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# ACCEPTANCE

This dissertation, CORRELATES AND PREDICTORS OF ANTI-TRANSGENDER PREJU-DICE, by JULIAN RAFFERTY MCCULLOUGH, was prepared under the direction of the candidate's Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree, Doctor of Philosophy, in the College of Education and Human Development, Georgia State University.

The Dissertation Advisory Committee and the student's Department Chairperson, as representatives of the faculty, certify that this dissertation has met all standards of excellence and scholarship as determined by the faculty.

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# CORRELATES AND PREDICTORS OF ANTI-TRANSGENDER PREJUDICE

by

# JULIAN RAFFERTY MCCULLOUGH

Under the Direction of Drs. Franco Dispenza and Catherine Y. Chang

#### ABSTRACT

Research investigating etiology, or beliefs and values related to prejudice toward transgender individuals, is in the early stages. This study examined correlates and predictors of antitransgender prejudice from a sample of 298 undergraduates at a large, urban university in the Southeastern United States. Measures of traditional values and beliefs, such as right-wing authoritarianism, and social dominance orientation, as well as social identity factors, such as intergroup contact, intergroup anxiety, in-group identity, and contact apprehension toward transgender individuals were examined. Bivariate correlations revealed that right-wing authoritarianism, contact apprehension, and intergroup anxiety were strongly correlated with anti-transgender prejudice, using the *Genderism Transphobia Scale Revised* version (GTS-R; Tebbe & Moradi, 2014). Contact with gay men and lesbians yielded a moderate negative correlation with GTS-R. Contact with transgender individuals yielded a small, but significant negative correlation with GTS-R. Hierarchical regression analysis revealed that contact apprehension, right-wing authoritarianism, and contact with gay men and lesbians were significant predictors of GTS-R. A post hoc mediation analysis revealed that contact apprehension significantly mediated the relationship between gender and anti-transgender prejudice.

INDEX WORDS: Transgender, Prejudice, Counseling, Social identity, Ingroup identity, Intergroup contact, Intergroup anxiety, Contact apprehension, Right-wing authoritarianism, Social dominance orientation

# CORRELATES AND PREDICTORS OF ANTI-TRANSGENDER PREJUDICE

by

# JULIAN RAFFERTY MCCULLOUGH

# A Dissertation

Presented in Partial Fulfillment of Requirements for the

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in

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in

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in

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#### DEDICATION

This dissertation is dedicated to my partner, Scott Lavis, my father, Mike McCullough, and my friend and mentor, Vong Ratts. Without all three supportive and generous individuals, this path would have been much more difficult. To Scott, who has sacrificed greatly by granting me the time and space to move across the country to pursue this degree, knowing how important it was for my personal growth. You have been there all along, providing daily support and grounding, and helped me to keep the end in sight when it was sometimes difficult to see. I look forward to rejoining you on the same side of the country. To my father, Mike, who has been a constant source of encouragement, support, and love throughout this process. You have shown up and been present every time I needed you. To Vong, who believed in me before I could believe in myself. I would not have attempted this if it was not for you. You continue to be a source of support and friendship.

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# 1 ANTI-TRANSGENDER PREJUDICE: IMPLICATIONS FOR COUNSELORS AND COUNSELOR EDUCATORS

**Guiding Questions** 

What are correlates of anti-transgender prejudice? What are predictors of anti-transgender prejudice?

#### Review

#### Introduction

Widespread prejudice, discrimination, and institutional and interpersonal violence against transgender individuals are well documented (Dispenza, Watson, Chung, & Brack, 2012; Gerhardstein & Anderson, 2012; Grant et al., 2011; Lombardi, 2009; McCullough et al., 2016; Stotzer, 2009). According to a national study on transgender discrimination (Grant et al., 2011), over 86% of the 6,450 of transgender participants reported that they had experienced a serious or catastrophic level of discrimination. These events may include sexual and physical assault due to bias, school bullying and harassment, homelessness, lost relationships with family members, or denial of medical services. Though lesbians, gay men, and bisexuals (LGB) also experience significant discrimination, transgender people experience even greater prejudice (Norton & Herek, 2013; Tebbe & Moradi, 2012). Poteat, DiGiovanni, and Scheer (2013) also found that transgender students experience the highest levels of discrimination, harassment and bullying in school. In this paper, the author discusses some possible predictors or underlying explanations for anti-transgender prejudice. Current research on anti-transgender prejudice will be examined,

as well as literature on social identity factors that may be related. Implications for counselor educators will also be discussed.

*Transgender* is a term used by individuals whose gender identities or gender expressions transcend culturally defined parameters of gender (Bockting, 1999), or who identify as a gender different from their gender assigned at birth. An overarching description that encompasses all individuals who do not necessarily conform to social expectations of gender, *transgender* or *trans*\* (e.g., transsexual, transperson, genderqueer, gender nonconforming, gender fluid, bigender, gender variant, gender free) can include persons who seek medical interventions, such as surgery or hormones to confirm their identities and those who do not seek gender confirmation surgery and/or hormones. For this study, the term trans\* will be used because it is more inclusive. The aforementioned list is not all-inclusive since language related to gender continues to evolve. It is important to note that not all people who identify as trans\* are gender nonconforming in the sense that their gender expression varies from their gender identity. Similarly, not all people who are gender nonconforming identify as trans\* (GLAAD, 2015). Since gender identity is a separate construct from sexual orientation, the authors wish to point out that transpeople can be heterosexual, gay, lesbian, bisexual, asxual, or any other sexual orientation.

*Transphobia* can be defined as an irrational fear, hatred, or disgust toward those who do not conform to gender norms. This can include individuals who identify as trans\*, gender queer, or an individual who does not conform to society's expectations of gender (Hill & Willoughby, 2005; Nagoshi et al., 2008). Transphobia can result in significant discrimination and even violence for individuals who are gender nonconforming (Nagoshi et al., 2008). *Transphobia* and *homophobia* are related constructs (Hill, 2002), with trans\* persons often experiencing *homophobia*, a fear or disgust towards gay men and lesbians. Since many confuse gender identity and sexual orientation, trans\* individuals are often assumed to be gay or lesbian. Similarly, gay and lesbian persons can experience transphobia if people view them as violating norms of gender expression (Hill, 2002). Studies have shown that indeed homophobia and transphobia are highly correlated constructs (Nagoshi et al., 2008; Warriner, Nagoshi, & Nagoshi, 2013; Willoughby et al., 2010).

A related term to *transphobia* is *anti-transgender prejudice*. Though similar constructs, Tebbe and Moradi (2012) utilized the term anti-transgender prejudice to highlight the importance of prejudicial attitudes towards trans\* individuals, rather than focusing only on the fear or hatred of trans\* people. Hill (2002) conceptualized anti-trans\* hate or violence into three separate constructs: genderism, transphobia, and gender-bashing. Gender-bashing refers to the act of harassing; mistreating or assaulting an individual based on their perceived nonconformity to socially constructed binary gender roles (Namaste, 1996; Wilkins, 1997). Genderism is a term that references a cultural ideology that privileges individuals whose gender behaviors and expressions align with the gender they were assigned at birth, whereas gender nonconformity is viewed as a pathological condition (Hill, 2002; Hill & Willoughby, 2005). This means that individuals who are gender nonconforming, though they may not identify themselves as trans<sup>\*</sup>, may be subjected to similar mistreatment. Genderism is related to the term heterosexism, where individuals who identify as heterosexual are given privileged status, whereas sexual minorities are regarded negatively (Hill & Willoughby, 2005). Hill (2002) posits that the mere existence of prejudice against trans\* persons justifies the concept of genderism. In the next section, empirical studies concerning the constructs of anti-trans\* prejudice and transphobia will be explored.

## **Anti-Trans\* Prejudice and Transphobia**

Calls for a more conceptual framework to understand the etiology of anti-trans\* prejudice (Hill, 2002) and its function in society have produced a small but increasing body of research. Researchers have historically grouped transpeople under the larger LGBT umbrella. Unfortunately, this makes understanding the differences between how prejudice is manifested and how it is enacted disparately toward lesbian, gay, bisexual, or trans\* groups difficult. For instance, individuals who are thought to be violating norms about sexual orientation (i.e., LGB people) may experience discrimination for different reasons than those who are seen as transgressing traditional gender roles (e.g., trans\* people). Therefore, an increasing number of studies (e.g., Hill & Willoughby, 2005; Nagoshi et al., 2008; Tebbe et al., 2014; Tee & Hegarty, 2006; Walch et al., 2012a; Winter, Webster, & Cheung, 2008) have begun to focus on prejudice and discrimination, specifically towards trans\* people. Most of the focus has been on measuring attitudes towards trans\* individuals. Two scales in which much of the research has emerged from are the Genderism and Transphobia Scale (GTS; Hill & Willoughby, 2005) and the Transphobia Scale (TS; Nagoshi et al., 2008). The next section will primarily be focused on the development of those scales, and other related studies that use them. There will be mention of some additional scales measuring anti-trans\* prejudice as well. Included will be a discussion of some correlates and predictors related to these measures, and also some criticisms of the scales. Findings from some international studies utilizing these scales will also be discussed.

Recent empirical studies have resulted in the creation of a scale to measure genderism, transphobia, and gender bashing (Hill & Willoughby, 2005). *The Genderism and Transphobia Scale* (GTS; Hill & Willoughby, 2005) measures anti-trans\* attitudes and predisposition for violence towards trans\* people. An example of a question from Hill and Willoughby's GTS is, "Men who act like women should be ashamed of themselves". The studies that validated the GTS included items that measured participant values, biases, and beliefs toward gender nonconformity in general, but did not use the word "transgender". This was later criticized by Walch et al. (2012a), who created the *Attitudes Towards Transgendered Individuals Scale* (ATTI). On the 20-item ATTI, higher scores reveal more tolerant and positive attitudes towards transpeople. The ATTI, predictably, was strongly negatively correlated with the GTS.

Hill and Willoughby (2005) used items from measurements about attitudes towards gay men and lesbians, and beliefs about gender roles to create their scale, believing that these constructs would moderately correlate with the GTS. Ultimately, Hill and Willoughby (2005) found that the construct of anti-trans\* prejudice could be understood best by examining its two underlying dimensions: genderism/transphobia, and gender bashing. The GTS was the first scale of its kind to measure discrimination and prejudicial attitudes towards gender nonconforming and trans\* individuals. This study paved the way for researchers to measure anti-trans\* prejudice and intolerance.

Building off of Hill and Willoughby's GTS, Nagoshi et al. (2008) developed another measure called the *Transphobia Scale* (TS). Since homophobia and transphobia are highly correlated constructs, Nagoshi et al. (2008) suggested that Hill and Willoughby's GTS did not adequately discern between the two and that the authors did not establish discriminant validity of transphobia from homophobia. Further, Nagoshi et al. posited that since gender differences (male, female) were significant in previous studies of the predictors of homophobia, that gender differences as predictors of transphobia should not be overlooked. Nagoshi et al. created the nine-item TS, based on Kate Bornstein's flexibility of gender aptitudes questions (1998). An example of a question found on this measure is, "I don't like when someone is flirting with me, and I can't tell if they are a man or a woman". Nagoshi et al. (2008) also examined correlates of transphobia and found that for both *cisgender* (individuals whose gender identity is the same as their assigned gender at birth) women and men, more highly endorsed right-wing authoritarianism (Altemeyer, 1981), a belief in one's need to submit to authority is associated with higher homophobia and transphobia. Similarly, religious fundamentalism (Altemeyer & Hunsberger, 1992), a conviction that requires individuals to strictly adhere to religious doctrine, and hostile sexism (Glick & Fiske, 1996), or overt prejudice against women, were also strongly positively correlated with homophobia and transphobia for both cisgender women and men.

There were also gender differences in predictors of transphobia for cisgender women and men (Nagoshi et al., 2008). For women, rape myth acceptance (a measure of attitudes condoning the use of sexual coercion or aggression) predicted higher levels of transphobia, but not for men. However, homophobia correlated with rape myth acceptance for both men and women. Also for women, higher benevolent sexism ideals (a view that values women if they fit into their traditional role; Glick & Fiske, 1996), was correlated with higher transphobia. In general, men scored higher on TS. For men, but not women, aggression proneness was correlated with both homophobia and transphobia (Nagoshi et al., 2008).

Additional studies examined predictors and correlates of transphobia and anti-trans<sup>\*</sup> prejudice. In 2010, Willoughby et al. conducted four independent studies in three countries (U.S. The Philippines, and Canada) to further validate the GTS (Hill & Willoughby, 2005). Across the studies, Willoughby et al. found that higher scores on social conformity increased religiosity, lower self-esteem, homophobia, higher ego-defensiveness, higher moral dogmatism, higher authoritarianism and religious fundamentalism, and endorsement of traditional gender roles were all associated with higher levels of anti-trans<sup>\*</sup> prejudice. International studies also examined attitudes and prejudice towards transpeople. Costa and Davies (2012) measured transphobia in Portuguese adolescents using the GTS. Transphobia was correlated with negative attitudes towards lesbians and gay men. In a study in Hong Kong (Winter, Webster, & Cheung, 2008), researchers found that transphobia was higher in Hong Kong, than in Canada, where one of the original studies validating the GTS took place (see Hill & Willoughby, 2005). Further, gender variance in males was viewed much more negatively than in women. Tee and Hegarty (2006) examined predictors of opposition to trans\* civil rights in the United Kingdom using a measure they created of support for trans\* civil rights, including items, such as, "transsexual people should have the right to have a new birth certificate issued". The study found that heterosexism, authoritarianism, a belief that there are only two sexes, a belief that gender is biologically based, and lack of contact with sexual minorities were positively correlated with opposition to civil rights of trans\* persons.

While most countries harbored more negative attitudes towards trans\* individuals, similar to attitudes in the U.S., not all countries did. According to a questionnaire that was mailed out to 992 Swedish citizens (Landén & Innala, 2000), the majority supported more positive attitudes towards trans\* people. Moreover, attitudes towards trans\* individuals were more positive to the degree that participants believed that being trans\* had an underlying biological cause, rather than a psychological one. Thus, it is possible that the participants in the Swedish study would have had more negative attitudes towards transpeople if they believed that there was no underlying biological cause.

While there is a growing body of research that examines anti-trans\* prejudice, few researchers have conducted experimental studies. Gerhardstein and Anderson (2010) investigated anti-trans\* prejudice by inviting heterosexual participants to evaluate photographs of trans\* people. Researchers provided four different photographs with identical vignettes: a masculineappearing transman, a feminine-appearing transman, a masculine-appearing transwoman, and a feminine-appearing transwoman. Gerhardstein and Anderson (2010) found that evaluations of trans\* individuals in the photographs were more negative if the participants perceived that the identities of the transpeople were not congruent with the photos. In other words, if the photo was of a masculine-appearing person, but the person identified as female, the individual was rated more negatively in areas such as attractiveness. Additionally, negative evaluations of the trans\* individuals represented by the photos were associated with higher levels of transphobia, as measured by the GTS (Hill & Willoughby, 2005), and sexual prejudice, as measured by the Kite Homosexuality Attitude Scale (KHAS, Kite & Deaux, 1986).

One finding that seems to be consistent within international, as well as domestic studies, is that men are much more likely to express negative attitudes and prejudice towards transpeople (Costa & Davies, 2012; Gerhardstein and Anderson, 2010; Landén & Innala, 2000; Nagoshi et al., 2008; Norton & Herek, 2013; Tee & Hegarty, 2006; Tompkins et al., 2015; Willoughby et al., 2010; Winter et al., 2008). Using the GTS and vignettes with photographs, Gerhardstein and Anderson (2010) found that men were more likely to behave violently toward and tease femi-nine-appearing men. They also felt more uncomfortable around feminine-appearing men. Parrott, Adams, and Zeichner (2002) suggested that men are homophobic for reasons that have more to do with negative attitudes about feminine characteristics in gay men, rather than general negative sentiments about gay men. In one study (Nagoshi et al., 2008), gay men had less negative attitudes towards transpeople than heterosexual men, but scored significantly higher on the TS than lesbians. This finding may lend further support for the theory (Nagoshi et al., 2008; Warriner et

al., 2013) that men in general are more prejudiced because they perceive the existence of feminine men and transpeople, particularly transwomen, to threaten the loss of their social power.

Nagoshi et al. (2008) also found that when the correlations of authoritarianism, fundamentalism, and aggression proneness with transphobia were controlled for homophobia, transphobia was significantly reduced, leading researchers to believe that homophobia and transphobia have similar causal factors. Costa and Davies (2012) established that attitudes towards gay men and trans\* individuals were closely linked, and that young men as compared to young women responded more negatively towards transpeople and gay men, than they responded toward lesbians. This lends further support for Nagoshi and colleagues' hypothesis that when presented with an individual who transcends traditional gender role behavior or presentation, men's anxieties about their own masculinities become activated and can lead to homophobic and transphobic attitudes or behaviors. Moreover, hypermasculinity and sexism may be correlates of homophobia and transphobia because of men's feelings of threatened loss of social power when confronted with individuals who are perceived to express their gender and sexuality outside of traditional social roles (Warriner et al., 2013).

Tebbe and Moradi (2012) examined a college population for constructs associated with anti-trans\* prejudice. They used Nagoshi et al.'s (2008) *Transphobia Scale* to measure anti-trans\* prejudice. In their study, they found that traditional gender attitudes, anti-LGB attitudes, *Need For Closure* (NFCS, Webster & Kruglanski, 1994), or an individual's lack of tolerance for ambiguity, were all positively and uniquely associated with anti-trans\* prejudice. Tebbe and Moradi (2012) were able to identify that traditional gender role attitudes and anti-LGB prejudice contributed a separate role in predicting anti-trans\* prejudice, rather than an overlapping one. Need for closure as a predictor may indicate that individuals who need a high degree of closure

may hold negative attitudes towards groups, like transpeople who transgress traditional social concepts of gender roles.

In order to strengthen further examinations of the construct of anti-trans\* prejudice, researchers strove to assess measurement tools more closely. Noting that the GTS (Hill & Willoughby, 2005; Winter et al., 2008) had psychometric limitations, such as inconsistent factor structure and subscale scoring across multiple studies on anti-trans\* prejudice, Tebbe, Moradi and Ege's (2014) study increased the precision of the GTS by dropping items with higher crossloadings and conceptual redundancy, while maintaining internal reliability. Similar to their previous study (Tebbe & Moradi, 2012), Tebbe et al. (2014) found that GTS was positively correlated with the same anti-trans\* prejudice predictors, such as, attitudes towards women, anti-LGB attitudes, and *Need For Closure*.

Tebbe et al. (2014) established that aggression proneness was a significant predictor of anti-trans\* prejudice, further validating other studies' (e.g., Nagoshi et al., 2008; Warriner et al., 2013) use of this tool as a predictor. Additionally, Tebbe et al. found that social dominance orientation (SDO), a measure that assesses the degree to which individuals desire to maintain a social hierarchy (Pratto et al., 1994), was a significant predictor of anti-trans\* prejudice in this study when the GTS (Hill & Willoughby, 2005) was used, but not in their other study (Tebbe & Moradi, 2012) when the TS (Nagoshi et al., 2008) was used.

Scholarly literature shows that prejudicial attitudes towards other groups (Costa & Davies, 2012; Hill & Willoughby, 2005; Norton & Herek, 2013; Tebbe & Moradi, 2012; Tebbe et al., 2014), endorsement of dominance and aggression towards other groups (Nagoshi et al., 2008; Tebbe et al., 2014; Warriner et al., 2013), and adherence to traditional values and beliefs (Costa & Davies, 2012; Nagoshi et al., 2008; Norton & Herek, 2013; Tee & Hegarty, 2006; Warriner et al., 2013; Willoughby et al., 2010), strongly predicted anti-trans\* attitudes and prejudice. This suggests that anti-trans\* attitudes could be additionally supported by theories of ingroup (All-port, 1954) attitudes about superiority towards outgroups, or threats perceived by ingroup members posed by outgroup members (Pettigrew & Tropp, 2006; Stephan & Stephan, 2000). Suggestions about possible social psychological theories of ingroup attitudes toward outgroup members as explanations of anti-trans\* prejudice have been suggested by researchers (Norton & Herek, 2013; Tebbe et al., 2014; Warriner et al., 2013).

#### **Intergroup Contact Theory**

Individuals are said to compartmentalize their social worlds into ingroups and outgroups (Allport, 1954; Tajfel & Turner, 1986). An ingroup is a collection of individuals who all identify as members of the same social categories, such as race, class, sexual orientation or gender identity. Social Identity Theory (Tajfel & Turner, 1986) posits that individuals categorize themselves into groups where they define their place in society, and as such, these identities have reference points whereby individuals can discern whether they are better than, worse than, or of a higher or lower status than members of other groups.

Ingroup bias or ethnocentrism is often an extraordinarily common feature of intergroup relations (Tajfel & Turner, 1986) and merely belonging to a group is sufficient for triggering prejudice, favoring the ingroup. Intergroup contact theory presumes that prejudice is reduced when contact between ingroups and outgroups increases (Allport, 1954). In a meta-analysis of 515 studies, Pettigrew and Tropp (2006) found that contact reduces intergroup prejudice. In 94% of the studies, intergroup contact predicted reductions in prejudice. Moreover, increased contact between groups results in commensurate decrease in prejudice. Davies and colleagues (2011) conducted a meta-analysis on cross-group friendships and intergroup attitudes. They found that

cross-group friendships also significantly reduced prejudice and fostered more positive outgroup attitudes.

Earlier studies have examined intergroup contact and its reduction of prejudice towards gay men and lesbians. Contact with gay men and lesbians has been found to have a negative or inverse relationship with prejudice against gay men and lesbians (West & Hewstone, 2012) for non-sexual minorities. Lytle and Levy (2015) conducted an experimental study to determine if intergroup friendship between heterosexuals and gay men and lesbians would reduce prejudice towards sexual minorities. Study participants reported significantly more positive attitudes toward gay men and lesbian women at the completion of the study. Older studies show similar trends. Herek and Captanio (1996) and Gentry (1987) found that heterosexual individuals who had previous contact with gay men and lesbians were significantly more likely to report increased favorable attitudes towards gay men. Moreover, as the number of gay men and lesbians that participants knew increased, respondents demonstrated progressively more favorable attitudes towards gay people (Herek & Captanio, 1996).

While studies of intergroup contact with other stigmatized groups, such as gay men and lesbians, did yield significant results, studies linking intergroup contact with reduction of antitrans\* prejudice have yielded mixed results. King et al. (2009) found in a Hong Kong study, that lack of previous contact with transpeople resulted in increased negative attitudes. Tee and Hegarty (2006) found that prior contact with gay men and lesbians was a significant predictor for support of trans\* civil rights in the UK. Additionally, ratings of transpeople were higher on a feeling thermometer rating for participants who had past contact with gays and lesbians, establishing stronger evidence for secondary transfer effect between sexual and gender minorities (Norton & Herek, 2013). *Secondary transfer effect*, is a term developed by Pettigrew (1998, 2009) to describe the phenomenon of the generalization of positive attitudes transferred to additional, or equally stigmatized outgroups not necessarily involved in the original encounter. Perhaps since gay men, lesbians, and transpeople are stigmatized for common reasons, such as perceived self-expression or behavior that violates gender role norms, increasing contact with gays and lesbians will transfer into less prejudice towards transpeople.

In Willoughby et al.'s (2010) work, two out of four independent studies validating the GTS examined whether previous contact with transpersons would predict less transphobia. One study with a U.S. population found that previous contact explained only 5% of the variance in the regression model, though that was still significant. The other study examined the number of trans\* friends in a Philippines sample. The number of trans\* friends of the participants did not yield a significant result, meaning that contact did not reduce prejudice in this sample. In Costa and Davies' et al. (2012) study with Portuguese adolescents, previous contact with gay men, lesbians, or trans\* individuals also did not confirm significant results. Additionally, a Thai study yielded marginal statistical significance in the effects of previous contact with trans\* persons (Ngamake, Walch, & Raveepatarakul, 2013).

It is possible that there are other cultural factors at play that resulted in reduced significance of contact in reducing prejudice, but even in the U.S. sample (Willoughby et al., 2010), contact only explained a small portion of variance. Due to the few studies that investigated intergroup contact theory with trans\* individuals, and the fact the results have been mixed, more research needs to be conducted to determine whether intergroup contact reduces transphobia, or whether intergroup contact with gay men, lesbians, and bisexuals has the secondary transfer effect of reducing prejudice toward transpeople.

#### **Integrated Threat Theory**

Stephan and Stephan (2000) formulated a model called *Integrated Threat Theory* that posits four types of threat (i.e., realistic threat, symbolic threat, intergroup anxiety, and negative stereotypes) that may be responsible for triggering prejudicial thoughts and behaviors. Two of these, symbolic threat and intergroup anxiety, may be especially related to anti-trans\* prejudice. Stephan and Renfro (2002) discussed the relationship between fear and threat, supposing that threat stems from the fear of negative consequences, and fear is the behavioral outcome of threat. For instance, a person might feel fear if they anticipate that an interaction with an individual from a different culture will be unpleasant or uncomfortable. The perceived threat might be deemed too great and the interaction is avoided, or the person feels negatively about the person from the outgroup. Negative stereotypes may be ascribed to the outgroup members and they may be mistrusted or perceived as threatening, which results in fear.

Integrated threat theory is a model that helps explain discrimination toward minority outgroups in particular (Velasco González et al., 2008). In recent research, "negative stereotypes" has been dropped as one of the examples of threat since it failed to be a proximal predictor of prejudice (Stephan & Renfro, 2002). More than likely, negative stereotypes are an antecedent of threat. Perception of negative stereotypes about a particular outgroup may foster feelings of threat, not the other way around. Of the threat types, symbolic threat and intergroup anxiety may be more likely to activate negative attitudes towards trans\* individuals. These will be discussed in more detail below.

#### **Symbolic Threat**

*Symbolic threat* can be understood as threat to an ingroup's values, morals, or worldview (Stephan & Stephan, 2000). The ingroup may feel that their beliefs or traditions are the correct

ones and may feel intimidated by or perceive an outgroup to be a threat to their way of life or value system. Perceived group symbolic threats infiltrate the group's core identity and shake its foundation, and ingroup members feel significant fear of loss of identity. This may cause ingroup members to clench to their beliefs more vigorously and assert their power towards an outgroup with lower social status, preserving their "superior" morals or value system. For example, Sears (1988) posited that symbolic racism describes a situation where racism is no longer about African Americans being biologically inferior to whites, but they are a threat to traditional ways of life for white people. Because many white Americans do not always believe that racism is still a problem, they become opposed to affirmative action, fearing that it threatens their cultural values of equity, by giving people of color an advantage over themselves (Riek, Mania, & Gaertner, 2006).

An example of symbolic threat happened recently in the U.S. with the Supreme Court declaring that same-sex marriages should be legal in all 50 states. Large groups of people, typically conservatives, expressed their moral outrage at the ruling and decried that marriage equality was an affront to traditional marriage between one man and one woman. Gay men and lesbians can be seen as a symbolic threat because of a professed link between homosexuality and immorality, or because of perceived gay and lesbian sexual behavior conflicting with family values (Cottrell & Neuberg, 2005; Vescio & Biernat, 2003). Though individuals experiencing symbolic threat might react similarly toward trans\* individuals as toward gay and lesbians, there are currently no studies that examine symbolic threat and anti-trans\* prejudice. Two widely measured constructs that may quantify prejudice towards outgroups based on perceived feelings of symbolic threat towards social status or morals and values are social dominance orientation and right wing authoritarianism. Social dominance theory. Originally proposed as an alternative to symbolic racism model (Kinder & Sears, 1981), social dominance theory attempts to explain human social systems in terms of at least two castes, a hegemonic group, holding the power, and a negative reference group at the bottom of the caste (Sidanius, Devereaux, & Pratto, 1992). The system is held in place by institutional and individual discrimination. An individual may possess a social dominance orientation if they believe that their ingroup is superior to outgroups. The desire to maintain superiority over others may be motivation for individuals who score high on social dominance orientation (SDO) measures to vilify members of marginalized outgroups, or to oppose social equality legislation, such as affirmative action (Pratto et al., 1994). Duckitt and Sibley (2007) found that individuals who scored highly on measures of SDO are more likely to discriminate against groups who are seen to have lower social status.

SDO has been found to be a significant predictor for prejudice against numerous outgroups, especially marginalized groups (Ho et al., 2015; Pratto et al., 1994). Licciardello et al. (2014) found high SDO to be a significant predictor of negative attitudes towards lesbians and gay men. Since gay men, lesbians, and bisexual individuals have lower social status, individuals who have a tendency toward SDO are more likely to hold prejudicial attitudes or behaviors towards them (Whitley & Lee, 2000). Transpeople also hold significantly lower social status than heterosexuals, or sexual minorities (Norton & Herek, 2013). This may be a reason for them to face more prejudice by individuals who are higher in SDO. As established earlier, SDO as a predictor for anti-trans\* prejudice has garnered mixed results so far (Tebbe & Moradi, 2012; Tebbe et al., 2012). But few studies have investigated SDO as a predictor for anti-trans\* prejudice, so it should be looked at more closely since it makes theoretical sense. **Right wing authoritarianism.** Related to the idea of symbolic threat, one of the characteristics of people who value authoritarianism is that they frequently perceive outgroup members as highly threatening to their traditional values (Altemeyer, 1981). Further, they tend to be more conventional and provide blind allegiance to authoritarian institutions (religion, family, school, work) that hold power over aspects of their lives. They may uncompromisingly defend these institutions, which may include behaving in a prejudicial, or hostile manner towards members of outgroups (Altemeyer, 2002). This can have deleterious effects on communities of individuals such as transpersons, who lack social power and whose identities invoke fear and aggression towards the hegemonic group. Researchers have found that individuals who score highly on measures of right wing authoritarianism are more prejudicial to other marginalized groups such as racial and ethnic minorities, women, gay and lesbians, and people with disabilities (Altemeyer, 1998; Duckitt & Sibley, 2007; Van Hiel and Mervielde, 2005).

Indeed, researchers who examined this phenomenon found that individuals who score highly on measures of right wing authoritarianism also tend to harbor more prejudicial attitudes towards transpeople (Nagoshi et al.; Norton & Herek, 2013; Tee & Hegarty, 2006; Warriner et al., 2013; Willoughby et al., 2010). Since individuals who are highly authoritarian are reported to impose stricter rules about what constitutes "proper behavior" on others (Altemeyer & Hunsberger, 1992), they may engage in more "gender policing" when individuals are found to dress or behave outside of normative gender roles. This would make transpersons especially susceptible to prejudice, discrimination, and potentially even violence at the hands of such individuals. Since people who value authoritarian ideals are also more likely to be highly punitive and use physical punishment (Altemeyer & Hunsberger, 1992) when disciplining children, trans\* youth may also be at risk of abuse by authoritarian family members.

## **Intergroup Anxiety**

Another construct related to integrated threat theory and intergroup contact is *intergroup anxiety*, a term that describes the anxiety that ingroups and outgroups experience in anticipation of an intergroup contact (Pettigrew & Tropp, 2006; Stephan & Stephan, 1985). Intergroup anxiety encompasses three interrelated components: (a) affective, (b) cognitive, and (c) physiological (Stephan, 2014). Affective responses to anticipation of intergroup contact might include nervousness, anxiety, or uneasiness. Individuals might experience negative cognitions such as, wondering if they will be negatively evaluated, discriminated against, or deceived or harmed. Additionally, they may worry that other members of their ingroup will disapprove of them if they interact with outgroup members (Stephan & Stephan, 1985). Ingroup members also may experience physiological symptoms such as, increased blood pressure or cortisol levels in anticipation of contact with a member of an outgroup (Littleford et al., 2005; Stephan, 2014). To the degree that individuals experience ingroup anxiety, they may avoid contact with outgroups.

Intergroup anxiety has been found to be a good predictor of prejudice toward outgroups (Voci & Hewstone, 2003). Castiglione et al. (2013) investigated prejudice in a male, heterosexual, high school-aged sample. The participants showed particularly negative attitudes towards gay men, especially when they experienced higher levels of intergroup anxiety. If ingroup anxiety is a predictor for prejudice towards gay men, and homophobia and transphobia are highly correlated (Nagoshi et al., 2008; Willoughby et al., 2010), perhaps it might also predict transphobia. It would be helpful to understand the role that intergroup anxiety plays in predicting anti-trans\* prejudice. If through some means, such as intergroup contact, that anxiety can be reduced, perhaps prejudice can be reduced.

#### **Contact Apprehension Toward Trans\* People**

Anti-gay prejudicial attitudes serve different functions depending on the person. Some individuals are prejudiced towards gay men and lesbians out of fear, or because they feel homosexuality violates traditional morals and values. LaMar and Kite (1998) created the *Component Measure of Attitudes Towards Homosexuality* (CATH) to analyze the multidimensional nature of prejudice towards gay men and lesbians. The scale consists of subscales measuring four components each for both lesbians and gay men: (a) condemnation/tolerance, (b) morality, (c) contact, and (d) stereotypes. The subscale that measures contact apprehension toward gay men and lesbian women has questions like, "It would be upsetting to me to find out I was alone with a gay man (lesbian)".

There have been a few Italian studies (Castiglione et al., 2013; Licciardello et al., 2014; Rampullo et al., 2013) that used the subscale that measures contact apprehension only. All the studies found that contact apprehension has a strong positive correlation with prejudice towards gay men and lesbians. In one study (Castiglione et al., 2013) intergroup anxiety was also positively correlated with contact apprehension towards gay men. Since there is a strong connection between prejudice towards gay men and lesbians and prejudice towards trans\* people, one might consider what would happen if the contact apprehension toward gay men and lesbians subscale was altered to measure contact apprehension toward trans\* individuals. Further, in Castiglione et al.'s study, intergroup contact diminished prejudice levels and intergroup anxiety towards gay men and lesbians, but it did not decrease contact apprehension. So, while these measures are correlated, they still seem to be measuring different constructs. Future studies should investigate contact apprehension with trans\* individuals.

#### **Ingroup Identity**

Strong identification with an ingroup may be a powerful antecedent to prejudice (Barlow, Louis, & Terry, 2010; Renfro et al., 2006; Stephan & Renfro, 2002). A desire for individuals to form a positive social identity or ingroup identification (Tajfel & Turner, 1986) often results in bias towards outgroups. Individuals who have a strong sense of ingroup identification may feel threat to their ingroup in a more personal way (Tausch et al., 2007). Often, strong ingroup identifiers are considerably concerned about their group's interests and want to preserve them. For example, if a person strongly identifies as Christian and feels like Christian values are being attacked, they are more likely to feel like the threat is personal. Further, Renfro et al. (2006) examined white male attitudes towards affirmative action, and found that strong ingroup identity of the participants did not predict negative attitudes toward affirmative action, but it did predict prejudice toward recipients of affirmative action.

Morrison (2010) addressed the issue of ingroup identity within the LGBT communities. Specifically, she discussed whether trans\* individuals are a threat to the identity of LGB individuals. She conducted a survey of attitudes of LGB individuals towards a trans\* lesbian in a TV show. LGB participants consistently rate the character lower than heterosexual counterparts. When the trans\* lesbian character involves herself in a romantic relationship with a cisgender lesbian, LGB participants reported less support for this relationship than do their heterosexual counterparts. To the extent that LGB persons have a strong identity with their sexual orientation, they may also feel threatened and see a trans\* person as an outgroup member.

An individual may be more likely to perceive threats to their social position and fear loss of power, especially if there is a greater power differential between the ingroup and the outgroup (Stephan & Renfro, 2002). Specifically, if the ingroup holds a dominant social position, such as heterosexuals or cisgender individuals, they may fear that the subordinate or negative reference group (transpeople) may experience an intensified sense of threat. Research has not examined the strength of ingroup identity as a predictor for anti-trans\* prejudice. The degree to which an individual has a strong ingroup identity as a cisgender person may play a role in negative attitudes towards transpeople.

There are many factors that can increase the likelihood of anti-trans\* prejudice. Demographic factors such as gender (Costa & Davies, 2012; Gerhardstein & Anderson, 2010; Landén & Innala, 2000; Tee & Hegarty, 2006; Nagoshi et al., 2008; Norton & Herek, 2013; Tompkins et al., 2015; Willoughby et al., 2010; Winter et al., 2008) and sexual orientation (Warriner et al., 2013; Willoughby et al., 2010) have been found to be positively correlated with anti-trans\* prejudice. Also, certain values and beliefs such as right-wing authoritarianism (Nagoshi et al., 2008; Norton & Herek, 2013; Tee & Hegarty, 2006; Warriner et al., 2013; Willoughby et al., 2010), and social dominance orientation (Tebbe et al., 2014) predicted negative attitudes towards transpeople. In a framework of social identity theory (Tajfel & Turner, 1986), group organization into ingroups and outgroups can also increase prejudice. Further, strong ingroup identification (Renfro et al., 2006; Stephan & Renfro, 2002), intergroup anxiety (Pettigrew & Tropp, 2006; Stephan & Stephan, 1985), and previous lack of intergroup contact (Allport, 1954; Pettigrew & Tropp, 2006) have all been found to predict prejudice towards various outgroups. A more close examination of some of these factors can unlock answers for how to reduce prejudice toward transpeople, a group that experiences significant marginalization.

#### **Implications for Counseling**

Transphobia is an underlying reason why trans\* individuals experience discrimination, harassment, and victimization, and with serious consequences. Violence and discrimination can

turn inward, becoming *internalized transphobia*, which can lead to higher emotional distress and elevated suicide rates for trans\* and gender nonconforming individuals (Grant et al., 2011). In addition to avoiding work, missing school days, and refusing to undergo even routine medical care to escape possible victimization, 41% of trans\* individuals have attempted suicide (Grant et al., 2011; Hill & Willoughby, 2005; Lombardi, 2009). This has led many counseling and psychology researchers (Hill & Willoughby, 2005; Nagoshi et al., 2008; Tebbe et al., 2014; Walch et al., 2012a) to create measures to examine attitudes related to anti-trans\* discrimination. By reviewing the dates of the research, it is clear that examination of anti-trans\* prejudice and its origins is a burgeoning field of study.

Improving intergroup relations has direct relevance to the field of counseling. The likelihood of increased intergroup contact between trans\* and nontrans\* individuals reducing prejudice creates some optimism. A few experimental studies utilizing curriculum materials that involve contact with, gay men and lesbians, and transpeople provide some helpful strategies for counselor educators that may reduce negative attitudes towards transpeople in counseling students. In one study, Christian college students were shown video clips depicting an openly gay character (Bassett et al., 2005). In most cases, anti-gay prejudice was significantly reduced, compared to the control group in students who had previously demonstrated highly negative attitudes towards gay men and lesbians. Another researcher (Hodson et al., 2009) used role-playing simulations to help participants experience perspective-taking related to gay men and lesbians' experiences of homophobia. In Hodson et al.'s study, participants also expressed less negative attitudes towards gay and lesbian individuals.

In an attempt to try and replicate studies with success in reducing anti-gay prejudice, Case and Stewart (2013) set up an experimental study with three interventions to help reduce prejudice towards trans\* individuals. One of the interventions involved participants reading an emotional coming-out letter written by a young trans\* man to his parents. The second intervention was a fact-based presentation intending to dispel myths about transpeople. The third one was a media intervention where participants watched and responded to a video clip about a trans student who was coming out to his father and stepmother and their reactions to his disclosure. Though none of the interventions was more effective that others, all of the interventions resulted in a significant decrease in negative attitudes towards trans\* people. This may be slightly more evidence for contact reducing prejudice. While Case and Stewart's interventions did not directly involve contact with transpeople, a representation of a trans\* person was portrayed in two of the interventions. That the fact-based intervention also reduced prejudice may mean that more educating about transpeople and trans clients in the classroom is also needed.

In a meta-analytic study on interventions to reduce sexual prejudice, Bartoş, Berger, and Hegarty (2014) found that at least four types of interventions to reduce sexual prejudice towards LGB people were supported in the literature. While its effectiveness in improving attitudes and emotions was more modest, education about LGB people significantly increased knowledge of those groups. Contact with LGB individuals improved attitudes, but interventions that combined contact and education also improved emotions. The fourth intervention that was moderately effective was when an instructor set tolerant social norms of expected behavior in a classroom. This intervention was effective at reducing anti-prejudicial behavior, but did not seem to change attitudes.

Counselors regularly work with stigmatized and marginalized populations. From an advocacy and social justice perspective, it is important for counselors to understand how prejudice manifests in the lives of their trans\* clients and how to work towards reducing systemic and institutionalized discrimination. Prejudice towards transpeople is widespread (Grant et al., 2011; Lombardi, 2009). While some counselors would like to think that their offices provide safe refuges for transpeople, trans\* individuals face significant barriers to accessing mental health services (Carroll et al., 2002; Israel et al., 2008; McCullough et al., in press; Shipherd, Green, & Abramovitz, 2010; Sperber et al., 2005). As counselor educators, a central goal should be to foster increased self-awareness of fears and biases in counselors-in-training working with sexual and gender minorities. In order to reduce prejudice, the fears that emanate from perceived threats from outgroups (trans\* clients/trans\* people) to ingroups (counseling students) must be challenged and reduced. Intergroup contact, reduction of anxiety through contact or increased knowledge, and perspective-taking activities may hold promise for reducing prejudice.

Counselor educators should attempt to reduce prejudice in beginning counselors by increasing counseling student contact with trans\* individuals as much as possible. This can be through inviting trans\* speakers to a panel discussion in classes, or through video conferencing. Students can also be assigned immersive experiences to visit within community spaces frequently occupied by transpeople. As some of these items could potentially feel tokenizing or intrusive to some transpeople, increased contact can also happen in the form of trans characters in movies, media clips, TV shows, fiction books, autobiographical accounts of trans lives. These depictions should reflect the real lived experiences of trans\* individuals and not portray transpeople as hapless, rejected, and pathologized individuals, lest negative stereotypes be reinforced by the contact.

Strength of ingroup identity has been shown to increase prejudice toward outgroups, but we have yet to explore this phenomenon with trans\* individuals as the outgroup (Renfro et al., 2006; Stephan & Renfro, 2002). Discussions of identities could also be included in the classroom so counselors in training can explore their own identities, and therefore increase their selfawareness and understanding of their clients' identities and worldview (Ratts, Singh, Nassar-

McMillan, Butler, & McCullough, 2016); thereby increasing advocacy with trans clients. Increased contact with transpeople and increased feelings of knowledge and competence in working with trans\* clients may also reduce anxiety and apprehension for counselors working with transpeople.

Further research needs to explore ingroup anxiety, strength of ingroup identity, and contact apprehension with trans\* individuals. Though we have some preliminary research that suggests that reduction of these should reduce anti-LGB prejudice, we do not have a clear understanding of how these constructs relate to anti-trans\* prejudice. Understanding why intergroup contact reduces prejudice with other groups, but not consistently with trans\* is perplexing. Future studies should focus more on social identity theoretical models of acquiring a clearer understanding of what mechanisms are in place to create the conditions for prejudice towards transpeople. If we have more of an understanding of these, perhaps we can begin to find more effective interventions that reduce anti-trans\* prejudice.

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# 2 CORRELATES AND PREDICTORS OF ANTI-TRANSGENDER PREJUDICE

Transgender individuals encompass a diverse group of individuals whose gender identities and gender expressions are different than the gender markers they were assigned at birth. Bockting (1999) described transgender people as individuals whose gender identities transcend traditional social definitions of male and female. Since language and definitions used within various transgender communities continue to evolve, the author will use *transgender* as a term that denotes individuals whose gender identities or gender expressions do not necessarily conform to traditionally defined constructions of "male" and "female." The term *trans\**, pronounced without the asterisk, has become more widely used. The asterisk was thought to be created in order to metaphorically capture all the identities that encompass transgender (Ryan, 2014; e.g. transsexual, transperson, gender nonconforming, genderqueer, gender bender, bigender, androgynous, gender variant). Trans\* persons may seek gender confirmation surgery or hormones, or they may opt to not alter their bodies in any way. Since sexual orientation is separate from gender identity, trans\* persons may identify as heterosexual, gay, lesbian, bisexual, queer, asexual, etc.

Trans\* persons experience pervasive prejudice and discrimination (Ahmed, & Jindasurat, 2015; Grant et al., 2011; Greytak, Kosciw, & Diaz, 2009; Stotzer, 2009; Whittle, Turner, Al-Alami, Rundall, & Thom, 2007) in the workplace (Dispenza, Watson, Chung, & Brack, 2012), in obtaining medical care (Sperber, Landers, & Lawrence, 2005; Whittle et al., 2007), and in accessing mental health (Carroll, Gilroy, & Ryan, 2002; Israel et al., 2008; Lombardi, 2009; McCullough et al., 2016). Most disturbing perhaps is that trans\* youth report much higher levels of harassment and victimization in school, many lacking resources and adequate school supports to cope with their negative experiences (Greytak et al., 2009).

Further, Grant et al. (2011) reported that 19% of trans\* people were refused medical care, 22% reported harassment by police, trans\* people were nearly 4 times as likely to live in extreme poverty, 19% reported experiencing homelessness, and 41% reported attempting suicide. Individuals have even been murdered upon discovery that they were trans\* (Wodda & Panfil, 2014). Trans\* people are often denied basic rights, and lack protections in housing, public restroom accommodations (Bender-Baird, 2015; Reed, Franks, & Scherr, 2015), and only 15 states have hate crime laws that include crimes based of gender identity (The National LGBTQ Task Force, 2015). Relatedly, constant exposure to discrimination and violence can increase the likelihood that trans\* people will experience adverse mental health outcomes (dickey, Reisner, & Juntunen, 2015; Shipherd, Green, & Abramovitz, 2010).

Many of the above descriptions of discrimination and violence directed at transpeople can be described as manifestations of *transphobia*, or a disgust, fear or hatred towards individuals whose gender identities or gender expressions do not fit into traditional socially defined concepts of female and male (Hill & Willoughby, 2005; Nagoshi et al., 2008). Tebbe and Moradi (2012) use a parallel term, *anti-transgender prejudice*, to focus more on prejudice, rather than hatred or fear of trans\* individuals. As part of their study, Whittle et al. (2007) found that people were more likely to act upon their prejudice and transphobia in instances where a trans\* person began to publicly express themselves as their true gender, during periods of time when an individual was undergoing gender confirmation surgery, or when it was discovered within the family home that a trans\* family member was planning to live full time as their true gender. It may be that prejudice is enacted when there is a public declaration or more obvious visual evidence that a person is trans\*. When those around the trans\* person are directly faced with having to expand their definition of gender, there may be a strongly negative reaction.

#### **Measuring Anti-trans\* Prejudice and Transphobia**

Researchers have attempted to understand negative attitudes towards transpeople (Hill & Willoughby, 2005; Nagoshi et al., 2008; Ngamake, Walch, & Raveepatarakul, 2013; Tebbe & Moradi, 2014; Walch et al., 2012a). Efforts have transpired to explore correlates and predictors of prejudice towards transpeople (Hill & Willoughby, 2005; Nagoshi et al., 2008; Norton & Herek, 2013; Tee & Hegarty, 2006; Tebbe, Moradi, & Ege 2014; Tebbe & Moradi, 2012; Willoughby et al., 2010; Walch et al., 2012a). Hill and Willoughby (2005) conceptualized anti-trans\* attitudes as consisting of three components: (a) transphobia, (b) genderism, and (c) gender bashing. *Genderism*, similar to *heterosexism*, is where individuals are privileged to the degree by which they conform to traditional socially defined concepts of gender. All other gender identities or expressions, such as transpersons, feminine men, masculine women, or gender queer individuals can be regarded as pathological (Hill, 2002). Similar to other definitions, transphobia was characterized as an emotional disgust towards trans\* individuals, and *gender bashing* relates to the fear or disgust manifested as harm or violence towards transpeople (Hill, 2002).

Hill and Willoughby's (2005) work resulted in the creation of the Genderism and Transphobia Scale (GTS) with 32-items and three subscales. The GTS has been widely used in the U.S., Canada (Gerhardstein & Anderson, 2010; Norton & Herek, 2013; Tebbe et al., 2014; Tompkins et al., 2015), and other countries (Costa & Davies, 2012; Winter, Webster, & Cheung, 2008), such as China (Hong Kong) and Portugal. Since the first version, other researchers have sought to create shorter, valid and reliable forms (Tebbe et al., 2014). Nagoshi et al. (2008), feeling that the GTS did not adequately distinguish between homophobia and transphobia, established the Transphobia Scale (TS), a 9-item scale intended to measure anti-trans\* prejudice. The TS was based on Bornstein's (1998) book, *My Gender Workbook*, and was designed to measure flexibility in gender aptitude. The TS has been validated and utilized by other researchers since its inception (Tebbe & Moradi, 2012; Warriner et al., 2013). Walch et al. (2012a), who criticized Hill and Willoughby (2005) for not using the word "transgender" in their scale, created the Attitudes Towards Transgender Individuals Scale (ATTI), which has also been validated in Thailand (Ngamake, Walch, & Raveepatarakul, 2013).

# **Empirically Established Correlates and Predictors of Anti-trans\* Prejudice**

Willoughby et al. (2010) identified factors that have been associated with negative attitudes towards transpeople. One category is demographic factors. Gender and sexual orientation have both been found to predict anti-trans\* prejudice, with being male (Costa & Davies, 2012; Gerhardstein & Anderson, 2010; Landén & Innala, 2000; Nagoshi et al., 2008; Norton & Herek, 2013; Tee & Hegarty, 2006; Warriner et al., 2013; Willoughby et al., 2010; Winter et al., 2008) and heterosexual (Warriner et al., 2013; Willoughby et al., 2010) predicting more negative attitudes towards transpeople. Education was also found to be a predictor (Norton & Herek, 2013). Participants who had not graduated from college were found to have more negative attitudes towards transpeople. Outside of one study (Tee & Hegarty, 2006) that found nonwhite participants had more negative attitudes towards trans\* individuals, another study (Norton & Herek, 2013) found race to be nonsignificant as a predictor. Age was also not a predictor (Willoughby et al., 2010).

Personality and identity factors were examined by researchers and found to be predictors of anti-trans\* prejudice. For example, researchers found that higher ego defensiveness (Willoughby et al., 2010), aggression proneness (Nagoshi et al., 2008; Tebbe et al., 2014), and an individual's need for order or structure (Tebbe & Moradi, 2012; Tebbe et al., 2014) all predicted negative attitudes towards trans\* individuals. Higher ratings of masculinity as measured by the Bem Sex Role Inventory (BSRI; Bem, 1974) and the Aggression Questionnaire (Buss & Perry, 1992), was not a significant predictor of transphobia (Hill & Willoughby, 2005; Nagoshi et al., 2008; Willoughby et al., 2010). Lower self-esteem predicted higher ratings of transphobia in one study (Willoughby et al., 2010), but was not significant in another (Hill & Willoughby, 2005).

Traditional or conservative social values were found to be significant predictors of negative attitudes toward trans\* individuals. Studies (Nagoshi et al., 2008; Warriner et al., 2013) found that religious fundamentalism predicted negative attitudes towards transpeople for all groups (e.g. heterosexual, gay) except for lesbians. Warriner and colleagues found that lesbians and gay men were less socially conservative than heterosexuals. Willoughby et al. (2010) found moral dogmatism and values relating to social conformity to also predict transphobia. Moreover, right-wing authoritarianism (Nagoshi et al., 2008; Norton & Herek, 2013; Tee & Hegarty, 2006; Warriner et al., 2013; Willoughby et al., 2010), religiosity (Norton & Herek, 2013; Tee & Hegarty, 2006; Willoughby et al., 2010), anti-egalitarianism (Norton & Herek, 2013), and conservatism (Norton & Herek, 2013) predicted more prejudicial attitudes towards transpeople. Related to traditional beliefs, individuals who prefer to maintain socially hierarchical groups (Pratto et al., 1994) were found to have higher transphobia scores in one study (Tebbe et al., 2014), but not in another (Tebbe & Moradi, 2012).

Beliefs and attitudes toward other groups were also predictors of anti-trans\* prejudice. Negative attitudes toward lesbian, gay, and bisexual people, and homophobia were highly predictive of transphobia (Costa & Davies, 2012; Gerhardstein & Anderson, 2010; Hill & Willoughby, 2005; Nagoshi et al., 2008; Norton & Herek, 2013; Tee & Hegarty, 2006; Tebbe, Moradi, 2012; Tebbe et al., 2014; Warriner et al., 2013; Willoughby et al., 2010). Traditional attitudes and beliefs about gender (Costa & Davies, 2012; Tebbe & Moradi, 2012; Tee & Hegarty, 2006) and sexist beliefs (Nagoshi et al., 2008; Warriner et al., 2013) were also predictive of anti-trans\* prejudice.

## **Social Identity Theory Factors**

Social identity theory posits that individuals strive to find a positive ingroup identity and that they often achieve this by comparing themselves to other groups (Tajfel & Turner, 1979). Moreover, ingroups tend to favor their own group (Allport, 1954), which can lead to negative consequences for members of outgroups. Research on anti-trans\* prejudice has examined a variety of predictors, such as beliefs, values, personal characteristics, and attitudes (Hill & Willoughby, 2005; Nagoshi et al., 2008; Tebbe & Moradi, 2012; Tebbe et al., 2014; Warriner et al., 2013; Willoughby et al., 2010), but research has not examined social identity factors as predictors of negative attitudes towards transpeople. Although there is some foray into social identity factors and their roles in predicting negative attitudes towards transpeople, mainly in the area of intergroup contact (Costa & Davies, 2012; King et al., 2009; Norton & Herek, 2013), it makes sense to include these factors. For instance, intergroup contact (Pettigrew & Tropp, 2006; Tee & Hegarty, 2006; West, Hewstone, and Lolliot, 2014) and intergroup anxiety (Stephan & Stephan, 1985; Stephan & Stephan, 2000; Voci & Hewstone, 2003) have been shown to be related to prejudice toward marginalized groups. The next section will discuss these social identity factors more in depth.

#### **Intergroup Contact**

Several studies have touched upon elements of intergroup contact (Costa & Davies, 2012; King et al., 2009; Ngamake, Walch, & Raveepatarakul, 2013; Norton & Herek, 2013; Tee & Hegarty, 2006; Walch et al., 2012b; Willoughby et al., 2010) to examine ways in which prejudice can be reduced. Individuals define their social spheres by determining who are members of their own ingroup (Allport, 1954) and who are others, or outgroup members. People are rewarded with love, affection, sometimes power, and a sense of belonging as members of their ingroups, thus, creating a fierce loyalty that can often lead to ethnocentricity or bias towards members of outgroups (Tajfel & Turner, 1979, 1986). Further, ingroup members often "size up" outgroup members, trying to determine status, ranking, and whom they hold more power over. As a result, prejudice transpires. Allport's (1954) theory of intergroup contact supposes that prejudice is reduced when ingroup members have increased contact with outgroups.

In a 2006 meta-analysis of 515 studies, Pettigrew and Tropp found that intergroup contact significantly reduced prejudice (r = -.215). Studies testing the intergroup contact hypothesis with sexual minorities yielded significant results (Gentry, 1987; Herek & Captanio, 1996; Lytle & Levy, 2015; West & Hewstone, 2012). Heterosexual participants who experienced more contact with gay and lesbian individuals reported more positive attitudes towards that group. However, this has not necessarily been the case with trans\* individuals. Out of the seven studies mentioned, only King et al. (2009) and Tee and Hegarty (2006) found that previous contact with transpeople reduced prejudice toward transpeople. Willoughby et al. (2010) found that previous contact explained a small percentage of variance in one of their studies, similar to Ngamake et al. 2013, but no significance in another. Moreover, Costa and Davies (2012) and Walch et al. (2012b) did not find that intergroup contact reduced prejudice towards transpeople in their studies. It could be that the contact with trans\* individuals increased anxiety or was identified as a negative experience. Also, it was not always clear what type of contact it was. Individuals who have a close friend or family member who is trans\* would seem to have more positive attitudes towards transpeople than those who have merely met someone a few times who is trans<sup>\*</sup>.

It may be that previous contact with one outgroup member would also decrease prejudicial attitudes towards a similar outgroup. As *secondary transfer effect* (Pettigrew, 1998; 2009) would intimate, heterosexual individuals who report more positive attitudes upon having contact with gay men and lesbians, should report more affirmative attitudes towards trans\* individuals as well. Pettigrew (2009) found that participants who had contact with a stigmatized group reduced their prejudice toward a similarly stigmatized group. Pettigrew also found that a secondary transfer effect happened between homeless individuals and gay and lesbian individuals. In other words, participants who had previous contact with homeless individuals were more likely to have more positive attitudes toward gay and lesbian individuals because the groups are similarly stigmatized.

#### **Integrated Threat**

A couple studies examined intergroup threat of prejudice (Nagoshi et al., 2008; Warriner et al., 2013) as possible explanations for how anti-trans\* prejudice manifests. Integrated threat theory explains how prejudice is exhibited toward outgroups because of perceived feelings of threat (Stephan & Stephan, 2000) by ingroup members. Thus, this theory helps elucidate discrimination from ingroups toward marginalized outgroups (Velasco González et al., 2008). *Intergroup anxiety* is a type of threat often experienced by ingroups when anticipating contact with members of outgroups (Pettigrew & Tropp, 2006; Stephan, 2014; Stephan & Stephan, 1985). Feelings of intergroup anxiety can trigger prejudicial attitudes from ingroup members (Castiglione et al., 2013; Stephan & Stephan, 2000; Voci & Hewstone, 2003). Intergroup anxiety may be especially present in ingroups anticipating contact with sexual minorities (Castiglione et al., 2013; Nagoshi et al., 2008), possibly out of fear that for example, a heterosexual male may attract or be propositioned to by a gay male.

Nagoshi et al. (2008) and Warriner et al. (2013) posit that heterosexual men may hold more prejudicial attitudes towards gay men because they perceive that a man deviating from traditional gender roles may threaten male dominance. Warriner and colleagues found that while gay and lesbian individuals had less negative attitudes towards transpeople than heterosexuals, gay men still reported more negative attitudes than lesbians. They postulate that this may be because men who transgress traditional gender roles still represent a threat to social power for gay men. This example describes another type of threat called *symbolic threat* (Stephan & Stephan, 2000). Symbolic threat may be at play when an ingroup perceives an outgroup to be a threat to their morals, values, or way of life. Ingroup members feeling threatened may fear a loss of their social identity or power and cling tighter to their own group, fostering prejudice toward outgroups.

## **Contact Apprehension**

Contact apprehension toward another group may be related to intergroup anxiety. Contact apprehension towards gay men and lesbians has been measured as part of a larger scale called the *Component Measure of Attitudes Towards Homosexuality* (CATH, LaMar & Kite, 1998; Kite & Deaux, 1986). LaMar and Kite (1998) suggested that attitudes towards homosexuality have multiple elements and contact apprehension is one of these. Contact apprehension toward gay men and lesbians has been related to prejudice toward these groups, a finding that has been confirmed by some studies that have investigated only this subscale (Castiglione et al., 2013; Licciardello et al., 2014; Rampullo et al., 2013). In one study, Castiglione et al., 2013 reported that intergroup contact decreased prejudice levels toward gay and lesbian individuals, but still did not reduce contact apprehension toward these groups. The authors could find no studies that examined contact apprehension toward trans\* individuals. Though the authors did not specifically indicate that

the CATH is a measurement for social identity factors, it deals with anxiety around contact, which is similar to intergroup anxiety and may be correlated with measurements of intergroup anxiety.

# Authoritarianism and Social Dominance

Related to symbolic threat, two different, but related theories have shown to be consistent predictors of prejudice. Right wing authoritarianism (RWA; Altemeyer, 1981) and social dominance orientation (SDO; Pratto et al., 1994) are commonly associated with ethnocentrism, prejudicial attitudes towards minorities and other stigmatized outgroups (Altemeyer, 1998; Duckitt & Sibley, 2007; Van Hiel & Mervielde, 2005). RWA and SDO can measure perceived symbolic threat (Stephan & Stephan, 2000) that is threat to the traditions, values, or worldview or a hegemonic ingroup. Individuals who value authoritarianism are more likely to be conventional and highly value tradition (Altemeyer, 2002). Moreover, they tend to defend traditional institutions; sometimes behaving in aggressive manners towards outgroups. Social dominance theory (Sidanius, Devereaux, & Pratto, 1992) explains how people view social interactions in terms of power differentials. If individuals believe their group is superior to others and want to maintain that supremacy, they are likely to denigrate outgroups (Pratto et al., 1994). Duckitt and Sibley (2007) proposed that stronger RWA attitudes indicate more threat-based goals of instituting and maintaining social group order, whereas, greater SDO indicates more competition-based goals like supporting group power structures that subordinate outgroups. Outgroups that challenge the social order or social inequality would particularly be devalued by those with higher SDO. SDO as a predictor for anti-trans\* prejudice has resulted in some mixed outcomes (Tebbe & Moradi, 2012; Tebbe et al., 2012). But since few studies have explored SDO and anti-trans\* prejudice, it

should be examined more thoroughly since individuals who support power structures that marginalize others would seem to hold negative attitudes towards trans\* individuals.

# **Ingroup Identity**

Powerful ingroup identities often produce discrimination towards outgroup members (Renfro et al., 2006; Stephan & Renfro, 2002). This may be related to individuals' longing for a positive social identity (Tajfel & Turner, 1986). White males with strong ingroup identities were found to have more negative attitudes towards individuals who were the beneficiaries of affirmative action (Renfro et al., 2006). Further, lesbian, gay, and bisexual individuals who identified strongly with their sexual orientation displayed more negative attitudes toward transpeople (Morrison, 2010). When the strength of ingroup identity is reduced, thus, groups merging to become more of a "we" than an "us" and "them," prejudice can be reduced. Gaertner, Dovidio, and Bachman (1996) found that students attending a multi-ethnic high school had lower levels of integroup bias toward original outgroup members when they merged with another school.

# **Rationale and Hypotheses**

For the purposes of this study, the researcher will favor the use of the term "anti-trans\* prejudice" (Tebbe et al., 2014) to capture the subtleties of prejudice towards trans\* people, rather than transphobia, a hatred or disgust towards them. The term "prejudice" also aligns more with the social identity theory of ingroups and outgroups (Allport, 1954; Tajfel & Turner, 1979, 1986) which we will examine in the study. The overarching research question was what are predictors and correlates of anti-trans\* prejudice. The present study is designed to advance understanding on what constructs may predict anti-trans\* prejudice, further examining specific aspects of individuals' social identities and their potential to predict negative attitudes towards transpeople. Tebbe et al. (2014) noted that measures of prejudicial attitudes and variables associated with

dominance, aggression and intolerance seem to predict prejudice toward transpeople. This may be a case for how anti-trans\* prejudice may be more based on attitudes towards outgroups than on personal characteristics of ingroup members.

- The present study will seek to extend the literature on RWA and SDO as predictors of antitrans\* prejudice. Since trans\* individuals transgress traditional gender roles, which may pose a symbolic threat to individuals who value more traditional or authoritarian values, they may be the targets of discrimination or violence (Tebbe & Moradi, 2012; Warriner et al., 2013). Similarly, high SDO ratings are associated with prejudice, especially toward marginalized groups (Duckitt & Sibley, 2007). A prejudicial response serves the purpose of reinforcing the dominant values of the ingroup. For this reason, RWA and SDO are expected to be strong predictors of anti-trans\* prejudice (Hypothesis 1).
- Levin and Sidanius (1993) found that strong ingroup identification in high status groups predicted substantially more prejudice. The explanation could be that members of high status groups like cisgender, or nontrans\* individuals stand to lose more social power so they are more likely to feel threatened by trans\* individuals. Therefore, ingroup identity will be positively correlated with anti-trans\* prejudice (Hypothesis 2).
- Since intergroup contact has been shown to reduce prejudice toward outgroups (Pettigrew & Tropp, 2006), and King et al. (2009) and Tee and Hegarty (2006) found that previous contact with transpersons reduced negative attitudes toward them, it is predicted that there will be a negative relationship between intergroup contact with transpeople and anti-trans\* prejudice. (Hypothesis 3)
- Secondary transfer effect (Pettigrew, 1998 & 2009) is typically stronger when individuals have had previous contact with a similarly marginalized group. Gay men, lesbians, and trans\*

individuals experience similar discrimination as they both can be seen to transgress traditional gender norms (Hill, 2002). Additionally, homophobia and transphobia are highly correlated (Nagoshi et al., 2008; Warriner, Nagoshi, & Nagoshi, 2013; Willoughby et al., 2010). Therefore, it is assumed that less contact with gay men and lesbians will predict prejudice towards transpeople (Hypothesis 4).

- Intergroup anxiety has been shown to be a predictor of prejudicial attitudes towards outgroups (Voci & Hewstone, 2003). Intergroup anxiety was found to be a predictor of negative attitudes towards gay men (Castiglione et al., 2013). Since homophobia and transphobia are related constructs (Nagoshi et al., 2008; Warriner, Nagoshi, & Nagoshi, 2013; Willoughby et al., 2010), it is hypothesized that higher levels of intergroup anxiety will be related to higher levels of anti-trans\* prejudice (Hypothesis 5).
- Finally, a few studies (Castiglione et al., 2013; Licciardello et al., 2014; Rampullo et al., 2013) have used the CATH (Lamar & Kite, 1998) subscale of contact apprehension toward gay men and lesbians and demonstrated that contact apprehension had a positive relationship with negative attitudes towards gay men. Again, since trans\* individuals are similarly marginalized, it is predicted that contact apprehension toward trans\* people (CATT) will be a significant predictor of anti-trans\* prejudice. Additionally, CATT items address avoidance, nervousness, and discomfort in anticipation of contact. Since these are similar descriptors for anxiety, it is expected that CATT will be highly correlated with the measurement of intergroup anxiety (IAS) (Hypothesis 6).

#### Method

#### **Participants**

An a priori power analysis was conducted with G\*Power, Version 3, revealing that a sample size of 160 would be sufficient to detect a medium effect size, with up to 20 predictors. For the analysis, the effect size was set at .15, the alpha at .05, the power at .8, and the number of predictors was estimated at 10. A sufficient sample size was obtained and 349 college undergraduates from a large, urban, ethnically and socioeconomically diverse university in the Southeastern U.S. participated in the study. Participants were at least 18 years old and ranged in age from 18-56 (M = 23.70, SD = 6.36). Participants were demographically diverse and included majors across disciplines. About 62% (n = 218) of participants self-identified as female, 37% (n = 130) as male, and one participant identified as trans\*. In terms of racial and ethnic identity, approximately 45% (n = 156) of participants identified as African American or Black, 9% (n = 32) identified as Latino/Latina, or Hispanic, 23% (n = 79) identified as Asian/Asian American, one participant identified as Biracial or Multiracial, and 1% (n = 4) identified as a race or ethnicity not listed.

For sexual orientation, 88% (n = 304) of participants identified as heterosexual, 1% (n = 5) as gay, 1% (n = 4) as lesbian, 5% (n = 16) as bisexual, and 1% (n = 2) as queer. Additionally, 4% identified a sexual orientation not listed. Of the 14 participants who identified another sexual orientation, 9 (2%) identified as "straight" and were included in the heterosexual category. Participants who identified as living with a chronic illness or disability impacting daily functioning comprised about 13% (n = 44) of the sample. A diverse representation of religious and spiritual identifies were included in the sample, with 8% (n = 28) identifying as Agnostic, 3% (n = 11) as Atheist, 4% (n = 13) as Buddhist, 66% (n = 228) as Christian, 4% (n = 13) as Hindu, 1% (n = 3)

as Jewish, 6% (n = 20) as Muslim, and 9% (n = 32) identifying in a different category than provided. The most frequent responses were "spiritual" (n = 9) and "Catholic" (n = 5).

Only one participant identified their class rank as freshman, where 13% (n = 44) identified as sophomore, 36% (n = 124) as junior, and 51% (n = 179) as senior. In terms of political affiliation, 5% (n = 16) identified as strongly liberal, 25% (n = 85) liberal, 17% (n = 59) somewhat liberal, 39% (n = 135) both liberal and conservative, 8% (n = 26) somewhat conservative, 6% (n = 21) conservative, and 1% (n = 2) strongly conservative. Regarding socioeconomic status, 16% (n = 54) of participants reported their estimated family household income was less than \$20,000 annually, 30% (n = 102) reported \$20,000-\$40,000, 17% (n = 59) reported \$40,000-\$60,000, 12% (n = 42) reported \$60,000-\$80,000, 9% (n = 32) reported \$80,000-\$100,000, 8% (n = 29) reported \$100,000-\$150,000, and 8% (n = 27) reported over \$150,000. Participants were asked if they were the first in the family to attend college and 25% (n = 88) reported, "yes" to this question.

Table 1

	Ν	%
Age		
Range: 18-56		
M = 23.70, SD = 6.36		
Gender Identification ( $n = 349$ )		
Female	218	62.5
Male	130	37.2
Trans*	1	0.3
Racial/Ethnic Identification ( $n = 349$ )		
African American or Black	156	44.7
Latino/Latina or Hispanic	32	9.2
Asian/Asian American	79	22.6
Native Hawaiian or Pacific Islander	1	0.3
White or European American	63	18.1
Biracial or Multiracial	14	4.0
None of the Above, I identify as:	4	1.1
Sexual Orientation $(n = 345)$		
Gay	5	1.4
Lesbian	4	1.1
Bisexual	16	4.6

Demographic Data for Participants

Heterosexual	304	88.2
Queer	2	0.6
None of the Above, I identify as:	14	4.1
Chronic Illness or Disability Impacting Daily Functioning $(n = 349)$		
Yes	44	12.6
No	305	87.4
Religion/Spirituality ( $n = 348$ )		
Agnostic	28	8.0
Atheist	11	3.2
Buddhist	13	3.7
Christian	228	65.6
Hindu	13	3.7
Jewish	3	0.9
Muslim	20	5.7
None of the Above, I identify as:	32	9.2
Level in School $(n = 348)$		
Freshman	1	0.3
Sophomore	44	12.6
Junior	124	35.6
Senior	179	51.5
Political Affiliation ( $n = 344$ )		
Strongly Liberal	16	4.7
Liberal	85	24.6
Somewhat Liberal	59	17.2
Both Liberal and Conservative	135	39.2
Somewhat Conservative	26	7.6
Conservative	21	6.1
Strongly Conservative	2	0.6
Estimated Current Family Household Income $(n = 345)$		
Less than \$20,000	54	15.7
\$20,000-\$40,000	102	29.5
\$40,000-\$60,000	59	17.1
\$60,000-\$80,000	42	12.2
\$80,000-\$100,000	32	9.3
\$100,000-\$150,000	29	8.4
Over \$150,000	27	7.8
First in the Family to Attend College $(n = 348)$		
Yes	88	25.3
No	260	74.7

# Procedure

Participants were recruited through online undergraduate classes via a departmental SO-NA System at an urban university located in the southeast U.S. They were given one research credit for their online course for their participation in the research. Participants were directed to an online survey posted on Qualtrics that they could complete anonymously from any device that was connected to the Internet. When accessing the link to the survey, participants were given basic information about the survey, its purpose, and the benefits and risks of participation. Participants were asked to provide informed consent by selecting "agree," signifying that they agree to participate in the study. Upon selecting "agree" participants were directed to the survey. Participants who did not provide informed consent were not able to access the survey. Ethical considerations were followed as students were informed of various risks and benefits, and notified of the option to participate or not. Participants were informed that lack of participation would not affect their class grade and an alternate 1-credit assignment was provided. Confidentiality was clarified and participants were notified of how data is managed. A formal letter of IRB approval was attained prior to the beginning of the study.

## Measures

**Demographic Questionnaire.** This study obtained a variety of demographic data from a demographic questionnaire that gathered information relating to participants' gender identity, sexual orientation, race and ethnicity, age, level in school, religion, ability status, income level, and political ideology (Norton & Herek, 2013). The question about political ideology requests participants to rate themselves on a 7-point scale from strongly liberal to strongly conservative (Woodford et al., 2012).

Anti-Trans\* Prejudice. The Genderism and Transphobia Scale (GTS; Hill & Willoughby, 2005) is a 32-item scale that measures genderism, transphobia, and gender-bashing. It is an effective measure for determining prejudicial attitudes toward trans\* and gender nonconforming individuals. The Cronbach alpha ratings from two individual studies were reported as .88 and .96 for the overall measure. The items are measured on a 7-point scale from 1 (strongly agree) to 7 (strongly disagree). Tebbe et al. (2014) addressed psychometric inconsistencies, improving construct validity within the original GTS (Hill & Willoughby, 2005) and generated a

shorter, more efficient measure called the GTS-Revised (GTS-R: Tebbe et al., 2014). This revised scale, which has been utilized for the current study, has 22-items, measured on the same 7-point scale, is equally reliable. The overall Cronbach alpha for this measure is reported as .94 (.95 for the Genderism/Transphobia subscale, .86 for Gender Bashing subscale). A sample item on this scale includes, "If I found out that my best friend was changing their sex, I would freak out." The GTS-R was positively correlated with measures of social dominance orientation, aggression proneness, need for closure, anti-LGB, and sexist attitudes towards the rights and roles of women. The scale yielded small and mostly not significant correlations with social desirabil-ity. The Cronbach alphas for the current study were .94 for the overall measure, .94 for the Genderism/Transphobia subscale, and .82 for the Gender Bashing subscale.

**Right-Wing Authoritarianism.** Individuals who score highly on the Right-Wing Authoritarianism Scale (RWA; Altemeyer, 1981, 1998, 2006) reflect beliefs in strong deference to authorities. Further, they believe in fervently protecting the interests of recognized authorities, often justifying aggressive actions toward outgroups to uphold the values and traditions of authoritarian institutions. Individual personality traits may reflect obedience and conventionality. The RWA measures authoritarian submission, authoritarian aggression, and conventionalism (Altemeyer, 2006). Individuals who score highly on this measure often think of themselves as the "moral majority" (Altemeyer, 1998). The most current 22-item scale (Altemeyer, 2006; Altemeyer, & Hunsberger, 2005) ranges from 1 (strongly disagree) to 9 (strongly agree), including "0". The lowest score is 20, and the highest 180. The midpoint of the scale is 100. Only items 2-22 are scored, as items 1 and 2 exist to help orient the participant with the scale. Eleven items are reverse scored. A sample item from this scale is, "The only way our country can get through the crisis ahead is to get back to our traditional values, put some tough leaders in power, and silence the troublemakers spreading bad ideas." The Cronbach alpha on a U.S. sample of 1000 was .90 (Altemeyer, 2006). Altemeyer (1998) found that the scale is correlated with religious fundamentalism, and negative attitudes towards African Americans, homosexuals, and women. Other researchers have found the scale to correlate with negative attitudes towards trans\* individuals (Nagoshi et al., 2008; Norton & Herek, 2013; Tee & Hegarty, 2006; Warriner et al., 2013; Willoughby et al., 2010). The scale does not correlate with social desirability. The Cronbach alpha for the current study was .92.

Social Dominance Orientation scale. The 16-item Social Dominance Orientation scale (SDO; Pratto et al., 1994) commonly measures the degree to which individuals prefer groupbased social hierarchies. It is a powerful predictor of intergroup attitudes and should predict negative attitudes towards outgroups when the object is to maintain superior group status. The items on the scale range from 1(strongly disagree) to 7 (strongly agree). A sample item from the scale is, "It's ok if some groups have more of a chance in life than others." Items on the first half are summed to get a sub-score. Items on the second half are reversed-scored. A score of over 75 reflects a significant inclination toward a social dominance orientation. SDO is related to meritocracy, racism, sexism, and hierarchy-legitimizing myths, but is distinct from authoritarianism and conservatism (SDO. Pratto et al., 1994). It has been negatively related to tolerance, empathy, communality, and altruism. The 16-item scale was shown to be internally reliable, with a Cronbach alpha reading of .91 with a university student population. The Cronbach alpha for the current study was .94.

**Intergroup Contact.** For this study, an adapted version of intergroup contact using Islam & Hewstone's (1993) measure and West and colleagues' (2014) measure were used. West et al. asked if participants had knowingly interacted with a person who has schizophrenia. Then, the

researchers captured more details on the quantity of the contact by asking participants to rate how much contact they had with individuals with schizophrenia, for example, "at class", "at work", "in intimate social situations". Participants rated their contact on a 7-point scale ranging from 1 (none at all) to 7 (very much). West et al. reported a Cronbach alpha of .68 for their study. For this study, there are two sets of questions. One set of questions requests participants to rate the amount of contact they have had with gay and lesbian people, and the other set is identical to the first, but asks about the amount of contact participants had with trans\* people. Example questions are, "How much contact have you had with transgender people in college", and "How much contact have you had with gay and lesbian people in college?" Participants were asked how much contact they had with trans\* and lesbian and gay people as acquaintances, neighbors, close friends, and as family members. The participants rated their contact on 6-point, slider scales, ranging from 0 (none at all) to 5 (a great deal). The purpose of asking questions about participants' previous contact with gay men and lesbians is to determine if previous contact with gay and lesbian individuals reduces anti-trans\* prejudice, thereby providing additional support for the secondary transfer effect theory (Pettigrew, 1998; 2009). Secondary transfer effect may apply here if previous contact with gay and lesbian people transfers to increased positive attitudes toward trans\* individuals. In order to increase construct validity of this scale, the author sought consultation with content experts who possessed at least a master's degree, and do clinical work and/or research with LGTBQ populations. The author utilized similar methods of validation that Neville, Lilly, Duran, Lee, and Browne (2000) used. Items were rated on a scale of 1-5 for both content appropriateness and content clarity (wording). Items receiving 1-3 scores were dropped from the measurement. Cronbach alpha for the current study was .83 for contact with gay and lesbian people, and .82 for contact with trans\* individuals.

Intergroup Anxiety. For the purposes of this study, intergroup anxiety was measured by a scale adapted from (Stephan & Stephan, 1985) the original Intergroup Anxiety Scale (IAS). This measure asked participants how they would feel interacting with members of an outgroup. Some of the items were reverse scored. The IAS reported a Cronbach alpha coefficient of .86 for the full scale (Islam & Hewstone, 1993; Stephan & Stephan, 1985). The scale correlates with measures of xenophobia and stereotyping (Stephan & Stephan, 1985). Swart et al. (2011) measured intergroup anxiety based on race, on a scale adapted from Stephan and Stephan's measure. Their 6-item scale yielded a Cronbach alpha of .78 on the first two times, and .80 on the third. The original IAS used a 10-point scale, but other studies have used smaller point scales. Islam and Hewstone (1993) used a 7-point scale. This study used a 7-point scale. This scale asked respondents the following question: "Imagine that your class is having a project where you get assigned to work with a transgender student whom you have never met. How do you think you would feel in this situation? Please rate your feelings on the following scale from 1 (strongly disagree) to 7 (strongly agree)." Participants then rated each of these feelings using the 7-point scale: happy, accepted, irritated, impatient, defensive, awkward, confident, self-conscious, suspicious, careful, certain, and comfortable. Consultation with content experts who possessed at least a master's degree, and do clinical work and/or research with LGTBQ populations was also sought for this measurement. Methods of validation from Neville, Lilly, Duran, Lee, and Browne (2000) were also used. The scale of 1-5 for both content appropriateness and content clarity. Items receiving 1-3 scores were dropped from the measurement. The Cronbach alpha for the current study was .92.

**Contact Apprehension Toward Transgender People.** Contact apprehension toward gay men and lesbians is a subscale of the *Component Measure of Attitudes Towards Homosexu*-

*ality* (CATH, LaMar & Kite, 1998). The contact subscales consist of 14 items related to contact apprehension with gay men/lesbians. An example of an item from the contact with gay men/lesbians scale is, "It would be upsetting to me to find out I was alone with a gay man (lesbian)." All 14 items were utilized, but adapted to measure contact apprehension toward transgender people (CATT). This subscale is correlated with attitudes towards women, benevolent sexism, and benevolence towards men (LaMar & Kite, 1998). In gay/lesbian contact items, "gay man (lesbian)" is substituted for "transgender person". The items on the scale range from 1(strongly agree) to 5 (strongly disagree). The lower the score indicates more contact apprehension. In LaMar and Kite's validation, the Cronbach alphas were .96 (gay male contact) and .95 (lesbian contact). The Cronbach alpha for the current study was .94.

**Ingroup Identity.** Ingroup identity was adapted from a scale measuring racial ingroup identification (Mastro, Tamborini, & Hullett, 2005). An example of a question on this scale is, "How strong of a sense of belonging do you have with your race or ethnicity?" The alteration consisted of substituting "gender" for "race or ethnicity" for all scale items. The 6-item scale included some of the following items, "How strong a sense of belonging do you have with others of your same gender?", and "How similar do you feel compared to the mainstream attitudes and beliefs of your same gender group?" The items on the scale range from 1(not at all) to 5 (very). A confirmatory factor analysis yielded a Cronbach alpha reading of .85 (Mastro et al., 2005). Consultation with content experts was also sought for this measurement. Methods of validation from Neville, Lilly, Duran, Lee, and Browne (2000) were also used. The scale of 1-5 for both content appropriateness and content clarity. Items receiving 1-3 scores were dropped from the measurement. The Cronbach alpha for the current study with the alteration was 91.

Marlowe Crowne Social Desirability. Reynolds (1982) analyzed several different forms

of the Marlowe Crowne Social Desirability Scale (MCSDS) and found that a 13-item scale was highly correlated (r = .93) with the original measure (Crowne & Marlowe, 1960) and also yielded an acceptable Cronbach alpha of .76. This measure (Marlowe Crowne, Form C) is the scale that was utilized for the purposes of this study. It was chosen for its short length, yet higher reliability. An example of this scale is, "There have been occasions where I took advantage of someone". The original Marlowe-Crowne Social Desirability Scale (MCSDS. Crowne & Marlowe, 1960) is a 33-item scale that measures the degree to which individuals may misrepresent themselves in order to appear more positive or socially desirable to others. Some sample items include, "I never hesitate to go out of my way to help someone in trouble" and "It is sometimes hard for me to go on with my work if I am not encouraged." Answers are either true or false. The Marlowe Crowne, Form C was selected because of its high correlation with the original, but more consistent reliability. For the current study, the Cronbach alpha reading was .72.

#### **Results**

#### **Preliminary Analysis**

A total of 349 participants were recruited and completed the survey. Outliers and missing data were first evaluated. One participant who identified as trans\* was removed from the data set since the study was about the attitudes of non-trans\* individuals. Additionally, 4 cases were deleted for having significant amounts of missing data. Casewise diagnostics were utilized to check residuals for bias. While no cases exceeded a Cook's distance greater than 1, five cases were identified as outliers using Mahalonobis' criterion of 29.59 ( $\chi^2$  critical value for 10 degrees of freedom, p = .001), and removed from the data set. Removal of the outliers resulted in a better fitting model. The survey contained a validation question where participants were instructed to click a specific answer on an item. Forty-one participants failed to answer the question correctly

and were dropped from the data set, leaving a total of 298 participants.

A missing values analysis revealed that there were 10 different patterns of missing data, with the most common being the pattern with no missing data. The results of Little's MCAR test demonstrated a nonsignificant result, ( $\chi^2 = 3227.77$ , df = 16599, p = 1.00) indicating that the data was missing completely at random. Tabachnick and Fidell (2013) suggested that if less than 5% of data are missing from a larger data set, that procedures for handling missing data can result in similar outcomes. Since the data was randomly missing and only 1.5% of total values were missing, the Expectation Maximization (EM) procedure was chosen to address the missing data. When data are missing at random, EM is an algorithm that estimates the distribution of each data point using an iterative process and estimates the approximate maximum likelihood (Dempster, Laird & Rubin, 1977). With EM, standard errors can be more inflated, but with less than 5% of data missing, parameter estimates are expected to be appropriate anyway (Tabachnick & Fidell, 2013).

There were significant differences between groups for gender and sexual orientation. A one-way ANOVA found the effect of gender on anti-trans\* prejudice to be significant, F(1, 296) = 16.10, p = .001. Full-scale scores for GTS-R were higher for men (M = 66.50, SD = 21.01), than women (M = 56.71, SD = 19.68). The effect of sexual orientation on anti-trans\* prejudice was found to be significant through a one-way ANOVA test, F(1, 296) = 3595.44, p = .004. Full-scale scores on the GTS-R were higher for participants who identified as heterosexual (M = 61.29, SD = 20.70) than for the group that included lesbians, gay men, and bisexuals (M = 49.19, SD = 17.11).

Other demographic variables were also found to be significant. Political affiliation groups significantly differed on anti-trans\* prejudice, F(6, 288) = 6.22, p = .001. A post hoc *Bonferroni* 

test was conducted for political affiliation and revealed that conservative and strongly conservative groups differed significantly (p = .05) from liberal (M = 52.47, SD = 17.17) and strongly liberal groups (M = 48.03, SD = 16.72), with conservative (M = 73.56, SD = 19.17) and strongly conservative (M = 99.00, SD = 8.49) groups scoring higher on the GTS-R.

There were also differences on anti-trans\* prejudice based on race/ethnicity, F(6, 292) = 2.77, p = .028. For race/ethnicity, the assumption of homogeneity of variances was significant (p = .049), presumably because the categories were unequal. For this reason, the *Games-Howell* post hoc test was administered to determine which groups differed significantly (Fields, 2013; Leech, Barrett, & Morgan, 2015). The *Games-Howell* test revealed that full-scale GTS-R scores were significantly higher for the Asian/Asian American (M = 62.85, SD = 18.70) and African American (M = 62.83, SD = 21.27) groups than for the Biracial/Multiracial group (M = 49.36, SD = 11.15). Political affiliation and race/ethnicity were added to the regression model upon finding significance.

#### Main Analysis

Statistical analyses include descriptive statistics (e.g., means, standard deviations, ranges), bivariate correlations, and hierarchical multiple regression. A post-hoc mediation analysis was also conducted based on the results of the hierarchical multiple regression. A summary of descriptive statistics for the full-scale measurements is included in Table 2 below. An analysis of correlations indicated some strong relationships between study variables. Higher authoritarianism (r = .58, p = .001), contact apprehension (r = -.81, p = .001), and intergroup anxiety (r = .63, p = .001) were strongly correlated with anti-trans\* prejudice. Also, CATT and IAS were significantly correlated (r = -.78, p = .001), suggesting that the CATT measure may be tapping into the construct of intergroup anxiety.

#### Table 2

Measure	Minimum	Maximum	Mean	Std. Deviation	α	Skewness	Kurtosis
GTS-R	22.00	120.00	60.19	20.67	.94	.465	631
RWA	20.00	147.00	76.48	24.94	.92	235	726
CATT	14.00	70.00	51.72	10.88	.94	306	442
CNT-GL	.00	25.00	9.76	6.46	.83	.344	879
CNT-TG	.00	20.00	2.57	3.89	.82	2.035	3.886
SDO	34.00	90.00	64.45	8.76	.94	.042	1.004
IAS	12.00	84.00	37.31	13.34	.92	.275	066
IDENT	6.00	30.00	23.84	5.43	.93	-1.002	.649
MCSDS	13.00	30.26	20.00	3.04	.72	.016	212

Descriptive Statistics for Full-Scale Scores

*Note*. Abbreviations: GTS-R = Genderism Transphobia Scale Revised; RWA = Right-Wing Authoritarianism Scale; CATT = Contact Apprehension Toward Trans\* People; CNT-GL = Contact with Gay Men & Lesbians; CNT-TG = Contact with Trans\* Individuals; SDO = Social Dominance Orientation Scale; IAS = Intergroup Anxiety Scale; IDENT = Ingroup Identity Scale; MCSDS = Marlowe-Crowne Social Desirability Scale (form C).

Contact with gay men and lesbians (r = -.42, p = .001) yielded a moderate negative correlation with GTS. Contact with trans\* individuals (r = -.25, p = .001) yielded a small, but significant negative correlation with anti-trans\* prejudice. While the MCSDS was generally not correlated with the measures, it had a small, significant correlation with IAS (r = -.22, p = .001). This relationship indicates that participants were more likely to respond in a socially desirable way on items about their anxiety toward trans\* individuals. Ingroup identity (IDENT) was not significantly correlated with GTS, and surprisingly, social dominance orientation (SDO) was not at all correlated with any of the study's measures, nor the outcome variable. Detailed bivariate correla-

tions between study variables can be found in Table 3.

Table 3

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Correlations Between Study Variables											
	1	2	3	4	5	6	7	8	9	10	11
1. GTS-R	-										
2. GT	.987**	-									
3. GB	.638**	.505**	-								
4. RWA	.578**	.578**	.333**	-							
5. CATT	810**	811**	463**	637**	-						
6. CNT-GL	421**	425**	222**	382**	.593**	-					
7. CNT-TG	248**	269**	045	127*	.308**	.422**	-				
8. SDO	011	010	014	.000	.087	007	.010	-			
9. IAS	.626**	.630**	.338**	.458**	776**	510**	267**	047	-		
10. MCSDS	003	.008	059	.022	.024	.062	.111	.017	216**	-	
11. IDENT	060	022	215**	058	.092	.062	039	003	098	.099	-

*Note*. Abbreviations: GTS-R = Genderism Transphobia Scale Revised; GT = Genderism/Transphobia Subscale; GB = Gender Bashing Subscale; RWA = Right-Wing Authoritarianism Scale; CATT = Contact Apprehension Toward Trans\* People; CNT-GL = Contact with Gay Men & Lesbians; CNT-TG = Contact with Trans\* Individuals; SDO = Social Dominance Orientation Scale; IAS = Intergroup Anxiety Scale; MCSDS = Marlowe-Crowne Social Desirability Scale (form C); IDENT = Ingroup Identity Scale. \*p < .05. \*\*p < .001.

Hierarchical multiple regression analysis was employed since there was theoretical rationale for known predictors that have been previously tested. Predictors were first entered into the model based on what was theoretically supported in the literature (Field, 2013). Below are the hierarchical blocks in order of how they will be entered, based on previous research support (Field, 2013). Since demographic variables, such as gender and sexual orientation were found to be significant predictors (Costa & Davies, 2012; Gerhardstein & Anderson, 2010; Landén & Innala, 2000; Nagoshi et al., 2008; Norton & Herek, 2013; Tee & Hegarty, 2006; Warriner et al., 2013; Willoughby et al., 2010; Winter et al., 2008), those variables were entered first. Race/ethnicity and political affiliation demographic variables were also added in the first step because the results of the ANOVA tests revealed that there were significant differences between groups.

In the second step, RWA was added because it has previously significantly predicted an-

ti-trans\* prejudice (Nagoshi et al., 2008; Norton & Herek, 2013; Tee & Hegarty, 2006; Warriner et al., 2013; Willoughby et al., 2010). CNT-GL was supported as a strong predictor of prejudice toward sexual minorities (Gentry, 1987; Herek & Captanio, 1996; Lytle & Levy, 2015; West & Hewstone, 2012), and CNT-TG significantly predicted anti-trans\* prejudice in two studies (King et al., 2009; Tee & Hegarty, 2006). SDO was added in the third step because it yielded significant results in one study (Tebbe et al., 2014). The third step also included the other social identi-ty measures (ingroup identity, intergroup anxiety) and the contact apprehension toward transgender people measurement since they had not previously been investigated as predictors of transphobia.

The model was helpful in explaining which variables are predictors, and how much these variables individually or together predict anti-trans\* prejudice. Data were transferred from *Qualtrics* to SPSS Version 23. Data were cleaned and assessed for violations of assumptions of independence, homogeneity of variance, multicollinearity, linearity, normality, homoscedasticity, and bias (Fields, 2013). Tolerances for all variables were well above .10, indicating that multicollinearity was not a problem (Tabachnik & Fidell, 2013). The multicollinearity assumption was also evaluated using the variance inflation factor (VIF). VIFs were well under 10 and in the acceptable range (Myers, 1990). Variables were also in the satisfactory range for skewness and kurtosis (i.e., skewness  $\leq$  3, kurtosis  $\leq$  10; Weston & Gore, 2006). See Table 2 for skewness and kurtosis data. Linearity and homogeneity of variance were analyzed using scatterplots. The Durbin-Watson statistic was 1.76, indicating that the assumption for independent errors was met (Fields, 2013).

Demographic variables of gender and sexual orientation were entered into the first step with the social desirability measure (MCSDS), since it was hypothesized that males and heterosexuals would demonstrate higher levels of prejudice toward trans\* individuals in this sample. Also, in the first step, race/ethnicity and political affiliation were added since the results of the ANOVA tests revealed significant differences. Similar to another study (Willoughby et al., 2010) using GTS, RWA and intergroup contact were expected to predict anti-trans\* prejudice with this sample, so were added into step 2 of the model. Just to clarify, individuals who highly value blind allegiance to authority may experience feelings of symbolic threat to their values and fundamental beliefs in the presence of trans\* people. Previous experience (contact) with trans\* individuals should reduce prejudice toward this group. The third step included SDO, ingroup identity, intergroup anxiety, and the contact apprehension toward trans\* people. Even though predictors such as RWA (Nagoshi et al., 2008; Norton & Herek, 2013; Tee & Hegarty, 2006; Warriner et al., 2013; Willoughby et al., 2010), or previous contact with outgroups (King et al., 2009; Tee and Hegarty, 2006) have been related to anti-trans\* prejudice, previous studies have not examined contact apprehension, or other social identity factors, such as, ingroup identity, or intergroup anxiety as predictors of negative attitudes towards transpeople. Since SDO has not been shown to consistently be associated with anti-trans\* prejudice, it was added to the 3<sup>rd</sup> step. The dependent variable was anti-trans\* prejudice as measured by the GTS-R.

The hierarchical multiple regression revealed that at Step 1, gender, sexual orientation, race/ethnicity, political affiliation, and MCSDS (F(8, 284) = 9.85, p = .001,  $R^2 = .217$ , Adjusted  $R^2 = .195$ ) explained 22% of the variance in anti-trans\* prejudice. Introducing RWA, CNT-GL, and CNT-TG at Step 2 explained an additional 23% of the variance in GTS-R, which was a significant change in  $R^2$  (F(11, 281) = 20.44, p = .001,  $R^2 = .445$ , Adjusted  $R^2 = .423$ ). In Step 3, the addition of CATT, SDO, IAS, and IDENT explained another 25% of the variance in GTS-R. The change in  $R^2$  was significant (F(15, 277) = 41.43, p = .001,  $R^2 = .692$ , Adjusted  $R^2 = .675$ ). When all 15 independent variables were included in Step 3 of the model, only CATT, RWA, and CNT-GL remained significant predictors of GTS-R. Together, all 15 variables accounted for 68% of the variance in anti-trans\* prejudice, which is a moderate to large effect size (Cohen, 1988). The results of the hierarchical regression analysis are detailed below in Table 4.

Table 4Hierarchical Regression Predicting Anti-Trans\* Prejudice, with 95% bias corrected and accel-erated confidence intervals reported in parenthesis.

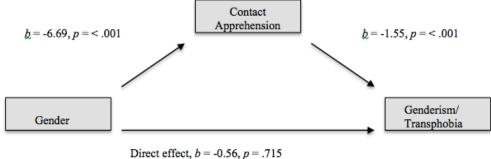
Variable	В	SEB		t	р	$R^2$	$\Delta R^2$
Step 1						.22	
Gender*	8.20 [3.53, 12.88]	2.38	.19	3.46	.001		
SO*	-8.27 [-15.88, -0.66]	3.87	11	-2.14	.033		
MCSDS	-0.36	0.37	05	0.97	.334		
Latino/a	4.81 [-7.73, 17.35]	6.37	.07	0.76	.451		
Asian/Am	9.73 [-1.40, 20.86]	5.65	.20	1.72	.086		
White	-1.18 [-12.50, 10.15]	5.75	02	-0.21	.838		
AA/Black*	14.13 [3.42, 24.84]	5.44	.34	2.60	.010		
POLTA**	5.30 [3.54, 7.07]	0.90	.33	5.91	.000		
Step 2						.42	.23
Gender*	5.64 [1.52, 9.75]	2.10	.13	2.70	.007		
SO	-1.25 [-7.96, 5.46]	3.41	02	-0.37	.714		
MCSDS	-0.24 [-0.86, 0.39]	0.32	04	-0.75	.455		
Latino/a	6.80 [-3.86, 17.47]	5.42	.10	1.25	.210		
Asian/Am	4.17 [-5.37, 13.71]	4.85	.09	0.86	.390		
White	1.59 [-8.05, 11.22]	4.90	.03	0.32	.746		
AA/Black*	10.17 [0.98, 19.36]	4.67	.25	2.18	.030		
POLTA	[-0.11, 3.24]	0.85	.10	1.84	.067		
RWA**	0.37 $0.05[0.28, 0.46]$	.44	8.12	.000			
CNT-GL*	-0.54	0.18	17	-2.99	.003		

CNT-TG	[-0.90, -0.19] -0.51 [-1.06, -0.02]	0.27	10	-1.94	.054		
Step 3						.68	.25
Gender	0.66 [-2.51, 3.84]	1.61	.01	0.15	.682		
SO	-3.66	2.58	05	-1.41	.157		
MCSDS	0.13	0.25	.00	-0.53	.594		
Latino/a	2.63 [-5.43, 10.68]	4.09	.04	0.64	.521		
Asian/Am	-1.01 [-8.25, 6.24]	3.68	02	-0.27	.784		
White	-0.02 [-7.28, 7.25]	3.69	.00	-0.00	.997		
AA/Black	4.95 [-2.00, 11.91]	3.53	.12	1.40	.162		
POLTA	0.54 [-0.76, 1.84]	0.66	.03	0.82	.414		
RWA*	0.08 [0.01, 0.15]	0.04	.09	1.98	.048		
CNT-GL*	0.30 [0.01, 0.60]	0.15	.10	2.04	.043		
CNT-TG	-0.15 [-0.55, 0.24]	0.20	03	-0.76	.447		
CATT**	-1.47 [-1.72, -1.22]	0.13	78	-11.55	.000		
SDO	0.16 [-0.00, 0.32]	0.08	.07	1.94	.054		
IAS	0.02 [-0.15, 0.19]	0.09	.01	0.22	.823		
IDENT	-0.01 [-0.27, 0.25]	0.13	00	-0.07	.943		

*Note.* \**p* = < .05, \*\**p* = < .001

# **Mediation Analysis**

Historically, gender has been a reliable predictor for anti-trans\* attitudes (Costa & Davies, 2012; Gerhardstein & Anderson, 2010; Landén & Innala, 2000; Nagoshi et al., 2008; Norton & Herek, 2013; Tee & Hegarty, 2006; Warriner et al., 2013; Willoughby et al., 2010; Winter et al., 2008), with males being more likely to hold prejudicial attitudes towards trans\* individuals. In the first two steps of the regression model for this study, gender remained a significant predictor. However, when CATT was added in the third step of the model, gender became nonsignificant. Mediation could have occurred when the strength of the relationship between a predictor and an outcome variable is lessened with the addition of a mediator (Fields, 2013). For this reason, a post hoc mediation analysis was conducted using Hayes' PROCESS Macro (Model 4) on SPSS (Hayes, 2013) to determine if contact apprehension toward trans\* (CATT) individuals mediated the relationship between gender and anti-trans\* prejudice (GTS-R).



Direct effect, b = -0.56, p = .715Indirect effect, b = 10.35, BCa CI [6.53, 14.43]

Figure 1. Diagram of the Mediation Model with Regression Coefficients, Indirect Effect, and Bootstrapped CIs.

Results demonstrated that contact apprehension (CATT) indirectly influenced gender's effect on anti-trans\* prejudice (GTS-R). A diagram of the mediation model can be found in *Figure 1*. Gender was positively related to CATT (b = -6.69, t(296) = -5.31, p = .001), and contact apprehension (CATT) positively predicted GTS-R, while controlling for gender (b = -1.55, t(295) = -22.80, p = < .001). A 95%, bias-corrected bootstrap confidence interval for the indirect effect using 50,000 bootstrap samples was [CI = 6.53, 14.43]. The model was significant since the confidence interval did not cross zero. The effect size for the model was determined using Preacher and Kelley's (Preacher & Kelley, 2011) Kappa-squared ( $K^2 = .31$ ), which is a large effect size.

#### Discussion

The present study investigated relationships and associated constructs of anti-trans\* prejudice. Specifically, the study examined values and social identity factors that predicted or were correlated with anti-trans\* prejudice. Findings help to advance understanding of some of the underlying roots of prejudice toward trans\* individuals. It is important to develop a deeper understanding of the source of negative attitudes toward trans\* individuals in order to intervene and reduce prejudice. Reducing prejudice toward trans\* people may have a greater benefit of decreasing intolerance of any individuals who transgress gender norms, regardless of identity. This section will discuss the findings of each hypothesis in greater detail to situate the results in a broader context.

The first hypothesis posited that RWA and SDO would be strong predictors of anti-trans\* prejudice. The hypothesis was supported for RWA, but not SDO. This was a surprising finding, and arguably, a most interesting one as well. Since SDO has long been a powerful predictor of prejudice toward many marginalized groups, such as ethnic minorities and gay men and lesbians (Ho et al., 2015; Licciardello et al., 2014; Pratto et al., 1994; Sidanius & Pratto, 1999), it was expected to be a strong predictor of anti-trans\* prejudice in this study. Moreover, SDO was not correlated to any measure in the study, nor the dependent variable. SDO was found to be a predictor of anti-trans\* prejudice, using the GTS scale (Tebbe et al., 2014), but not when the TS scale was used (Tebbe & Moradi, 2012). After taking a closer look at the sample of participants in this study as compared to Tebbe and colleagues' 2014 study, where SDO was a significant predictor of anti-trans\* prejudice, in Tebbe et al.'s sample where SDO was a significant predictor, 90% of the participants identified as white, whereas, in this sample 82% of participants identified as a race or ethnicity other than white.

Duckitt and Sibley (2007) suggested that individuals who endorse SDO are primarily focused on supporting power structures that result in one group having unequal status over another, especially other marginalized groups. There is some support in the literature for this phenomenon. In a recent study, Ho and colleagues (2015) found that if individuals are already members of marginalized groups, such as racial and ethnic minorities, they are less likely to score very high on the SDO scale.

That RWA was a significant predictor for prejudice against trans\* individuals is not surprising. If RWA is related to symbolic threat, and individuals who have strongly RWA attitudes feel highly threatened (Altemeyer, 1981) by others who do not seem to be living by their values, then it follows that trans\* individuals would represent a substantial threat. This finding extends already existing support for RWA as a strong predictor of negative attitudes toward trans\* people (Nagoshi et al., 2008; Norton & Herek, 2013; Tee & Hegarty, 2006; Warriner et al., 2013; Willoughby et al., 2010).

The second hypothesis that ingroup identity will be positively correlated with anti-trans<sup>\*</sup> prejudice was not substantiated. Ingroup identity only correlated with the gender bashing subscale of the GTS-R. This is most likely attributed to the limitations of the measurement itself. Identity is difficult to measure, and to the author's knowledge, no valid and reliable scale exists yet to measure cisgender identity so it can be compared. For this study, a measure that was previously used to measure racial ingroup identity was altered to try and capture the essence of people's feelings of similarity to one's own gender. Though the scale yielded high reliability readings ( $\alpha = .91$ ), it perhaps did not capture the construct it intended, so it may not have provided a reliable enough measure for cisgender identity. Another possibility is that, like SDO, research demonstrates that individuals in higher status groups with stronger ingroup identification display more prejudicial attitudes (Levin & Sidanius, 1993). While cisgender individuals hold much higher status than trans\* individuals and the strength of their cisgender identity alone may have predicted higher GTS-R, persons of color do not hold a high status. The fact that this sample was predominantly participants of color, strength of identity may not have been as strong a predictor for GTS-R.

Having previous contact with trans\* persons (hypothesis 3) was significantly negatively correlated with anti-trans\* prejudice as well as having previous contact with gay and lesbian individuals (CNT-GL: hypothesis 4) was also negatively correlated The variable contact with transpersons (CNT-TG) was entered in Step 2 of the regression model and yielded significant results at this step, but when other variables were entered (CATT, SDO, IDENT, and IAS) at Step 3, CNT-TG failed to remain significant, while CNT-GL still remained significant. So, while CNT-TG is correlated with anti-trans\* prejudice, it is not a predictor, while CNT-GL is. This follows similar patterns to other research on negative attitudes toward trans\* individuals, where only 2 (King et al., 2009; Tee & Hegarty, 2006) out of seven studies found contact with a trans\* person to reduce prejudice.

One wonders why previous contact with a trans\* person does not reduce prejudice, but previous contact with a gay or lesbian person does. For one, contact with trans\* persons is difficult to measure, as it is a more rare occurrence. Since having a trans\* identity can be more stigmatizing than an LGB identity, if one has met a trans\* person, they may not realize unless the person has disclosed their trans\* identity. In the current study, 168 participants reported no previous contact with a trans\* person, whereas only 14 reported no previous contact with a gay man or lesbian, so it may be easier to detect a reduction in prejudice with participants who have reported meeting an LGB person. Allport (1954) posits that for contact to reduce prejudice, it needs to be positive and beneficial. He recommends several criteria including, groups must have equal status, common goals, and personal interaction that is more intimate. If individuals in this sample have had more contact with gay and lesbian persons, there is a higher likelihood that they have also have met more of Allport's criteria. Moreover, supporting this theory, Herek and Captanio (1996) found that heterosexuals' attitudes were more positive toward gay men and lesbians to the extent that the relationships were closer, so contact alone was not enough. With a large sample of participants who have had previous contact with gay men and lesbians in this study, and CNT-GL being a predictor for anti-trans\* prejudice, this garners more support for the secondary transfer effect (Pettigrew, 1998; 2009).

The fifth hypothesis was that intergroup anxiety (IAS) was related to higher levels of anti-trans\* prejudice. This hypothesis was substantiated by the high correlation of IAS with GTS-R. Individuals can experience feelings of nervousness or anxiety, or wonder if they will be judged or evaluated negatively in anticipation of meeting a member of an outgroup (Stephan, 2014). The measurement tool for IAS touches upon the more affective and emotional aspects of intergroup anxiety. Specifically, items request participants to report on how they would feel (i.e. happy, awkward, or self-conscious) about working with a trans\* person on a class project. It would seem that because so many participants have not had previous contact with a trans\* person that they would experience anxiety toward members of this outgroup. IAS was added at the 3<sup>rd</sup> step of the regression model, and was not a significant predictor of anti-trans\* prejudice, despite its high correlation. It is most likely that another variable (CATT) accounted for this.

CATT (contact apprehension toward trans\* individuals) was also highly correlated with IAS (hypothesis 6) so both variables seem to measure aspects of anxiety. It could be that CATT accounts for some anxiety and perhaps negative attitudes. This finding is in line with one study where Castiglione and colleagues (2013) found that intergroup anxiety was positively correlated with contact apprehension towards gay men (CATH). In the same study, intergroup contact reduced prejudice and intergroup anxiety towards gay men and lesbians, but did not decrease contact apprehension, so even though they are highly correlated, they seem to still be measuring different constructs. CATT was the most significant predictor of anti-trans\* prejudice and was added in Step 3 of the regression model. The fact that CATT is such a significant predictor of GTS-R is an important finding.

In past studies, gender has been a significant predictor with males exhibiting more negative attitudes (Costa & Davies, 2012; Gerhardstein & Anderson, 2010; Landén & Innala, 2000; Nagoshi et al., 2008; Norton & Herek, 2013; Tee & Hegarty, 2006; Warriner et al., 2013; Willoughby et al., 2010; Winter et al., 2008). This study found that there was a significant gender difference in the first and second steps, as well as a sexual orientation difference in the first step, with men and heterosexuals scoring higher on GTS-R. Both gender and sexual orientation were significant predictors of GTS-R in the first step, and in the second step, sexual orientation was no longer significant. Both were not significant after the 2<sup>nd</sup> step. While race/ethnicity remained significant until Step 2, it was ultimately not a predictor of GTS-R. Moreover, political affiliation was a significant predictor in Step 1 of the regression model; it too was not a significant predictor in Model 3. These demographic factors are all characteristics about individuals that cannot easily be changed. Contact apprehension accounting for much of the variance in antitrans\* prejudice shows that there are factors more powerful than immutable personal characteristics impacting prejudice. While demographic variable are important to examine, contact apprehension can more easily be intervened with as it can conceivably be reduced somehow.

CATT significantly reduced the strength of the relationship between gender, which was still significant after Step 2. This seemed to suggest that CATT was mediating the relationship between gender and GTS-R. According to a theory discussed by Nagoshi and colleagues (2008), and Warriner and colleagues (2013), men, even gay men exhibit more transphobia and homophobia because individuals who transgress gender norms threaten their dominant roles as men. One possible explanation for the mediation relationship is that when contact apprehension toward trans\* individuals is present, it neutralizes some of the feelings of fear (symbolic threat) of loss of their power men experience, and replaces it with something that men and women experience similarly that increases anti-trans\* prejudice in both.

#### **Implications for Counselor Educators**

The finding that previous contact with gay men and lesbians reduces anti-trans\* prejudice may be a good place to target interventions for counselor educators who are working with counseling trainees. Since we know that trans\* individuals face significant discrimination that negatively impacts mental health outcomes (Grant et al., 2011; dickey, Reisner, & Juntunen, 2015; Shipherd, Green, & Abramovitz, 2010), it is important for counselors to recognize and reduce prejudice for trans\* individuals. Counselor educators can work to increase contact with LGBTQ individuals by inviting guests to classes to partner with small groups of counseling students to perhaps discuss and exchange personal stories. Having smaller, more intimate groups where both students and LGBTQ guests can share narratives can also equalize the relationships and personalize the interactions.

Since contact apprehension is a construct that presumably can be reduced or increased, another possible implication for counselor educators is to explore their own and their students' anxieties and fears in anticipation of encountering trans\* coworkers or clients. If students state that they would feel nervous or uncomfortable being around trans\* people or working with trans\* clients, it may be helpful to have students explore the source of these feelings. It may also be helpful for counseling students to explore their attitudes toward trans\* individuals and how they formed their attitudes. It may also be helpful to discuss gender identity development in general and include gender nonconforming or trans\* identities as part of the spectrum of human variation in gender development.

### **Limitations and Future Directions**

The results of the present study need to be understood within the confines of some limitations. The sample for this study came from an undergraduate population and so may not reflect what is typical for the general population. The sample was also predominantly people of color (82%), with African American or Black as the majority group (45%), which also does not reflect the racial/ethnic population of the U.S. Another major limitation of this study is that it uses some measurements that have been altered from their original forms, without additional analyses to determine validity. Even though additional validation measures, such as having experts review and rate questions for construct validity were undertaken, future studies should examine, for instance, the construct of ingroup identity for cisgender people, and strengthen the measurement. Also, a measure for intergroup contact should be validated with trans\* populations. Additionally, even though the CATT scale only involved a change from gay and lesbians to trans\* individuals, psychometric analyses should be run to further validate this important measure.

Research on contact as a predictor of anti-trans\* prejudice needs to include qualifiers that assess participants' quality or depth of experience of the contact with sexual and gender minorities to better test Allport's (1954) theory of intergroup contact. It would be interesting to see if more intimate, positive contact further reduces negative attitudes toward trans\* individuals. Additionally, more experimental research similar to studies by Tompkins et al. (2015) and Case and Stewart (2013) should be conducted to test the intergroup contact hypothesis by delivering different treatments to randomly assigned, equivalent groups. For example, Tompkins and colleagues delivered either a humanizing condition (viewing a documentary of a trans\* child and writing a "perspective-taking" assignment), or an education only condition (viewing a recording of an expert discussing case where someone met criteria for gender dysphoria).

#### Conclusion

Trans\* people still face significant barriers to positive mental health outcomes and wellness. It is important to focus on how counselors and other mental health care providers can successfully intervene and work with trans\* populations, but equally important is to focus on the etiology of discrimination and negative attitudes toward trans\* individuals so we can aim our interventions also on reducing anti-trans\* prejudice in counselors, as well as in the general population. It is also important to remember that anti-trans\* prejudice can be enacted anytime a person is perceived to be transgressing gender norms, whether people publicly proclaim themselves as trans\*, or if they merely express themselves in a gender non-normative way, such as women dressing in more traditional masculine clothing, or men behaving in a more feminine way (Hill, 2002; Whittle et al., 2007). When the problem is viewed through this lens, it is more difficult to diminish the effects of anti-trans\* prejudice to only a miniscule percentage of the population, but many non-trans\* people can be negatively impacted when any behavior outside the boundaries of typical gender roles can be seen as pathological.

Despite the limitations, this study has advanced research by examining social identity factors as predictors of negative attitudes towards transpeople. Some predictors for anti-trans\* prejudice that were found in this study, such an contact and contact apprehension suggest a more

hopeful picture in that these important predictors are also factors that we can impact as counselors and mental health professionals, as they are not fixed, or attributable to personality factors. Further, since many participant samples in previous studies of transphobia and anti-trans\* prejudice reflect a white majority, this study represents greater racial/ethnic diversity, which can broaden understanding of anti-trans\* prejudice across different populations.

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# **APPENDICES**

# Appendix A

# Georgia State University Department of Counseling and Psychological Service Informed Consent

Title: Social Identity Factors and Attitudes Towards Transgender Individuals Principle Investigator: Dr. Franco Dispenza Student Principal Investigator: Julian Rafferty McCullough

# I. Purpose:

You are invited to participate in a research study. The purpose of this study is to explore attitudes towards transgender individuals. You are invited to participate because you have self-identified as 18 years or older and attend Georgia State University. About 350 people will participate in this study. Participation will take about 40 minutes of your time.

# II. Procedures:

If you decide to participate in this study, you will complete an online survey that takes about 40 minutes. The online survey can take place on the Georgia State University (GSU) campus, or at a location of your choice and will be a one-time session. We ask that you take this survey in a private room on a computer with no one else present, and please make sure to close out of your browser once completing the survey. As a participant in this research study, you will complete survey measures about identity, personal values, and attitudes. The survey will also ask you about some demographic information. Example questions include multiple choice, and true or false statements such as: "There have been times when I was quite jealous of the good fortune of others" and "Individuals should be allowed to express their gender freely."

### III. Risks:

In this study, you will likely not have any more risks than you would in a normal day of life.

### IV. Benefits:

Participation in this study may not benefit you personally. Overall, we hope to gain a greater understanding of attitudes towards transgender individuals.

### V. Compensation

If you are a GSU student registered through the SONA system, you will receive 1.0 credit for being in the study. If you are not a GSU student enrolled in the SONA system, you will not receive compensation for your participation.

VI. Voluntary Participation and Withdrawal:

Participation in research is voluntary. You do not have to be in this study. If you decide to be in the study and change your mind, you have the right to drop out at any time. You may skip questions or stop participating at any time.

# VII. Confidentiality:

We will keep your survey answers to the extent allowed by law. Julian R. McCullough, and Drs. Franco Dispenza and Catharina Chang will have access to the information you provide. Information may also be shared with those who make sure the study is done correctly (i.e., the GSU Institutional Review Board). As the survey does not require your name to be completed, your name will not be connected to study records. However, data sent over the Internet may not be secure, but we will not be collecting IP addresses in an effort to protect you. The information you provide will be stored on password-protected database and computer. Facts that might point to you will not appear when we present this study or publish its results. The findings will be summarized and reported in group form. You will not be identified personally.

# VII. Contact Persons:

Contact Dr. Franco Dispenza (fdispenza@gsu.edu; 404.413.8174) if you have questions, concerns, or complaints about this study. You can also call if you think you have been harmed by the study. You can also call Susan Vogtner in the Georgia State University Office of Research Integrity at 404-413-3513 or svogtner1@gsu.edu if you want to talk to someone who is not part of the study team. You can talk about questions, concerns, or offer suggestions about the study. You can also call Susan Vogtner if you have questions or concerns about your rights in this study.

IX. Copy of Consent Form to Participant:

You may print a copy of this form for your records.

If you agree to participate in this research, please click on the option that states "Yes, I agree to participate in this survey" and continue with the survey.

### **Appendix B**

INSTITUTIONAL REVIEW BOARD

 
 Mail:
 P.O. Box 3999 Atlanta, Georgia 30302-3999

 Phone:
 404/413-3500

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 Dahlberg Hall 30 Courtland St, Suite 217



March 03, 2016

Principal Investigator: Franco Dispenza

Key Personnel: Chang, Catherine; Dew, Brian; Dispenza, Franco; McCullough, Julian Rafferty

In Person:

Study Department: GSU - Counseling & Psychological Svc

Study Title: Social Identity Factors and Multicultural Beliefs

Submission Type: Exempt Protocol Category 4

IRB Number: H16443

Reference Number: 337777

Approval Date: 03/03/2016

Expiration Date: 03/02/2019

The above referenced study has been determined by the Institutional Review Board (IRB) to be exempt from federal regulations as defined in 45 CFR 46 and has been evaluated for the following:

- 1. determination that it falls within one of more of the six exempt categories allowed by the institution; and
- 2. determination that the research meets the organization's ethical standards

If there is a change to your study, you should notify the IRB through an Amendment Application before the change is implemented. The IRB will determine whether your research protocol continues to qualify for exemption or if a new submission of an expedited or full board application is required.

Exempt protocols must be renewed at the end of three years if the study is ongoing. When the study is complete, a Study Closure Form must be submitted to the IRB.

Any unanticipated/adverse events or problems resulting from this investigation must be reported immediately to the University Institutional Review Board. For more information, please visit our website at <u>www.gsu.edu/irb</u>.

# Appendix C

### Genderism Transphobia Scale Revised (Tebbe, Moradi, & Ege, 2014)

- 1. I have beat up men who act like sissies.
- 2. I have behaved violently toward a woman because she was too masculine.
- 3. If I found out my best friend was changing their sex, I would freak out.
- 4. If a friend wanted to have his penis removed to become a woman, I would openly support him.
- 5. Men who cross-dress for sexual pleasure disgust me.
- 6. If I saw a man on the street that I thought was really a woman, I would ask him if he was a man or a woman.
- 7. Men who act like women should be ashamed of themselves.
- 8. I cannot understand why a woman would act masculine.
- 9. Children should play with toys appropriate to their own sex.
- 10. Women who see themselves as men are abnormal.
- 11. I would avoid talking to a woman if I knew she had a surgically created penis and testicles.
- 12. A man who dresses as a woman is a pervert.
- 13. If I found out that my lover was the other sex, I would get violent.
- 14. I have behaved violently toward a man because he was too feminine.
- 15. If a man wearing make-up and a dress, who also spoke in a high voice, approached my child, I would use physical force to stop him.
- 16. Individuals should be allowed to express their gender freely.
- 17. Sex change operations are morally wrong.
- 18. Feminine men make me feel uncomfortable.
- 19. People are either men or women.
- 20. Masculine women make me feel uncomfortable.
- 21. It is morally wrong for a woman to present herself as a man in public.
- 22. If I encountered a male who wore high-heeled shoes, stockings, and make-up, I would consider beating him up.

7-point Likert scale: 1 = strongly agree, 2 = agree, 3 = somewhat agree, 4 = neither agree nor disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree

# Right-Wing Authoritarianism Scale (Altemeyer, 2006)

- 1. The established authorities generally turn out to be right about things, while the radicals and protesters are usually just "loud mouths" showing off their ignorance.
- 2. Women should have to promise to obey their husbands when they get married.
- 3. Our country desperately needs a mighty leader who will do what has to be done to destroy the radical new ways and sinfulness that are ruining us.
- 4. Gays and lesbians are just as healthy and moral as anybody else.
- 5. It is always better to trust the judgment of the proper authorities in government and religion than to listen to the noisy rabble-rousers in our society who are trying to create doubt in people's minds.
- 6. Atheists and others who have rebelled against the established religions are no doubt every bit as good and virtuous as those who attend church regularly.
- 7. The only way our country can get through the crisis ahead is to get back to our traditional values, put some tough leaders in power, and silence the troublemakers spreading bad ideas.
- 8. There is absolutely nothing wrong with nudist camps.
- 9. Our country needs free thinkers who have the courage to defy traditional ways, even if this upsets many people.
- 10. Our country will be destroyed someday if we do not smash the perversions eating away at our moral fiber and traditional beliefs.
- 11. Everyone should have their own lifestyle, religious beliefs, and sexual preferences, even if it makes them different from everyone else.
- 12. The "old-fashioned ways" and the "old-fashioned values" still show the best way to live.
- 13. You have to admire those who challenged the law and the majority's view by protesting for women's abortion rights, for animal rights, or to abolish school prayer.
- 14. What our country really needs is a strong, determined leader who will crush evil, and take us back to our true path.
- 15. Some of the best people in our country are those who are challenging our government, criticizing religion, and ignoring the "normal way things are supposed to be done."
- 16. God's laws about abortion, pornography and marriage must be strictly followed before it is too late, and those who break them must be strongly punished.
- 17. A "woman's place" should be wherever she wants to be. The days when women are submissive to their husbands and social conventions belong strictly in the past.
- 18. Our country will be great if we honor the ways of our forefathers, do what the authorities tell us to do, and get rid of the "rotten apples" who are ruining everything.
- 19. There is no "one right way" to live life; everybody has to create their own way.
- 20. Homosexuals and feminists should be praised for being brave enough to defy "traditional family values."
- 21. This country would work a lot better if certain groups of troublemakers would just shut up and accept their group's traditional place in society.
- 22. There are many radical, immoral people in our country today, who are trying to ruin it for their own godless purposes, whom the authorities should put out of action.

9-point Likert scale: 1 = very strongly disagree, 2 = strongly disagree, 3 = moderately disagree, 4 = slightly disagree, 5 = neutral, 6 = slightly agree, 7 = moderately agree, 8 = strongly agree, 9 = very strongly agree

# Contact Apprehension Toward Transgender People (Adapted from the subscale Con-

tact Apprehension from Component Measure of Attitudes Toward Homosexuality, LaMar & Kite, 1998)

- 1. I enjoy the company of transgender people.
- 2. It would be upsetting to me to find out I was alone with a transgender person.
- 3. I avoid transgender people whenever possible.
- 4. I would feel nervous being in a group of transgender people.
- 5. I think transgender people are disgusting.
- 6. I would enjoy attending social functions at which transgender people were present.
- 7. Bars that cater to transgender people should be placed in a specific and known part of town.
- 8. I would feel comfortable working closely with a transgender person.
- 9. If a transgender person approached me in a public restroom, I would be disgusted.
- 10. I would not want a transgender person to live in the house next to mine.
- 11. Two transgender people holding hands or displaying affection in public is revolting.
- 12. I would be nervous if a transgender person sat next to me on a bus.
- 13. I would decline membership in an organization if I found out it had transgender people as members.
- 14. If I knew someone was a transgender person I would go ahead and form a friendship with that individual.

5-point Likert scale: 1 = strongly agree, 2 = agree, 3 = neither agree nor disagree, 4 = disagree, 5 = strongly disagree

Intergroup Contact Measures (Adapted from Islam & Hewstone, 1993 and West, Hewstone, & Lolliot, 2014).

### **Contact with Gay Men and Lesbians**

Please select the option that best describes how you feel about each statement.

- 1. How much contact have you had with gay men or lesbians in college?
- 2. How much contact have you had at any point in your life with gay men or lesbians as acquaintances?
- 3. How much contact have you had at any point in your life with gay men or lesbians as neighbors?
- 4. How much contact have you had at any point in your life with gay men or lesbians as close friends?
- 5. How much contact have you had at any point in your life with gay men or lesbians as family members?

### **Contact with Transgender Individuals**

Please select the option that best describes how you feel about each statement.

- 1. How much contact have you had with transgender individuals in college?
- 2. How much contact have you had at any point in your life with transgender individuals as acquaintances?
- 3. How much contact have you had at any point in your life with transgender individuals as neighbors?
- 4. How much contact have you had at any point in your life with transgender individuals as close friends?
- 5. How much contact have you had at any point in your life with transgender individuals as family members?

Each 6-point scales, ranging from 0 (none at all) to 5 (a great deal)

# Social Dominance Orientation (Pratto, Sidanius, Stallworth, & Malle, 1994)

- 1. Some groups of people are simply inferior to other groups.
- 2. In getting what you want, it is sometimes necessary to use force against other groups.
- 3. It's OK if some groups have more of a chance in life than others.
- 4. To get ahead in life, it is sometimes necessary to step on other groups.
- 5. If certain groups stayed in their place, we would have fewer problems.
- 6. It's probably a good thing that certain groups are at the top and other groups are at the bottom.
- 7. Inferior groups should stay in their place.
- 8. Sometimes other groups must be kept in their place.
- 9. It would be good if groups could be equal.
- 10. Group equality should be our ideal.
- 11. All groups should be given an equal chance in life.
- 12. We should do what we can to equalize conditions for different groups.
- 13. Increased social equality is beneficial to society.
- 14. We would have fewer problems if we treated people more equally.
- 15. We should strive to make incomes as equal as possible.
- 16. No group should dominate in society.

7-point Likert scale: 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, 7 = strongly agree

# Intergroup Anxiety Scale (Adapted from Stephan & Stephan, 1985)

Imagine that your class is having a project where you get assigned to work with a transgender student. How do you feel in this situation? Please rate your feelings on the following scale from "strongly disagree" to "strongly agree".

- 1. Нарру
- 2. Accepted
- 3. Irritated
- 4. Impatient
- 5. Defensive
- 6. Awkward
- 7. Confident
- 8. Self-Conscious
- 9. Suspicious
- 10. Careful
- 11. Certain
- 12. Comfortable

7-point Likert scale: 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, 7 = strongly agree

# Marlowe-Crowne Social Desirability Scale, Form C (Reynolds, 1982)

- 1. It is sometimes hard for me to go on with my work if I am not encouraged.
- 2. I sometimes feel resentful when I don't get my way.
- 3. On a few occasions, I have given up doing something because I thought too little of my ability.
- 4. There have been times when I felt like rebelling against people in authority even though I knew they were right.
- 5. No matter who I'm talking to, I'm always a good listener.
- 6. There have been occasions when I took advantage of someone.
- 7. I'm always willing to admit when I made a mistake.
- 8. I sometimes try and get even rather than forgive and forget.
- 9. I am always courteous, even to people who are disagreeable.
- 10. I have never been irked when people expressed ideas very different from my own.
- 11. There have been times when I was quite jealous of the good fortune of others.
- 12. I am sometimes irritated by people who ask favors of me.
- 13. I have never deliberately said something that hurt someone's feelings.

2-point scale, true or false

Ingroup Identity Measure (Adapted from Mastro, Tamborini, & Hullett, 2005)

- 1. How strong of a sense of belonging do you feel with others of your same gender?
- 2. Please select the answer "Moderately" for this question.
- 3. How similar do you feel compared to the mainstream attitudes and beliefs of your same gender group?
- 4. How close are you with others of your same gender?
- 5. How included do you feel by others of your same gender?
- 6. How closely do you identify with other members of your same gender?
- 7. How strongly connected are you with members of your same gender?

5-point Likert scale: 1 = not at all, 2 = slightly, 3 = somewhat, 4 = moderately, 5 = very