August 2017

“The ripple perceptions”: The effects of viewing LGBT-inclusive TV on straight viewers’ inference of peers’ attitudes towards gays and lesbians

YAOJUN YAN
Syracuse University

Abstract

This survey study (N=856) applied the *Influence of Presumed Influence (IPI)* model to explore the trilateral relationships among 1) consumption of recently on-air TV shows where LGBT characters serve as recurring narrative elements, 2) attitudes, and 3) perceived attitudes towards gays and lesbians (ATLG & PATLG) among straight Americans. The results advanced the model in at least three directions: 1) instead of "peer pressure," self attitudes are better conceptualized in as the "cause" in the pro-social context; 2) consumption of media content and interpersonal contacts, in this case, LGBT-inclusive TV and personal relationships with LGBT individuals, moderate participants' PATLG among close friends and people of the same age; 3) participants perceptually differentiated the influence of these TV shows on ATLG among self, close friends, and people of the same age. The modification of the original IPI model provides the *ripple perception* model to explain the self-other differential perceptions in this context.

Key words: TV entertainment, peer perceptions, gays and lesbians, presumed media influence, attitudes

“THE RIPPLE PERCEPTIONS”:

THE EFFECTS OF VIEWING LGBT-INCLUSIVE TV ON STRAIGHT VIEWERS’ INFERENCES OF PEERS’ ATTITUDES TOWARDS GAYS AND LESBIANS

By

Yaojun Yan

Dual B.A.

Nankai University, Tianjin, PRC & University of Macau, Macau, 2013

Thesis

Submitted in partial fulfillment of the requirements for the degree of Master of Arts in

Media Studies

Syracuse University

August 2017

Acknowledgements

The completion process of this thesis has made the student author in debt to many names. Yet, only a few could be mentioned due to the word limitation. The very special gratitude must be firstly paid to Prof. Carol Liebler, whom the student was so blessed to have met and taken courses with in the Fall of 2011, at University of Macau. It was this very fortuitous encounter inspired and encouraged the student to continue his further education in the U.S., later become one of her master students, and foremost, finally become himself. The student is also very much grateful to the rigorous yet interdisciplinary intellectual training he has received from different faculties in the Newhouse School. He was lucky to have Prof. Liebler, who is an excellent media sociologist and specialized in media diversity, as his advisor; Prof. Makana Chock and Frank Biocca, both of whom are the most prominent media psychologists in the field and specialized in social cognitions, as the committee members. Without their tireless and insightful guidance, the student would still be lost in the maze of meaningless words. In this world where the very existences of human beings are constantly shaped and shackled by perceptions of each other, the statistical probability for one to recognize the true self and the people who truly love him/her is rather minimal. Yet, one of many tributes the student author shall never forget is the warm and genuine camaraderie that welcomed and companioned him during his three years in the beautiful Upstate New York. The final words of thankfulness must be left to the student's loving parents, who not just supported him so generously that he can pursue his dream at the other side of the world, but also love him so deeply that he can become who he is, and who he wants to be.

Yaojun Harry Yan

2017.8.21

Table of Contents

"The ripple perceptions":

The effects of viewing LGBT-inclusive TV on straight viewers' inference of peers' attitudes towards gays and lesbians

> "If you strongly oppose gay marriage, chances are high that you don't know anyone who supports it and the sort of media you consume tends to rarely cover the rapidly increasing support for gay marriage."
>
> *The Washington Post,* 5 March 2014

This is what journalist Chris Cillizza (2014) took away from the results of polls conducted by *Public Religion Research Institution* (PRRI) in Feburary, 2014. These results, consistent with other contemporary major polls (e.g., Pew, 2014; Gallop, 2014), indicated that over fifty percent of Americans held favorable attitudes toward same-sex marriage, or arguably toward gay and lesbian individuals. Meanwhile, this particular poll also demonstrated clearly there was a gap between most of the Americans' views and their perceptions of other people's views of gays and lesbians. Whereas Cillizza (2014) attributed it to selective media consumption and characteristics of others, the trilateral relationship—media exposure, attitudes, and perceptions of others' attitudes—calls for further investigations within this rarely explored context (See Figure 1).

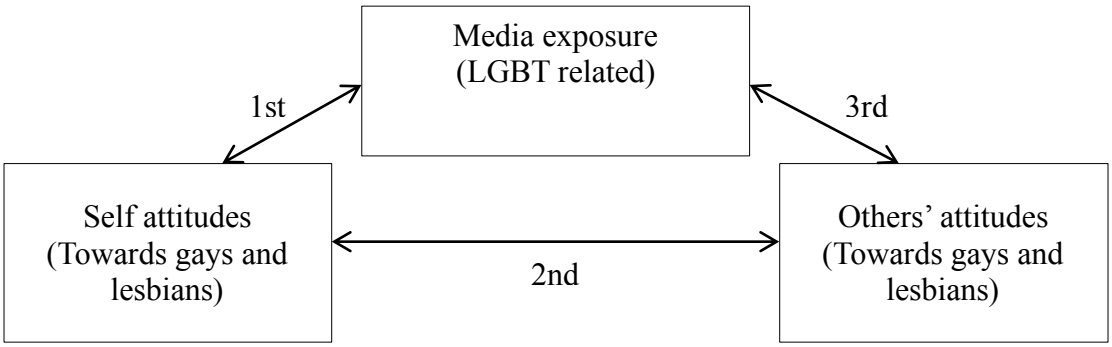


Figure 1 Media-self-others perceptual triangle

As clear as it may seem conceptually, questions remain complex within each pair of psychological factors presented above. For the first pair, the direct effects of media on changing self attitudes towards gays and lesbians have received the most attention from researchers (Ward, Reed, Trinh, & Foust, 2013). After decades of exploring media effects on changing attitudes, compared to other media genre, TV entertainment is found to be one of the most reliable factors predicting positive attitudes as well as some of their civil rights (Calzo & Ward, 2009a&b; Lee & Hicks, 2011; Ward et al., 2013). It is not hard to notice the concomitance that in the most recent two decades, as more LGBT characters have emerged on TV, the attitudes toward gays and lesbians have become more accepting in American society. Former Vice President Joe Biden even praised the TV sitcom *Will & Grace* for its unprecedented contribution to changing Americans' attitudes towards gay people (Eldridge, 2012; Battles & Murrow-Hilton, 2015). Nevertheless, within an ever-changing television landscape, it would certainly be an overestimation to credit the shifting attitude of an entire society to a single television show that aired years ago. As a matter of fact, while the quality and quantity of LGBT characters on TV has improved over the years (Gross, 2001; Hilton-Murrow & Battles, 2015), the issue and its evaluation remains ideologically polemic (Liebler, Schwartz, & Harper, 2009).

The second and the third pair of factors in the perceptual triangle have been only explored tentatively, compared to a sizable number of studies on self attitudes towards gays and lesbians and its relationships with certain media exposure. For the second pair, self attitudes and perceptions of others' attitudes towards gays and lesbians, Hetzel (2011) applied social conformity (see review in Cialdini & Goldstein, 2004) in an experimental design, the results of which showed how dummy polls could significantly affect participants' self-report attitudes towards gays and lesbians. In other words, a person's self attitudes towards gays and lesbians are

susceptible to the influence of perceived others' attitudes. Meanwhile, indeed a few survey investigations (e.g., Calzo & Ward, 2009b; Crandall & Eshlemann 2003) confirmed others' attitudes as the "sources" of people's attitudes towards gays and lesbians. However, it is still questionable how susceptibility affects attitudes towards gays and lesbians in a non-experimental setting. Under different conditions theoretically, people would either comply to or defy their perceptions of the majority of others, whether and how self attitudes towards gays and lesbians are consistent with or contrast from perceptions of others' attitudes remains unclear.

The inquiry on the third pair factors is to ask how people presume media influence on peers' attitudes towards gays and lesbians. The perceptions of media influence on others are well documented in the third-person effects (TPE) literature (see review in Sun, Pan, & Shen, 2014), which is one of the most popular under-developing theories in the field. Ho, Detenber, Malik and Neo (2012) applied TPE and demonstrated in Singapore how presumptions homosexual characters in films would negatively influence others contributed to support for censoring homosexual related media content. However, their study concentrated only on general evaluations of the influence of homosexual characters in films, rather than how characters might influence others' attitudes towards gay and lesbian individuals. Also, the research was conducted in a vastly different cultural context. While the LGBT characters increasingly appeared on the television in America in the past two decades, applying TPE as well as related theories to test presumed media influence on others' attitudes towards gays and lesbians yet has been rarely done in the US.

Inspired by the polls and recent change of visibility of LGBT characters in TV entertainment, this thesis adopts a newly proposed theory— the *Influence of presumed influence* (IPI) model (Gunther & Storey, 2003), to explore the media-self-other perceptual triangle with

regards to the LGBT inclusive TV and attitudes towards gays and lesbians. Following on more recent development of the model (e.g., Paek & Gunther, 2007; Shen, Palmer, Kollar & Comer, 2015), this thesis concentrates on how self-other differential processing (i.e., personal experience, social distance, cognition vs. motivation) affects presumed media influence and perceptions of other people's attitudes towards gays and lesbians.

More specifically, this thesis tests the effects of increased LGBT visibility in TV entertainment on non-LGBT Americans self and perceived others' attitudes towards gays and lesbians, as well as their presumed influence of watching these TV shows on self and others. Theoretically, this thesis is firstly aiming to further map the boundary of the mainstream effects (Gerbner, 1986) of TV entertainment on viewers' attitudes towards gays and lesbians. The second goal is to test the third/first person perceptions (Davison, 1983; Perloff, 2009) with regards to LGBT characters in TV entertainment, and their consequences (Gunther, 1993) of affecting people's judgment of others' attitudes towards gays and lesbians.

Queer visibility as persuasive messages

Chambers (2009) argued although the so-called "queer TV" is different from journalism in actual politic battle, its persuasive nature in the "cultural politics" is undeniable. Gass and Seiter (2014) summarized the major five criteria for any persuasive messages as social influence: 1) *non-coercive*, 2) *symbolic*, 3) *interpersonal* (i.e., non-intrapersonal), 4) *intentional*, and 5) *having effects*. In fact, the "undeniable" persuasive nature of the queer TV resides in its accordance with this definition. First, TV entertainment viewing per se is *non-coercive* and *non-intrapersonal* action, and now it seems more so than ever. Over hundreds of channels provide

consumer with much more choices, and portable devices and online streaming platforms make TV content more accessible and arguably increase audiences' sense of control (Jang, 2014). Additionally, although whether TV entertainment is *symbolic* is very much debatable, there is no consensus understanding if all media messages are or should be defined as symbolic (Gass & Seiter, 2014). Yet at least discussing the LGBT visibility and its representations, namely their *symbolic* meanings has always been the tradition. So much so, critical scholars (e.g., Barhurst, 2007; Chambers, 2009; Hilton-Murrow & Battles, 2015) warned us of the danger of obsession with it.

Second and more importantly, the current increasing visibilities of LGBT characters on TV partly resulted from networks' decisions. As a response to the historical criticism that LGBT individuals were symbolically annihilated, Hilton-Morrow and Battles (2015) have defined the goal of increasing LGBT visibility on TV to at least gain "public recognition," as part of the LGBT equal rights movement. In the recent two decades, major TV networks including NBC, CBS, ABC/Disney Studio and Fox are aware of the movement, and in the very recent years they proactively embraced it by launching initiatives, programs or even campaigns to encourage and recruited much more diversified actors, writers, directors and production teams (NAAPCA, 2016), including people from the LGBT community. Producers and writers with diverse backgrounds have been challenging the predominance of white middle-class men behind the scene, unapologetically seeing their unique experience as the legacy, and being upfront in creations of characters as agents of themselves (Campbell, 2014). As one of the fruits of the networks' diversity initiatives, the current appearances of LGBT characters are clearly *intentional*.

As results of these efforts, Gays and Lesbians Alliance Against Defamation's (GLAAD) recent (2015) *Network Responsibility Index* (NRI) showed that of the total 813 television series in the 2014-2015 viewing season, 101 included 83 regular and 18 recurring characters that were gay, lesbian, bisexual or transgender. Meanwhile, gays and lesbians were no longer depicted almost universally as "perverts" or "monsters" (D'Emilio, 2007; Streitmatter, 2009). Compared to two decades ago, the greater numbers and increasingly positive portrayals are readily apparent. At last, many previous studies empirically supported positive persuasive *effects* of viewing recent LGBT storylines on people's attitudes towards gays and lesbians. Studies focusing on TV shows such as *Will & Grace, Queer Eyes for Straight Guys, Six-feet Under* shown positive results of changing attitudes after viewing (Schiappa et al., 2005 &2006; Ortiz & Harwood, 2007). As a review, Ward and colleagues (2013) concluded,

> "Media exposure [i.e., recent gay and lesbian stories in TV episodes and films] leads to an attitude shift in which individuals with positive attitudes and those with negative attitudes move toward a moderate acceptance of homosexuality (p. 396)."

However, in response to the current change of LGBT visibility, the first question resides in whether the currently on-air TV shows that include LGBT characters can still support this conclusion. Second, as most of the previous studies adopted the experimental design (Ward et al., 2013), these investigations more or less focused on a single or very limited number of characters or shows, and the results lacked generalizability. As a further attempt to capture media effects on a larger scale, this thesis will see visibility of LGBT characters in TV collectively and test how it directly affects people's attitudes and their perceptions of peers' attitudes toward gays and lesbians. Nevertheless, it is worth mentioning at the beginning that gathering LGBT characters that serve as essential narrative elements overlooks nuances among depictions of

characters and their niche receptions. This definition, however, has the advantage to avoid presumptuously categorizing a large number of characters into either stereotypes or counter-stereotypes and allow the researcher to explore media effects of LGBT visibility beyond one or two shows.

Perceived attitudes in public opinion formation

Observations of others' attitudes and the climate of public contribute to public opinion formation and serve as further motivations of pro-social behavior. Noelle-Neummann (1977) argued that people observe each other and the environment around them before expressing their own opinion. If people deem the majority of others are in favor of a certain issue that they oppose to, they are more likely to remain silent. If people agree with what they think the majority of people would agree, Henshel and Johnston (1987) argued, at a societal level, their communal agreement fueled "bandwagon effect," under which people who did not hold strong contrary opinions would join the trend more willingly. Furthermore, joining the trend elevates the sense of social desirability of the behavior, reaffirms their own attitudes, and encourages other pro-social behaviors (Ajzen, & Fishbein, 1980). Aligning with these theoretical predictions, perceptions of peers' attitudes toward gays and lesbians appear to be moving fast in the same pro-social direction in recent decades.

The observation of peers' attitudes, however, at most of the time is inaccurate. As how the polls demonstrated (PRRI, 2014), the unawareness or misperceptions of shifting peers' attitudes towards gays and lesbians may serve to oppose the formation of the "bandwagon." It behooves media to be the communicator. One way to further promote the social desirability of certain

attitudes or behaviors according to Berkowitz's (2005) social norms approach (SNA) is to correct the misperceptions by providing more accurate messages that reflect the true norms such as polls. Yet polling reports that appear to be accurate may lack accessibility or face stronger resistance especially from people who hold strong opinions toward the issue (Kim, 2016). Entertainment media, by contrast, is able to convey persuasive information more unobtrusively (Shrum, 2012). How entertainment media affects perceptions of peers' attitudes on social justice issues, such as LGBT issues, was never fully understood. Given gay and lesbian characters appear more and more frequently on the small screen, how the LGBT inclusive TV serves a unique role influencing the process of public opinion formation is not just a topic with magnitude, but also urgency.

As one of the theories concerning the perceptions of peers' attitudes and public opinions, Gunther (1998) proposed a model that postulates people would infer the public opinion based on their estimation of peers' consumption of similar media content, and further, their perceptions of the media influence on their peers' attitudes of the judged matter. Gunther and Storey (2003) further named it as *Influence of presumed influence model (IPI) model*, which has been applied to investigate many modern controversial topics such as smoking (Paek & Gunther, 2007) and sexual permissiveness (Chia & Gunther; 2006; Chia, 2009). This model has been validated mostly in the domain concerning how media campaigns moderated risky social perceptions and their behavioral consequence. However, it has not yet been applied in regards to acceptance of homosexuality, the context of which is at most pro-social, at least controversial. As previous research showed how people's attitudes towards gays and lesbians could be influenced by perceptions of others' attitudes, the chosen model then is more than applicable.

In summary, this study is a following research designed to understand how LGBT inclusive TV as persuasive messages shaping the process of the public opinion formation with regards to attitudes towards gays and lesbians. As mentioned, there are major two goals of this thesis with special attention on the latter. The first one is to continue mapping boundary of the direct media effects of changing attitudes towards gays and lesbians, by limiting the media exposure to LGBT inclusive TV, which is defined as TV series where characters with shared social identities (i.e., sexual minorities) serve as essential narrative elements. The second is to explore the indirect media effects within the media-self-others perceptual triangle, specifically how presumed influence of watching LGBT inclusive TV affects perceived others' attitudes towards gays and lesbians. With an emphasis on these indirect media effects, this thesis also tests the validity of the IPI model in a new and arguably pro-social context. Furthermore, it examines how self-other differential processing (Chock, 2011, Shen, et al., 2015) affect presumed influence of watching LGTB inclusive TV as well as the perceived peers' attitudes towards gays and lesbians differently.

Following the introduction, the subsequent chapters will flesh out the scholarly relevant literature. In order to comprehend the backdrop of this research, this thesis will draw upon literature that discusses the increased visibility of LGBT characters in American TV history and the criticism in regards to its persuasive effects. Hypotheses and research questions will accordingly be built upon the elaborated references to the IPI model and self-other differential processing. The third chapter will describe the survey design and recruitment procedure in detail. The fourth chapter will present the results of data cleaning, hypothesis testing, and model specification and modification. Based on the results, the fifth chapter will conclude this thesis

with the major implications of this research, the limitations, and suggestions for future studies as well as practices of changing people's attitudes towards gays and lesbians.

Chapter 2: Literature Review

This thesis follows Lang and Ewoldsen's call (2014) to conceptualize the so-called "effects" as "complex and dynamic interactions between two systems" (p.119). The first system this research investigates is the visibility of LGBT characters in entertainment narrative in American TV; the second is viewers' attitudes as well as perceptions of others' attitudes towards gays and lesbians. Therefore, this chapter combs through the literature that historically and critically discusses visibility of LGBT characters in America in the first two sections. Because both attitudes and perceptions of others' attitudes are large and complex psychological constructs (Allport, 1935), the third section concentrates only on attitudes towards gays and lesbians, and its relation to media exposure (i.e., the media-self-other perceptual triangle) in America. The rest of this chapter reviews the major theoretical frameworks— the *Influence of Presumed Influence* (IPI) model in the fourth section, and self-other differential perceptions in the fifth. Accordingly, hypotheses, research questions, and hypothetical model are proposed.

The history of LGBT characters in TV entertainment

The visibility of gays and lesbians in American TV has evolved dramatically during past two decades. Noticeably, the middle of the 1990s is now deemed as the threshold that signifies the need to discuss the portrayals of gays and lesbians before and after very differently (e.g., Dow, 2001; Seidman, 2002; Harrington, 2008).

Before the 1990s, the main problem with gay and lesbian representations in television entertainment was either their invisibility or their symbolic annihilation (Arthurs & Ebrary, 2004; Gross, 1991 & 1994). In the early 1950s, gay and lesbian characters were practically non-

existent (Doty & Gove 1997). From the middle 1950s to 1960s, although there were some news headlines concerning gender role and sexuality that provoked national debates, very few characters could be recognized as gays or lesbians in TV entertainment. Most of them were "sissy" or feminine men appeared temporarily as jokes, without clear identifications as gay men (Munt, 1992; Capsuto, 2000). For example, a sitcom named a *Private Secretary* featured a "sissy" secretary, whose appearance was designed to be buffoonish because as a man he was doing what was considered as "women's work" at that time (Netsley, 2006).

In Capsuto's (2000) summary, although from the 1970s to the 1980s the actual visible gays and lesbians increased along with the development of the TV industry, their portrayals were still closely associated with negativity. In the 1970s, most of the gay characters remained unidentifiable and were depicted with behaviors and personalities that were deviant from traditional masculinity and nuclear family values (Capsuto, 2000). They were always portrayed as murderers or villains, and therefore their "gayness" was closely associated with their outlaw conducts and bashed with verbal or actual violence in the name of punishment (e.g., *Marcus Welby, M.D.; Police Woman*) (Capsuto, 2000). One noteworthy exception, however, was a groundbreaking character that appeared in the pioneering show *All in the Family* (Capsuto, 2000). As Archie Bunker's long-time friend, this character came out as gay and also had a happy ending. More importantly, he sent out the first counter-gay-stereotype signal with the line said: "you can't spot a gay person just by looking" (Capsuto, 2000, p. 71). Nevertheless, this kind of depictions was very rare and the gay or lesbian characters, even like the friend of Archie Bunker, always appeared once and never returned.

In the 1980s and early 1990s, more shows began to include gay and lesbian characters. For example, the sitcom *Roseanne* depicted a couple of recurring gay characters; *Northern Exposure*

featured gay and lesbian couples as supportive characters; the drama *Dynasty*, had the very first bisexual on a primetime TV; and the drama *My So-Called Life* included a gay Hispanic male teenager (Capsuto, 2000; Holtzman, 2000; Nezley, 2006). However, the most prominent depictions of gays and lesbians at this time, according to Walters (2001), were either victims of disease or still villains due to the AIDS epidemic. For example, a 1985 NBC movie named *An Early Frost* depicted a gay lawyer who had contracted HIV and struggled with his doomed destiny. The "gayness" in the movie, as put by critics, was identified as nothing more than an object of intensified pity (Netzley, 2006).

Until the middle of the 1990s, there were several remarkable milestones in regards to portrayals of gays and lesbians etched in American TV history (Arthurs & Ebrary, 2004). Among many appearances, the most memorable ones were the two sitcoms, *Ellen* and *Will & Grace*. In April 1997, during the third season of *Ellen*, the leading character Ellen Morgan, portrayed by Ellen DeGeneres, came out as a lesbian to her friends and family on the show. In contrast to all those previously unidentifiable gays and lesbians, Ellen Morgan became the first gay-titled character on TV in America. After DeGeneres publicly came out herself shortly later, she also became the first leading gay actor in the primetime TV. Even though received sponsorship from GLAAD and the Human Rights Campaign (HRC), the show continued to struggle with ratings after the famous coming-out episode and was canceled after the next season (Capsuto, 2000).

The reason why *Will & Grace* was sometimes more credited than *Ellen,* even decades after its debut, was because the episodes were more acclaimed in rating and awards (Hilton-Morrow & Battles, 2002). Although it has been criticized for being hetero-normative and stereotypical, the show indeed lasted eight seasons and did not just create popular characters *Will Truman* and *Jack McFarland* as leading gay characters without derogatory intention, but also

depicted an utopian world where the queerness is not just funny but also promoted (Cooper, 2003; Hilton-Morrow & Battles, 2002).

Following on the leads of *Ellen* and *Will & Grace*, gay and lesbian characters started being portrayed positively and start taking leading or supporting roles in the prime time TV (Seidman, 2002). GLAAD has tracked all of these shows featuring the regular and recurring LGBT characters since 1996. By closely looking at all *Network Responsibility Index (NRI)* reports in the very recent decade, compared with 41 gay characters in the 2005-2006 season for primetime broadcasting networks and cables, 101 of 813 television series in the 2014-2015 viewing season included 83 regular and 18 recurring characters that were clearly identified and recognized gay, lesbian, bisexual or transgender (GLAAD, 2005; GLAAD, 2015). The number has more than doubled over the past ten years. The trend has been steadily upward, even if not always at a consistent rate annually, nor evenly between cable and network channels (Netzley, 2006).

Situated as part of an ongoing increasing trend since the 1990s, this research, however, focuses on viewing current shows featuring regular or recurring LGBT characters instead of historical viewing. Although this will be a contemporary cross-sectional research, it is contextualized in the history as presented above. Along with changes of TV networks and industry that made the increase of gay and lesbian visibilities possible, the understandings of representativeness of these characters are also evolving, which will be discussed in the sequential section.

The paradox of visibility in TV entertainment

Traditionally, scholars and researchers often critique LGBT character by discussing whether these depictions were stereotypical, whether in a constantly simplified, repetitive or even false fashion, whether projected by straight middle-class white men's impression (Gross, 2001). Facing the recent development, Hilton-Morrow and Battles (2015) pointed out one seems hard to deny that the increased visibility has made tremendous progress in gaining cultural and politic recognition for LGBT community, and in also providing a source of support and identity building for individuals.

Their positive assessment and certainty of progress in regards to both quality and quantity of gay and lesbian characters in media resonated with many other theorists. Streitmatter (2009) concurred in his earlier book titled as "*From 'pervert' to 'fab five': the media's changing depiction of gay men and lesbians.*" D'Emilio (2007) also agreed the progress by pointed out LGBT characters are depicted drastically different from "monsters," as which sexual minorities used to be called. Despite the fact that LGBT characters were symbolically annihilated in the pre-90s era, the number of LGBT characters in the current TV environment have debunked the criticism such as the issues related to LGBT appeared too ephemeral and fragile to form a lasting social movement (e.g., Gross, 1994). Even though such a supposition may have seemed reasonable if we had only a single case like *Ellen* as embodying "poster-child politics'' in the late 20th (Dow, 2001).

Moreover, Harrington (2008) reminded us at least that TV as an industry is still wildly influential to 99 percent households in America. As mentioned in the introduction, the online streaming services and wireless Internet technology with portable devices made TV content

ubiquitous and more accessible than ever (Spangler, 2010). However, the representation of sexual minorities emerging on TV may still have to overcome three major institutional barriers: the Federal Communications Commission (FCC), programs' advertising sponsorship, and other lobbying groups that are monitoring TV programming (Harrington, 2008). Continuingly he pointed out that FCC regulations usually stand for mainstream conservative values; sponsors are also constantly concerning the balance between conservative and progressive viewers; and many conservative social groups are still blatantly and actively conspiring to suppress any form of public expression of homosexuality.

Nonetheless, as emphasized by many theorists (e.g., Foucault, 1990; Capsuto, 2000; Dow, 2001; Becker, 2006,) the notion of assuming progressiveness of LGBT characters should be challenged at the first place. Evident in the history, most of the visibility of gays and lesbians on TV before 1990s were negative in nature or at least associated with negative implications or stereotypical depictions. Even in the post-*Ellen* era, depictions of gays and lesbians remained stereotypical for reasons at many. For example, although the show was well acclaimed by audiences, *Will and Grace* adopted a safe storytelling narrative in discussing explicit affection expressed between two men, and a stereotypical way to depict "gayness," for the sake of catching a wide-range audience (Hilton-Morrow & Battles, 2002). In a more recent analysis, Barnhurst (2007) generalized four major (stereo)types of more recent visibility of gay and lesbian characters in media, as "coming out, professional queer, popularity, and technology" and pointed out their paradoxical ramifications as starting-off with good intensions, and damaging the representations in the end (p. 2).

As how Barnhurst (2007) concluded, the problems resided not just in the production and re-production of these characters, but in the obsession of critiquing LGBT characters'

representativeness. In resonation, Hilton-Morrow and Battles (2015) demanded us to go beyond discussions of stereotype and representativeness, because using this "YES, BUT approach (p. 80)" to analyze every character boxed researchers with logic of constantly looking for positive-negative binaries. Since increasingly visible LGBT characters have held their battlefields in the mainstreamed TV, the need for more falsifiable evidence and audience research is not just called for but also in time. Responding to this criticism, this research is an attempt to go beyond the binary and investigates the media effects of LGBT visibility.

Media-self-others perceptual triangle

Historically, the interactions among attitudes towards gays and lesbians, relevant media exposure, and perceived attitudes were studied unevenly and with foci on the former two (Ward, el 2013). Many demographic and related psychological factors have been studied that are in close relationships with people's own attitudes towards gays and lesbians: gender and gender role (Theodore & Basow, 2000; Herek, 2002), ethnicity (Herek & Capitanio, 1995; Hicks & Lee, 2006), religion and religiosity (Hicks & Lee, 2006) and political ideology (Haddock, & Zanna, 1998). Among all these demographic factors, religiosity and political ideology have been demonstrated are relatively more reliable in predicting attitudes towards gays and lesbians (Brown & Henriquez, 2008).

Media exposure, as a common factor, affects people's attitudes towards homosexuality. However, the results were minimal and mixed from previous research. Only research focused on certain programs, such as the movie, *Milk* (Riggle, Ellis, & Crawford, 1996*),* TV shows *Will & Grace*, *Queer as Folk, Queer eyes for straight,* and *Six feet under* (Gordan & Sigesmund, 2003;

Schiappa et al., 2005 & 2006; Ortiz & Harwood, 2007), or even the music video, *Born This Way* by Lady Gaga (Jang & Lee, 2014), have shown positive results in change on audience's attitudes towards gays and lesbians in the short term. Theoretically, audiences established so-called para-social relationships with beloved gay and lesbian characters after viewing (Schiappa et al., 2005 & 2006). These relationships potentially function as substitutes of interpersonal contact that most people lack with real LGBT individuals. These positive results in changing attitudes re-validate the interpersonal contact hypothesis, which presumes people who have LGBT individuals in their social circles will have more positive attitudes towards homosexuality than people who do not (Herek & Capitanio, 1995; Tu & Lee, 2014).

Investigation of media usage on a societal scale generated more mixed results. It is very much worth nothing that Nisbet and Myers' (2012) analysis of General Social Survey (GSS) data from 1972 to 2008 supported the genre-specific cultivation hypothesis that heavy exposure to TV shows that have gay or lesbian characters predicts higher "tolerance of homosexuals" over the years. In contrast, Netzley's (2006) dissertation showed no significant positive correlation between overall television viewing on the attitude changing in regards to gays and lesbians. Calzo and Ward (2009b) did not just confirm the result, but also demonstrated no significant positive association between attitudes towards homosexuals with overall media exposure, which included TV, music video, movie, magazine; they attributed it to the complex nature of media content. Nevertheless, it was noteworthy more attitudes towards homosexuals were demonstrated within audiences who reported more "PAST TV-comedy-and-drama" viewing time in Calzo and Ward's research (2009a), and they attributed it as mainstream effects (e.g., Gerbner, 1986). Suggested by Bond's (2014) content analysis, another explanation for the lack of correlation

between people's media usage and their attitudes is the still under-representation of gay, lesbian, bisexual instances in popular entertaining media.

Among studies that accounted for direct media effects on changing attitudes towards gays and lesbians, there was clearly a gap between experimental design, which fixed on single or limited media content as stimulus, and survey research, which concerned correlations between global media usage and attitudes towards gays and lesbians. The discrepancy, as suggested by Calzo and Ward (2009b) as well as Bond (2014), may be caused by the deficiency of quantity and quality with regards to LGBT inclusive content. However, the media effects have been largely located on TV entertainment narratives, including both drama and comedy. In order to further map the boundary of the potential media effects on people's attitudes towards gays and lesbians on a societal scale, this research aims at LGBT inclusive TV narratives, which is defined as popular TV drama or comedy series where LGBT characters served as either regular or recurring narrative elements.

More theoretically speaking, the explanation of the scarcity of evidence supporting strong media effects is that scholars tend to usually understand this topic with the mere exposure paradigm. However, the mere exposure paradigm seemed outdated and had been criticized for many reasons (see review in Albaracín & Vargas 2010): on the one hand, it ignored the nuances and complexity in homosexuality related media content; on the other hand, the agency of audience and human psychological reflexivity, especially in the age of online streaming (e.g., Hulu, Netflix, and Amazon TV, etc). Although this research is partially in line with the mere exposure paradigm, it tends to go beyond by discussing the psychological interactions between self attitudes and perceived attitudes of others. The theoretical validity will be discussed in the next section.

Perceptions of others' attitudes towards gays and lesbians and their influence on attitudes, although having received scarce attention in academia from the past, has shown a great potential in recent years. Calzo and Ward's (2009a) research showed interaction with peers is one of the major sources of information that contributes to the formation of people's own attitudes towards homosexuality. Crandall and Eshlemann (2003) found that people were more influenced by social references and norms, in other words, their perceptions of peers' attitudes, instead of direct observations of gay or lesbian individuals, to form their own attitudes towards gay, lesbian and bisexual people, especially when the chances of establishing interpersonal contacts with gays and lesbians are fairly low. Other explorations of related concepts like "perceived homophobia" demonstrated overt gay slurs, such as "fag" or "faggot," conveyed messages that associate homosexuality with negativity and subsequently influenced individual attitudes (Hall & LaFrance, 2007; 2012). As mentioned in the introduction, Hetzel's (2011) exploration, by providing dummy polling to subjects showed perceptions of public opinion strongly affect their intentions to support gay and lesbian advocate organizations. Following on the recently developing interests on this topic, this thesis applies the *Influence of presumed influence* (IPI) model to capture both potential direct and indirect media effects on people's attitudes towards gays and lesbians within the media-self-other perceptual triangle.

The influence of presumed influence (IPI) model

Gunther and Storey (2003) proposed the *Influence of presumed influence* (IPI) model in the research they conducted in Nepal. As mentioned, the model is the reason why this research partially is in line with and yet goes beyond the mere exposure paradigm. Besides the direct

media effects on self attitudes and behaviors, the model also incorporates and focuses on the indirect media effects as consequences of perceived media influence on others, and therefore, is integration of "the relationship between perceptions of both media content and media influence, and resultant perceptions of public opinion" (Gunther, 1998; p. 487). Paek and Gunther (2007) noted the explanatory power of this model resided in testing "media as the origin of peer perceptions…and outlines an entire process through which perceptions of peers could mediate the association between media messages and individual's attitude and behavior change (p.411)."

In an example of applying the IPI model, Chia (2006) explained the direct media effects with cultivation theory, one of the classic epitomes adopts the mere exposure paradigm, and the indirect media effects as "*persuasive media inference*. (PMI)." For the purpose of clarification, the term "IPI model," which is consistent with Gunther and Storey's (2003) original proposition, is used to refer to the overarching theoretical framework for this thesis, and the direct media effects are referred as (the second-level) cultivation effects and the indirect media effects are referred as the *persuasive media inference* (PMI) sequences.

Paek and Gunther (2007) has already further developed the IPI model and demonstrated how different referents (i.e., close friends vs. people of your age group) moderated the presumed media influence. According to the summary of various literatures pertaining to understanding multi-dimensions of "*others*," although different terminologies such as peer proximity (emphasized in risky social behavior; see in Bearman, Bruckner, Brown, Theobald, & Philliber, 1999), social distance corollary (emphasized in third-person-effects literature; see review in Perloff, 2009), social reference group theory (Hyman & Singer, 1968), social comparison theory (Festinger, 1954) and role norm in reasoned actions (Ajzen, 1991) were used, they all shared a similar presumption: *others* in a closer psychological distance showed more perceived

similarities with self and played more important roles in the formation of self attitudes. That is to say, “close friends” regardless their geological locations, must share similar attitudes of self, and people who are strangers might not. Therefore, both direct and indirect effects proposed by the IPI model will be divided into two layers: proximal and the distal level.

Direct effects: the second-level cultivation

As cultivation theory proposed almost forty years ago centered on TV viewing, it stated that heavy viewers tend to perceive reality in a way that reflected their frequently consumed TV content (Gebner & Gross, 1976; Gerbner, Gross, Signorielli, & Morgan, 1980). In the earliest research, people were asked to estimate the social prevalence of a certain issue (e.g., violence or crimes) and heavy viewer in comparison with the light viewers of television had given the answers that mirrored the televised world more. After decades, cultivation theory has gone beyond violence and comparison between the perceptions with the “facts” of the real world (Morgran & Shanahan, 2010).

In the recent theoretical development, Morgan and Shanahan (2010) pointed out two possible directions: genre studies and psychological approach. Genre studies firstly appeared to be a criticism of the mere exposure paradigm, because they overthrew the assumption that the cultivation effects come from the overall viewing of television, which seemed plausible at a time there were only five TV channels across the country (Signorielli, 1986). Under the current media environment where channels keep proliferating exponentially and devices became more and more portable, people seem to have more sense of control over more selections (Jang, 2014). However, it has been pointed out that no matter through which channels and medium types, as long as it follows the similar narrative mechanism, constant media consumption instills

audiences with similar ideological pattern (Eastman & Newton, 1995; Morgan, & Shanahan, 1997 & 2010; Lang & Ewoldsen, 2014). Although the grand ideological pattern of narratives across all genres on current American TV remains unclear in theory, this supposition reiterates one of the most important assumptions for the cultivation hypothesis: the content homogeneity. To reach certain level of homogeneity, characters have been particularly demonstrated as one of the essential components (Bilandzic & Busselle, 2012).

To this end, it is safe to say concentrating on certain scripted TV series that included regular and recurring LGBT characters preemptively guaranteed a higher level of homogeneity of the content than general TV entertainment viewing. Following this rubric, Nisbet and Meyers' (2012) analysis has already validated its cultivation effects on tolerance of homosexuality in the historical context, therefore, this research is partially a follow-up in the contemporary time. On the other hand, the operational definition of LGBT inclusive TV also excluded shows are primarily catering to LGBT audiences, such as *Looking,* an HBO show which portrayed a group of gay men struggling with life, friendships, and love in San Francisco. Therefore, the level of homogeneity is only elevated moderately, and it is very much likely for considerable non-LGBT audiences to "accidentally run into" (i.e., be exposed to) LGBT characters without expectations. The emphasis on inclusion by definition underpins the content assumption for cultivation hypothesis.

Psychological processing research as the other theoretical development has extended from simple presence estimation (i.e., the first-level cultivation hypothesis) to attitude formation (i.e., the second level cultivation hypothesis). The traditional prevalence estimation study is the first-level measurement (heuristic processing), and attitudes, beliefs, and judgments of perceived reality are the second-level measurements (systematic searching) (Shrum, 2009). Specifically for

the second-level cultivation effects, Hawkins and Pingree (1982) argued the cultivation process involved a media message symbolically transformed into a more general assumption easier than a discussion of the difference between reality and fiction; then long-term exposure could lead these assumptions to become one's perceived reality. Moreover, TV serves as a "magic window" or an "instructor" to viewers, teaching both what you should be thinking as well as what the world around you looks like (Potter, 1986; Morgran & Shanahan, 1997).

The IPI model captured psychological explanations of cultivation hypothesis on both levels. As Gunther (1998) stressed the media condition where it should be in a "media-rich environment," the model shared the heavy viewer assumptions in cultivation hypothesis (Gebner & Gross, 1976; Shrum, 2009). As the direct effects within the IPI model, the second-level cultivation hypothesis bespeak effects on both self attitudes and perceived reality, including perceived attitudes among proximal and distal peers. Here are the hypotheses:

H1: Consumption of LGBT inclusive TV is positively associated with the attitudes towards gays and lesbians.

H2: Consumption of LGBT inclusive TV is positively associated with perceived attitudes towards gays and lesbians among a) the proximal and b) the distal peers.

Indirect effects: persuasive media inference (PMI)

PMI sequence hypothesized the two sequential mediating variables leads to perceived attitudes among peers: perceived exposure and presumed media influence on peers. The first step of *persuasive media inference* (PMI) sequence, based on the "law-of-small-number bias"

(Tversky & Kahneman, 1971), says the more people are consuming certain media messages, the more similar media content they think their (proximal/distal) peers are consuming as well. Although this postulation functions as the first step in the PMI sequence, it clearly shared the similar assumption with the first-level cultivation effects pertaining to the simple prevalence estimation, and here is the hypothesis:

H3: The consumption of LGBT inclusive TV is positively associated with perceived consumption among a) the proximal and b) the distal peers.

Gunther and Storey (2003) further bridged the assumption of the perceived exposure, with the third-person effect (TPE), which stated a person would like to presume that certain media content will endow a greater impact on others than on self (Davision, 1983). Therefore the more certain media content people presume peers are consuming, consequentially the stronger the media influence they would also presume happened onto their peers with regards to the judged matter. Here is the hypothesis:

H4: Perceived consumption of LGBT inclusive TV among a) proximal and b) distal peers' is positively associated with presumed media influence on a) proximal and b) distal peers' attitudes towards gays and lesbians.

The last assumption is simply a logical extension of how presumed media influence affects people's perceptions of peers' attitudes (Perloff, 2002; Gunther, 1991 &1998). Then the hypothesis would be the more audience thinks media content affects their peers, the more

affected attitude or opinions they would infer:

H5: Presumed media influence on a) proximal and b) distal peers' attitudes of gays and lesbians will be positively associated with perceived a) proximal and b) distal peers' attitudes towards gays and lesbians.

According to the PMI sequence, H3-H5 as consecutive hypotheses are ordered within this study as, first, the more people are watching LGBT inclusive TV, the more they think their proximal/distal peers are watching as well; second, the more they think their peers are watching, the more they think their peers are affected by these TV shows; at last, they will infer their peers' attitudes based on how they think their friends are affected by these TV shows.

Nevertheless, unlike judgments of media messages that are the human artifacts, judgments of attitudes towards homosexuality are judgments of out-group members. Therefore the desirability judgments of persons, which determine the nature of social comparison (i.e., upward or downward), can be drawn upon perceptions of social norms and social reality, as well as personal experiences (Chock, 2011). While perceptions of social norms or social reality are more likely to be influenced by media messages (Hawkins & Pingree, 1988), having direct interpersonal contacts with LGBT individuals in personal experiences have been tested as the most effective way of changing people's self attitudes towards gays and lesbians (Herek & Capitanio, 1995; Tu & Lee, 2014). In the line of TPE research, Huge and Glynn (2015) recently also demonstrated interpersonal conversations moderate the evaluations of presumed media influence and its consequences. This research hereby attempts to advance the IPI model by including the effects of personal contacts on self attitudes and perceptions of peers' attitudes.

H6: People who have closer interpersonal relationships with LGBT individuals will have more positive a) self attitudes, as well perceived attitudes towards gays and lesbians among b) proximal and c) distal peers.

The full IPI model is hypothesized for further testing. (Details see in Figure 2.)

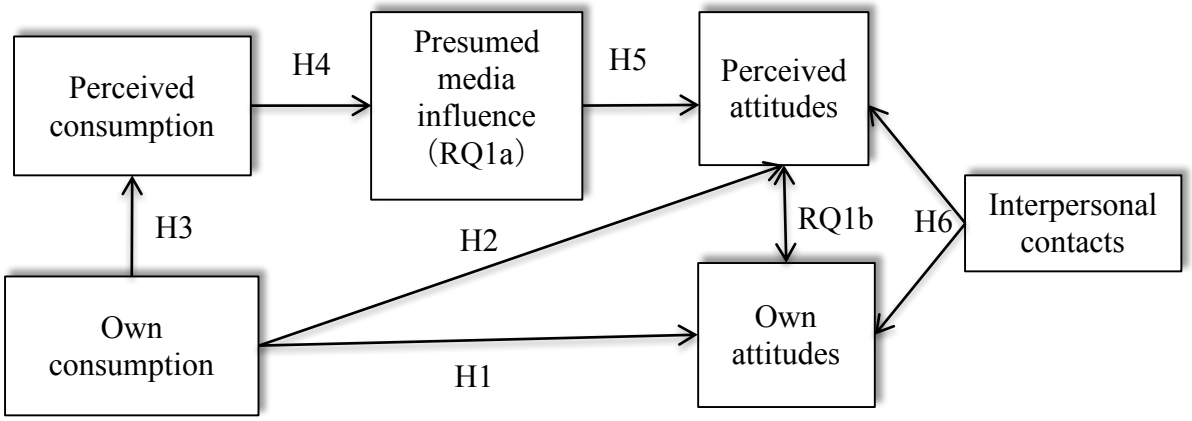


Figure 2: the hypothetical model

Self-other differential perceptions of media influence and attitudes

The IPI model concerns the self-other differential perceptions of media exposure, then media influence, and consequentially of peers' attitudes. Perceptions of media influences are documented in third-person effects (TPE) literature as one of the most popular topics in communication field (See the most recent meta-analysis in Sun, Pan, & Shen, 2008), and share similar features with self-other differential processing in social psychology literature (See the recent review in Brewer, 2007). Among many factors, this research explores the most relevant two that line up with TPE: how 1) presumed desirability of the judged matter and 2) social

distance of the referents, which has been discussed in the last section, moderate the perceptual gaps with regards to presumed media influence of watching LGBT inclusive TV, and attitudes towards gays and lesbians. Recently scholars (e.g., Chock, 2011; Shen et al., 2015) argued that the formation of perceptual gaps with regards to media influence and attitudes is a cognitive process confounded by motivations, and subjected to anchoring effects (i.e., method effects). This research following the developments tends to verify if the perceptual gaps in this context are "methodological artifact" or actual presentations of participants' cognitions.

Davision (1983) demonstrated that people would perceive greater media impact on others than on them and named it as third-person effects. Gunther (1996) further distinguished two aspects of this phenomenon: the third-person perceptions (TPP) as the judgments of media influence, and the third person effects (TPE) as the potential long-term behavioral or cognitive consequences of these judgments. Although there are many competing theories, the self-enhancement mechanism is the most frequently applied to explain TPP (Perloff, 2002; Sun, Pan, & Shen, 2008), and it postulates people are *motivated* by the natural instincts to maintain positive self-concepts by presuming stronger media influence on others than on self. Sun, Pan and Shen's (2008) meta-analysis supported this argument, and also tested the two critical factors that affect the directionality (i.e., stronger on self vs. stronger on others) and magnitude of the perceptual gap (i.e., the discrepancy between presumed media on self and on others): desirability of the media content (i.e., anti-social vs. social) and the characteristics of others.

The content desirability in this study means whether seeing LGBT storylines in entertainment TV is deemed as a good or bad thing. As complex as LGBT storylines can be, the academic critiques of LGBT inclusive TV have been discussed in critical and historical contexts in previous sections. In other words, the currently on-air LGBT inclusive TV could arguably be

seen as progressive or pro-social. When judging desirable media content, people tend to report the reversed TPP, otherwise named as the first-person perceptions (FPP) which assume the media content have stronger effects on themselves than on others (Cohen & Davis 1991; Gunther & Thorson, 1992; Hoorens & Ruiter, 1996).

However, Golan and Day (2008) reviewed the research on FPP, and they pointed out although the phenomenon can be explained by the same ego-enhancement mechanism as TPP, this explanation neglected the asymmetry between TPP and FPP with regards to the magnitude of the perceptual gap. Gunther and colleagues (1991 &1993) in their early research have noticed the magnitude of FPP was usually smaller. They explained the discrepancy as attribution error, which suggested perceived media influence on self is regarded more as "the objective reality." Wei, Lo, and Lu (2007) further articulated, besides the two factors—the "message attributes (anti-social vs. pro-social)" and "the traits of others"—one overarching factor is "individuals' perceptions of media effects (e.g., powerful media vs. limited effect)" (p.680-681), which is usually ignored yet rooted in the process of estimating media influence on self relative to others. Shen and his colleagues' (2015) recent research was in resonation with Wei's (2007) research and pointed out audience usually "assume oneself being influenced by media is a bad thing" (p.264). They further demonstrated the seemingly defaulted resistance from media effects functioned in line with TPP, which indicated a weaker media influence on self, and yet negated FPP, which indicated a stronger media influence on self.

TPP have been used to explain how media affects people's self-other differential perceptions of media influence on attitudes towards many socially undesirable topics such as risky sexual behavior (Chock, 2011; Chia & Gunther, 2006; Lambert, Kahn, & Apple, 2003), smoking habits (Paek & Gunther, 2007), and alcohol usage (Berkowitz, 2005; Perkins, 2002). As

previously mentioned, Paek and Gunther (2007) have incorporated the other factor, characteristics of others into the IPI model, and following traditions in the risky social behaviors chose "peer proximity" as the term. As this thesis is testing the IPI model in an arguably pro-social context, the research following the T/FPP literature chose the term "social distance" from the so-called social distance corollary (Gunther, 1996; Perloff, 2009). This term was originally defined as a multi-dimensional concept, which can be interpreted as either geological distance, psychological or relational distance (Gunther, 1996; Paek & Gunther, 2007; Shen, et al., 2015). Sun and colleagues (2008) demonstrated this concept should better be construed as psychological distance rather than geological distance in assessing the T/FPP.

In this case, although LGBT inclusive TV was argued to be pro-social in changing people's attitudes towards gays and lesbians, how strong the influence of media LGBT inclusive TV can change other people's attitudes is affected by the social distance of the referents and moderated by how people perceived the media influence on self. Therefore, here raised the first research question:

RQ1a: To what extent will people with different level of perceived influence from watching LGBT inclusive TV on self presume media influence on proximal and distal peers' attitudes towards gays and lesbians differently?

As mentioned, people's differentiation regarding attitudes shared a similar mechanism with perceptions of media influence. There were several competing theories in psychology and communication fields explaining the interactions between own attitudes and perceptions of others' attitudes, and predicting different results. One possibility is people might directly project

their personal experiences and attitudes on their peers directly, which is so called “project effect” or “looking glass effect” (Fields & Schuman, 1976). Then it could be hypothesized that people’s own attitudes towards gays and lesbians are consistent with their perceptions of peers’ attitudes towards gays and lesbians.

However, both empirically and theoretically the so-called “looking glass” seemed not to be able to completely cover the mechanism of the social self-other interactions (Tyler, Kramer, & John, 1999). Alternatively, social identity (Tajfel & Turner, 1986) and social categorization theory (Festinger, 1954) proposed rationales for the differential perceptions between self and others. No matter whether it is between “me (self as individual)” against “them”, or “we (selves as a group)” against “them,” led by the similar ego-enhancement mechanism, people tend to engage in social comparisons that favor their own self-concepts or their in-group identities (Tajfel & Turner, 1986). Therefore, similarly there are also two factors predicting the self-other differential perceptions with regards to attitudes towards certain judged matter: desirability of the issues (Chock, Fox, Angelini, Lee, & Lang, 2007; Duck, Terry, & Hogg, 1995) and social distance of the referents (Brosius & Engel, 1996; Cohen, Mutz, Price, & Gunther, 1988).

In order to further explore the relationship between people’s own attitudes towards gays and lesbians and their perceived attitudes of peers, here raised the open-ended research question:

> RQ1b: To what extent people with different level of attitudes towards gays and lesbians perceived attitudes towards gays and lesbians among the proximal and the distal peers differently?

In the recent development, scholars (e.g., Duck, Hogg, & Terry, 1995; Reid & Hogg, 2005; Chock, et al., 2007; Chock, 2011; Shen, et al., 2015) argued the formation perceptual gaps

of on media influence as well as attitudes might not merely be results of motivations. In other words, three variables in the PMI sequence predicted within the IPI model—perceived exposure, presumed media influence, and perceived attitudes are participants' cognitions. Scholars have already found people's mental representations of themselves and their close friends are seemingly inseparable, especially in socially desirable contexts (Cohen, et al, 1988; Brosius & Engel, 1996; McElwee & Dunning, 2005; Otten & Epstude, 2006). Shen and his colleagues (2015) recent research explained TPP as results of the social comparison and supported that perceptual gaps of media influence are actual presentations of cognitions. They also demonstrated how the magnitude of TPP could be susceptible to anchoring effects, such as being primed by similarity or disparity between referents and participants. Chock (2011) investigated emerging adults perceptions of peers' attitudes towards relational sex vs. recreational sex, the former of which appears more socially desirable. She found out there was a lack of differences when participants engaged in differential judgments in attitudes towards relational sex without referent comparisons (i.e., anchors), and reminded us to be cautious of applying self-other differential perceptions in different contexts. Hereby raises the research question:

RQ2: Are people's differential perceptions of the influence from LGBT inclusive TV on, and of attitudes towards gays and lesbians among self, proximal, and distal peers actual cognitive presentations or mere consequences of motivated comparisons?

Chapter 3: Methodology

This thesis was a cross-sectional research using an online survey as the method. Survey methodology is known for quantitatively capturing the information and relationship of "trends, attitudes, or opinions of a population" by studying a representative sample (Cresswell, 2014, p. 231). Taking advantage of this merit, this research is aiming to provide empirical evidence for the potential correlations between TV viewing habits and attitudes towards sexual minorities among straight audiences.

Procedures

The questionnaires were designed by using Qualtrics and distributed through the Internet for following reasons. First, the research involves a controversial issue. The online environment is more impersonal and private, and limits the threats from factors outside the research (Ritter & Sue, 2007a). Second, this study is conducted at a time when Internet platforms, such as Netflix, Amazon TV, Hulu, YouTube, etc. have become the alternative channels for TV entertainment viewing (Spangler, 2010). Although many scholars (e.g., Evans, & Mathur, 2005; Ritter & Sue, 2007a; Fowler, 2009) argued that Internet users are not nationally representative because not everyone has access and ability to it, the problem is less salient in the current TV viewing environment. Additionally, online surveys have other irreplaceable merits, such as reaching large populations with various geographic locations efficiently and economically (Ritter & Sue, 2007b; Fowler, 2009). Also, the previous applications of the IPI model all have adopted the survey methodology (e.g., Chia & Gunther, 2006; Paek & Gunther, 2007; Chia, 2009). As all of these advantages outweighed the disadvantages, the online survey was chosen eventually.

Sampling and recruitment

Participants were recruited via convenience sampling on Amazon Mechanical Turk (MTurk). The sample size was planned and calculated by performing power analysis and following the standard of psychological and behavioral science prior to questionnaire distribution. Each participant was reimbursed with 50 cents as an incentive. For data collection, both heterosexual and non-heterosexual were collected, and only participants who identified as heterosexual or straight were included for data analysis.

Although studies argued that the population pool of MTurk is skewed slightly younger and more liberal than online based panels (e.g., ANES; GfK), or national probability samples (Berinsky, Huber, & Lenz, 2012), using the platform has many other advantages. For example, the population pool at least is much more diverse than a student sample (Buhrmester, Kwang, & Gosling, 2011); participants are more attentive than when using social media recruitment or face-to-face interviewing (Casler, Bickel, & Hackett, 2013); participants' habitual responding is still minor (Berinsky et al., 2012;); and recruiting is fast and the expense is relatively affordable.

IRB and pretest

The date of Institutional Review Board (IRB) approval was 24th, February 2016. The data collection for pretest was conducted immediately through Facebook and other social media accounts. The pretest sample consisted of friends and acquaintances of the researcher and 52 participants in total. Data was tentatively analyzed by using SPSS, and all the scales reached the rule of thumbs (i.e., Cronbach $\alpha > .70$). Some qualitative feedbacks were also acquired from pretest participants.

Instrumentation and measurements

Attitudes and perceived attitudes towards gays and lesbians

This thesis used the scale developed by Herek (1988, 1994, & 2011) to measure the attitudes of audiences towards gays and lesbians. The validity of the ATLG scale has been tested in many environments, e.g., military, educational and health institutions, and cultural contexts, e.g., Ireland, Chile and the Netherlands (Costa, Bandeira, & Nardi, 2013). The original version (1984) had 20 items and tested explicit attitudes towards gays (ATG) and lesbians (ATL) separately. To shorten the length of the questionnaire, a five-item revision was then selected from the original scale to measure attitudes towards both gays and lesbians (ATLG) in one scale. Items were selected and modified according to contemporary changes and ongoing discussions with regards to this topic. For example, the original item said “State laws against private sexual behavior between consenting adult women/men should be abolished” was replaced by “National laws approving same-sex marriage should be repealed” as a response to the current legislation change. (See detailed item list in Appendix A.) The revised measurement took the form of a 1-7 numeric scale, where a greater number means a higher-level agreement with the statements.

After being questioned about self attitudes, perceived attitudes of peers towards gays and lesbians (PATLG) were measured using the same items from ATLG. The definition of “peers” followed the Paek and Gunther’s (2007) research. Instead of being asked, "to what extent do you agree or disagree..." participants were directed with statements started with "To what extent do you think your CLOSE FRIENDS/PEOPLE OF YOUR AGE IN AMERICA would agree...?"

Consumption and perceived consumption of LGBT inclusive TV

Participants were asked how many episodes they have watched of the selected 35 LGBT inclusive TV shows, with a 0-6 scale representing "none" to "all." First, 30 TV series were purposely sampled from 101 shows that included LGBT characters in the 2014-2015 season (GLAAD, 2015). For shortening time to complete each questionnaire, only 30 percent of shows were selected. The sample of shows proportionally represented across channels (broadcasting/cable), genres (comedy/drama) and LGBT characters' positions (regular/recurring). The shows with the highest ratings among total viewers in each category are selected with priority (Full Rating Table, 2015). (For the detailed show list, see Table 1.) On top of these 30 currently on-air series, five finished ones in the past were also included. The 35 shows in toto were randomized into five groups of seven and displayed on each web page.

The perceived consumption by peers of the shows was measured after participants had finished answering all the selected 35 shows, with two single-item 7-point scales. From "not-at-all" to "very", they were asked to estimate "how popular these shows are among their close friends/people of your same age in America."

Presumed media influence

The same five items from the revised attitudes towards lesbians and gays scale (ATLG) were used to measure presumed media influence. Differentiation between self, proximal and distal peers was measured in the same comparative manner by switching the referents in the statement. They were asked, "to what extent do you think gay or lesbian stories in TV shows have changed your perspective in the following statements?" and "...have changed the

perspective ...among YOUR CLOSE FRIENDS/PEOPLE OF THE SAME AGE IN AMERICA?" It took the form of a 7-point bipolar scales: -3 meant watching LGBT inclusive TV makes themselves or peers "strongly" disagree more with the item, +3 means "strongly" agree more, and 0 means no influence. Therefore, the absolute values captured the magnitude of the change, while the plus and minus signs indicated the directionality.

Interpersonal contacts

Participants' connections with gay and lesbian individuals both in real life and in social media were taken into consideration. They were directed by "How do you characterize your personal connections with gay and lesbian individuals?" and asked to pick one out of five following choices: 1) "I don't know any gays or lesbians in my life or on social media (e.g., Facebook);" 2) "I know some gays and lesbians on social media, but I don't know them in real life;" 3) "I do know some gays and lesbians in real life, but they are not my friends;" 4) "I have some gay and lesbian friends" 5) "Some of gays and lesbians I know are my best friends (or family members)."

Demographics and TV watching habits

This research collected demographic information pertaining to respondents' gender identities, political ideology, age, race, and religiosity, and sexual orientations. Gender identities included "prefer not to answer" besides "male" and "female." Religiosity was measured based on how often attended religious meetings in (church or temple or mosque).

On top of demographics, general TV watching habits were measured with regards to the platforms they use to access TV content and the genre of TV content they frequently followed. Both of the measurement took the forms of 1 to 7 (“never” to “always”) Likert scales. Platform usage was categorized as TV Broadcast (e.g. NBC, FOX), TV cable (e.g., HBO, ShowTime), online streaming (e.g., Hulu, Netflix), other Internet-based platforms (e.g., P2P sharing, Torrent, YouTube), and social media (e.g., Facebook, Twitter). Genre was categorized as news, dramas, comedies, reality shows, and other non-fictional entertaining programs (e.g., Game shows, Talk shows, TV documentaries).

Within-subjects and between-subjects design

In order to test if the comparison between self and others are results of methodological artifacts and, this study adopted Chock's (2011) within-subjects and between-subjects design. All the participants answered questions with regards to demographics, interpersonal contacts, and consumption of the selected 35 LGBT inclusive TV shows as well as TV watching habits. Half of the participants who were randomly assigned to the within-subjects condition, the other half into the between-subjects conditions. In the within-subjects condition, they had answered questions in regards to perceived consumption of both proximal and distal peers, presumed media influence on self, on proximal, and distal peers, self attitudes and perceived attitudes among proximal, and distal peers. Participants in the between-subjects conditions were further randomly assigned into three conditions: the self, the friend, and the peer condition. Participants in the self condition only answered questions pertaining to presumed media influence on self and self attitudes towards gays and lesbians. Participants in the friend or the peer condition only

responded to the questions in regards to perceived consumption of, presumed media influence on, and perceived attitudes of close friends or people of the same age in America respectively. The order all the questions within every condition was randomized to reduce the anchoring effects caused by the different order of how the questions are asked (i.e., self first vs. others first, see in Shen et al., 2015).

Chapter 4: Results

The results are organized into the following five sections: *data cleaning*; *participants; multivariate normality and reliability checks; hypotheses testing;* and *model testing and optimization*. The first section describes the data cleaning with special attention to the elimination to the outliers. The second section includes the participants' demographics and TV watching habits. The third section presents the results of scale reliabilities and multivariate normality assumptions checking. After various statistical techniques have been applied to analyze the cleaned data, the fourth section provides results of hypothesis testing. From the second to the fourth sections, homoscedasticity between within- and between-subjects (i.e., self/friend/peer) condition(s) are tested. The last section first displays the results of the hypothetical model testing. According to the alternative theoretical framework discussed previously, the model is then further specified to reach an optimal and parsimonious fit. Model testing is only performed in the within-subjects condition, due to the impossibility of controlling critical inter-condition differences (e.g., self attitudes) among these three between-subjects conditions.

Data cleaning

A total of 1009 respondents took part in this research. Recognizing the possibility of various human errors during the data collection, the researcher used two cut-off rules in the initial data cleaning: viewing more than 29 out of 35 TV shows, and more than 95 points in their episode quantity estimation out of a maximum possible score of 210. People who reported more than what these two rules required fell into the last five percentile. After careful examinations of

these outliers, patterns of recklessness or habitual answers were identified. For example, on a scale of 0-6, more than a few participants reported either five ("almost all") or six ("all") across all the 35 shows. Therefore, plus two cases with missing data, a total 57 cases were excluded from the results. Only for the purpose of this study, 9.5% (n = 96) respondents who identified as non-heterosexual/straight (i.e., gays, lesbians, bisexuals, transgender, other, or prefer not to answer) were further excluded because self-identities and identifications with the characters would confound the potential explanations. The final sample N is 856, among which 434 were in the within-subjects condition, and 422 in the between-subjects conditions. There were 143 participants in the self condition, 140 in the proximal peer condition (referred as the friend condition), and 139 in the distal peer condition (referred as the peer condition).

Descriptives

Compared to convenient student samples that are usually predominately young and white, and yet frequently used to study relevant topics (Ward et al., 2013), the participants in this research showed considerable variance in their demographic profiles (Details are shown in Table 2). Among all the participants, age ranged from 18 to 83 (M = 37.41, SD = 12.94) and a majority fell into the 18-49 age group (78.7%, n = 674). Female participants (56.3%, n = 482) were slightly more numerous than male. Nevertheless, in accordance with Berinsky and colleagues' (2012) pool study results, this sample indeed overly represented white (78.8%), liberal/Democrats (41.4%), young and well-educated people (51.9% have bachelor or higher degrees) and was not qualified as a national representative sample. Chi-square and one-way

analysis of variance (ANOVA) were performed to test the homogeneity of demographics across the four conditions, and no significant differences were found (all $p > .05$).

In addition to demographics, self-reported frequencies of TV platform usage ($M = 3.27$, $SD = .87$) and genre following ($M = 3.54$, $SD = .95$) were also rated. See details in Table 3. The platforms that are used from the most frequent ones to the least are online streaming service, TV broadcasting, other Internet-based platforms, TV Cable, and social media. Genres of TV content that participants followed were ranked from the most frequently to the least as comedies, drama, news, other non-fictional entertaining programs, and reality TV. As results of one-way ANOVA showed, there was no significantly intergroup difference with regards to platforms and genres (all $p > .05$).

Consumption of selected shows was calculated as the sum of episode estimations ($M = 32.18$, $SD = 19.87$). One-way ANOVA was first performed to test the inter-condition homogeneity, and no significant differences with regards to consumption of LGBT inclusive TV were found (all $p > .05$). Perceived consumption among close friends ($M_{within} = 4.41$, $SD = 1.60$; $M_{friend} = 4.17$, $SD = 1.72$) and people of the same age ($M_{within} = 4.64$, $SD = 1.53$; $M_{peer} = 4.59$, $SD = 1.47$) was measured separately. Self attitudes towards gays and lesbians average were only measured in the within-subjects ($M_{within} = 5.50$, $SD = 1.64$) and the self condition ($M_{self} = 5.61$, $SD = 1.54$). Perceived attitudes of close friends were measured in the within-subjects ($M_{within} = 5.31$, $SD = 1.50$) and the friend condition ($M_{friend} = 5.35$, $SD = 1.63$). Perceived attitudes of people of the same age were measured in the within subjects ($M_{within} = 5.22$, $SD = 1.31$) and the peer condition ($M_{peer} = 5.25$, $SD = 1.41$). Similarly, presumed media influence on self ($M_{within} = .42$, $SD = 1.06$), on close friends ($M_{within} = .59$, SD = 1.08) and people of the same age ($M_{within} = .86$, $SD = 1.12$) were also measured in the within-subjects condition, and respectively in each

concerned condition—perceived influence on self in the self condition (M_{self}= .69, SD = 1.13), on friends in the friend condition (M_{friend} = .50 , SD = 1.05), and on the people of the same age in peer condition (M_{peer} = 1.05, SD = 1.31).

Multivariate normality and reliability checks

Data explorations of the ten variables of interest showed more or less there were violations of multivariate normality assumptions, namely the absolute values of the ratio between skewness/kurtosis and its Std. Errors are larger than 1.96, and the results of Shapiro-Wilk test of normality are significant (p < .05). Although many methodologists (e.g., Fabrigar, Wegener, MacCallum, Strathan, 1999; Weber & Seaman, 2014) have warned of the distortion of results from non-normally distributed data, all of the violations were far from severe (i.e., skew > 2; kurtosis >7; West, Finch, & Curran, 1995). Besides, the sample size was adequately large (N > 400, Schumaker & Beyerlein, 2000) so that the potential inflations in results were insignificant and negligible.

The reliability of scales was checked among six variables of interest across (within/between-subjects) conditions (See details in Table 3). Out of the total 12, 11 scales met the rule of thumb (Cronbach α > .7, details in Table 3). The only scale that was slightly off (Cronbach α = .67) was perceived media influence on close friends in the friend condition. For each of six continuous variables, exploratory factor analysis (EFA) with Maximum Likelihood (ML) estimation method was used to revalidate the construct hierarchy. The K-1 rule (i.e., Eigenvalue > 1) and scree plot were used as factor extraction methods. Every scale of interest was shown in a stable construct hierarchy that measured a single factor.

Hypotheses testing

Direct effects: the second-level cultivation effects

H1, H2a, and H2b examined direct media effects, i.e., the second-level cultivation effects on self as well as perceived reality. They hypothesized greater consumption of LGBT inclusive TV could predict more positive self attitudes as well as more positive perceived attitudes towards gays and lesbians among the proximal and the distal peers. For the within-subjects condition, H1, which predicted the positive correlation relationship between self consumption and attitudes, was supported ($r = .16$, $p < .01$, $n = 428$). H2a, which predicted consumption of LGBT inclusive TV is positively correlated to perceived attitudes among close friends, was also supported ($r = .17$, $p < .01$, $n = 428$). However, H2b, which predicted a similar positive correlation between consumption and perceived attitudes among the people of the same age, was not supported ($p > .05$, $n = 428$). Results in the between-subjects condition for these two hypotheses showed consistency with the within-subjects condition. As H1 predicted, a significant positive correlation between consumption and self attitudes existed in the self condition ($r = .27$, $p < .001$, $n = 137$). With regards to perceived attitudes among close friends, H2a was also supported in the friend condition ($r = .27$, $p < .01$, $n = 134$). H2b, which predicted the positive association between consumption and perceptions of attitudes among the people of the same age, was also not supported in the peer condition ($p > .05$, $n = .139$). Tables 4 and 5 respectively provide the correlation matrices controlling for demographics for the within-subjects condition and the between-subjects conditions.

Indirect effects: persuasive media inference (PMI)

H3-H5 tested the persuasive media inference (PMI) sequences. H3 tested the first part of the sequence, i.e., the first-level cultivation effects, which hypothesized that more consumption of LGBT inclusive TV predicted higher estimations of similar TV content consumption among a) peers/close friends, as well as b) distal peers/people of the same age. H3a and H3b both were supported in the within-subjects condition (r_{3a} = .305, r_{3b} = .21, p < .001, n = 428). However, there is a lack of consistency for the between-subjects condition(s). H3a was supported in the friend condition (n =137, r = .30, p < .001), whereas H3b was not supported in the peer condition (p >.05).

H4 and H5 predicted positive associations between three variables: perceived consumption, presumed media influence, and perceived attitudes among the proximal and the distal peers. These two hypotheses are supported in the within-subjects condition: the more LGBT inclusive TV that participants estimated their friends consumed, the stronger the positive impact they speculated these TV shows might have on changing their close friends' attitudes towards gays and lesbians (r_{4a} = .28, p < .001, n = 428); the stronger the presumed media influence, the more positive were perceived attitudes towards gays and lesbians among their close friends (r_{4b} = .45, p < .001, n = 428). Similarly, significant correlations existed among people of the same age (r_{5a} = .28, r_{5b} = .42, p < .001, n = 428). These hypotheses were also supported in the between-subjects condition(s) (r_{4a} = .27, p < .01, r_{4b} = .423, p < .001, n = 134; r_{5a} = .20, p < .05, r_{5b} =585, p < .001, n =139). Although without being specified in these two hypotheses, positive associations between perceived consumptions and perceived attitudes among close friends (r_{within} = .34, p < .001, n = 428) and people of the same age (r_{witin} = .27, p

< .001, n = 428) supported across conditions (r_{friend} = .53, p < .001, n = 134; r_{peer} =.18, p < .001, n = 139).

Interpersonal contact hypothesis

H6 postulated the interpersonal connections with LGBT individuals were positively correlated with a) self attitudes, and b) perceived attitudes among close friends, and c) among people of the same age. The average score of interpersonal contacts was 3.74 (*SD* =1.09) and indicated the average level of personal connections with LGBT individuals largely participants in research have defined is between acquaintances and friends. There was no significant inter-condition difference (p > .05). Results in the within-subjects condition showed that closer interpersonal connections with LGBT individuals predicted more positive self attitudes (r_{6a} = .34, p < .001) as well as more positive perceived attitudes (r_{6b} = .30, p < .001) among both close friends and people of the same age (r_{6c} = .21, p < .001). These positive correlations also existed in the between-subjects conditions (r_{6a} = .32, p < .001, n = 137; r_{6b} = .34, p < .001, n = 134; r_{6c} = .32, p < .001, n = 139). Therefore, H6 was supported.

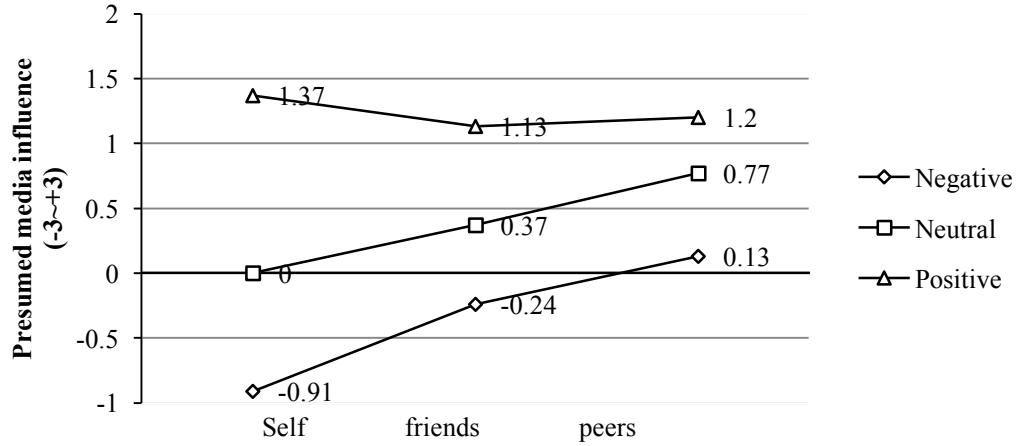
Self-other differential perceptions

RQ1&2 tested how self-other differential perception processing moderated both direct and indirect media effects (i.e., the second-level cultivation effects, and PMI sequences). RQ1 concerned the self-other differential perceptions of a) media influence, and b) attitudes among proximal peers and distal peers. Repeated measure ANOVA was chosen as the method for its power to test both intra-individual and inter-individual differences, as well as the interaction effects between factors (Raykov & Marcourlides, 2006). RQ1 in general concerned the intra-individual differences as the main effects of the differentiated social distance; RQ1a specifically

concerned the inter-individual differences as the moderation effects of perceived media influence on self; and RQ1b concerned the moderation effects of self attitudes towards gays and lesbians.

RQ1a examined how people with different level of presumed media influence on self might perceive the influence of watching LGBT inclusive TV on proximal and distal peers differently. According to the differentiated ratings of presumed media influence on self, participants are categorized into three groups: negative influence on self (M = -.91, SD = .67, n = 51), neutral influence on self (M = .00, SD = .01, n = 213) and positive influence on self (M = 1.37, SD = .95, n = 168). See details on intergroup differences based on presumed media influence on self in Table 7. Despite the violations of sphericity assumptions (i.e., Mauchly's ε >.75, Sphericity p< .05), results showed there were significant main effects from social distance (Huynh-feldt, $F(1.94, 23.62) = 42.78$, $p < .001$, partial $\eta^2 = .09$) and moderation effects by categorized presumed media influence on self ($F(2, 188.35) = 131.94$, partial $\eta^2 = .38$, $p < .001$), as well as significant interaction effects (Huynh-feldt, $F(3.87, 14.12) = 25.58$, $p < .001$, partial $\eta^2 = .11$).

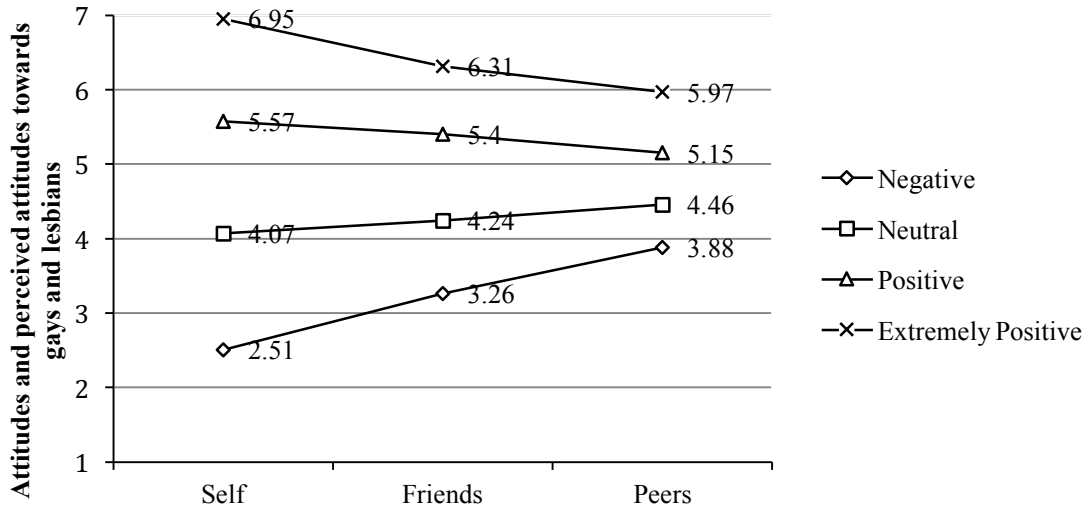
Figure 3: Intergroup differences of presumed media influence in the within-subjects condition (n=434)



As seen in Figure 3, the absolute values of the presumed media influence are very minimal. People who experienced positive media effects on self reported first-person comparisons (i.e., FPP), whereas people reported neutral and negative media influence on self reported third-person comparisons (i.e., TPP). The magnitude (i.e., the discrepancy between self and others) is much larger in the negative group than (MD = -1.04) than in the positive group (MD = .17).

RQ1b was an inquiry on differential perceptions of attitudes towards gays and lesbians between self, proximal and distal peers. However, insofar as self attitudes towards gays and lesbians in this sample leaned towards rather accepting, participants were categorized into four instead of three groups: people with negative attitudes (M = 2.51, SD = .74, n = 65), with neutral attitudes (M = 4.07, SD = .22, n = 57), with positive attitudes (M = 5.57, SD = .56, n = 130), and with extremely positive attitudes (M = 6.95, SD = .11, n = 182). See details of the intergroup comparison based on self attitudes in Table 8. Results of repeated measure ANOVA showed there were no main effects from social distance (p >.05), but significant moderation effects from self attitudes towards gays and lesbians (F(3, 569.59) = 500.19, partial η^2 = .78, p < .001) and significant interaction effects between social distance and group categorization (i.e., self attitudes towards gays and lesbians) after adjustment (Mauchly's ε >.75, Sphericity p < .05, Huynh-feldt, F(5.65, 26.50) = 39.90, p < .001, partial η^2 = .22).

Figure 4: Intergroup differences of perceived attitudes in the within-subjects condition (n=434)



In both negative and neutral group, the level of attitude positivity showed an increase with the social distance (i.e., $M_{peer} > M_{friend} > M_{self}$); in the positive and extremely positive group, the level of the positivity decreases along with the social distance increased (i.e., $M_{peer} < M_{friend} < M_{self}$). (See in Figure 4.) Mean differences between self attitudes and perceived attitudes of people of the same age are greater among people with extreme attitudes in both ends (i.e., negative and extremely positive attitudes) than people with moderate attitudes (i.e., neutral and positive attitudes).

RQ2 investigated whether it was merely motivated by the instrumentation or the actual presentation of participants' cognition of self-other differential perceptions. As presented above, demographics and TV use habits were compared. Most of the H1-H6 were supported in both conditions, except for H3b that hypothesized the first-level cultivation effects on perceived consumption among distal peers. H3b was only supported in the within-subjects condition, where the item was juxtaposed next to the one about perceived consumption among proximal peers.

The actual inter-condition mean differences with regards to both attitudes and presumed media influence were minimal numerically (see details in Table 3). Although the results of a series of independent T-test were significant ($p < .05$), the statistical differences might be inflated only by sample size. The comparison between presumed media influence on self, friend and peers followed a trend that positivity of the presumed influence increased along with the increase of social distance (i.e., $M_{peer} > M_{friend} > M_{self}$) in the within-subjects condition. Meanwhile, this trend was not strictly followed in the between-subjects condition. Specifically, participants in the within-subjects condition ($n = 434$) rated slightly stronger average presumed media influence on close friends ($M = .59$, $SD = 1.08$) than on self ($M = .42$, $SD = 1.06$), whereas participants rated slightly weaker effects on close friends by comparing the friend ($M = .50$, $SD = 1.05$, $n = 140$) and the self ($M = .69$, $SD = 1.13$, $n = 143$) condition. As for attitudes and perceived attitudes towards gays and lesbians, both within- and between-subjects condition showed an inverse trend that decrease of positivity of attitudes along with the increase of the social distance (i.e., $M_{peer} < M_{friend} < M_{self}$). In a nutshell, the differences between within- and between-subjects conditions were very small.

Model testing and optimization

Due to the relatively good reliability of the main variables of interest, which are measured by largely homogeneous items, path analysis (PA) with Maximum Likelihood (ML) method was adopted as the modeling technique.

As the results of testing the original IPI model, the estimated parameters as well as good-of-fit indices ($\chi^2/df = 147.53/20$, $p < .001$; $RMSEA = .12$; $CFI = .91$, $SRMR = .12$, $TLI =. 84$.)

showed a fairly poor fit. See the estimated path coefficients in Figure 5. Consumption of LGBT inclusive TV had no significant direct effect on people's attitudes towards gays and lesbians ($p > .1$), and very minimal effects ($\beta < .1$) on perceptions of friends' and peers' attitudes as well as consumption.

Led by alternative theoretical frameworks, the original IPI model was modified into one where the self attitudes towards gays and lesbians was conceptualized as the "cause," which means people choose these shows based on their own attitudes towards gays and lesbians (i.e., selective exposure or use and gratification), and self attitudes also predicted perceived media influence as well as the perceived attitudes among friends and peers (i.e., projections). See the details of modeling and estimated path coefficients in Figure 6. All hypotheses are supported in this model. Nevertheless, the model fit indices showed improvement and still did not match rules of thumb ($\chi^2/df = 96.77/21$, $p < .001$; $RMSEA = .09$; $CFI = .95$; $SRMR = .11$, $TLI = .91$). The same as the IPI model, the projection model also incorporated the PMI sequences in the model. However, the effects of self consumption of LGBT inclusive TV on perceived consumption among friends and peers were every minimal. Therefore, the revision was made: two variables concerning perceived consumption were deleted, and according to literature, adding perceived media influence on self as a moderator in the revised projection model. See details of model coefficients in Figure 7. The overall model fit further improved ($\chi^2/df = 43.35/15$, $p < .001$; $RMSEA = .07$, $CFI = .98$; $SRMR = .07$, $TLI = .96$).

The final model was further specified based upon the revised projection model and named as the "ripple perception" model. Instead of conceptualizing the relationships between perceptions pertaining to proximal and distal peers as covariates, this model proposed that perceptions about proximal peers are mediators in the process of forming perceptions of distal

peers. For details of modeling and its results see Figure 8. Most of the path coefficients were strongly significant (*ps*<. 001). Most of the unstandardized coefficient values were larger than .10, except for the cultivation hypothesis, namely the more people consume LGBT inclusive TV, the more positive self attitudes towards gays and lesbians. However, considering the measurement of consumption of these TV shows was based on the sum, instead of an average score, of 35 shows with a maximum possible score of 210, as small as the values of these two coefficients appear, they could still be interpreted as rather robust media effects. More importantly, the good-of-fit indices showed an excellent fit of the model in a very high standard (χ^2/df =11.37/12, $p > .05$; *RMSEA* = .00; *CFI* = 1.00; *SRMR* = .02, *TLI* = 1.01).

Chapter 5: Discussion

The last chapter of this thesis discusses four aspects of this research: contributions, limitations, future research, and conclusions. The contributions are organized into three sections. The first section follows the model specification presented in the previous chapter and elaborates the empirical and theoretical advantages of the final model in comparison with the original hypothetical model and the alternative models. The second section focuses on the interpretation of the results pertaining to direct media effects of watching LGBT inclusive TV on people's attitudes and perceived attitudes towards gays and lesbians. The third section discusses indirect effects with emphasis on how self-other differentiation processing affects presumed media influence and perceived attitudes towards gays and lesbians differently. Limitations of this research are also discussed from three aspects: conceptualization, instrumentation and results analysis. Based on limitations, future studies are proposed. Finally, the summary section concludes this thesis with its practical implications of changing people's attitudes.

Contributions

The "ripple perception" model

One of the major contributions of this research is having applied the influence of presumed influence (IPI) model to a new context. Driven by both theory and data, the final model was proposed, tested and will be referred to as the "ripple perception" (RP) model. In comparison with the original IPI model and the projection model as well as its revision, the optimal explanatory power of the RP model resides in explaining how the social distance

moderates self-other differentiated presumed media influence and perceived attitudes in a pro-social context.

Unlike other media campaigns, which aim to prevent risky social behavior (e.g., sexual permissiveness, smoking, alcohol abuse, etc.) and where the IPI model was originally proposed and validated, including positively portrayed LGBT characters on TV as part of the equal rights movement (Hilton-Murrow, 2015), the goal of which partially is to change attitudes towards gays and lesbians, is very much different. The matter appeared to be a rather socially desirable one currently, or at least in the current sample. The classic optimism bias explanation in attribution theory (See review in Weinstein & Klein, 1996) postulates that people tend to attribute socially undesirable notions and behaviors to external factors such as peer pressure or media influence, whereas desirable ones are attributed to ones' own merits. Therefore, it is more plausible to conceptualize self attitudes towards gays and lesbians as the "cause" in this case, and the formations of perceived peers' attitudes as projections. The good-of-fitness indices of the projection model and its revision, as well as the RP model, supported the projection explanation.

While the projection model and its revision included projections of self attitudes, the RP model additionally included projections of perceived media influence on self. In other words, people project own experience of being influenced by media— on close friends and people of the same age. However, the term "projection" here is used loosely especially within the context of perceptions about proximal rather than distal peers, and only for emphasizing the centralized position of people's attitudes and own experience of media influence on this topic. Attitudes among close friends may not be mere projections, but the consequences of actual interpersonal interactions such as having conversations with their friends about how to treat LGBT individuals (Hall & LaFrance, 2007 & 2012). In the same fashion, people's perceptions of media influence

on close friends are susceptible to the influence of the daily observations or conversations with friends about these popular TV shows and homosexuality.

Similar to the original IPI model, the projection model also failed to include first, media influence on self, and second the mediating effects of perceptions of proximal peers in the process of forming perceptions of distal peers. The inconsistency and low effect size between the within- and between-subjects conditions with regards to H3, which predicted positive correlations between self and peers' consumptions, showed perceived consumption might not be a good predictor for presumed media influence among peers. Instead, perceived media influence on self was more reliable in predicting presumed media influence on proximal and distal peers. It resonated with the first-person perceptions (FPP) literature: in general, the more positive people's attitudes are towards certain media message, the more willing they are to admit being under its influence (Gunther & Mundy, 1993; Hoorens & Ruiter 1996; Golan & Day, 2008). Moreover, the RP model, on the other hand, provided evidence that people would infer media influence and attitudes among people of the same age, based on the observations and perceptions of close friends, since "close friends" are very much likely to fall into the "people of the same age" group.

The RP model also captured the increasing "indirectness" along with the social distance in the PMI sequences. The model showed self attitudes contribute directly and significantly only to perceptions of media influence on close friends, not to people of the same age. In a sense, it emphasized perceptions of close friends with regards to influence from LGBT inclusive TV and attitudes towards gays and lesbians are much closer to self, whereas the perceptions of distal peers can is at a further differentiated end.

In general, the word “ripple” primarily characterized how LGBT storylines on TV influenced audience and society directly and indirectly. Media messages with a persuasive nature are like pebbles, and the human mind is like a lake. Besides influencing people’s own attitudes, LGBT storylines also may also change people’s perceptions of people around them. The presumptions of media influence on others are the forces rippling the water out. Instigated by media messages, people perceptions of attitudes diminished along with the increase of psychological distance. It is noteworthy such diminishing is caused by the interactions between psychological distance and the "force," which may or may not diminish on the way out.

In resonation with larger theoretical backdrops, the model shared assumptions with Theory of Mind (ToM), that is to say the “ripple” are only people’s perceptions of other people, which is different from actual “ripple effect” that actual charitable behavior passing along between individuals or communities in society (Long, 2009). Given the dynamic nature of the social interactions, therefore, this model only provided one way to understand the trilateral relationships between media, self, and others in the context of attitudes towards gays and lesbians.

Accelerating Acceptance

Traditional LGBT-related campaigns such as the “it gets better” project typically targeted directly to LGBT community. GLAAD’s new campaign (2015) “Accelerating Acceptance” recognized:

> “Broadening acceptance of LGBT Americans will require the help of allies—everyday non-LGBT Americans who feel strongly that their LGBT friends and family must be fully

accepted members of society; these allies need to be empowered and activated to be advocates for the LGBT community be the ones that will help bridge the gap to full acceptance ”(p.2).

In response to this call, this research provided us with a further understanding how TV entertainment as part of the LGBT movement is changing non-LGBT Americans' attitudes as well as their perceived reality.

First, the results of this research supported the conclusion that watching contemporary gay and lesbian storylines on TV has positive effects on changing people’s attitudes towards gays and lesbians (Ward et al., 2013). Moreover, the research further validated (e.g., Nisbet & Myers, 2012) that the amount of consumption of LGBT-inclusive TV is one of the reliable predictors of more positive attitudes towards gays and lesbians. Thus, it also bridged the gap between the traditional cultivation analysis focusing on global media usage and para-social relationships or genre studies focused on effects of a single or a limited number of shows on changing people’s attitudes. Notably, cultivation effects on a societal scale require not only sufficient amount of consumptions but also the relatively homogeneous components in the content (Morgan & Shanahan, 2010).

However, the falsifiable direct media effects on changing attitudes are very minimal. The increase of LGBT characters “unexpectedly and unobtrusively” appearing on TV potentially created mere exposure conditions, and yet their persuasive power is still debatable (Barnhurst, 2007). Theoretically, this research largely supported the heuristic/systematic processing model (Shrum, 2009): the first-level effects on estimation of social prevalence through heuristic processing is more manifest than the second-level effects such as on changing attitudes that

require systematic searching. Perceived consumption of similar TV content among peers (i.e. the first-level effects), although stronger, plays a rather insignificant role in the entire process of affecting attitudes towards gays and lesbians (i.e., the second-level effects). Instead of being influenced by how popular these LGBT inclusive TV shows are among friends and people of the same age, acknowledging the media influence on self played a more important role.

That is to say, although conceptualizing direct media effects under the mere exposure paradigm still has validity, the interactions between media and audience was never a two-way street where actual or perceived "traffic" among audience was ignored. On the contrary, this research unraveled the possibility that psychological ruminations of other people's minds possibly would be activated and shaped under the influence of media campaigns, which could accelerate the attitudes changing process. Specifically, perceptions of media influence and attitudes among peers might be the keys to changing the attitudes on a societal level.

Self-other differential perceptions of media influence and attitudes

If the proposed RP model attempted to explain the associations between two sets of variables: perceptions of media influence and perceived peers' attitudes, this research also concentrated on the differentiation processing within each set. First, the social distance of the referents is the main factor affecting the differentiation process in both sets. Second, the presumed media influence on self and self attitudes towards gays and lesbians are the moderators functioning as the baselines variables for the self-other comparisons. Third, social distance and self-related baseline variables have significant interaction effects. Moreover, the results

concurred with Chock's (2011) and Shen's (2015) theorizing: these comparative perceptions are both motivated processing and actual cognitive representations of self and others.

The sampled data provided seemingly inconsistent evidence for the presumed influence of LGBT inclusive TV and perceived attitudes towards gays and lesbians. With regards to media messages, people think watching LGBT inclusive TV has stronger effects on distal peers than on proximal peers and self (i.e., $M_{peers} > M_{friend/self}$, Third-person perceptions, Davidson, 1983). On the other hand, the data showed first-person notions that self and friends' attitudes are more positive than peers'. This contradiction cannot be fully understood only by looking at the increase of social distance since presumed media influence and perceived attitudes are essentially different matters.

The results of interaction effects between presumed media influence on self and social distance supported Wei and colleagues (2007): one easily neglected factor is individuals' notions of perceived media effects (e.g., powerful media vs. limited effect). In this sample, people who might have experienced "powerful media" (i.e., "LGBT stories on TV made my attitudes more positive") appeared with first-person perceptions (FPP), whereas people who think media has no or negative influence on self showed third-person perceptions (TPP).

In fact, there were a considerable number of participants who believe no influence on self, although their attitudes towards gays and lesbians remained rather positive. One of the possible explanations is that the judgment of LGBT inclusive TV can be neutralized by preexisting hostility to media influence in general, especially when there is a lack of motivations to process. According to the researcher's brief open-ended interviews with a few respondents, score zero represented either genuine thoughts on media influence as very minimal or "I don't

know." That is to say, the motivation of non-LGBT Americans to engage in an estimation of perceived media influence on others' attitudes towards gays and lesbians is rather low. This is understandable because there are low stakes for non-LGBT Americans to observe attitudes change towards a group of people with whom they do not identify.

Similarly, the interaction effects between self attitudes (the baseline) and social distance are found in self-other differential perceptions towards gays and lesbians. The results showed the first-person notions (i.e., self and proximal peers' attitudes are more positive than distal peers) among people with positive attitudes towards gays and lesbians, and the third-person notions (i.e., distal peers' attitudes are more positive than self and proximal peers) among people with negative attitudes towards gays and lesbians. The more extreme participants' attitudes are, the more discrepancy they perceived between distal peers and self. More importantly, the self-other differential perceptions with regards to perceived media influence and attitudes towards gays and lesbians showed little difference between the within-subjects and the between-subjects conditions. That is to say, the comparisons between self and others in this context are not merely instrument-solicited artifacts, but results of participants' actual cognitive presentations of self and others.

Limitations and future research

This thesis as a cross-sectional survey had some flaws indeed. First, this study concentrated on the trilateral relationships among media, self, and perceptions of others instead of each of the three relevant variables. Consumption of LGBT inclusive TV, self attitudes, and

perceptions of peers' attitudes towards gays and lesbians are all multifaceted concepts. Scales and measurements used in this research only provided one way to explore very limited dimensions of these variables.

Second, as previously mentioned, the purposively sampled shows based on ratings could not attend to the nuances of characters or sexual orientations. Also, the measurement of audiences' consumption of the LGBT inclusive TV focused on the self-reported estimation of shows instead of actual exposure to the LGBT storyline. However, it is not a precise way of quantifying the consumption of the defined LGBT inclusive TV, because for example, watching all ten episodes of Partners on FX statistically is equal to watching all 582 episodes of The Simpsons on Fox.

Despite the lack of considerations of the complexity, most of the operational definitions this research adopted are aimed at reaching certain methodological convenience. For example, perceived media influence, self and perceived attitudes towards gays and lesbians were all measured by the same items, which were selected and revised from the classic ATLG scale (Herek, 1984 & 2011). This adaptation, although it allowed the examination of variables of interest in a comparative fashion with limited change in the statements (i.e., change the referents from "you," to "close friends," or "people of the same age,"), it imposed a certain conceptual homogeneity across these variables. Moreover, the repetition of the same items for several times, especially in the within-subjects condition, might have prompted habitual answers, which potentially weakened the internal validity of the research.

Due to the homogeneity and repetitions of the measurements, it seemed redundant to adopt a full structural equation modeling (SEM) technique for the data analysis. However, some

of the variables of interest, like perceived media influence on attitudes towards gays and lesbians, are explored tentatively. Thus, the data analysis was unable to provide details if the concepts are in fact unique. As also Shen and his colleagues (2015) pointed out using repeated measure ANOVA (or other linear regressions) is too conservative and faces restrictions of distribution assumptions. Due to the unrepresentativeness of the sampled participants, the collected data in this research indeed mildly violated these distribution assumptions and thus analysis falls into Shen's et al., methodological criticism.

Another flaw of this research is the sampled participants leaned young, liberal and white, and were limited to non-LGBT Americans. Although the sample is much more diverse than a student sample, it is far from nationally representative. Given that homosexuality is still a controversial topic, more so in some populations than others, the pro-social nature of supporting gays and lesbians is only valid in this sample and cannot be held as consensus in other samples.

Based upon these limitations, proposed here are some research ideas for future references: 1) content/textual analysis about the selected 35 LGBT inclusive TV shows; 2) testing the self attitudes towards gays and lesbians with other methods such as implicit association test (IAT); 3) either developing unique measurements for perceived influence on changing attitudes and perceived attitudes towards gays and lesbians, or using longitudinal/growth modeling to test the measurement invariance; 4) collecting national representative sample or targeting people who identify as gay, lesbian, bisexual or transgender, as well as people have strong aversive attitudes towards gays and lesbians then running a multi-group SEM analysis to test the intergroup differences.

Summary

In a nutshell, there are several important implications of this research. First, consumption of LGBT inclusive TV can predict people's positive attitudes as well as their perceived attitudes towards gays and lesbians. Second, people project their own attitudes towards gays and lesbians and experiences of being influenced by LGBT inclusive TV on their peers. The projection processing is mediated by the social distance of the referents and extremity of self attitudes or self media experience. Third, in general, non-LGBT Americans have rather low motivations to judge the influence of LGBT inclusive on changing people's attitudes towards gays and lesbians. Moreover, presumed media exposures of peers, in other words, perceived popularity of these LGBT inclusive TV is not a reliable factor influencing non-LGBT participants' evaluations on its impact of changing people's attitudes. Meanwhile, the self-other differential perceptions with regards to both presumed media influence and attitudes in this context are more of people's actual cognitions of individual differences.

To this end, this research shall be concluded with some of its practical implications for the media campaigns in the LGBT equal rights movement. First, to include more and better LGBT portrayals in the TV shows as parts of the media campaign to "accelerate acceptance" should be continuingly encouraged. Second, as many participants' explicit attitudes towards gays and lesbians are positive and rather deeply drenched in cognitions, the goal of further changing attitudes might have reached a bottleneck situation. Therefore, targeting certain demographics that are holding strong aversive attitudes might be more efficient. Third, other than providing polls to show actual public opinion with regards to average Americans' attitudes towards gays

and lesbians, changing the people's perceptual prototype of how "average Americans" should treat gay and lesbian individual might be more effective. Finally, this research started off assuming media could change people's attitudes directly. However, including this research, decades of studies have showed mixed and limited evidence to support the hypothesized effects on a societal scale. On the other hand, interpersonal contacts with LGBT individuals were a much better predictor of positive attitudes towards gays and lesbians. In other words, while people might overestimate the media effects on changing people's perceptions of the desirability of homosexuality in society, the power of changing individuals' attitudes towards gays, lesbians, bisexual or transgender ultimately resides in, as how Lisa Duggan's (2003) put, "the ordinary queer lives." Therefore, proper communication channels between LGBT communities with other communities should always be well maintained.

Tables

Table 1 Selected 35 (30 current +5 historic) LGBT inclusive TV shows

Name	Genre	Positions	Channels	Total episodes
Gotham	Drama	Regular	Broadcast	22
Grey's Anatomy	Drama	Regular	Broadcast	244
Empire	Drama	Regular	Broadcast	30
How to get away with murder	Drama	Regular	Broadcast	15
Scandal	Drama	Regular	Broadcast	71
Arrow	Drama	Recurring	Broadcast	71
Hannibal	Drama	Recurring	Broadcast	39
The following	Drama	Recurring	Broadcast	45
Mistresses	Drama	Recurring	Broadcast	39
Modern Family	Comedy	Regular	Broadcast	144
Mom	Comedy	Regular	Broadcast	46
Brooklyn Nine-nine	Comedy	Regular	Broadcast	50
Unbreakable Kimmy Schmidt	Comedy	Regular	Broadcast	26
The Simpsons	Comedy	Recurring	Broadcast	582
Two and a half men	Comedy	Recurring	Broadcast	262
Masters of Sex	Series	Regular	Cable	36
Da Vinci's Demons	Series	Regular	Cable	17
Faking It	Series	Regular	Cable	19
The Fosters	Series	Regular	Cable	48
House of Lies	Series	Regular	Cable	58
Pretty Little Liars	Series	Regular	Cable	128
Nurse Jackie	Series	Regular	Cable	80
Ray Donovan	Series	Regular	Cable	36
Shameless	Series	Regular	Cable	60
True Blood	Series	Regular	Cable	80
White Collar	Series	Regular	Cable	81
American horror story	Series	Recurring	Cable	63
Game of thrones	Series	Recurring	Cable	46
South Park	Series	Recurring	Cable	260
The walking dead	Series	Recurring	Cable	71
House of cards	Drama	Regular	Netflix	39
Orange is the new black	Comedy	Regular	Netflix	39
Sex and the city	Comedy	Recurring	Cable	94
Six feet under	Series	Regular	Cable	63
Buffy the vampire slayer	Drama	Regular	Broadcast	145

Table 2 Demographics

Demographics (N=856)			
Gender			
Male	43.7%	Female	56.3%
Ethnicity			
White	78.8%	Black or African American	7.4%
Hispanic or Latino/a	5.2%	Asian or Pacific Islander	5.6%
Multiracial	2.1%	Native American or American Indian	.6%
Other	.3%		
Political affiliation			
Democrat Party/Liberal	41.1%	Republican Party/Conservative	24.8%
Independent/Moderate	26.2%	Green Party	.8%
Socialist Party	.5%	Other/Prefer not to answer	6.6%
Education			
High school or some high school	10.8%	Some college or associate degree	37.9%
Bachelor degree	36.7%	Higher than bachelor	15.2%
Religiosity			
Never	42.5%	Once a year or less	18.5%
A few times a year	17.6%	A few times a month	8.2%
Once a week	10.5%	More than once a week	2.7%

Table 3 TV consumption and habits

TV consumption & habits		
Platform usage (Frequency from 1 to 7)	Mean	SD
Total	3.27	.87
TV Broadcast (e.g., NBC, FOX)	3.68	1.77
TV cable (e.g., HBO, ShowTime)	3.02	1.77
Online streaming (e.g., Netflix, Hulu)	4.21	.97
Other internet based platforms (e.g., P2P share, Torrent)	3.17	1.91
Social media (e.g., Facebook, Twitter)	2.29	1.67
Genre following (Frequency from 1 to 7)	Mean	SD
Total	3.57	.95
News	3.77	1.73
Dramas	3.78	1.41
Comedies	4.00	1.41
Reality shows	2.79	1.63
Other non-fictional entertainment programs (e.g., Talkshows, Game shows, TV documentaries)	3.40	1.43

Table 4 Reliability of scales

Reliability of scales			
Attitudes or perceived attitudes (from 1 to 7)			
Within-subjects (n=456)	Mean	SD	Cronbach α
Self	5.50	1.64	.87
Close friends	5.31	1.50	.87
People of same age	5.22	1.31	.87
Between-subjects			
Self *(n=143)*	5.61	1.54	.88
Close friends *(n=140)*	5.35	1.63	.89
People of same age *(n=139)*	5.25	1.41	.87
Perceived media influence (from -3 to +3)			
Within-subjects (n=456)	Mean	SD	Cronbach α
On Self	.42	1.06	.78
On close friends	.59	1.08	.79
On people of same age	.86	1.12	.75
Between-subjects			
On self *(n=143)*	.69	1.13	.77
On close friends *(n=140)*	.50	1.05	.67
On people of same age *(n=139)*	1.05	1.31	.88

Table 5 Within-subjects correlation matrix

Within-subjects correlation matrix controlled for age, gender, political affiliation, and education level (n=428)

		TV consumption or perceived consumption			Attitudes or perceived attitudes			Perceived media influence			Interpersonal contact
		Self	Friends	Peers	Self	Friends	Peers	On Self	On Friends	On Peers	
Consumption	Self	-	.31***	.21***	.16**	.17**	.07	.12	.13**	.067	.12***
	Friends		-	.74***	.33***	.34***	.23***	.26***	.28***	.24***	.24***
	Peers			-	.27***	.27***	.27***	.16***	.25***	.28***	.19***
Attitudes	Self				-	.73***	.58***	.40***	.36***	.32***	.34***
	Friends					-	.54***	.36***	.44***	.33***	.30***
	Peers						-	.30***	.34***	.42***	.21***
Perceived media influence	On Self							-	.55***	.39***	.08
	On Friends								-	.47***	.11*
	On Peers									-	.07
Interpersonal contact											-

*p < .05, **p < .01, ***p < .001. (2-tailed).

Table 6 Between-subjects correlation matrix

Between-subjects correlation matrix controlled for age, gender, political affiliation, and education level

Between-subjects conditions		Consumption	Attitudes	Perceived media influence	Interpersonal contact
Self condition (n=137)	Consumption	-	.27***	.05	.11
	Attitudes		-	.27**	.32***
	Perceived media influence			-	.13
	Interpersonal contact				-
		Consumption	Perceived consumptions	Perceived attitudes	Perceived media influence	Interpersonal contact
Friend condition (n=134)	Consumption	-	.30***	.27**	.113	.24**
	Perceived consumption		-	.53***	.27**	.27**
	Perceived attitudes			-	.42***	.34***
	Perceived media influence				-	.16
	Interpersonal contact					-
Peer condition (n=139)	Consumption	-	.15	.18*	.14	.16
	Perceived Consumption		-	.18***	.20*	.11
	Perceived attitudes			-	.59***	.32***
	Perceived media influence				-	.26**
	Interpersonal contact					-

*p < .05, **p < .01, ***p < .001. (2-tailed).

Table 7 Groups by presumed media influence on self

Perceived media influence and perceived attitudes by groups with different presumed media influence on self

	Presumed media influence (-3 ~ +3)						Attitudes or perceived attitudes (1~7)					
	On self		On friends		On peers		Self		Friends		Peers	
Categories	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Negative (n=51)	-.91	.67	-.23	.19	.13	1.43	3.34	1.57	3.64	1.58	3.98	1.48
Neutral (n=213)	.00	.00	.37	.85	.77	.97	5.62	1.59	5.43	1.50	5.29	1.27
Positive (n=168)	1.38	.95	1.13	1.06	1.20	1.07	6.01	1.11	5.69	1.10	5.50	1.07

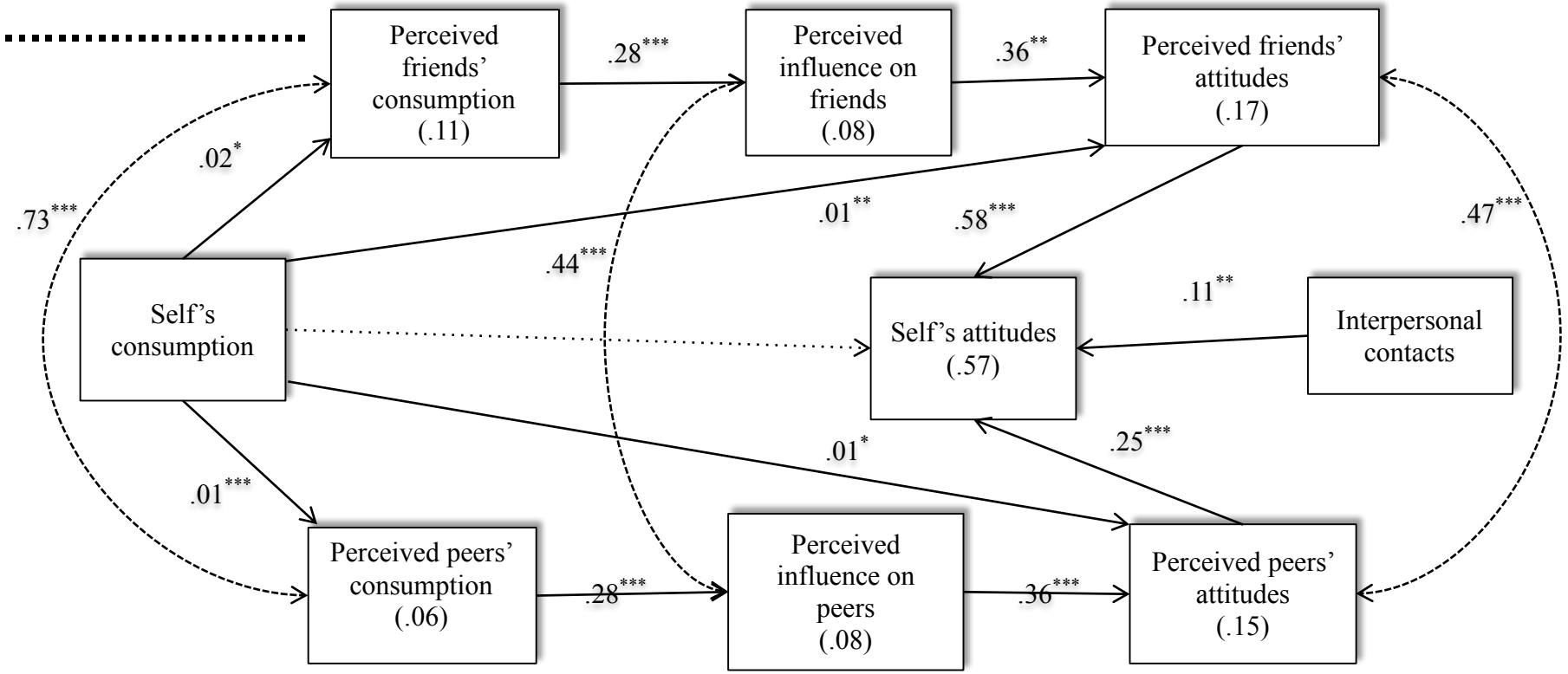
Table 8 Groups by self attitudes towards gays and lesbians

Perceived media influence and perceived attitudes by groups with different attitudes towards gays and lesbians

	Self attitudes		Perceived media influence (-3 ~ +3)						Perceived attitudes (1~7)			
			On self		On friends		On peers		Friends		Peers	
Categories	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Negative (n=65)	2.51	.74	-.50	.73	-.20	.95	.20	1.31	3.26	1.38	3.88	1.51
Neutral (n=57)	4.07	.22	.09	.51	.18	.80	.34	.79	4.24	.97	4.46	1.03
Positive (n=130)	5.57	.56	.59	.85	.70	.89	.90	.86	5.40	.80	5.15	.96
Extreme positive (n=182)	6.95	.11	.73	1.13	.92	1.30	1.22	1.14	6.31	1.05	5.97	.94

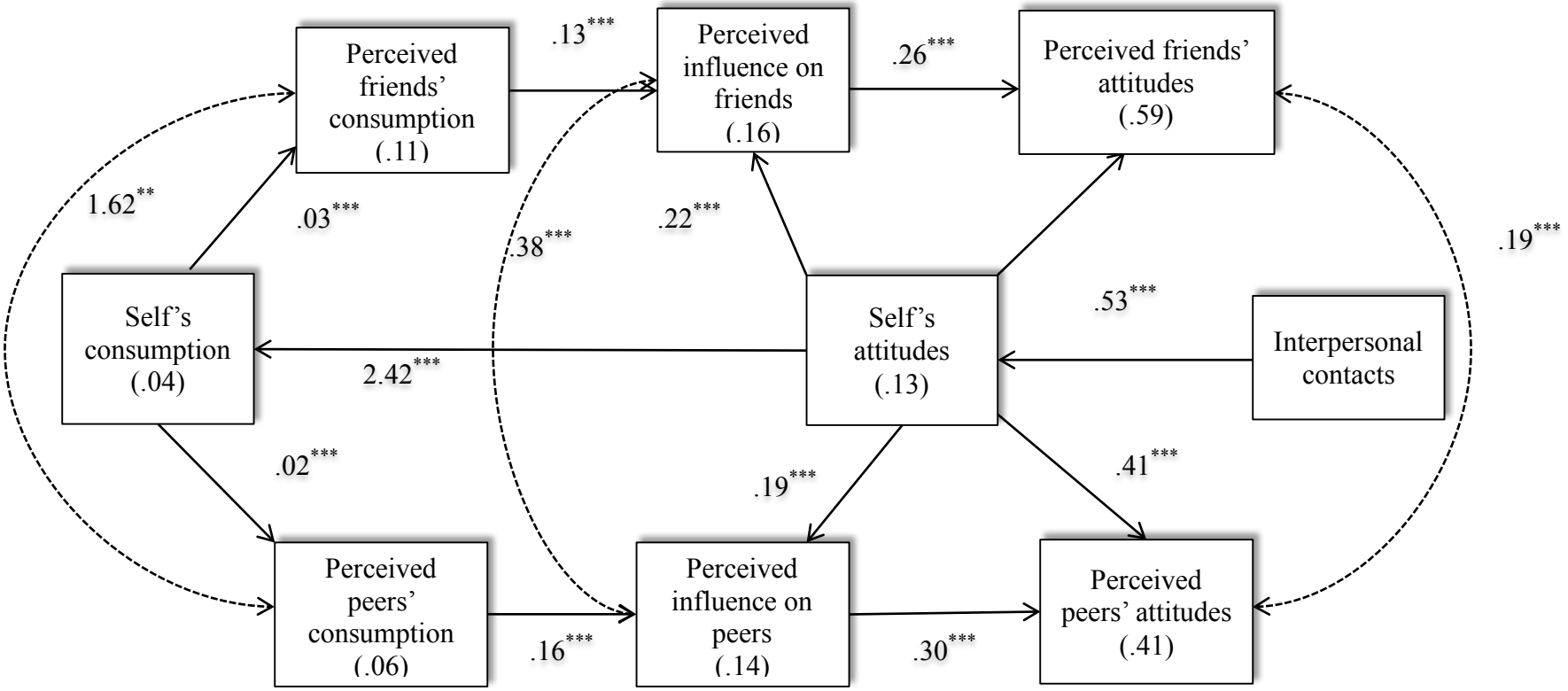
Figures

Figure 5 Model A: the Influence of presumed influence (IPI) model



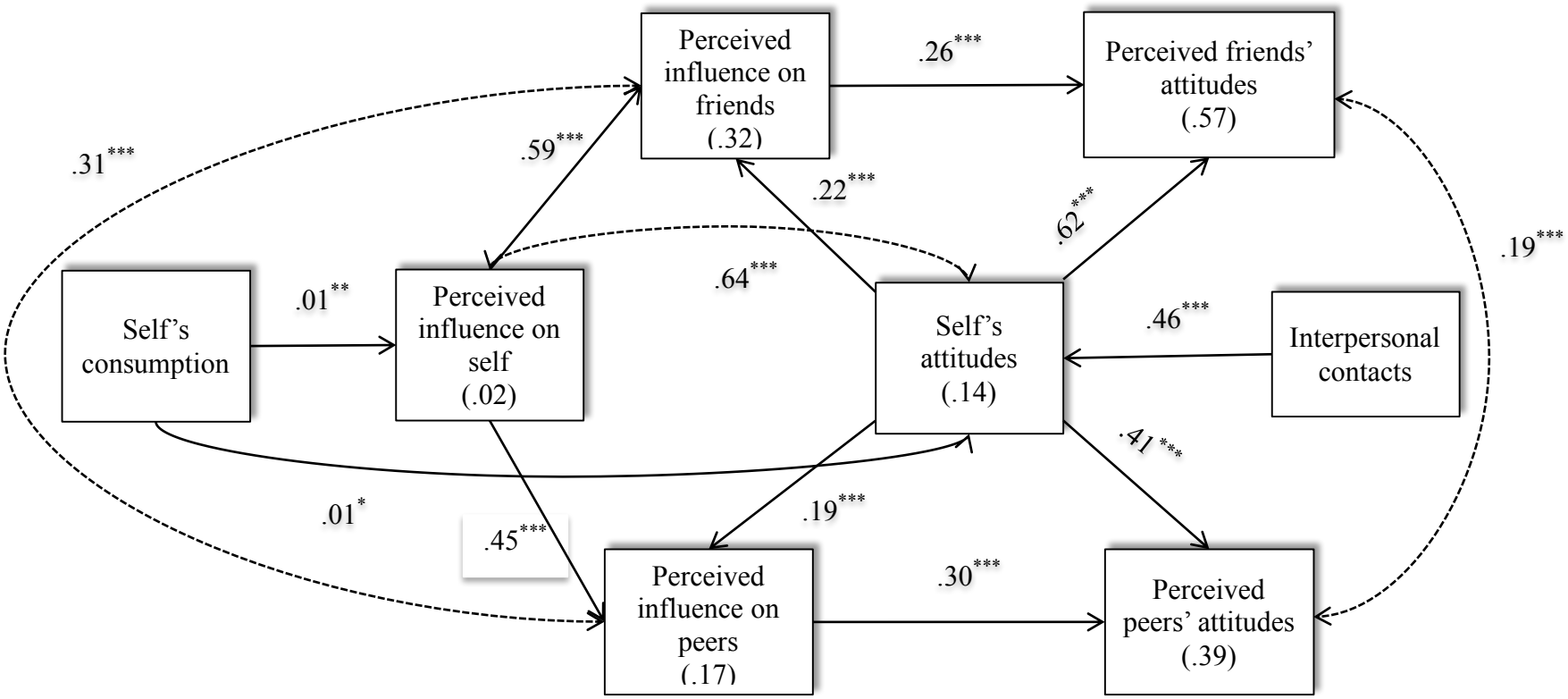
*p < .05, **p < .01, ***p < .001. (2-tailed).
Note: All path coefficients are unstandardized. R^2 are included in parentheses. Dotted line with a single arrow means nonsignificant (p>.05), with two arrows means covariate.

Figure 6 Model B: the projection model



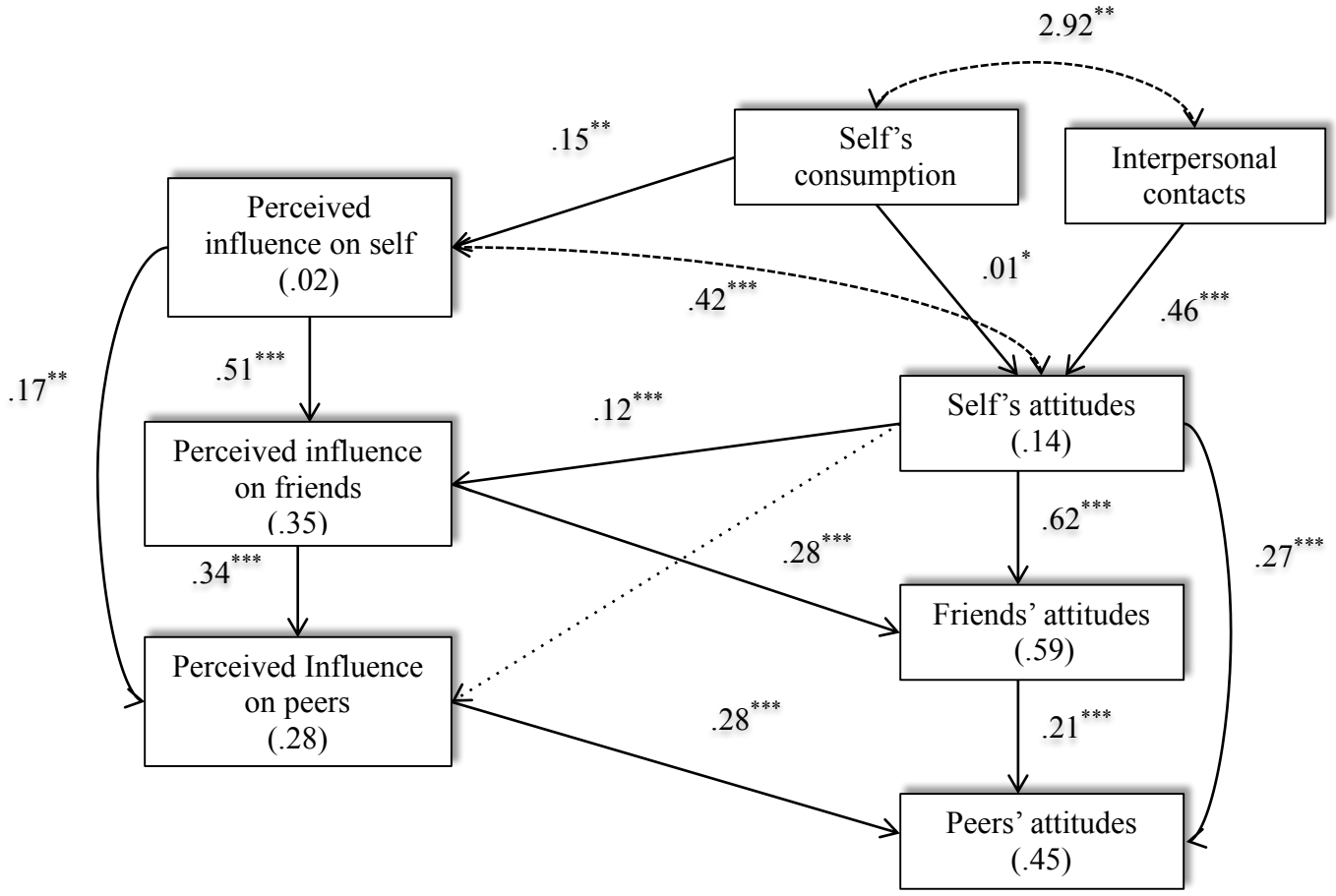
*p < .05, **p < .01, ***p < .001. (2-tailed).
Note: All path coefficients are unstandardized. R^2 are included in parentheses. Dotted line with a single arrow means nonsignificant (p>.05), with two arrows means covariate.

Figure 7 Model C: the revised projection model



*p < .05, **p < .01, ***p < .001. (2-tailed).
Note: All path coefficients are unstandardized. R^2 are included in parentheses. Dotted line with a single arrow means nonsignificant (p>.05), with two arrows means covariate.

Figure 8 Final model :the ripple perception model



*p < .05, **p < .01, ***p < .001. (2-tailed).
Note: All path coefficients are unstandardized. R^2 are included in parentheses. Dotted line with a single arrow means nonsignificant (p>.05), with two arrows means covariate.

Appendix A: Revised items of ATLG scale

1. Homosexuality is disgusting.
2. Homosexual couples should be allowed to adopt children the same as heterosexual couples (Reverse-scored).
3. Homosexuality is a sin.
4. Laws approving same sex marriage should be repealed.
5. A person's homosexuality should not be a cause for job discrimination in any situation. (Reverse-scored)

References

Albaracín, D., & Vargas, P. (2010) Attitudes and persuasion, In Fiske, S. T., Gilbert, D. T., & Lindzey, G. (Eds). *Handbook of social psychology* (5th ed.). (pp.394-427) Hoboken, N.J: John Wiley.

Allport, G. W. (1935). Attitudes. In C. Murchison (Ed.), *A handbook of social psychology* (pp. 798–844). Worcester, MA: Clark University Press.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179-211.

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior. Englewood Cliffs,* NJ:Prentice-Hall.

Arthurs, J., & Ebrary, I. (2004). *Television and sexuality: Regulation and the politics of taste. Maidenhead,* England: Open University Press.

Barnhurst, K. G.(2007). *Media Q: Media/queered : Visibility and its discontents*. New York: Peter Lang.

Bearman, P. S., Bruckner, H., Brown, B. B., Theobald, W., & Philliber, S. (1999). *Peer potential: Making the most of how teens influence each other*. Washington, DC: National Campaign to Prevent Teen Pregnancy.

Becker, R. (2006). *Gay TV and straight America*. New Brunswick, N.J: Rutgers University Press.

Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2012). Evaluating online labor markets for experimental research: Amazon.com's mechanical turk. *Political Analysis*, 20(3), 351. doi:10.1093/pan/mpr057

Berkowitz, A. D. (2005). An overview of the social norms approach. In L. C. Leder- man & L. P. Stewart (Eds.), *Changing the culture of college drinking: A socially situated health communication campaign* (pp. 193–214). Cresskill, NJ: New Hampton Press.

Bilandzic H., & Busselle R. (2012), A Narrative Perspective on Genre-Specific Cultivation. In Morgan, M., Shanahan, J., & Signorielli, N., (Eds.), *Living with television now: Advances in cultivation theory & research.* (pp.261-285). Peter Lang.

Bond, B. J. (2014). Sex and sexuality in entertainment media popular with lesbian, gay, and bisexual adolescents. *Mass Communication and Society, 17(1), 98*.

Brosius, H. B., & Engel, D. (1996). The causes of third-person effects: Unrealistic optimism, impersonal impact, or generalized negative attitudes towards media influence? *International Journal of Public Opinion Research*, *8*, 142-162. doi:10.1093/ijpor/8.2.142

Brown, M. J., & Henriquez, E. (2008). Socio-demographic predictors of attitudes towards gays and lesbians. *Individual Differences Research* [H.W.Wilson - SSA], 6(3), 193.

Brewer, M. B. (2007). The social psychology of intergroup relations: Social categorization, ingroup bias, and outgroup prejudice. In Kruglanski, A.W. & Higgins, E. T. (Eds.), *Social psychology: Handbook of basic principles*. (pp.695-715). New York, NY, US: Guilford Press.

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's mechanical turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science,* 6(1), 3-5. doi:10.1177/1745691610393980

Campbell (2014 August, 17) How ABC casts the diversity net wider for stars and talent. *The Guardian.*

Retrieved from

http://www.theguardian.com/media/2014/aug/17/abc-diversity-stars-talent-showcase-lupita-nyongo

Calzo, J. P., & Ward, L. M. (2009a). Media exposure and viewers' attitudes toward homosexuality: Evidence for mainstreaming or resonance? *Journal of Broadcasting & Electronic Media,53*(2), 280-299. doi:10.1080/08838150902908049

Calzo, J. P., & Ward, L. M. (2009b). Contributions of parents, peers, and media to attitudes towards homosexuality: Investigating sex and ethnic differences. *Journal of Homosexuality.*

Capsuto, S. (2000). *Alternate channels: The uncensored story of gay and lesbian images on radio and television.* New York: Ballantine Books

Casler, K., Bickel, L., & Hackett, E. (2013). Separate but equal? A comparison of participants and data gathered via amazon's MTurk, social media, and face-to-face behavioral testing Elsevier B.V. doi:10.1016/j.chb.2013.05.009

Chambers, S., *The Queer Politics of Television*. LB. Tauris, 2009. ISBN 978-1-845-11681-1.

Chia, S. C., & Gunther, A. C. (2006). How media contribute to misperceptions of social norms about sex. Mass Communication and Society, 9(3), 301-320. doi:10.1207/s15327825mcs0903_3

Chia, S. C. (2009). When the east meets the west: An examination of third-person perceptions about idealized body image in Singapore. *Mass Communication and Society, 12*(4), 423-445. doi:10.1080/15205430802567123

Chock, T. M., Fox, J. R., Angelini, J. R., Lee, S., & Lang, A. (2007). Telling me quickly: How arousing fast-paced PSAs decrease self-other differences. *Communication Research,* 34(6), 618–636.

Chock, T. M. (2011). Is it seeing or believing? exposure, perceived realism, and emerging adults' perceptions of their own and others' attitudes about relationships. *Media Psychology,14*(4), 355-386. doi:10.1080/15213269.2011.620537

Christen, C. T., & Gunther, A. C. (2003). The influence of mass media and other culprits on the projection of personal opinion. *Communication Research*, 30(4), 414-431. di:10.1177/0093650203253366

Cialdini, R. B., & Goldstein, N. J. (2004). Social influence: Compliance and conformity. *Annual Review of Psychology,55*(1), 591-621. doi:10.1146/annurev.psych.55.090902.1

Cillizza, C. (2014 May, 5) Oppose gay marriage? You probably think everyone else does too. *The Washington Post.*

Retrieved from

http://www.washingtonpost.com/blogs/the-fix/wp/2014/03/05/oppose-gay-marriage-you-probably-think-everyone-does-too/

Cohen, J., & Davis, R. G. (1991). Third-person effects and the differential impact in negative political advertising. *Journalism Quarterly*, 68, 680–688.

Cohen, J., Mutz, D., Price, V., & Gunther, A. (1988). Perceived impact of defamation: An experiment on third-person effects. *Public Opinion Quarterly*, 52, 161–173.

Costa, A. B., Bandeira, D. R. & Nardi, H. C. (2013), Systematic review of instruments measuring homophobia and related constructs. *Journal of Applied Social Psychology*, 43: 1324–1332. doi: 10.1111/jasp.12140

Cooper, E. (2003). Decoding Will and Grace: Mass audience reception of a popular network situation comedy. *Sociological Perspectives*, 46(4), 513-533.

Crandall, C. S., & Eshleman, A. (2003). A justification-suppression model of the expression and experience of prejudice. *Psychological Bulletin, 129*, 414–446.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches.* Thousand Oaks: SAGE Publications.

Davison, W. P. (1983). The third-person effect in communication. *Public Opinion Quarterly,* 47(1), 1–15.

D'Emilio, J. (2007) Introduction. Progress and representation. In Barnhurst, K. G. (Ed.), *Media Q: Media/queered : Visibility and its discontents*. (pp. 23-26). New York: Peter Lang.

Doty, A. & Gove, B. (1997) *Queer representation in the mass media*, in A. Medhurst and S.

Munt (eds) Lesbian and Gay Studies Reader. London: Cassell.

Dow, B. J. (2001). *Ellen, television, and the politics of gay and lesbian visibility* Routledge.

Duck, J., Hogg, M., & Terry, D. (1995). Me, us and them: Political identification and the third-person effect in 1993 Australian federal election. *European Journal of Social Psychology*, *25*, 195-215. doi:10.1002/ ejsp.2420250206

Duggan, L. (2003). *The twilight of equality? Neoliberalism, cultural politics, and the attack on democracy*. Boston, MA: Beacon.

Eastman, S. T., & Newton, G. D. (1995). Delineating grazing: Observations of remote control use. *Journal of Communication, 45*(1), 77–95.

Evans, J.R., & Mathur, A. (2005), The value of online surveys, *Internet Research*, Vol. 15 Iss 2 pp. 195 – 219

Eldridge, D. (May 6, 2012) Biden 'comfortable' with gay marriage, cites 'Will & Grace.' *Washington Times.*Retrieved from http://www.washingtontimes.com/news/2012/may/6/biden-will-grace-educated-public-about-gays/#ixzz3d6UpYPkY

Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research.*Psychological Methods, 4*(3), 272-299. doi:10.1037/1082-989X.4.3.272

Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117–140.

Fields, J. M., & Schuman, H. (1976). Public beliefs about the beliefs of the public. *Public Opinion Quarterly, 40,* 427–448.

Foucault, M. (1990). *The history of sexuality*. New York: Vintage Books.

Fowler, F. J. (2009). *Survey research methods (4th ed.).* Thousand Oaks, CA: Sage.

Full Rating Tables (June 10, 2015) *Spoiler TV,* Retrieved from http://www.spoilertv.com/2014/08/full-ratings-tables 201415.html#addsearch=downton abbey ratings

Gass, R. H., & Seiter, J. S., (2014) *Persuasion: Social influence and compliance gaining (The 5th edition).* Boston, MA: Pearson Education.

Gays and Lesbians Alliance Against Defamation (GLAAD). (2005). Where we are on TV: GLAAD's 10th annual diversity study previews the 2004–2005 primetime television season. *Washington, DC:* Author.

Gays and Lesbians Alliance Against Defamation (GLAAD). (2015). Where we are on TV: GLAAD's 19th annual diversity study previews the 2014–2015 primetime television season. *Washington, DC:* Author.

Gays and Lesbians Alliance Against Defamation (GLAAD). (2015). Accelerate acceptance (Executive summary). *Harris Poll*.

Gerbner, G., & Gross, L. (1976). Living with television: The violence profile. *Journal of Communication*, 26(2), 182–190.

Gerbner, G., Gross, L., Jackson-Beeck, M., Jeffries-Fox, S., & Signorielli, N. (1978). Cultural indicators: Violence profile no. 9. *Journal of Communication*, 28(3), 176–207.

Gerbner, G., Gross, L., Morgan, M., Signorielli, N., & Shanahan, J. (2002). Growing up with television: Cultivation processes. In J. Bryant & D. Zillman (Eds.), *Media effects* (pp. 43–67). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Gerbner, G., Gross, L., Signorielli, N., & Morgan, M. (1980). Aging with television: Images on television drama and conceptions of social reality. *Journal of Communication,* 30, 37–49.

Huge, M. E., & Glynn, C. J. (2015). Perceiving penn state: The formative role of interpersonal discussion in third-person perceptions in the wake of a sexual abuse scandal. *Communication Research*, 42(7), 922-938. doi:10.1177/0093650214534970

Golan, G. J., & Day, A. G. (2008). The first-person effect and its behavioral consequences: A new trend in the twenty-five year history of third-person effect research. *Mass Communication and Society, 11*(4), 539. doi:10.1080/15205430802368621

Gunther, A. C. (1991). What we think others think: Cause and consequence in the third-person effect. *Communication Research*, 18, 355–372.

Gunther, A. C. (1998). The persuasive press inference: Effects of mass media on perceived public opinion. *Communication Research, 25*(5), 486–504.

Gunther, A. C., & Mundy, P. (1993). Biased optimism and the third-person effect. *Journalism Quarterly*, 70(1), 58–67.

Gunther, A. C., & Storey, D. (2003). The influence of presumed influence. *Journal of Communication*, *53*(2), 199–215. Gross, L. (1994). What is wrong with this picture? Lesbian women and gay men on television. In R. J. Ringer (Ed.), *Queer words, queer images: Communication and the construction of homosexuality* (pp. 143–156). New York: New York University Press.

Gross, L. (2001). *Up from invisibility: Lesbians, gay men, and the media in America*. New York, NY: Columbia University Press.

Haddock, G., & Zanna, M. P. (1998). Authoritarianism, values, and the favorability and structure of antigay attitudes. In G. M. Herek (Ed.), *Stigma and sexual orientation: Understanding prejudice against lesbians, gay men, and bisexuals* (pp. 82–107). Thousand Oaks, CA: Sage.

Hall, J. A., & La France, B. H., (2007). Attitudes and communication of homophobia in fraternities: Separating the impact of social adjustment function from hetero-identity concern. *Communication Quarterly*, 55, 39–60.

Hall, J. A., & LaFrance, B. H., (2012). "That's gay": Sexual prejudice, gender identity, norms, and homophobic communication.*Communication Quarterly, 60*(1), 35.

Harrington, C.L., (2008) Gay, Lesbian, Bisexual, Transgendered, and Queer Representations on TV. In Andersen, R. (Ed.), *Battleground the media*. (pp 145-151) Westport, Conn.: Greenwood Press.

Hauser, D. J., & Schwarz, N. (2015). Attentive turkers: MTurk participants perform better on online attention checks than do subject pool participants. *Behavior Research Methods*, doi:10.3758/s13428-015-0578-z

Hawkins, R. P., & Pingree, S. (1982). Television's influence on constructions of social reality. In D. Pearl, L. Bouthilet, & J. Lazar (Eds.), *Television and behavior: Ten years of scientific progress and implications for the eighties* (Vol. 2, pp. 224–247). Washington, DC: Government Printing Office.

Henshel, R. L., & Johnston, W. (1987). The emergence of bandwagon effects: A theory. *The Sociological Quarterly,* 28(4), 493-511. doi:10.1111/j.1533-8525.1987.tb00308.x

Herek, G. M. (1984). Beyond "homophobia": A social psychological perspective on attitudes toward lesbians and gay men. *Journal of Homosexuality, 10,* 1-21.

Herek, G. M. (1988). Heterosexuals' attitudes toward lesbians and gay men: Correlates and gender differences. *Journal of Sex Research, 25,* 451-477.

Herek, G. M. (1994). Assessing attitudes toward lesbians and gay men: A review of empirical research with the ATLG scale. In B. Greene & G. M. Herek (Eds.), *Lesbian and gay psychology: Theory, research, and clinical applications* (pp. 206–228). Thousand Oaks, CA: Sage Publications

Herek, G. M., & Capitanio, J.P. (1996). "Some of my best friends": Intergroup contact, concealable stigma, and heterosexuals' attitudes toward gay men and lesbians. *Personality and Social Psychology Bulletin, 22,* 412-424.

Herek, G. M., & Glunt, E. K. (1993). Interpersonal contact and heterosexuals' attitudes toward gay men: Results from a national survey. *The Journal of Sex Research*, 30(3), 239-244. doi:10.1080/00224499309551707

Herek, G. M., & McLemore, K. A. (2011). The Attitudes Toward Lesbians and Gay Men (ATLG) scale. In T. Fisher, C. M. Davis, W. L. Yarber & S. L. Davis (Eds.), *Handbook of sexuality-related measures* (3rd ed., pp. 415-417). Oxford, England: Taylor & Francis.

Hetzel, C. J. (2011). Exploring the relationship between public opinion and personal attitudes and behavior toward lesbians and gay men: Social conformity revisited. *Journal of Homosexuality, 58*(10), 1421. doi:10.1080/00918369.2011.614910

Hilton-Morrow, W., & Battles, K. (2002). Gay characters in conventional spaces: Will and grace and the situation comedy genre. *Critical Studies in Media Communication*, 19(1), 87-105. doi:10.1080/07393180216553

Hilton-Morrow, W., & Battles, K. (2015). *Sexual identities and the media: an introduction.* New York, NY: Routledge.

Hicks, G., & Lee, T. (2006). Public attitudes toward gays and lesbians: Trends and predictors. *Journal of Homosexuality, 51*(2), 57–77.

Ho, S. S., Detenber, B. H., Malik, S., & Neo, R. L. (2012). The roles of value predispositions, communication, and third person perception on public support for censorship of films with homosexual content. *Asian Journal of Communication, 22*(1), 78. doi:10.1080/01292986.2011.622775

Hoorens, V., & Ruiter, S. (1996). The optimal impact phenomenon: Beyond the third-person effect. *European Journal of Social Psychology,* 26, 599–610.

Hyman, H., & Singer, E. (Eds.). (1968). *Readings in reference group theory and research.* New York: Free Press.

Jang, S. M. (2014). Challenges to selective exposure: Selective seeking and avoidance in a multitasking media environment. *Mass Communication and Society,* 17.

Jang, S. M., & Lee, H. (2014). When pop music meets a political issue: Examining how "born this way" influences attitudes toward gays and gay rights policies. *Journal of Broadcasting & Electronic Media, 58*(1), 114-130. doi:10.1080/08838151.2013.875023

Kim, H. (2016). The role of emotions and culture in the third-person effect process of news coverage of election poll results.*Communication Research, 43*(1), 109-130. doi:10.1177/0093650214558252

Lambert, T. A., Kahn, A. S., & Apple, K. J. (2003). Pluralistic ignorance and hooking up. Journal of Sex Research, 40(2), 129–133.

Lee, T., & Hicks, G. R. (2011). An analysis of factors affecting attitudes toward same-sex marriage: Do the media matter?*Journal of Homosexuality, 58*(10), 1391. doi:10.1080/00918369.2011.614906

Liebler, C. M., Schwartz, J., & Harper, T. (2009). Queer tales of morality: The press, same-sex marriage, and hegemonic framing. *Journal of Communication*, 59, 653-675. doi:10.1111/j.1460-2466.2009.01451.x

Long, N. (2001). *Development sociology: Actor perspectives*. New York;London;: Routledge.

McKee, A. (2000). Images of gay men in the media and the development of self-esteem. *Australian Journal of Communication*, 27, 81–98. Retrieved from http://eprints.qut.edu.au/14931/

McElwee, R. O., & Dunning, D. (2005). A broader view of ‘‘self’’ in egocentric social judgment: Current and possible selves. Self and Identity, 4, 113–130.

Morgan, M., & Shanahan, J. (1997). Two decades of cultivation research: An appraisal and a meta-analysis. In B. Burleson (Ed.), *Communication Yearbook 20* (pp.1–45). Thousand Oaks, CA: Sage.

Morgan, M., Shanahan, J., & Signorielli, N. (2009). Growing up with television, cultivation processes. In J. Bryant & M. B. Oliver (Eds.), *Media effects: Advances in theory and research* (3rd ed.) (pp. 34-49). New York, NY: Taylor & Francis. Morgan,

Morgan, M. & Shanahan, J. (2010). The state of cultivation. *Journal of Broadcasting & Electronic Media, 54*(2), 337-355. doi:10.1080/08838151003735018

Munt, S. (1992) Sex and sexuality, in A. Millwood Hargrave (ed.) *Sex and Sexuality in Broadcasting.* London: Broadcasting Standards Commission

Nisbet E. C., & Myers T. A. (2012). Cultivating Tolerance of Homosexuals. In Morgan, M., Shanahan, J., & Signorielli, N. (Eds.), *Living with television now: Advances in cultivation theory & research.* (pp.61-80). Peter Lang.

Netzley, S. (2006). Television, gays, and gay marriage: a cultivation study of television’s relationship with opinuons about same-sex marriage. *Doctoral dissertation.* College of

Mass Communication and Media Arts in the Graduate School, Southern Illinois University Carbondale.

Noelle-Neumann, E. (1974). The spiral of silence. A theory of public opinion. *Journal of Communication,* 24, 43-51.

Otten, S., & Epstude, K. (2006). Overlapping mental representations of self, ingroup, and outgroup: Unraveling self-stereotyping and self-anchoring. *Personality and Social Psychology Bulletin*, 32(7), 957–969.

Ortiz, M., & Harwood, J. (2007). A social cognitive theory approach to the effects of mediated inter- group contact on intergroup attitudes. *Journal of Broadcasting and Electronic Media*, *51*, 615–631. doi:10.1080/08838150701626487

Paek, H., & Gunther, A. C. (2007). How peer proximity moderates indirect media influence on adolescent smoking. *Communication Research* [H.W.Wilson - SSA], 34(4), 407.

Perloff, R. M. (2002). The third-person effect. In J. Bryant & D. Zillman (Eds.), *Media effects: Advances in theory and research* (pp. 489–506). Mahwah, NJ: Erlbaun.

Perkins, H. W. (2002). Social norms and the prevention of alcohol misuse in colle- giate contexts. *Journal of Studies on Alcohol*, *14*, 164–172.

Potter, W. J. (1986). Perceived reality and the cultivation hypothesis. *Journal of Broadcasting and Electronic Media,* 30(2), 159-174.

Prior, M. (2005). News v. entertainment: How increasing media choice widens gaps in political knowledge and turnout. *American Journal of Political Science,* 49, 594–609

Public Religion Research Institute (PRRI). (2014, February 26). *A Shifting Landscape: A Decade of Change in American Attitudes about Same-Sex Marriage and LGBT Issues* Retrieved from http://publicreligion.org/research/2014/02/2014-lgbt-survey/#.VWvPzlxViko

Raykov, T., & Marcoulides, G. A. (2006). *A first course in structural equation modeling* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

Reid, S., & Hogg, M. (2005). A self-categorization explanation for the third-person effect. *Human Com- munication Research*, *31*, 129-161. doi:10.1111/j.1468-2958.2005.tb00867.x

Ritter, L. A., & Sue, V. M. (2007a). Introduction to using online surveys. New Directions for Evaluation, 2007(115), 5-14. doi:10.1002/ev.230

Ritter, L. A., & Sue, V. M. (2007b). Conducting the survey. New Directions for Evaluation, 2007(115), 47-50. doi:10.1002/ev.235

Seidman, S. (2002). *Beyond the closet: The transformation of gay and lesbian life.* New York: Routledge.

Schiappa, E., Gregg, P. B., & Hewes, D. E. (2005). The parasocial contact hypothesis. *Communication Monographs,72*(1), 92-115. doi:10.1080/0363775052000342544

Schiappa, E., Gregg, P. B., & Hewes, D. E. (2006). Can one TV show make a difference? A Will & Grace and the parasocial contact hypothesis. *Journal of Homosexuality, 51*(4), 15-37. doi:10.1300/J082v51n04_02

Schumacker, R. E., & Beyerlein, S. T. (2000). Confirmatory factor analysis with different correlation types and estimation methods.*Structural Equation Modeling: A Multidisciplinary Journal, 7*(4), 629-636. doi:10.1207/S15328007SEM0704_6

Shen, L., Palmer, J., Mercer Kollar, L. M., & Comer, S. (2015). A social comparison explanation for the third-person perception.*Communication Research, 42*(2), 260-280.

Signorielli, N. (1986). Selective television viewing: A limited possibility. *Journal of Communication*, 36, 64–75.

Signorielli, N., & Morgan, M. (Eds). (1990). *Cultivation analysis: New directions in media effects research*. Newbury Park, CA: Sage.

Spangler, T. (July 12, 2010). Hulu, netflix take cable bypass. *Multichannel News*

Retrived from http://www.multichannel.com/news/orphan-articles/hulu-netflix-take-cable-bypass/127675

Streitmatter, R. (2009). *From "pervert" to "fab five." The media's changing depiction of gay men and lesbians.* New York: Routledge.

Shrum, L. J., (1995). Assessing the social influence of television: A social cognition perspective on cultivation effects. *Communication Research*, *22*, 402–429.

Shrum, L. J., (2007). The implications of survey method for measuring cultivation effects. *Human Communication Research,* 33(1), 64-80. doi:10.1111/j.1468-2958.2007.00289.x

Shrum, L.J. (2009). Media consumption and perceptions of social reality: effects on social reality. In J. Bryant & M. B. Oliver (Eds.), *Media effects: Advances in theory and research* (3rd ed.) (pp. 50-68). New York, NY: Taylor & Francis.

Shrum, L. J. (2012). *The psychology of entertainment media: Blurring the lines between entertainment and persuasion*(2nd ed.). New York: Routledge.

Sun, Y., Pan, Z., & Shen, L. (2008). Understanding the third-person perception: Evidence from a meta- analysis. *Journal of Communication*, *58*, 280-300. doi:10.1111/j.1460-2466.2008.00385.x

Tajfel, H., & Turner, J. C. (1986). The social identity theory of inter-group behavior. In S. Worchel and L. W. Austin (Eds.), *Psychology of intergroup relations* (pp. 7–24). Chicago: Nelson-Hall.

Theodore, P. S., & Basow, S. A. (2000). Heterosexual masculinity and homophobia: A reaction to self? *Journal of Homosexuality*, *49*(2), 31–48.

Tu, J., & Lee, T. (2014). The effects of media usage and interpersonal contacts on the stereotyping of lesbians and gay men in china.*Journal of Homosexuality, 61*(7), 980-1002. doi:10.1080/00918369.2014.871904

Tversky, A., & Kahneman, D. (1971). Belief in the law of small numbers. *Psychological Bulletin,* 76, 105-110.

Walters, S. D. (2001). *All the rage: The story of gay visibility in America*. Chicago: University of Chicago Press.

Ward. L. M., Reed, L., Trinh, S. L., & Foust, M., (2013), Sexuality and entertainment media. Chapter 12. In D. L. Tolman & L. M. Diamond (Eds.), *APA Handbook of Sexuality and Psychology: Vol. 2. Contextual Approaches* (pp.373-423). Philadelphia, PE: Taylor & Francis Ltd.

Wei, R., Lo, V. H., & Lu, H. Y. (2007). Reconsidering the relationship between the third-person perception and optimistic bias. *Communication Research*, 34(6), 665–684.

Wyer, R. S. (1980). The acquisition and use of social knowledge: Basic postulates and representative research. *Personality and Social Psychology Bulletin*, 6, 558–573.

YaoJun (Harry) Yan

CURRICULUM VITAE

AUG 2017

Indiana University-Bloomington, Ph.D. Student/Associate Instructor

Harryan@iu.edu or yyan21@syr.edu

607-8821571

EDUCATION

M.A. 2017 Media Studies
S.I. Newhouse School of Public Communications
Syracuse University

B.A. 2013 Chinese Language and Literature
University of Macau, Macau
(Thesis: The harbinger of Bahktin's "polyphony" in the 11th Century Middle Turkic epic—the formalistic analysis of *Kutadgu Bilig [*or *Qutadğu Bilig])*

B.A. 2013 Chinese Language and Literature
Nankai University, Tian Jin, PRC,
(Requirements completed in 2011; degree completed concurrently with Macau program).
(Thesis: Psychoanalysis of Milan Kundrea's *Life is Elsewhere*—A Freudian approach)

ASSOCIATION MEMBERSHIPS

LGBT Studies Interests Group, Intergroup Communication, Communication methods, ICA

LGBT Studies Interests Group, Mass Communication, AEJMC

RESEARCH INTERESTS

Media and social justice

Social psychology and sociology of public opinion

Computer assisted content analysis

Social media and internet communication technologies

Psychology of entertainment media

RELATED COURSES AND SKILLS

Theories courses	Communication theory, Psychology of interactive media, Media Diversity, Advanced social psychology theory
Methods courses	Methods in MIND Lab (Media psychophysiology) Perception analyzer in communication research, Structure equation model/Factor analysis, Quantitative methods in communication research
Software	*SPSS*, *N'Vivo, Microsoft Office*, *Premiere*, *Mplus,* and *R Studio* Trained in both qualitative and quantitative research
Language proficiency	Chinese (Mandarin, Sichuan, Shanghai and Tianjin Dialects), (TOFEL 107, GRE verbal 160)

RESEARCH INVOLVEMENT

Communities Creating Healthy Environments (CCHE) Project

Social campaign assessment, funded by Robert Wood Johnson Foundation at Newhouse in cooperation with Loyola Marymount University, assistantship with Prof. Charisse L'Pree.

Setting a New Agenda for Student Engagement and Retention in Historically Black Colleges and Universities

Books published, edited by Howard University Prof. Charles Prince and Newhouse Prof. Rochelle Ford. Assistantship with Prof. Ford.

Examinations of Communication Technology of Supporting Community Policing

National Science Foundation (NSF) Project, Full-time Research Assistant with Prof. Yun Huang from Social Computing Systems Lab, School of Information Studies (iSchool), Syracuse University.

Expressing Hatred or Empowerment Using the N-word in Social TV about a Popular TV Series (On-going project)

First part of the paper was presented at Broadcasting Education Association (BEA) annual conference, 2015, Las Vegas. Research Assistant with Prof. Fiona Chew.

Battles of Genetically Modified Organisms (GMOs) on Twitter

Social media content and user profile analysis of GMO discussion, consultancy with Cornell Alliance for Science (CAS).

MANUSCRIPTS

Yan, Y. J. (2016), *"A gay bandwagon"—effects of self-other differential perceptions of perceived media influence on attitudes towards homosexuality* (Accepted by International Communication Association annual conference, San Diego, USA, 2017)

Liebler, C., **Yan, Y. J.,** & Birkhead, H. (2016) *How WEIRD are we? Sample diversity in premier mass communications journals* (Presented at International

Communication Association annual conference, Fukuoka, Japan; under review for publication)

Yan, Y.J. (2016) *When we put "sex" back into "homosexual"—effects of explicit gay sex in mainstream* TV *(*Presented for Popular Culture Association annual conference, Seattle*)*

Yan, Y. J., Long, P., Vickers, J. & Birkhead, H. (2015) *"Power Women": Exploring the effects of political women on television* (Presented in Association for Education in Journalism and Mass Communication annual conference, San Francisco)

Birkhead, H., Corna, A., Haddix, P., Long, P., Peña, L. & **Yan, Y.J.** (2015), *Under scrutiny: How negative news stories of high-profile black men affect the identities and representations of everyday black men* (Manuscript submitted to National Communication Association annual conference)

AWARDS AND SCHOLARSHIP

2014-2015	Liu Foundation Multicultural Scholarship S.I. Newhouse School, Syracuse University
2011-2013	Study abroad on the Scholarship of Macau Foundation
2010-2011	University second scholarship in Nankai University
2009-2010	University first scholarship in Nankai University

PROFESSIONAL EXPERIENCE AND POSITIONS

2014-2016	Research assistant S.I. Newhouse School, Syracuse University,
2013-2014	Public relation engineer L'Noppen International Inc. Chengdu, PRC
2012-2013	Chief president

Chinese Traditional Culture Study Association, Macau University

2010-2011 Actor and director,
Nankai Xiang Yu Students Drama Association,
Second tenor and the publicity representative, Nankai Choir,

2009-2011 Reporter and Editor,
Nankai Youth Newspaper and Nankai Students TV Station Movie critic columnist, Naikai Movie Association,