and perceive lesbian relationships as momentary and unstable (Jackson & Gilbertson, 2009, p. 220).

Other stereotypical characteristics being portrayed in current media are that homosexuals have the purchase patterns and power associated with the upper-class (Sender, 2006). As such, homosexuals are often depicted as “tools” to instigate
consumption. Characters such as the “Fab Five” in *Queer Eye for the Straight Guy* spend a large amount of time in designer clothing stores, home décor stores, and are constantly emphasizing the importance of the “right product” (Sender, 2006). Argued by Sender (2006), the “queer eye,” of the Fab Five, who is the show’s source of expertise, is also a *judgmental eye* who critiques the meticulous grooming process of homosexuals, and links that process to the “inner girlie” self of gay men, thereby forcing the audience to regard a key contribution of homosexuals to be a matter of taste and style (Sender, 2006).

While attitudes may be greatly influenced by media content and messages, stereotypical and exaggerated portrayals of homosexuals may hamper heterosexuals’ understanding of homosexuals as well as homosexuals’ understandings of themselves, which could, in turn, decrease the possibility of establishing close relationships between members of the two groups. Further, because TV portrayals and storylines of homosexual characters often focus on issues that are relevant to homosexual characters only, it may be more difficult for heterosexuals to empathize with homosexuals, and are therefore more likely for heterosexuals to make gratuitous assumptions about homosexuals in society (Gross, 1991; Fouts & Inch, 2005). Regarding homosexual audiences, stereotypical, inaccurate portrayals may exacerbate a process of self-stereotyping, which occurs when one uses stereotype information to judge oneself (Boysen et al., 2011). One factor that helps account for self-stereotyping is cultural exposure—in this instance, media messages that repeatedly reproduce a particular set of images that can evoke “internalized beliefs,” which involve certain ideas about what it means to be a gay man or
a lesbian (Boysen et al., 2011). By activating such stereotypes from memory, individuals within the group may feel obligated to conform to them (Wheeler & Petty, 2001).

Moreover, when a broader perspective is taken to analyze the diversity of homosexual characters, researchers have posed concerns as to whether or not those characters can provide adequate role models for homosexuals from all age groups, genders, and racial groups (Fouts & Inch, 2005). Prior research has shown that out of 125 central characters that appear on television in 22 situation comedies in October, 2000, all of the homosexual characters were male and in the 20-35-year-old age group (Fouts & Inch, 2005). Among the 647 regulars on primetime broadcast series for 2011-2012, LGBT characters in general accounted for only 2.9% of series regulars, which is significantly lower than many estimates of the percentage of LGBT in US population (GLAAD, 2011), and among all LGBT characters, lesbian, bisexual, and transgender characters make up only 33% of LGBT portrayals (GLAAD, 2011), which is far less than the percentage who appear in the actual population, given that bisexuals, alone, comprise 51% of the LGBT population in the United States (Gates, 2011). Further, the statistics suggest an even worse scenario for bisexuals and transgenders, as only one bisexual male and no transgender regular or recurring characters are found on scripted primetime broadcast television. In regard to non-caucasian LGBT, GLAAD’s report from 2011-2012 has also shown that only 15% of LGBT characters were non-caucasians, which was 4% fewer than those in the previous year (GLAAD, 2011), and that percentage is far less than the percentage of non-caucasians in the U.S. population, which was 36.2% in 2011 (“People of Color in the US,” 2012). Regarding specific sexual
orientations for non-caucasian characters, no African American bisexual or transgender characters have been found to be shown on broadcast network TV (GLAAD, 2011).

Perhaps because the percentages of various demographic groups are far different than the percentage presented on TV, it is more difficult for people within these groups to find role models with whom they can identify (Fouts & Inch, 2005). By not providing equal opportunity for homosexuals to see role models on TV, it may undermine their ability to establish a “better sense of self, behaviors necessary for positive adjustment, and self-acceptance” (Fouts & Inch 2005, p. 37). Further, these somewhat inadequate representations of all demographics have revealed a lack of diversity in media portrayals, which may subsequently cause millions of homosexual individuals to feel ignored and alienated (Netzley, 2010).

*Diminishing (Homosexual) Stereotypes*

Stereotyping is something that people cannot avoid, and it is highly important for researchers to realize how stereotypes originate and develop before identifying any potential way to diminish them (Hamilton & Sherman, 1994). The formation of stereotypes begins with perceptual, generally superficial differentiation between groups of persons, and because people often see others as members of (various) social groups, the categorization process is inevitable and reflects perceived reality (Rothbart, Fulero, Jensen, Howard, & Birrell, 1978; Hamilton & Sherman, 1994). As Hamilton and Sherman (1994) argue, there are mainly two reasons why people (perhaps largely unknowingly) categorize and formulate stereotypes. One is that categorization may help people enhance cognitive efficiency and cope with an increasingly complex social
environment. This means that individuals tend to establish categorical representation at the group level where some aspects of social environment are processed while others are simply ignored (Hamilton & Sherman, 1994). A second reason is that people may want to maintain positive self-regard, favorably evaluating the social group to which they belong as compared to other social groups (Hamilton & Sherman, 1994). To attain that, individuals tend to accentuate the evaluative differences between in-group and out-group—the groups individuals can identify themselves with, based on perceived similar characteristics, and the groups with which we cannot do so, respectively—and people often make gratuitous evaluative judgments of a given group based on limited knowledge of that group and its members (Ford & Stangor, 1992; Levy, Stroessner, & Dweck, 1998). Stereotypes, then, to some extent can serve as our most easily-accessed cues to make judgments of groups and their members, and they can accelerate judgment processes considerably (Dovidio, Evans, & Tyler, 1986; Levy et al., 1998). However, stereotypes may also serve as “excuses” to make gratuitous and falsified judgments about other groups and their members (Levy et al., 1998). In other words, while the time spent on making judgments about a particular group is reduced, the accuracy and totality of our knowledge about other groups are greatly reduced, as well, because those most available cues may represent only a few of many traits of other group members or simply a stereotyped perspective (Ford & Stangor, 1992). In the case of homosexuals, such inaccuracy and a lack of knowledge can lead heterosexuals to prejudge homosexuals based on heterosexuals’ most accessible concepts psychologically-associated with
“homosexual traits,” and those that may likely have been formed in large part by media portrayals of homosexual characters, given the lack of interpersonal intergroup contact.

In regard to reducing stereotypes and prejudice, the Intergroup Contact Hypothesis (Allport, 1954) is considered one of the most effective strategies (Gaunt, 2011). According to the Intergroup Contact Hypothesis, contact between groups under optimal conditions, including equal status, intergroup cooperation, common goals, and support of authorities, law, or custom can effectively diminish intergroup bias (Gaunt, 2011). Further, researchers have concluded that prejudices and stereotypes can be diminished through learning new information about the out-group (Gaunt, 2011). Numerous studies have demonstrated that the Intergroup Contact Hypothesis is effective in predicting attitude change toward stigmatized social groups such as racial minorities and people with disabilities, wherein those “stigmatized” are groups not only facing stereotyping and prejudice from others, but who are also be regarded as shameful, indecent, and perhaps even inhuman (Crandall, 1991; Cooley & Burkholder, 2011; Jones et al., 1984; Werth & Lord, 1992).

However, as one’s sexual orientation is far less conspicuous than one’s skin color, hair color, weight, and other superficial physical features around which stigmas have been built, and it is something that can be more easily disguised, homosexuals differ from many stigmatized groups because they can easily conceal the characteristics upon which stereotypes are built while interacting with other groups (Conley, Devine, Rabow, & Evett, 2002). That may easily lead to situations wherein heterosexuals and homosexuals are interacting without realizing that they are from different social groups, and
heterosexuals are identifying homosexuals as in-group members based on their other common characteristics (Conley et al., 2002; Cooley & Burkholder, 2011). That also means that heterosexuals will not likely gain new knowledge regarding homosexuals through interacting with homosexuals they are unfamiliar with, because the subject of sexual orientation—theoretically the only thing that differentiates the two—may not be a topic of conversation, due to the foundation of their acquaintance. Because contacts such as those cannot technically be considered as “intergroup contacts,” effects proposed by the Intergroup Contact Hypothesis may not apply to those kinds of interactions between heterosexuals and homosexuals (Cooley & Burkholder, 2011).

To cope with such problems, indirect intergroup contact has been suggested as a means for attitude change toward homosexuals (Cooley & Burkholder, 2011). Pettigrew and Tropp (2006) redefine the prerequisite features of Allport’s (1954) Contact Hypothesis, and the authors point out that such features are not all necessary for positive contact outcomes, and intergroup contact can be extended to more levels of contact such as indirect intergroup contact and imagined intergroup contact. Among such types of contact, a promising one emerging from the literature is indirect intergroup contact (Mazziotta, Mummendey, & Wright, 2011). In the category of such contact, the Extended Contact Effect,” which postulates that the mere “knowledge of an in-group member having a close relationship with an out-group member can lead to more positive intergroup attitudes” (Wright, Aron, McLaughlin-Volpe, & Ropp, 1997, p. 7) has been found to be especially effective in predicting attitude change when individuals have few or no direct friendships with out-group members (Mazziotta et al., 2011). That hypothesis
has offered an opportunity for researchers to examine the role of media in reducing stereotypes, and there are several reasons that can account for Extended Contact Effect (Wright et al., 1997).

First, viewing an in-group member, one being in the same social group as the individual, interacting with an out-group member, one being in the different social group as the individual, can be instructive for audiences. Take homosexual portrayals on television as an example, when heterosexual audiences watch their in-group member—a heterosexual character having a close and positive relationship with an out-group member—a homosexual character, those audiences may feel less anxious about interacting with a homosexual in life (“anxiety reduction”), and they may also witness a more accurate representation of homosexuals via watching the two characters interacting (“reducing ignorance”; Wright et al., 1997).

Second, when a homosexual character is being portrayed less stereotypically, he or she may also help demonstrate that a variety of norms exist within homosexual groups, and that could theoretically undermine stereotypes about homosexuals. Further, for heterosexual audiences, as a function of the similarities in their backgrounds, watching a heterosexual character together with a homosexual character may propose a transitive inclusion, leading the audiences to feel as though they, themselves are interacting with the homosexual character. In other words, when individuals perceive the closeness of the observed friendship between the two partners on television, the existing psychological connections between the self and the in-group partner may lead one to experience a closer relationship with the observed out-group partner, which is in general a more interactive
experience that can stimulate more attitude change compared to reading an article or book (Haddock, Rothman, & Schwarz, 1999; Wright et al., 1997). When compared to traditional intergroup contact, extended contact through visual media has been shown to be better at stimulating emotions and feelings (Cooley & Burkholder, 2011). That is especially likely for sensitive and personal topics such as sexual orientation, because daily intergroup contact may not trigger the subject, and most interactions may stay at a relatively superficial level where members of both groups choose not to mention their personal life.

Finally, Pettigrew and Tropp (2006) note that affective factors play a critical role in mediating effects of contact in reducing bias and stereotypes. According to their study, individuals tend to like the out-group more and form more positive attitudes toward the out-group if enough empathy and emotions are stimulated while viewing the in-group member interacting with the out-group member on TV, and that tendency to breed liking may help diminish stereotypes and facilitate a more conducive environment for the promotion of positive attitude change (Pettigrew & Tropp, 2006).

Overall, the Extended Contact Effect advances the Intergroup Contact Hypothesis further, as it suggests that intergroup attitudes can be improved without having one’s own direct inter-group contact (Mazziotta et al., 2011). While the traditional intergroup contact effect may be somewhat limited due to the concealable nature of sexual orientation, indirect intergroup contact through media content shows its potentials in diminishing stereotypes and prejudices and facilitating positive attitude change (Wright, Aron, & Brody, 2008).
Psychological and Social Studies of Attitude Change

With the Extended Contact Effect, it can be proposed that viewing homosexual characters interacting with other social groups on television can help disperse stereotypes toward homosexuals. However, in order to expand the effects, and also respond more directly to the nature of stereotypes, it is also necessary to examine what specific viewings are most effective in diminishing stereotypes and forming positive attitudes, and here is where Associative Interference should be incorporated. The literature about Associative Interference indicates that memory organization is a complex network (Collins & Loftus, 1975; Anderson, 1983). Each concept, idea, or piece of information stored in memory can be considered as a node, and each node is connected to other nodes by links referred to as associations (Anderson, 1983; Collins & Loftus, 1975). Because nodes are interrelated and connected in an associative network, it is very likely for individuals to activate some particular nodes that have the strongest associative links to one node when they are exposed to this one node (Anderson, 1983; Collins & Loftus, 1975).

It is suggested by Collins and Loftus (1975) that the spread of activation of particular concepts (nodes) depends on the distance and the strength of the connection between concepts, and the strength of connection is represented by the length of the links between nodes (Collins & Loftus, 1975; Anderson, 1983). Respectively, longer links represent more remote and weaker connection, and shorter links represent closer and stronger connection (Collins & Loftus, 1975). Therefore, in order to strengthen the connection between two distant concepts that are rarely linked, more memory cues for
retrieval must be established (Collins & Loftus, 1975). This model proposes a possibility that a distant node may be activated upon receiving the core node if one is provided with more cues and primes relevant to that distant node (Collins & Loftus, 1975).

According to Valenzuela (2009), instead of using the total store of information, people use “heuristics” and information shortcuts that are mostly accessible in memory to evaluate attitude objects. Priming theory then suggests that primes can be used to activate and highlight certain concepts in individuals’ minds (Anderson, 1983). According to McNamara (1994), priming occurs “because the cue to memory includes the target item and elements of the context in which the item occurs” (p. 507). Therefore, the strength of priming depends on the intensity and recency of the priming event (Roskos-Ewoldsen, Klinger, & Roskos-Ewoldsen, 2007). News coverage people just received, pictures they just saw, or certain types of portrayals of characters they just watched are all examples of potential primes. By presenting this specific information to targeted individuals, their minds are signaled to notice the elements and cues incorporated in the information, and retrieve relevant and similar past experience and memory (Ratcliff & McKoon, 1988).

Further, being argued as a temporal extension of agenda setting, which refers to the emphasis of certain issues and attempt of making them more salient in people’s mind, priming is often used to alter the factors individuals take into consideration while making judgments, and subsequently influence attitudes and behaviors (Scheufele & Tewksbury, 2007).

Historically, priming effects have been described in various studies examining attitude change toward homosexuals. Bonds-Raacke, Cady, Schlegel, Harris and
Firebaugh (2007) argue that people’s attitudes toward homosexuals can be improved if individuals are primed with positive types of homosexual characters. It has been shown that by letting participants recall a positive portrayal of homosexual character, participants are more likely to generate favorable attitudes when later asked about their attitudes toward homosexuals (Bonds-Raacke et al., 2007). Similarly, it is also the case when individuals are primed with certain concepts and messages. Participants who were exposed to lectures on homophobia and homosexuality as well as demonstrations of how homosexuals were stereotyped in the media later reported an increase in empathy for homosexuals (Walter, 1994). Another example is Riggle, Ellis, and Crawford (1996)’s study of how participants’ attitudes can be changed after being shown a documentary about Harvey Milk, whose homosexual orientation is less emphasized compared to his political movement, his professional achievement, his personality, and his emotional struggles. It is found that participants who viewed the documentary had a significant positive change in attitudes toward homosexuals (Riggle et al., 1996; Bonds-Raacke et al., 2007). Such findings illustrate the importance of diverse roles in entertainment media as potential primes of attitudes, and indicate that more positive primes of homosexual characters may lead to more retrieval of positive memory cues regarding homosexuality, thus leading to more positive attitudes toward homosexuals.

To take a more specific look of priming effects, as discussed in Iyengar, Peters and Kinder’s study on priming effects (Iyengar et al., 1982) and McNamara’s analysis of types of primes (McNamara, 1994), “associative priming,” is one of the major contributors to the establishment of a diverse stimulus and the formation of hypotheses of
the present study. “Associative priming” suggests that “when a thought element is brought into focal awareness, the activation radiates out from this particular node along the associative pathways to other nodes” (Berkowitz, 1984, p. 411). This sub-theory of priming effects proposes the possibility that focuses on multiple non-stereotypical traits of homosexual characters. It proposes that other/more non-stereotypical traits of homosexuals associated with those traits being portrayed in the prime can be activated due to the “associative effect” of retrieving traits portrayed in the prime (Berkowitz, 1984; McNamara, 1994; Iyengar et al., 1982). In other words, if an individual is primed with portrayals of homosexual characters as surgeons, the associative effect of priming will come into play and help an individual activate characteristics of surgeons such as “educated” and “precise.” Simultaneously, the associative effect can also reduce the chances of activating characteristics such as “uneducated” and “imprecise” because such characteristics are not associated with the concept of surgeons, in general.

With the help of diversified primes and priming’s associative effect, larger and more complex associative network may also be built, and in such networks, the spreading of activation from each specific node will go to more diversified directions, which means that the opportunity for a particular, stereotyped node being activated can be largely reduced (Anderson, 1983). That being said, priming individuals with various attributes associated with a concept can lead to larger, more diverse associative networks for that attitude object (Anderson, 1983). In the case of portrayals of homosexual characters, although only a few closely related nodes such as “flamboyance” and “well-groomed” may be activated upon receiving the sole concept of homosexuality, activation of other
distant nodes such as “hard-working” and “kind” may also be activated if individuals are primed with information about those concepts as well as conspicuous associations demonstrating the linking of those concepts with homosexuality.

In short, the main goal with the prime is to enlarge the associative network of homosexual and make it more complex, and this can be accomplished by giving people the opportunity to witness and process more diverse characteristics of homosexual characters portrayed on TV. Primes create new connections in one’s mind (Berkowitz, 1984), so presentations of more diverse traits of homosexual characters on television may enlarge the size of the associative network of homosexuality, facilitate activations of distant concepts, and help spread activations to more directions. If those are achieved, the possibilities for socially stereotyped nodes/concepts to be activated may decrease, and the opportunities for activation of other, newly-associated nodes/concepts may increase, subsequently diminishing stereotypes.

The concept of building a more diverse associative network of traits of homosexual characters is also in parallel with some other psychological and social studies. Adopted from Berry (1980)’s three periods of television portrayals of Blacks: The Stereotypic Age, The New Awareness, and Stability, it is noted by Raley and Lucas (2006) that in order to pass the Stereotypic Age of portraying homosexual characters on television, and facilitate more positive attitudes toward homosexuals, such characters would need to be shown in supporting or leading roles that highlight their positive attributes as ordinary persons (Raley & Lucas, 2006; Berry, 1980). Further, in order to attain Stability, homosexual characters would need to be portrayed more realistically and
diversely of their personal problems and life (Raley & Lucas, 2006; Berry, 1980). This requires homosexual characters to be shown in serious, non-comedy roles, and to be portrayed in scenes such as interacting with children and engaging in romantic displays of affection, scenes may be violating of comfortable stereotypes (Raley & Lucas, 2006).

Although very few studies have been done to demonstrate the effect of more diverse portrayals of homosexual characters on diminishing stereotypes and facilitating positive attitude changes toward homosexuals in society, a positive tendency has been noticed (Calzo & Ward, 2009). Harrington (2003) finds in a qualitative analysis of a lesbian character on daytime soap opera *All My Children* that when the character is portrayed as being willing to accept and share her sexual identity, has stable relationships with significant others, and presents other aspects of characteristics besides her sexual orientation, viewers report more positive attitudes toward homosexuality (Harrington, 2003). This trend may also be supported by the increasing number of marriages between two homosexual individuals portrayed on television and the increase in the number of homosexual characters holding non-stereotypical occupations such as doctors and accountants on television (GLAAD, 2011).

To sum up, analysis of history and current homosexual portrayals on television indicates that, while homosexual characters have become more visible on television and are assigned more important and positive roles, certain stereotypes still exist, and are still hindering general audiences from acquiring accurate knowledge of homosexuals in society. With the goal of exploring potential ways to ameliorate this situation and offer effective and penetrating solutions as to how to diminish stereotypes and facilitate
positive attitude change, the nature of stereotyping, the Extended Contact Effect, Priming Effects Theory, as well as the effect of Associative Interference have been visited and examined. Through analysis of those theories and prior studies, it is found that diverse media presentations of homosexuals can diminish explicit stereotypes toward homosexuals, based on which the following hypothesis can be made:

**H1: Explicit attitudes of those who see a diversity of positively traited homosexual TV characters will be more positive as compared to those who don’t see such a stimulus.**

**Implicit Measure of Attitudes and Stereotyping**

The majority of the experiments conducted in mass communication use explicit, or self-report, measures (Wager & Sundar, 2009). This means that participants are asked directly about their responses to a given issue/question, and they are given the opportunity to speculate and provide an answer that they feel most comfortable disclosing (Scherer & Lambert, 2009). Using explicit measures assumes that participants have formed attitudes, are aware of them, and are willing to share them accurately with researchers (Brunnel, Tietje, & Greenwald, 2004; Dovidio & Fazio, 1992). However, as studies of homosexuality focus on a “sensitive” topic such that individuals are inclined to control prejudiced reactions (Gabriel et al., 2007; Towles-Schwen & Fazio, 1999), whether the above conditions can be met are unknown, and participants’ responses may not be veridical (Brunnel et al., 2004; Wagner, 2002; Wagner & Sundar, 2009).
Because of the nature of explicit measures, their validity has been questioned by an increasing number of researchers (See Andriasova & Wagner, 2004; Dovidio & Fazio, 1992; Wagner, 2002; Wagner & Sundar, 2009). According to Nisbett and Wilson (1977), what is available to consciousness is only a small portion of what occurs in the brain, as it is noted that individuals do not always have direct, introspective access to the cognitive process of their own minds and may be unaware of the ways that their responses are influenced by external stimuli (Nisbett & Wilson, 1977; Brunnel et al., 2004). Researchers generally agree that explicit measures are more subject to factors such as desired public images and peer pressures, and the results of explicit measures are usually constrained by limitations of the measure. Nosek, Howkins and Frazier (2011) note that such limitations of explicit measures include the limits in participants’ awareness of all of their mental content, the limits in participants’ motivation to report the mental content of which they are aware, the limits in participants’ ability to translate their mental content into a report, as well as the limits in the instruments to provide opportunities for participants to report their mental content.

In studies of attitude change toward homosexuals, these limitations may be present when participants are not definitive about their attitudes toward homosexuals, choose to conceal their honest attitudes due to social desirability and other factors, experience difficulties in translating their attitudes into scales or responses, or when their attitudes toward homosexuals vary in situations, and the instrument was not designed to account for all possible situations.
Among the limits of explicit measures, the limitation for participants to report correctly about their attitudes has drawn most attention from social researchers, as more researchers have realized that, when it comes to sensitive social issues such as race and homosexuality, individuals are highly likely to experience reluctance in sharing their feelings with researchers (Dovidio & Fazio, 1992; Brunnel et al., 2004; Gabriel et al., 2007; Fazio, Jackson, Dunton, & Williams, 1995). As Scherer and Lambert (2009) argue, there can be a serious disconnect between people’s perceptions of a stimulus and their overt reports about that stimulus, and that disconnect can cause inaccurate and even erroneous results. One reason why such deficiencies of results occur is because participants are more motivated to control their responses and behaviors in public domain, especially in laboratory studies where the procedure of the studies are scripted and followed (Fazio et al., 1995; Olson & Fazio, 2004; Gabriel et al., 2007). It is noted that the presence of another unfamiliar person in the public domain motivates participants to report attitudes that can be socially justified (Gabriel et al., 2007). Moreover, in most laboratory social studies, social norms become more salient at the moments while experiments are being conducted, and prior research has shown that motivation to control behavior is stronger in scripted situations and public contexts (Fazio & Towles-Schwen, 2003).

Therefore, in order to cope with the increasingly complex social environment, and to study social cognition, attitudes, and stereotypes in a more precise and accurate manner, social psychologists and others have become more interested in “implicit” measures (e.g., Trawalter & Shapiro, 2010; Nosek, Hawkins, & Fazier, 2011). In contrast
to explicit measures, implicit measures assess mental content without “requiring awareness of the relation between the response and the measured content” (Brunel et al., 2004, p. 387). It does not involve direct, deliberate, and intentional queries about the attitude object, thereby allowing less opportunity for people to exercise control over their responses. Greenwald and Banaji (1995) note that the major distinction between explicit and implicit measures is that implicit measures allow researchers to “infer from the subjects’ responses rather than inform the subjects with the purpose of the measure” (Greenwald & Banaji, 1995, p. 5). In this process, subjects are less aware—if they are aware, at all—that their attitudes are being measured, and consequently, they are less likely to add, or even capable of adding conscious interpretation and adjustment to their responses (Dovidio & Fazio, 1992; Greenwald & Banaji, 1995).

Implicit measures are also in contrast to the “bogus pipeline procedure” (Jones & Sigall, 1971), in which, for instance, participants are informed—with the purpose of inducing veridical responses to racial issues—that an apparatus recording their physiological response is going to reveal their “true” attitudes and detect inconsistencies between their true attitudes and their reported attitudes (Fazio et al., 1995). The “bogus pipeline procedure,” although successfully reveals disparities between participants’ responses in pipeline instruments and those responses in traditional instruments, is still considered at the self-report level where participants are given the opportunity to speculate and translate attitudes, and it also involves a deliberate deception and misrepresentation of the purpose of the study (Fazio et al., 1995). Contrarily, implicit measures have freed researchers from such deceptions and misrepresentations, and
propose a way to measure participants’ attitudes without asking them to consider their attitudes (Fazio et al., 1995).

A number of examples may help illustrate the point. For instance, implicit measures have uncovered the existence of racially biased attitudes toward black spokesmen and ad persuasion that traditional measures may not otherwise detect (Brunel et al., 2004). Greenwald, McGhee, and Schwartz’s study (1998) shows how implicit measures are able to detect an overwhelmingly strong association between the concept of “black men” and the attribute “unpleasant” (Greenwald et al., 1998). Moreover, while no difference in attitudes toward violence between nonviolent men and men being treated for intimate partner violent (IPV) is found in explicit measures, implicit measures have helped detect implicit attitudes of regarding violence more positively among men being treated for IPV (Eckhardt, Samper, Suhr, Holtzworth-Munroe, 2012).

*Implicit Association Test (IAT)*

Since the inception of implicit association measures, they have been regarded as an essential tool in the investigation of subconscious social cognition (Greenwald & Banaji, 1995). Despite their relatively short history, a great number of implicit tests and methods have been developed by social researchers. Among them, one of the most well-known and often used is the IAT, developed by Greenwald, McGhee, and Schwartz (1998). The IAT is a test designed to detect strength between and among psychological connections of concepts (Nosek et al., 2007). According to Lane, Banaji, Nosek, and Greenwald (2007), the basis of the IAT is response latency, which was theorized by F.C. Donders in the mid-nineteenth century (Lane et al., 2007). Donders posits that the time
required to perform a mental computation actually reflects how the mind works, and “the
easier the mental task, the quicker the decision point is reached and the fewer the errors
that result” (Lane et al., 2007, p. 60). Right-right and left-left associations have been
shown to be easier to make than right-left and left-right associations (Lane et al., 2007).
Thusly, the difference in time and accuracy between the two can serve as an indicator of
their relative difficulty (Lane et al., 2007).

One example to illustrate how the IAT works is to test an individual’s implicit
attitude toward homosexuality. If one’s implicit attitude toward homosexuality is
negative, one is more likely to spend more time and make more mistakes on the task that
involves linking homosexuality to positive words such as “nice” and “excellent,” and to
spend less time and make fewer mistakes on the task that links homosexuality to
undesirable words such as “horrible” and “awful.” The IAT will then detect a negative
attitude, which may not be found if the individual participant were simply asked
explicitly.

Designed as a measure to reveal implicit attitudes, the IAT draws on the nature of
implicit attitudes, which are shown to be highly sensitive to new experiences and are
amenable to change by recent studies (Andriasova & Wagner, 2004; Hughes &
Barnes-Holmes, 2011; Castelli, Carraro, Gawronski, & Gava, 2010; Wagner & Sundar,
2009). Olson and Fazio (2001) show that when participants are exposed to constant
pairing of positive or negative pictures and words with names of characters, participants
will be found to have implicit preference for those characters that were previously paired
with positive pictures and words as compared to those paired with negative pictures and words.

That finding is in contrast with initial investigations on the formation of implicit attitudes, which showed that implicit attitudes represented stable responses formed through long-term socialization (Rudman, Phelan, & Heppen, 2007; Hughes & Barnes-Holmes, 2011). It can be implied from that particular finding that while the IAT is capable of detecting attitudes that may not be found by self-report tests, the concept behind the IAT may also reflect the subconscious effects of primes and other previously exposed information on memory organization of an individual’s attitude (Olson & Fazio, 2001).

In sum, a great deal of evidence exists and shows that implicit measures are more sensitive in detecting the presence of changes in evaluative associations with the attitude object, which can represent anything or anyone, real or imagined, toward which we can hold an attitude (Dovidio & Fazio, 1992; Scherer & Lambert, 2009), and as Dovidio and Fazio (1992) have outlined through several studies, implicit measures are also better predictors of behavior as compared to explicit measures. With the use of the IAT and its potential power in revealing attitude differences between participants who receive the prime and those who do not the following hypothesis regarding implicit attitudes can be forwarded:

**H2: Implicit attitudes of those who see a diversity of positively traited homosexual TV characters will be more positive as compared to those who don’t see such a stimulus.**
CHAPTER 3: METHOD

Participants

A total of 63 undergraduate students (N=63) recruited from a journalism class in a large, mid-western university participated in the experiment. All participants signed an informed consent form that stated their rights as participants before participating in the study.

Procedure

Each individual participant had signed up for a given time slot prior to the week the experiment was to take place, and each was asked to arrive individually at the time up for which they were signed. This process differed from a pre-test (N = 45) wherein participants had participated in a large group setting during a class session. In the pre-test, participants were randomly-assigned to experimental and control conditions as in the study, itself. However, those who were in the control group were simply asked to leave the room while the stimulus played, and they were invited back into the study to complete the measures afterwards, along with the experimental group. That procedure likely made control group participants aware of the group to which they were assigned, as well as making participants aware of the nature of the pre-test. Contrary to the pre-test, participants in the present study, itself, participated individually, which eliminated such potential confounds.

Upon arrival at the study, each participant was randomly assigned to one of two groups—a control group and an experimental group. Within each group, 40 consecutive numbers from 1 to 40 were printed, along with their group letter “A” or “B”–which
represented a group to which participants would be assigned—on pieces of paper stored in a white, opaque envelope. The researcher randomly picked a piece of paper out of the envelope for each participant and presented it to the participant, so that each participant was provided with a unique identification to write on both the implicit test packet and the explicit questionnaire to ensure anonymity. Prior to participating, each participant was presented with an informed consent form, and signature from each participant was collected. Participants in the experimental group (N=31) were then asked to watch a 14-minute video played on a flat-screen television at one side of the room, whereas the participants in the control group (N=32) simply completed the two measures without receiving the media stimulus.

Stimulus

The stimulus was a 14-minute video that contained portrayals of six different homosexual characters in TV shows from the last five years. While some portrayals were illustrated by a single and continuous video clip, others were comprised of several clips in the same storyline. The stimulus included characters such as Max Blum from *Happy Endings* who was portrayed as a “typical male” who liked to watch sports and eat hamburgers with his college friends, as well as and Cameron Tucker and Mitchell Pritchett from *Modern Family* who were portrayed as an homosexual couple who recently adopted a baby girl. Durations for individual portrayals ranged from two to three minutes. Overall, these six portrayals of characters were chosen because, together, they present more diverse characteristics and a less stereotypical set of homosexual character portrayals, while unambiguously signaling their homosexual identities to the audience. In
other words, within each portrayal, each homosexual character’s sexual orientation was explicitly mentioned in verbal comments, so that participants who consumed the stimulus could easily identify the homosexual orientation of each character. For each of the six characters, they were depicted as having close and interactive relationships with heterosexuals, and that their sexual identities were not the first characteristics to which the audiences might be exposed. (See Appendix A for brief descriptions of each character portrayal)

Measures

Two instruments were used in this experiment: one to measure explicit attitudes, and one to gauge implicit attitudes. The explicit measure was a short questionnaire with questions evaluating explicit attitudes of participants toward homosexuals (Palmgreen, Donohew, Lorch, Rogus, Helm, & Grant, 1991; Wagner, 2001), and the implicit instrument was a pencil-and-paper based Implicit Association Test (IAT; Greenwald et al., 1998) that consisted of five separate timed judgment stages (Lowery, Hardin, & Sinclair, 2001; Wagner, 2001).

To be more specific, the explicit measure was comprised of eight five-point semantic differential scales anchored by a positive and a negative adjective (Palmgreen et al., 1991; Wagner, 2001). Participants were asked to circle the numbers near the words in each pair that best described their attitudes following the below statement “I think homosexuals are…” The words of the measure were taken directly from the measure Wagner (2001) used in his experiment with anti-drug PSAs, which he adapted from prior research on explicit attitudes (Palmgreen et al., 1991), but the positions of the two
anchoring adjectives were switched to cater to the general tendency of people associating bigger number (i.e. 5) with more positive adjectives and smaller number (i.e. 1) with more negative adjectives. (See Appendix B for an example of the explicit measure.)

The pencil-and-paper based IAT was developed by Lowery, Hardin, and Sinclair (2001) to measure differences in implicit attitudes and stereotyping change. The measure uses five separate timed judgment stages, with a task assigned at each stage. These tasks in general involve categorizing a list of words in the center of the page into two categories located atop on the left and right sides of the page by placing checkmarks at appropriate side in a timed manner (See Appendix C for an example of the pencil-and-paper based IAT).

There were ten pages in the packets of the pencil-and-paper based IAT, including a cover page on which the participants were asked to write down their unique identifications, and participants were given instructions prior to entering into any task after the cover page. Participants were asked not to turn to the next page unless being told to do so. For the first two pages, participants were asked to become acquainted with four sets of words, two on each page, with each set consisting of eight words. Page one included words that described homosexuality and colors; page two included positive and negative adjectives. These four sets of words would later be used as judgment items for the five separate timed judgment stages (Lowery et al., 2001; Wagner, 2001).

In the first set of words, those words that represented “homosexuality,” were selected on the basis of which were most used on television and most accurately and unambiguously indicative of one’s homosexual identity. These eight words were paired
with words of color because it was believed that colors were “non-evaluative” on the whole (Wagner, 2001). Although certain colors are preferred by some individuals, people in general do not hold evaluative attitudes towards colors “in toto” (Wagner, 2001). The color pink was eliminated to avoid its potential association with homosexuality, as many homosexual activist groups use pink triangles as symbols (Shallcross, 2012). The second set of words involved eight positive adjectives and eight negative adjectives. While these 16 adjectives were exactly the same words from the explicit test, they were also adjectives that denotatively indicate “positive” and “negative” meanings.

Participants were given adequate time to look through those two sets of words before entering into the judgment stages. Each judgment stage required participants to finish a timed task (15 seconds) that involved categorizing a list of words placed at the center of the page into two categories placed atop at left and right sides of the page. In the first judgment stage, which might be considered as a practice stage to allow all participants to become familiar with the general rule of judgment tasks, words of homosexuality were paired with words of color, and placed in the center as judgment items. Participants were first given instructions that 1) they should stop when the alarm sounds, 2) do all tasks as quickly and accurately as they can, and 3) go from top to bottom on all of pages and not skip any word. After this, participants were asked to turn to the page where the first judgment task was located, and they were asked to categorize the judgment item in the mixed list in the center into the left category, signaled by the word “HOMOSEXUALITY,” by placing a checkmark, if the word was considered as a word of homosexuality, and categorize the judgment into the right category, signaled by
the word “COLOR,” if the word was considered as a color.

For the second judgment stage, which was also a practice stage, positive adjectives were mixed with negative adjectives to form a list of judgment items. In this stage, participants were asked to categorize the judgment item into the left category, signaled by the word “positive” if the word was considered as a positive adjective, and categorize the judgment item into the right category, signaled by the word “negative” if the judgment item was considered as a negative adjective.

The third judgment stage was a critical stage and was also one that would be measured. In this stage, four sets of words were combined together, and then mixed in fashion that the following judgment item was from the different paired sets (Names of homosexuality and color OR Adjectives) from the one before it. Participants were asked to categorize the judgment item into the left category, signaled by words “HOMOSEXUALITY OR POSITIVE” if the item was considered either as a word of homosexuality or a positive adjective, and categorize the judgment item into the right category, signaled by words “COLOR OR NEGATIVE” if the item was considered either as a color or a negative adjective. Following the third stage, an exactly same task as this one was provided so that participants were given the opportunity to repeat this critical task again.

After repeating the task required in the third stage, participants were taken onto the fourth stage of the test, which was another practice stage. In this stage, only two sets of words appeared on the page—words describing homosexuality and words of color, but the sides where these two categories located switched, and the signal word “COLOR”
was placed at the left side whereas the signal word “HOMOSEXUALITY” was placed at
the right side. Therefore, participants were asked to categorize the judgment item into the
left category if the item was considered as a color, and categorize the item into the right
category if the item was considered as a word of homosexuality. As the researcher was
trying to discover differences in attitudes toward homosexuality, in other words, the
strength of association, the number of judgment items that were correctly categorized in
the third stage where homosexuality was associated with positive adjectives was
calculated to compare to the number of judgment items that would be correctly
categorized in the upcoming stage where homosexuality was associative with negative
adjectives. This meant that “HOMOSEXUALITY” would later be paired with “negative”
and placed at the right side of the page, leaving “COLOR” to be paired with “positive” at
the left side.

The fifth stage of the pencil-and-paper based IAT, which was also the last stage of
the test, was also a critical stage. With four groups of words rejoined, participants were
asked to categorize the judgment item into the left category, signaled by words “COLOR
OR POSITIVE” if the item was considered either as a color or a positive adjective, and
categorize the judgment item into the right category, signaled by words
“HOMOSEXUALITY OR NEGATIVE” if the item was considered as either a word of
homosexuality or a negative adjective. Following this page, participants were once again
provided with an opportunity to repeat this last task. Participants reached the end of the
measure after repeating the task assigned at the fifth stage.
Data Analysis

An explicit index and an implicit index were created to test both the explicit and implicit attitudes of participants as a function of the stimulus. For the explicit index, the scores from the eight homosexual-related five-point semantic differential scales were coded such that 0 equaled to neutral response, 2 equaled to the most positive response, and -2 equaled to the most negative response. The scores for each of the eight scales were then summed to form the explicit index, which has a range of -16 to 16.

To create an implicit index, scores for the two positive response latency critical phases—homosexuality paired with positive adjectives and homosexuality paired with negative adjective were first calculated by adding up the number of words being correctly categorized in each phase (Lowery et al., 2001; Wagner, 2001). Then, a score similarly constructed using the two negative critical phases responses was subtracted from the score for the positive critical phase to form implicit indices (Lowery et al., 2001; Wagner, 2001). The theoretical range of the index is -64 to 64.
CHAPTER 4: RESULTS

All the data were analyzed with the statistical program SPSS, and one-tailed, independent \(t\)-tests were conducted for both the explicit attitude and the implicit attitude statistical tests for the participants in both the control and experimental groups. One-tailed \(t\)-tests were used to test Hs 1 and 2, due to the directional nature of those hypotheses.

In order to test H1, the explicit attitudes indices for the experimental group and the control group were entered as dependent variables in a one-tailed \(t\)-test, and an effect of the positive stimulus was found \(t(61) = -1.69, p < .05\). The explicit attitude index \((M = 11.26, SD = 4.58)\) toward homosexuals for the participants in the experimental group, those who received the stimulus prior to entering the implicit test, was more positive \(t(61) = -1.69, p < .05\) as compared to the explicit attitude index \((M = 9.03, SD = 5.80)\) toward homosexuals for the participants in the control group, those who didn’t receive the stimulus. Therefore, H1, which predicted that the explicit attitudes of those who saw the diverse stimulus would be more positive compared to those who didn’t see such a stimulus was supported.
Figure 1. Explicit Attitude Indices per Condition

To test H2, the implicit attitude indices for both the experimental group and control group were entered as dependent variables in a one-tailed $t$-test. An effect for the stimulus was found [$t (61) = -4.212, p < .0001$] such that the implicit attitude index ($M = 1.94, SD = 6.43$) toward homosexuals for the participants in the experimental group was significantly more positive [$t (61) = -4.212, p < .0001$] as compared to the implicit attitude index ($M = -5.06, SD = 6.74$) toward homosexuals for the participants in the control group. Therefore H2, which predicted that implicit attitudes of those who saw a diverse stimulus would be more positive compared to those who didn’t see such a stimulus, was supported.
Figure 2. Implicit Attitude Indices per Condition
CHAPTER 5: DISCUSSION

The results of the study demonstrate that diversity in portrayals of homosexual characters can have effects in facilitating positive attitude changes toward homosexuals. Using both explicit and implicit measures, the study examines participants’ self-reported attitudes, based on a semantic differential scale (Palmgreen et al., 1991; Wagner, 2001) as well as their implicit attitudes via a pencil-and-paper-based version Implicit Association Test (IAT; see Greenwald et al., 1998) adapted from prior research (Lowery, Hardin, & Sinclair, 2001; Wagner, 2001). The results of explicit, self-report measures, demonstrate that the diverse stimulus used in the study made explicit homosexual-related attitudes more positive. This finding supports the first hypothesis that proposed more positive explicit attitudes for participants who viewed a diverse stimulus as compared to those who did not, and is overall consistent with what the Intergroup Contact Hypothesis and one of its subcategories — Extended Contact Effect propose (Pettigrew & Tropp, 2006; Wright et al., 1997).

Significantly more positive implicit attitudes were also found for participants who viewed that stimulus as compared to those who didn’t, supporting the second hypothesis, which proposed more positive implicit attitudes for participants who viewed a diverse stimulus as compared to those who did not. This finding demonstrates the effectiveness of the diverse stimulus, which is established based on a brief overview of “universal” psychological mechanisms as well as adopting of social cognition theories such as Priming Effect Theory and Associative Interference.
Illustrated by the graph below, the stimulus was hypothesized to increase the number of associative links connected to the idea “homosexuals,” making it less likely that negative traits often linked to stereotypes (as depicted on the left-hand side of the graph) would be activated and more likely that newer, positive traits would be activated (as depicted on the right-hand side of the graph). It was hypothesized that that, in turn, would lead to more positive attitudes among those who saw the stimulus, and the results support those hypotheses, which suggests the process occurred as proposed.

Figure 3. Hypothesized Effects of Associative Interference

Overall, the study has demonstrated positive effects of diverse portrayals of homosexual characters and contributed to the literature by taking into account theories of social cognition and other psychological mechanisms in explaining potential pathways for producing attitude change at conscious and subconscious levels. Further theoretical, methodological, and practical implications, along with some limitations of the study are discussed in turn.
**Theoretical Implications**

The study demonstrates the potential of Associative Interference, which suggests that the establishment of a more complex associative network reduces chances of activating a particular (stereotype-consistent) concept (Anderson, 1983; Wheeler & Petty, 2011; Fazio et al., 1995; Balota & Lorch, 1986) and Priming Effects Theory, which suggests that primes can be used to generate and activate certain concepts in individuals’ minds (Anderson, 1983; McNamara, 1994; Iyengar et al., 1982) in facilitating positive attitude changes toward homosexuals via consumption of diverse mass media portrayals.

However, as can be seen in much of the literature, those two theories originate from similar roots and are interrelated and interdependent in many circumstances (see, e.g., Berkowitz, 1984; Roskos-Ewoldsen et al., 2007; Iyengar et al., 1982). Both theories are based on a function of how human mind works as well as retrievals of certain memory cues. While Priming Effects Theory mainly suggests that individuals’ minds can be directed to notice traits that are manipulated to be more salient than others, “associative priming,” a specific type of priming effects, suggests a possibility that human mind can also be directed to multiple associative pathways that can lead to activations of further, associated thoughts (Berkowitz, 1984; Iyengar et al., 1982. Therefore, the finding that participants primed with a diverse range of traits of homosexual characters reported significantly more positive homosexual-related attitudes demonstrates that Priming Effects Theory and Associative Interference can work together—as the literature suggests—and more specifically, it shows they can be utilized to improve attitudes toward homosexuals. Their integration can provide more solid,
theoretical guidance in identifying which portrayals can be potentially effective in diminishing stereotypes and facilitating positive attitude changes.

Aiming to include as few stereotyped traits as possible in the stimulus, given pre-existing materials, another theoretical implication of the study is that it has simultaneously demonstrated possible effects of portrayals of non-stereotypical traits of homosexual characters, as well as portrayals of homosexual characters interacting with heterosexual characters, which in turn, lends support to theories of stereotype formation and change.

Prior research suggests there are mainly two theoretical reasons why stereotyping occurs. First, stereotyping improves cognitive efficiency and helps people process an inordinate amount of information that cannot be done without the help of such automatic processes as stereotypes (Allport, 1954; Hamilton & Sherman, 1994; Wagner, 2001). Second, negative-trait stereotyping helps secure the superior position of an individual’s own social group and helps ensure more positive self-regard (Hamilton & Sherman, 1994; Dovidio et al., 1986; Levy et al., 1998).

One of the most used theories in diminishing stereotypes and stimulating positive attitude changes toward stereotyped social groups, the Intergroup Contact Hypothesis states that interactions between members of two different social groups, a group to which one can identify and a group to which one cannot identify, can help one gain accurate knowledge and diminish stereotypes about the social group to which one cannot identify (Werth & Lord, 1992; Gaunt, 2001). The findings of the study also support the Intergroup Contact Hypothesis and the Extended Contact Effect Theory, which is in the category of
indirect intergroup contact (Mazziotta, Mummendey, & Wright, 2011; Pettigrew & Tropp, 2006) and states that effects in the Intergroup Contact Hypothesis can be extended to exposures to two characters from an in-group and an out-group interacting and having a close relationship (e.g., on television; Wright, Aron, & Brody, 2008; Wright et al., 1997).

In general, the study helps illustrate creative uses of the Extended Contact Effect and demonstrates a manner of diminishing stereotypes and facilitating positive attitude change without forcing an individual to involve oneself in face-to-face interactions with an out-group member. That, in turn, addresses uncertainties as to whether or not effects proposed by the Intergroup Contact Hypothesis can come into play when members of different social groups do not recognize their disparity or when their interactions occur at superficial levels where members of both groups choose not to discuss their sexual orientations (Conley et al., 2002; Cooley & Burkholder, 2011).

Methodological Implications

Findings suggest at least two potential methodological implications of the study. First, people’s attitudes regarding an evaluative issue or item are largely dependent on which concepts associated with the evaluative issue and item are activated upon receiving the evaluative task (Balota & Lorch, 1986; Wheeler & Petty, 2001). Therefore, when asked to present evaluative attitudes toward homosexuals, Associative Interference helps spread activation (Balota & Lorch, 1986) of “homosexual” trait concepts and reduces the likelihood of a particular, stereotyped trait being activated in the judgment stage (Anderson, 1983). Therefore, portrayals of homosexual characters are used in this study
on the basis of how much interference they might add to the associative network of “homosexual,” by creating the most possible associative pathways linked to the central concept “homosexuals.” Homosexual characters in the study’s diverse stimulus are portrayed in various social circumstances, as holding various occupations, and as possessing various personality types.

A second methodological implication lies in the study’s inclusion of implicit measures in examining effects of diverse portrayals of homosexual characters. Implicit measures are argued to be more sensitive and less obtrusive instruments in measuring differences in attitudes, and are overall better at gauging attitude changes for sensitive subjects such as homosexuality than traditional, explicit measures (e.g., Wagner, 2001; Brunel et al., 2004; Castelli, Carraro, Gawronski, & Gava, 2010; Hughes & Barnes-Holmes, 2011; Eckhardt et al., 2012).

Historically, explicit measures are often criticized for their tendencies to sensitize participants regarding the purpose of the study, subsequently causing participants to wrongfully report their attitude (Fazio, Sanbonmatsu, Powell, & Kardes, 1986; Wagner & Johnson, 2011b). Such shortcomings of explicit measures are also demonstrated by comparing results for explicit attitudes from this study and those collected from a pre-test run of the experiment, as the pre-test did not show a difference in explicit attitudes between participants who viewed the stimulus and those who didn’t. In the pre-test, participants who viewed the prime had witnessed other participants leave the room before the prime was displayed. Participants in the pre-test were thereby made aware of the condition (i.e., experimental or control/with prime or without prime) to which they were
assigned, whereas participants in the present study had no knowledge of the study conditions. Thusly, it can be argued that participants in the pre-test were more aware of the purpose of the study and were more conscious about the effects of the diverse stimulus they were given. Further, because the pre-test experiment took place in a group setting in a traditional, lecture-based classroom in which participants from both conditions were more made more aware of the procedure, as well as the existence of participants’ peers and unspoken protocols for their recommended behaviors (Gabriel et al., 2007), it was more likely that all participants from both conditions would be affected by factors such as social desirability and demand characteristics and present responses that could be socially justified (Gabriel et al., 2007; Wagner, 2003; Wagner & Sundar, 2009), which might in turn, make it more difficult for the researcher to find differences in explicit attitudes from participants who viewed a diverse prime and those who did not in the pre-test.

Overall, the inclusion of implicit measures in this study addresses shortcomings of explicit measures by preventing participants from controlling and self-interpreting their responses and is overall free from imposing any ostensible information or deliberately misrepresenting the purpose of the study (Wagner, 2001; Fazio et al., 1995). Adapted from a pencil-and-paper-based IAT used in prior research to measure attitude changes toward drugs and stereotypes (Andriasova & Wagner, 2004; Johnson & Wagner, 2011a; Johnson & Wagner, 2011b; Wagner, 2004; Wagner & Sundar, 2009), the results of the study evidence that such implicit measures are also effective in detecting short-term attitude changes toward homosexuals, which in turn helps dismiss earlier doubts as to
whether implicit measures could be used to detect short-term attitude change as well as
explicit measures can, especially given the subconsciously deep-seated nature of certain
issues (Wagner, 2003; Rudman et al., 2007; Hughes & Barnes-Holmes, 2011).

Practical Implications

Practical implications of the study include those for researchers and those for
media practitioners. First, for researchers, the study has demonstrated the effectiveness of
diverse stimuli in improving homosexual-related attitudes, which further demonstrates
the explanatory role of Priming Effect Theory in making certain concepts more salient
than others, as well as that of Associative Interference in enlarging associative networks
of certain concepts. Further, results showing more positive implicit attitudes toward
homosexuals for participants who viewed a diverse stimulus lend support to the overall
argument that although implicit attitudes are noted to be hard-to-detect and
hard-to-control (Gabriel et al., 2007), they are not in nature, necessarily hard-to-change
(Andriasova & Wagner, 2004; Johnson & Wagner, 2011a; Johnson & Wagner, 2011b;
Wagner & Sundar, 2009; Matthes, 2012). These findings help to highlight the usefulness
and effectiveness of implicit measures for researchers who are studying short-term
attitude change.

For media practitioners, including those working in the entertainment, advertising,
and news industries, the present study demonstrates the positive potential role of diversity
in portrayals of homosexual characters, as findings show not only that portrayals of
positive role models and saliently positive homosexual characters can facilitate positive
attitude change (e.g., Riggle et al., 1996; Bonds-Raacke et al., 2007), but that portrayals of
diversely-traited homosexual characters can, too. Such diverse portrayals include those of homosexual characters who possess fewer stereotypical traits such as “flamboyant” and hold fewer stereotypical occupations such as “stylists,” due to the widespread use of those stereotypes outside the world of television.

The design of the stimulus is partly in response to recent studies on homosexual representations (e.g., Calzo & Ward, 2009; Ivory et al., 2009), which argue that a great number of homosexual characters, if not all of them, are still largely portrayed stereotypically, in terms of occupations, personalities, appearances, and other superficial characteristics, and such stereotypical characters are likely hindering audiences from gaining an accurate knowledge about and an understanding of homosexuals, who obviously possess a far more diverse range of characteristics (Fouts & Inch, 2005; GLAAD, 2011; Calzo & Wald, 2009; Boysen et al., 2011; Diamond, 2005). A brief, recent history of homosexual representations on television demonstrates a steady increase in visibility and diversity of such characters (Hart, 2004; Netzley, 2010; Calzo & Ward, 2009). So media practitioners should note that homosexual representations are currently in one of their most important developing periods which, in a pro-social sense—particularly according to Berry’s (1980) three periods of television portrayals of Blacks in the U.S. and an interpretation of Raley and Lucas’ (2006) work—requires more diverse and realistic portrayals of homosexual characters (Ivory et al., 2009; Jackson & Gilbertson, 2009; Kite & Deaux, 1987; Calzo & Ward, 2009; Fisher et al., 2007; Raley & Lucas, 2006).
To provide some examples as to the way in which media practitioners from different fields can take a more “pro-social” approaches, advertising copywriters might create storylines for campaigns based on homosexual sources’ career successes, screenwriters might increase the positivity and diversity of homosexual characters, and PR representatives might publicize the fact that they are supportive of non-heterosexual students and are in line to encourage diversity of all kinds. Lastly, news outlets might look to cover homosexual events and other happenings beyond simply focusing on Gay Pride celebrations. Executives across all forms and functions of mass media should look to expand and diversify their inclusion of homosexuality.

While such approaches may help diminish negative attitudes toward and stereotypes about homosexuals, media practitioners should also keep in mind that media portrayals can be as powerful in influencing implicit attitudes as they are in influencing explicit attitudes, and implicit attitudes are at least as important as—and likely far more important than—explicit attitudes in affecting social perceptions of certain groups in society (Fazio & Towles-Schwen, 1999). Argued by prior researchers, self-report prejudices toward homosexuals can be easily detected and controlled by those who hold them (Schwinghammer & Stapel, 2011). Contrarily, implicit prejudices, due to their consciously-hidden nature, may easily come into play and influence individuals’ verbal comments and behaviors toward homosexuals subconsciously (see, e.g., Hughes & Barnes-Holmes, 2011; Olson & Fazio, 2001; Rothbart, Fulero, Jensen, Howard, & Birrell, 1978).
As people’s attitudes toward others may largely influence the behaviors and self-esteem of those who receive such evaluative judgments (Haddock, Rothman, Reber, & Schwarz, 1999), results of the study suggest that media practitioners should take care in their creation of such characters, because character portrayals can affect audiences’ explicit and implicit homosexual-related attitudes—which would, perhaps counter-intuitively, include homosexuals’ attitudes toward themselves. All audiences can benefit from positive and diverse portrayals of homosexual characters, because such portrayals can help heterosexuals’ attitudes become more complex—which, in turn, leads to less prejudice (Fazio & Towles-Schwen, 1999)—and help heterosexuals enhance self-esteem and become more comfortable about their sexual orientations.

The study’s findings also suggest a couple potentially-helpful approaches in portraying homosexual characters. First, for a single episode or introduction a homosexual guest star, media practitioners can avoid emphasizing stereotypical homosexual characteristics or any portrayals that denote or connote that judging and ridiculing anyone for their sexual orientation is socially-acceptable. Second, when portraying leading and regulars, it may be better to focus on making those characters more reflective of homosexuals in society as well as emphasizing more humane traits of homosexual characters that resonate with every human being, regardless of sexual orientation.

Limitations and Directions for Future Research

While results of the study show positive effects of diverse portrayals of homosexual characters on both explicit and implicit attitudes, the study is constrained by
some limitations. First, no portrayal of negative or stereotypically-timed homosexual characters is shown in the stimulus. Although that can be justified because it would be anti-social to attempt to make people’s homosexual-related attitudes more negative, it is theoretically limiting, nonetheless, because while the premises for such a hypothesis remain, this study produces no evidence to support it. Future research aiming to take a more exhaustive approach to examining effects of all portrayals of certain groups in the media look for creative ways to examine effects of stereotyped and negatively-timed characters without leaving any anti-social impacts to participants.

Second, among the six homosexual characters from popular TV series used in the stimulus, only one of them is a lesbian character. No bisexual or transgender character is included. Although the selection of characters can be argued to reflect and/or be a function of the array characters currently found on television, which would indeed be supported by current content analyses of lesbian, gay, bisexual, and transgender TV characters (LGBT; GLAAD, 2011), it can also be argued as failing to reflect the actual proportion of LGBT population, as it is argued in this study that such failures to be representative is far from optimal. Future research, then, might look to include a representative number of characters from each subgroup according to the respective subgroups’ proportions in the overall LGBT population.

Another limitation of the study is that it cannot measure attitude change regarding all sexual orientations, including attitude changes toward bisexuals (in the LGBT population, specifically) and heterosexuals. Although some may perceive bisexuals as falling under the general term of “homosexuals,” perhaps because of their inclusion in the
larger LGBT category, bisexuals have sexuality orientations of both homosexuals and heterosexuals (Gates, 2011). Therefore, insofar as the study did not make a distinction between bisexuals and homosexuals and could not examine attitude change toward bisexuals both in the stimulus and measuring instruments is quite limiting, as bisexuals alone comprise 51% of LGBT population (Gates, 2011). To help fully encompass the LGBT spectrum, then, future research might take note of this limitation and include studies of diverse bisexual portrayals and attitude change, based on the same premises as the present study.

One more limitation of the study is that it cannot measure the extent to which stereotypes are diminished by the diverse stimulus. While the results have demonstrated that less stereotypical portrayals of homosexual characters are effective in facilitating positive attitude change toward homosexuals, which is indeed the priority of the study, no argument can be made about whether similar effects as a function of fewer stereotypical portrayals can be found in stereotype change among participants. However, in an exploratory study such as this, the logic of experimentation dictates that investigations into potential effects should use the strongest manipulation possible, in order to see whether an effect exists, moving onto weaker manipulations in future studies, to see if the effects still hold (Sundar, 1999).

Conclusion

In conclusion, this thesis makes a number of contributions to the field in the process of demonstrating that diverse portrayals of positively-ta…
levels. That may be particularly helpful because homosexuals represent a group that has been historically portrayed unfairly in the media (Fouts & Inch, 2005; Netzley, 2010) and toward whom a relatively greater number of strong negative stereotypes may exist (Calzo & Ward, 2009).

Theoretically, the thesis contributes to research examining psychological mechanisms of stereotype formation and attitude change. It similarly contributes to studies about the uses of social cognitive theories in predicting social attitudes and behaviors, particularly Priming Effect Theory and Associative Interference. Contributions are also made to the Intergroup Contact Hypothesis and Extended Contact Effect, which are theories more specifically developed to diminish stereotypes.

Methodologically, the thesis contributes to uses of Associative Interference in producing stereotype-reducing stimuli to establish larger, more complex associative networks about homosexuality among TV audiences. It examines limitations of explicit measures and helps illustrate that explicit responses are more susceptible to influences beyond attitudes, themselves (Fazio & Towles-Schwen, 1999; Wagner & Sundar, 2009). The thesis also contributes to the use of a specific implicit measure—a pencil-and-paper based IAT adapted to investigate attitudes toward homosexuals. It demonstrates that such instruments can be effective in detecting implicit, homosexual-related attitude change and corroborates a larger argument that implicit attitudes’ can be particularly-useful in detecting such change regarding sensitive social issues.

Practically, the thesis contributes to researchers by highlighting the potential of Associative Interference and other social cognitive theories in creating media stimuli and
maximizing their effects. In doing so, it is hoped that it can help convince researchers to include implicit measures in studies about attitude change on sensitive social issues. For media practitioners, the thesis suggests to those who might seek possible ways to generate positive effects of homosexual portrayals possibilities that can help in accomplishing their goals, such as dispersing portrayals of homosexual characters’ traits on television, establishing more non-stereotypical homosexual characters, and accentuating diverse, realistic portrayals that depict homosexual characters as ordinary persons with experiences that can resonate with heterosexual and homosexual audiences, alike. The thesis also puts forward ideas about the ways media practitioners might establish, reform, and portray homosexual characters.

In sum, the thesis, which aims to uncover stereotype change potentials toward diminishing stereotypes about homosexuals and facilitating a better social environment, is rooted in social cognitive theories about stereotype formation and attitude change. It utilizes the strengths of implicit instruments in measuring attitudes, with regard to media portrayals of homosexuals. In doing so, it examines mass media effects through theoretical universal psychological mechanisms and helps demonstrate interdependency between the two. Given the evidence outlined in this manuscript, media researchers and practitioners from various fields can benefit from a more complete understanding of the ways in which choices made in portraying characters can have deleterious effects on individuals—and, by extension, society—and it is hoped that the study can be helpful in forming the foundation for future research and practice. Perhaps it may serve as a beacon to media researchers and practitioners that stereotyped and restrictive portrayals of
homosexual characters can potentially have negative effects on audiences, perhaps especially young audiences who are still in the process of forming their social perceptions and attitudes (Fouts & Inch, 2005). Suggested by theories and findings of this study, media researchers and practitioners should emphasize the effects and power of diversity and non-stereotypical representations. As all stereotypes may have potential negative influences on those who are held to potential prejudices that might arise from such ill-informed understandings, it is hoped that diverse portrayals of homosexual characters such as those established herein can help those who hold stereotypes realize the consequences of their misinformed perspectives and take actions to elicit more pro-social and less-stereotypical attitudes and actions.
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APPENDICES

Appendix A. Portrayals of Homosexual TV Characters

#1: Max Blum from “Happy Endings”

Max plays an essential role in a group of friends who met in college. At first, Max tries to comfort his “college buddy” Dave and encourages him to put his old relationship behind after Dave’s bride ran away in the middle of their wedding. Later, at Dave and Max’s another friend Penny’s birthday party, Max thinks that Penny’s new boyfriend is gay, and argues that Gay men are not easy to tell by appearances, as when Max and Penny were engaged in a relationship back in college; Penny had no idea that Max was gay. This storyline continues as Max is trying to get Penny’s boyfriend’s phone number.

#2: Cameron Tucker and Mitchell Pritchett from “Modern Family”

Cameron and Mitchell have adopted a baby girl Lily from China. As they are trying to build a princess castle for their daughter, Cam has had concerns in Mitchell’s over-assurance in architectures and constructions, but at the same time, doesn’t want to straightly tell Mitchell because Mitchell is very sensitive, and desires to be a member of the “men’s club.” Later, Cam expresses his worries with Mitchell’s father over lunch, and Mitchell’s father shares his opinions and says that Mitchell shouldn’t be worrying about that at all. Mitchell is a great lawyer, and is working very hard to provide for his family, which is already manly enough in the classical sense. Cam agrees, and points out that it is manly for him as well to quit his career as a music teacher and raise their daughter.

#3: Dr. Callie Torres from “Grey’s Anatomy”

Dr. Callie Torres (a female doctor) is sent to a rescue mission, and is assigned to give instructions to a civilian whose wife is badly injured due to a collapse of a mine site on how to amputate his wife’s leg so that he can pull her out to the ground. Throughout the process, Dr. Callie Torres calms the man while at the same time gives him step-by-step instructions on what to do. However, as the man is afraid of inadvertently killing his wife while practicing the surgery, Dr. Callie Torres suggests that she can go down there and help the man, but this is refuted by another doctor who suggests that he should go instead of her, and he says to Dr. Callie Torres that “No, I’ll go. You have a wife and a child.”

#4: Lee McDermott from “desperate housewives”

Lee is helping Susan, who recently lost her husband Mike, pack and clean Mike’s belongings. Susan says that she is going to keep a pair of Mike’s shoes to see if their son MJ can fit them when he grows up, which has made Lee very touched and tear up. Later, when Lee is reaching to the most inner part of the closet, he finds a locked box of Mike’s.
As Susan is about to open it with Mike’s key, Lee dissuades her and tells her that all men have their own secrets, and he personally has a locked box that he prefers not to disclose to his partner Bob.

#5: Oscar Martinez from "The Office"

At first, one of Oscar’s co-workers is quite surprised to find that Oscar is attracted to men because the co-worker can’t tell that Oscar is homosexual from his look and lifestyle. Later, Oscar finds that a dog has been locked up in a parked car under sunlight, which he thinks is extremely dangerous and may cause the dog to die. He first talks to his co-workers about how irresponsible he thinks this pet-owner is. Next, he decides to crack the window with a brassie so that the dog can at least have some fresh air, an action that win him cheers from his co-workers. Then, as a way to prevent the dog from jumping out of the window, Oscar places a piece of cardboard to block the cracked window.

#6: Kurt Hummel from “Glee"

Kurt and his good friend Rachael return back from a musical rehearsal of a different school, feeling extremely frustrated because they now see that there are a lot of people who are more fabulous than them out there, and they were being deluded and arrogant before seeing such fabulous performance. They are talking about their disappointments as Rachael says that she is going to give up on applying for the best Dance School because she doesn’t think she can make it. As a way to cheer his friend up and rebuild her confidence, Kurt tells Rachael and she is not just fabulous but also one of a kind and her ambition is determined to lead her to the best school. Kurt’s encouraging words makes Rachael very touched, and she says that “You are making me want to be your boyfriend.” At the end, the two friends promise to never give up on their dreams.
Appendix B: Sample of Explicit Measure

**Questionnaire**

Below is a list of word pairs. Circle one of the numbers near the word in each pair that best describes how you feel about the following statement:

“I think homosexuals are…”

1. bad 1 2 3 4 5 good
2. unpleasant 1 2 3 4 5 pleasant
3. worthless 1 2 3 4 5 valuable
4. unfavorable 1 2 3 4 5 favorable
5. unacceptable 1 2 3 4 5 acceptable
6. awful 1 2 3 4 5 nice
7. horrible 1 2 3 4 5 wonderful
8. poor 1 2 3 4 5 excellent
Appendix C: Sample Pencil and Paper Based IAT Measure

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<th>COLORS</th>
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PURPLE
FEMME
RED
ORANGE

HOMOSEXUAL
GREEN
QUEER
BUTCH
BLUE
BLACK
GAY
LESBIAN
WHITE
SAME-SEX

STOP. DO NOT CONTINUE!
positive

favorable
worthless
pleasant
unacceptable
wonderful
bad
unpleasant
valuable
unfavorable
excellent
awful
good
horrible
acceptable
nice
poor

STOP. DO NOT CONTINUE!
HOMOSEXUALITY OR POSITIV

NEGATIVE

QUEEN
valuable
WHITE
unacceptable
BROWN
favorable
SAME-SEX
worthless
GREEN
wonderful
FEMME
horrible
GAY
pleasant
RED
unpleasant
LESBIAN
awful
BLUE
excellent
PURPLE
acceptable
BUTCH
nice
HOMOSEXUAL
bad
BLACK
unfavorable
QUEER
good
ORANGE
poor

COLORS OR

STOP. DO NOT CONTINUE!
HOMOSEXUALITY OR *POSITIVE* COLORS OR *NEGATIVE*

unfavorable
PURPLE
excellent
GAY
bad
LESBIAN
wonderful
GREEN
poor
BROWN
worthless
HOMOSEXUAL
horrible
SAME-SEX
pleasant
RED
acceptable
BLUE
unpleasant
QUEEN
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FEMME
favorable
ORANGE
unacceptable
QUEER
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BUTCH
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STOP.  DO NOT CONTINUE!
COLORS OR POSITIVE  HOMOSEXUALITY OR NEGATIVE

BROWN
good
GAY
excellent
SAME-SEX
horrible
RED
valuable
LESBIAN
poor
PURPLE
nice
GREEN
unpleasant
HOMOSEXUAL
favorable
WHITE
acceptable
QUEEN
awful
BUTCH
bad
BLUE
wonderful
FEMME
unfavorable
QUEER
unacceptable
BLACK
pleasant
ORANGE
worthless

STOP. DO NOT CONTINUE!
COLORS OR POSITIVE

awful
SAME-SEX
good
QUEEN
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LESBIAN
unpleasant
GAY
wonderful
GREEN
horrible
WHITE
excellent
HOMOSEXUAL
poor
BROWN
pleasant
FEMME
favorable
BLUE
unacceptable
BUTCH
worthless
RED

STOP. DO NOT CONTINUE!