

Fall 2012

# Gender attitudes study 2012

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Gender Attitude Study 2012

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A Project Presented to  
the Faculty of the Undergraduate  
College of Health and Behavioral Studies  
James Madison University

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In Partial Fulfillment of the Requirements  
for the Degree of Bachelor of Psychology

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by Christina Nicole Jordan

December 2012

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Accepted by the faculty of the Department of Psychology, James Madison University, in partial fulfillment of the requirements for the Degree of Bachelor of Psychology.

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## **Acknowledgements**

I give thanks to the department of Psychology for the opportunity to conduct this research and a special thanks to Dr. Matthew Lee, Dr. Krisztina Varga Jakobsen, and Dr. Pamela Gibson for their assistance and guidance.

## **Introduction**

### **Transgender Discrimination**

There are many people all around the world who feel like they are stuck in the wrong body. They feel as if their physical sex does not accurately reflect who they think they are. Every day is a constant struggle and every activity relating to sex or gender is a brutal reminder that they are “different” or that they “don’t belong.” Even simple tasks like going to the bathroom are stressful, agonizing, and embarrassing. Alegria (2011) defined transgenderism as “an umbrella term that refers to appearance, behavior, or identity that does not conform to socially constructed norms for women or men” (p. 176). Because this term is an “umbrella” term, the range of identities that can be considered transgender is diverse. This can include but is not limited to cross dressers (people who wear clothes typically worn by a person of the opposite sex), intersex (people who are born with biological characteristics that are not completely female or male), gender-queer (people who identify as both male and female, neither male nor female, or somewhere in between male and female), bi-gender (people who identify as a woman sometimes and a man sometimes), or transsexuals (people who wish to or already have undergone gender reassignment surgery). Due to the dichotomous structure of gender (i.e., male and female) in mainstream society, transgender individuals are forced to live in society where their gender is invalidated and they can be punished for challenging gender norms.

Everyday, transgender individuals have to live with stress, humiliation, and discrimination. Discrimination towards transgender individuals is known as transphobia. “Transphobia is an emotional disgust toward individuals who do not conform to society’s gender expectations” (Hill & Willoughby, 2005, p. 533). Unfortunately, transphobia and discrimination against transgender individuals is not uncommon. Grant, Mottet, and Tanis (2011) conducted a

national survey with 6,450 transgender and gender non-conforming participants from all 50 states, the District of Columbia, Puerto Rico, Guam, and the U.S. Virgin Islands to determine just how common and widespread transphobia and transgender-targeted discrimination occurred. The authors found that 41% of the participants had attempted suicide at some point, which is much higher than the suicide attempt rate for the general population (1.6%). According to the authors, 90% experienced harassment or discrimination at work or tried to hide their status to avoid such treatment, and 15% dropped out of school due to harassment or bullying from students and teachers. Additionally, the authors found that 22% of the participants reported not being treated equally by a government official or agency and 53% of the participants reported being verbally harassed in public accommodation places such as hotels and restaurants. The authors found that 63% of the participants suffered serious acts of discrimination that severely impacted their quality of life or well-being (Grant, J. M., et al., 2011). Another national survey conducted by the National Coalition of Anti-Violence Programs (NCAVP) in 2011 examined hate violence against lesbian, gay, bisexual, transgender, queer, and HIV (LGBTQH) communities. The authors found that compared to non-transgender people, transgender individuals were 1.74 times more likely to experience discrimination, 1.58 times more likely to experience injuries, and 1.67 more likely to experience police violence. Additionally, transgender individuals were 45% less likely to have police classify their incident as hate violence compared to non-transgender people even though anti-transgender prejudice was the motivation for 14% of all hate violence incidents in 2011. There were 30 reported hate crime murders towards the LGBTQH community in 2011 (NCAVP, 2011). Out of these murders, 40% were transgender women and 3% were individuals who self-identified as some non-conforming gender category. Overall, these authors found that transgender individuals are more at risk for

discrimination, physical violence, and police violence than other members of the LGBTQH community (NCAVP, 2011). Clearly, transgender and non-gender conforming individuals are being subjected to widely occurring detrimental discrimination. Perhaps if people knew more about these issues and more about the transgender population rates of discrimination and prejudiced attitudes would decrease. If discrimination of transgender individuals were to cease, then the energy that they use on a daily basis to survive could be used for more positive contributions to themselves and our society (Mohr, 1992), so decreasing or hopefully eliminating this new form of prejudice would greatly benefit a whole subgroup of the population.

A study was conducted by Antoszewski, Kasielska, Jedrzejczak, and Kruk-Jeromin (2007) to assess college students' knowledge of the definition of transsexualism and whether transsexuals should have the political and familial rights that almost everyone else in society has. The authors discovered that a little over half of the students (53.7%) gave a correct definition of transsexualism. Only 42.7% of the participants thought that transsexual people should get married and only 23% of participants that they should have children. Those that answered the questions more positively tended to be from big cities or had previously been exposed to an environment that had challenged gender roles in some way, such as previously meeting a transgender individual. The authors concluded that the participants' sufficient understanding of transsexual individuals lead to more rational thinking about their rights as people and their lifestyle in general (Antoszewski et al., 2007). According to this study, the distribution of accurate information is an important component to enabling people to think rationally and in an unbiased fashion about a minority group. This study also demonstrated that with accurate knowledge about transgender individuals the participants had increased positive attitudes towards the transgender community in terms of political issues. Without transgender awareness,

people can discriminate against transgender individuals and those individuals will have to suffer consequences that can include extreme confusion about self-identity, intensely low self-esteem, and depression.

There are certain groups of people who may be more likely to hold prejudiced attitudes towards transgender individuals. Over the last 50 years, the relationship between religion and multiple forms of prejudice, including homophobia and transphobia, has been well-established (Cook, 2012). Johnson, Rowatt, and LaBouff (2012) examined the relationship between religiosity and prejudice against atheists, Muslims, and homosexual men. These authors conducted two studies to examine this relationship. In one study they simply asked the participants to rate how they felt towards Christians, atheists, Muslims, heterosexual men and homosexual men on a scale from 0 (cold) to 10 (warm). The participants were then asked to self-identify how religious and how spiritual they were on a scale of 1 (not at all) to 7 (very much). As predicted, the authors found that levels of religiosity were related to negative attitudes towards atheists, Muslims, and homosexual men; spirituality negatively correlated with attitudes towards atheists and homosexual men (Johnson et al., 2012). In the second study, the authors wanted to see if simply using religious priming would affect participants' attitudes. Twenty-four hours before coming into the lab, the participants were given the same scale as in study one, asking them to rate their attitudes on Christians, atheists, Muslims, heterosexual men, and homosexual men using the 0 (cold) to 10 (warm) scale. They were then either primed with neutral words (control group) or religious words (experimental group) while completing a task. After the task was completed, the participants were given the same scale inquiring about their attitudes towards the social groups described above. Even when controlling for preexisting attitudes the authors found that the participants primed with religious words had colder feelings

towards atheists, Muslims, and homosexual men (Johnson et al., 2012). This study suggests that not only does a person's level of religiosity increase their proneness toward prejudicial attitudes but exposure to religious-related items in general can increase a person's probability of negative attitudes.

### **Classroom Methods of Decreasing Prejudice**

To get a better idea of some possible effective methods to decrease transphobia it is helpful to examine previous methods of decreasing other types of prejudice such as racism, sexism, and homophobia. One of the most often used methods to increase awareness and knowledge of certain groups of people and decrease prejudicial attitudes towards them, especially in a college setting, is to teach a diversity course. Diversity courses that focus on exposing knowledge of specific groups of people have been proven highly effective in decreasing harsh judgments, unfriendly actions, and other expressions of prejudice towards those people (Chang, 2002). A study examining the effectiveness of diversity courses was conducted by Kilmartin et al. (2008) with mostly Caucasian male participants. The researchers assessed the degree to which the participants had sexist opinions or attitudes. Participants in the experimental condition received a lecture geared towards increasing accurate knowledge and perceptions about sexism, whereas the participants in the control condition received no intervention. Sexist attitudes from the participants in the experimental condition decreased after the lecture. This study demonstrated a decrease in sexist views when accurate information was distributed to the participants even when those people were not present in the population (Kilmartin et al., 2008). Research suggests that diversity courses can be beneficial no matter what the student demographic make-up is because they increase students' awareness and expose them to accurate information.

Another study examined first year college students' change in negative attitudes after taking a required diversity course (Case, Cole, Curtin, & Rios, 2011). Participants in the control condition were enrolled in a general psychology class whereas participants in the experimental condition were enrolled in a class on racial diversity. All participants took a survey at the beginning and end of the semester assessing awareness of blatant racism, awareness of white privilege, and comfort with other racial groups. Regardless of the participants' race, those in the experimental condition had increased awareness of blatant racism and white privilege, and increased comfort with members of other racial groups (Case et al., 2011). The results suggest that diversity courses, even if required, are effective in increasing positive and accurate attitudes towards racial minorities.

Although research has shown that having the option or even the requirement of a diversity course is beneficial to students, it alone may not reduce prejudicial opinions; the effectiveness of the class depends on how the instructor teaches the class and the interventions the instructor chooses to use in his/her class. Types of interventions are widely varied in concept, subject matter, and the actual activity itself. An example of an interactive activity conducted by Hodson, Choma, and Costello (2009) is called "Alien-Nation." In this activity, students were asked to imagine landing on an alien planet where the aliens live in same-sex quarters, reproduction is done artificially, public displays of affection are absolutely prohibited, and anyone who breaks the rules is strictly disciplined (Hodson et. al., 2009). This is a very unique type of intervention because it requires the students to imagine a place where the majority and minority groups are reversed, placing many of the students in the minority group. Although the researchers did not explicitly say that the aliens were homosexuals, those that participated in the Alien-Nation activity showed more positive attitudes and more empathy towards

homosexuals by the end of the intervention (Hodson, et. al., 2009),. A simulation where participants experience what it feels like to be a member of a minority group can be very effective in decreasing prejudicial attitudes towards that minority group.

Another method is to use media to decrease prejudice. In a study conducted by Walters (1994), a professor showed clips from classic movies that depicted negative stereotypes and lifestyles of homosexuals. He showed clips where: (a) heterosexism was promoted, (b) the homosexual characters committed suicide, (c) the heterosexual characters murdered the homosexual characters, and (d) the homosexual characters were persuaded, by various means, to live heterosexual lifestyles. In comparison to the control group, which received no clips at all, the participants in the experimental group, which received all four types of clips, were less homophobic and more empathetic towards homosexuals (Walters, 1994). This study demonstrated that exposure to media depictions of homosexuality was effective in decreasing homophobic attitudes. Considering how often media has recently been incorporated into everyday life, the use of media to expose students to a minority group may be highly effective.

### **Contact Hypothesis**

These studies used different types of interventions to decrease various types of prejudice; however, there is some research that suggests a classroom intervention of any kind that is solely dependent on the professor is not always the most effective type of intervention. A very well known hypothesis, called the contact hypothesis, proposed by Gordon Allport in 1954 hypothesized that contact with the “outgroup” or the minority group will decrease prejudicial feelings from the “ingroup” or the majority group (Allport, 1954). Participants coming in direct contact with transgender individuals may be a very effective way to reduce transphobia. More recent research has expanded on Allport’s theory to include other processes that are involved in

changing attitude and behavior. According to one author, behavior change often happens before attitude change (Pettigrew, 1998). If people are placed in new experiences where they are expected to accept the outgroup, their behavior towards the outgroup may begin to change in a positive way and as a result this behavior change may produce attitude change (Pettigrew, 1998). This implies that an effective way for researchers, universities, and other various organizations to decrease prejudicial attitudes is to not only create an environment where the ingroup has direct contact with the outgroup but also where the ingroup is expected to accept the outgroup. One “real world” example of the contact hypothesis at work was a study conducted by Vezzali and Giovannini (2010) where they tried to reduce prejudice against Italian immigrants by forcing non-Italian citizens to work closely with them every day. The cooperative contact at work not only increased support for favorable immigration laws but also reduced negative stereotypes related to Italian immigrants (Vezzali & Giovannini, 2010). Personally meeting, interacting with, and hearing personal stories from the outgroup can be very powerful in reducing prejudice towards them. Allport’s theory has been around since 1954, and it has often been proven that contact increases the ingroup’s empathy with the outgroup (Hodson, 2011).

Another study conducted by Kwon and Hugelshofer (2012) used the contact hypothesis to decrease prejudice against sexual minorities like homophobia and transphobia. The type of contact used in this study was a panel comprised of a lesbian, a gay male, and a bisexual individual. Panels are a group of people, usually from some minority group, who tell their personal stories and then answer any questions people might have. The researchers first conducted a pretest assessing the participants’ views about homosexuality (Kwon & Hugelshofer, 2012). From there the participants were randomly assigned into an experimental condition which received the panel presentation and a control condition which received no

presentation at all. The panel presentation consisted of the panel members explaining their sexual orientations, sharing their personal experiences about their sexual orientations, and time for the participants to ask the panel members specific questions. After the intervention, participants from both control and experimental conditions were given a posttest to assess changes in attitudes. Exposure to the panel was effective in increasing positive attitudes towards homosexuals (Kwon & Hugelshofer, 2012). This study not only supports the contact hypothesis but it also implies that incorporating a time for the participants to ask questions and inquire about the outgroup's life is also a vital ingredient in making this an effective intervention.

Laar, Levin, Sinclair, and Sidanius (2005) examined the contact hypothesis over the course of a year with college students as their sample. The authors first assessed college students' levels of racist and prejudicial attitudes. Then these college students either were randomly assigned or chosen to live with a roommate of another ethnicity in a college dormitory. The only four ethnic groups that were examined in this study were White, African American, Asian, and Latino. At the end of the year the authors reassessed these students' attitudes and opinions about race/ethnicity. Results of this study showed that outgroup contact over the course of the year increased positive attitudes towards the outgroup and decreased negative stereotypical attitudes towards the outgroup. In particular, having an African American roommate was especially effective in increasing positive attitudes towards African Americans. It also increased the frequency that non-African American participants included African Americans within their regular social groups (Laar et al., 2005). This study provides more evidence of how effective contact with an outgroup can decrease prejudicial and possibly inaccurate information about that outgroup. The fact that the participants began to include African Americans in their normal

social groups has vast implications for implementing outgroup contact over a longer period of time.

### **Current Study**

Clearly, there have been numerous studies that have tried to identify the most effective ways to reduce various types of prejudices in and out of a classroom setting, and there have been multiple studies that show that direct contact can be immensely effective in decreasing prejudicial attitudes. However, very little research has been done in applying these methods to reduce transphobia toward the transgender population. The present study developed several interventions using direct contact to try to decrease transphobia and increase awareness of transgender culture. The main reason this study attempted to reduce prejudice against transgender individuals using direct contact is it has been proven very effective in other types of prejudice by numerous studies in the past. The university where the study was conducted has a very strong lesbian, gay, bisexual, and transgender community and a major advocacy organization called Madison Equality that conducts panels on a regular basis. The researcher wanted to utilize this unique resource to determine whether interventions facilitated by the instructor that included: a) thought provoking activities; b) media from the perspective of transgendered individuals; and c) direct contact with transgender students would be the most effective in helping students learn more about gender diversity, changing attitudes towards transgendered people, as well as understanding the multiple roots of phenotypic gender expression.

The main goal of this study was to decrease prejudicial thoughts and actions towards transgender people by distributing accurate information to students and having students directly interact with other transgender students. Based on previous research on the contact hypothesis,

the researcher hypothesized that the participants who received direct contact from other transgender students would be the most impacted and show the most positive change in their attitudes, beliefs, and general knowledge about gender diversity and the transgender population. Participants in these conditions would also increase their awareness of transgender individuals/culture and decrease their transphobic opinions of transgender individuals. The researcher measured changes in survey responses over time and condition. The researcher also hypothesized that men would score higher on the Genderism-Transphobia scale than women indicating that they were more transphobic than women. In this study, the researcher would also like to examine the possible relationships between transphobia and a) traditional gender roles, b) adherence to religious affiliation, c) aggression, and d) the participants' motivation to try to control their prejudiced attitudes.

## **Methods**

### **Participants**

There were 48 participants that signed up for this study, selected from a master's level, mid-Atlantic University, using an online participant pool program that awards them class credit for their participation. For the pretest data, two participants were omitted from analysis due to incomplete information, so there were a total of 46 participants in part I. For the posttest, an additional three participants were omitted due to incomplete information on the second survey, so there were a total of 43 participants who completed all parts of the study. Of the final sample, 93.0% were White, 4.7% were Latino/Hispanic, and 2.3% identified as some "other" race. The percent of women in this study was 79.1%, whereas men made up 20.9% of the participants. This is overrepresentative of women from the population at the university where the participants were selected. The ages of the participants ranged from 18 to 22 with the average age being 18 ( $M = 18.67$ ,  $SD = .92$ ). This is relatively representative of the age of students who take entry-level psychology courses.

### **Procedure**

This two-part project was conducted in a simulated classroom setting. Part I included the pretest survey and the intervention, and part II included the posttest survey. The participants came into a computer lab to complete the pretest survey and were then moved into a classroom for the intervention. Two weeks after the manipulation, participants were notified through email to complete the posttest survey for this study online.

### **Conditions**

The intervention consisted of the participants receiving some form of lecture and/or activity, with the exception of the control condition. The intervention was one of four conditions all of which were about 45 to 60 minutes in length (see Figure 1):

- (1) Lecture co-taught by myself with a transgendered JMU student + Transgender identification activity. This lecture included information and a discussion on gender development through the lifespan, determinants of gender (e.g., biology, environment, culture), and psychological experiences of transgendered individuals. Personal accounts and first-hand experiences from the transgender co-teacher's perspective and online videos from another transgender student were important components of this lecture. The co-teacher also assisted in teaching half of the lecture material. The transgender identification activity is a version of an activity used by Dr. Matthew Lee (personal communication) in his classes called "Can You Tell?" In this activity, participants respond to visual prompts of famous and non-famous people from different cultures who are male, female and transgender (see Appendix M for example prompts). Students were asked to identify which specific phenotypic features helped them determine the gender of individuals. Following the activity, the instructor facilitated a discussion of the kinds of features people used to make judgments about gender. This activity not only demonstrated how common transgender individuals are in our population but also that their transgender status may be very easily hidden. There were seven participants in this condition, two of which were men and five were women.
- (2) Condition 2 was a transgender panel, which included five transgender JMU students telling personal stories, sharing their experiences, and answering the participants' questions. I wanted to evaluate which form of direct contact (the panel or having a

transgender co-teacher) was more effective in reducing prejudiced views. There were 17 participants in this condition, two of which were men and 15 were women.

- (3) Condition 3 was a lecture taught by me on the topic of gender development and other than a definition; participants were given no information about transgender individuals or transgender culture. This condition did not include the transgender identification activity. Participants were allowed to ask questions but there was not a structured discussion. The purpose of this condition was to represent a typical college lecture on gender to serve as a baseline for the type of information to which most college students are exposed. There were 13 participants in this condition, four of which were men and nine were women.
- (4) Condition 4 was the control condition. Instead of giving a lecture or a panel, the participants in this condition were asked to write a 1-2 page paper about how diversity at JMU, or lack thereof, has impacted their life. Their responses may be analyzed later for content regarding awareness and understanding of gender diversity, however this condition was meant to be a control group, and I did not anticipate a high level of transgender-relevant material from participants on this topic. There were six participants in this condition, one of which was a man and five were women.

The researcher hypothesizes that the participants' scores in the transgender lecture condition (condition 1) and the transgender panel condition (condition 2) will decrease the most on the Genderism-Transphobia scale.

### **Survey**

The pretest survey assessed participants' attitudes toward gender and transgendered individuals by asking general questions about their knowledge of transgender status and demographic information. This pretest took 30-45 minutes to complete and was available on

Qualtrics. Participants took the pretest in a computer lab setting. This pretest included six scales, the first of which was shortened version of Marlowe and Crowne's Social Desirability Scale (Reynolds, 1982), which measured the likelihood that participants were lying or were trying to give a socially accepted answer (see Appendix A). The purpose of this scale was to identify participants who were trying to give a socially acceptable answer rather than answering honestly. This scale asked participants to answer true (denoted by "2") or false (denoted by "1") to statements like "No matter who I'm talking to, I'm always a good listener" and "I'm always willing to admit it when I make a mistake" (Marlowe & Crowne, 1982). This scale had five items that were reverse coded and then the sum of all the items was calculated such that a lower indicated the participant was more likely to give socially accepted answers rather than true responses. In the original study this scale had an acceptable level of internal reliability ( $\alpha = .76$ ) and in the current study the reliability coefficient was  $\alpha = .69$ .

The next scale was the Genderism-Transphobia Scale (Hill & Willoughby, 2005). This was the main dependent variable of the study because it directly measured prejudice against transgender individuals (see Appendix B). It had three subscales: transphobia, gender-bashing, and genderism, and they were all measured using a seven-point Likert scale from 1 (strongly agree) to 7 (strongly disagree). Subscales had high internal consistency with strong coefficient  $\alpha$ . The Transphobia subscale measured participants' fear and/or repulsion towards transgender individuals. An example of a transphobia question was "men who cross-dress for sexual pleasure disgust me." The Transphobia subscale had 12 items that were reverse coded and then the sum of all the items in this subscale was calculated so that the higher a participant scored on this subscale the more transphobic they were. The gendersim subscale measured the participants' judgments towards gender non-conformity. An example genderism question was

“God made two sexes and two sexes only.” The genderism subscale had ten items that were reverse coded and then the sum of all the items in this subscale were calculated so that the higher a participant scored on this subscale the more genderist they were. The Gender-Bashing subscale measured the likelihood of violence towards transgender individuals. An example of a gender-bashing question was “If I encountered a male who wore high-heeled shoes, stockings and makeup, I would consider beating him up.” The Gender-Bashing subscale had ten items that were reverse coded and then the sum of all the items in this subscale were calculated so that the higher a participant scored on this subscale the more likely they were to act violently towards a transgender individual. In the original study, the Genderism-Transphobia Scale as a whole had strong internal consistency ( $\alpha = .96$ ). In the current study, the internal consistency coefficient was also quite high:  $\alpha = .93$ . The original study’s Cronbach's alphas for each subscale were genderism ( $\alpha = .79$ ), transphobia ( $\alpha = .95$ ), gender-bashing ( $\alpha = .87$ ). The current study’s Cronbach's alphas for each subscale were genderism ( $\alpha = .74$ ), transphobia ( $\alpha = .94$ ), gender-bashing ( $\alpha = .74$ ).

Next was the Gender Role Beliefs Scale (Kerr & Holden, 1996), which measured participants’ opinions and views of gender roles in today’s society (see Appendix C). This was used to investigate a likely correlation between traditional views on gender and prejudiced opinions of transgender people. This scale asks participants to answer statements on a seven-point Likert scale from 1 (strongly agree) to 7 (strongly disagree). Some examples were “women should be concerned with their duties of childrearing and housetending, rather than with desires for professional and business careers” and “it is disrespectful for a man to swear in the presence of a lady.” The higher a participant scored on this scale the more strongly they believe in feminist-oriented gender roles. In the original study this scale had internal consistency reliability

and validity ( $\alpha = .89$ ). In the current study, the internal consistency coefficient remained strong ( $\alpha = .85$ ).

Next was the Motivation to Control Prejudiced Reactions Scale (Dunton & Fazio, 1997), which assessed the extent to which participants tried to seem unbiased and the extent to which they were willing to restrain from expressing prejudice thoughts towards transgender individuals (see Appendix D). The purpose of this scale was to determine if the participants were trying to seem non-prejudiced or if they actually were not prejudiced when interacting with transgender individuals. It also measured whether the participants were motivated to change their negative opinions if they had them towards transgender individuals. This scale asked participants to answer statements on a seven-point Likert scale from 3 (strongly agree) to -3 (strongly disagree). Some examples were “when speaking to a transgender person, it’s important to me that he/she not think I’m prejudice” and “if I were participating in a class discussion and a transgender student expressed an opinion with which I disagreed, I would hesitate to express my own viewpoint.” The higher a participant scored on this scale the more strongly they tried to control their prejudiced reactions. This scale had good internal consistency in the original study ( $\alpha = .81$ ) and good internal consistency in the current study ( $\alpha = .79$ ).

The next scale was the Aggression Questionnaire (Buss & Perry, 1992), which included four subscales and measured a participant’s proneness to aggressive behavior and hostile thoughts on four subscales: physical aggression, verbal aggression, anger and hostility (see Appendix E). This scale was used to determine the participants’ baseline aggression level which helped determine if trans-specific violence was possible from this participant or just violence in general. This scale asked participants to answer statements on a five-point Likert scale from 1 (extremely uncharacteristic of me) to 5 (extremely characteristic of me). Some examples were “I

have trouble controlling my temper” and “given enough provocation, I may hit another person.” The sum of the items on the overall scale were calculated so that the higher a participant scored on this scale the more aggressive they were in everyday life. In the original study, the overall Cronbach's alpha was .89, which indicates high internal consistency; in the current study, the internal consistency was also very high:  $\alpha = .90$ .

Finally, there was the Religious Fundamentalism Scale (Altemeyer & Hunsberger, 1992), which reflected adherence to a centralized religious belief system that represented a special relationship with God, and must be strictly adhered to in opposition to the forces of evil (see Appendix F). The purpose of this scale was to determine if there was a correlation between firm adherence to religion and prejudice attitudes and behaviors towards transgender individuals. This scale asked participants to answer statements on a nine-point Likert scale from 4 (very strongly agree) to -4 (very strongly disagree). Some examples were “God has given humanity a complete, unfailing guide to happiness and salvation, which must be totally followed” and “when you get right down to it, there are basically only two kinds of people in the world: the Righteous, who will be rewarded by God; and the rest, who will not.” The higher a participant scored on this scale the more they adhered to strict religious beliefs. This scale had high internal consistency in the original study ( $\alpha = .91$ ) and in the current study the internal consistency was also quite high ( $\alpha = .92$ ).

The pretest also included four filler scales: a political scale, a race/ethnicity scale, an economic scale, and a foreign language scale (see Appendices G-J). The purpose of the filler scales was to increase cognitive load so that participants were not fully aware of the hypotheses of the study and to ensure that participants did not censor their attitudes when prompted with transgender specific questions. Finally, the pretest acquired basic demographic information from

the participants such as their class year, their hometown, and their major (see Appendix K). The order that the scales were in on the pretest was a) Social Desirability Scale, b) Motivation to Control Prejudiced Reactions Scale, c) Filler Scale, d) Aggression Questionnaire, e) Religious Fundamentalism Scale, f) Filler Scale, g) Gender Roles Beliefs Scale, h) Filler Scale, i) Race/Ethnicity Filler Scale, j) Genderism-Transphobia Scale, k) Demographics. The author decided to intermix the filler scales with the transgender-specific scales so that the participants would not discover that this study was assessing their opinions about transgender individuals and culture.

The posttest survey assessed the participants' attitudes toward gender and transgendered people, and their knowledge of transgender status using the same six scales mentioned above. This survey also included four open ended questions (see Appendix L) to assess whether the participants' answers became more accurate and whether they covered gender in any of their classes between time I and time II. This information is valuable because if their answers became more accurate but they covered gender in one of their classes then their new knowledge could be due to their class and not my experiment. Conversely, if their answers became more accurate and they did not cover gender in their classes then it is reasonable to assume that the change is due to my experiment. The order of the scales on the posttest was the same as on the pretest except the filler scales and demographics were removed and the four open-ended questions were added: a) Social Desirability Scale, b) Motivation to Control Prejudiced Reactions Scale, c) Aggression Questionnaire, d) Religious Fundamentalism Scale, e) Gender Roles Beliefs Scale, f) Genderism-Transphobia Scale, g) open-ended questions.

## Results

### Pretest Analysis

Aggregate pretest data were analyzed for each of the four conditions. Multiple one-way between subjects analyses of variance (ANOVAs) were used to analyze differences in the participants' responses based on their condition. The results showed a main effect only on the Genderism subscale,  $F(3, 40) = 3.16, p < .05$ . This shows that the participants' responses on the Genderism subscale differed depending on their condition. Bonferroni and Hochberg GT2 post hoc tests were conducted upon finishing the one-way ANOVA. In this study type I error needs to be controlled for because the N was small and unrepresentative of the population. The author conducted the Hochberg GT2 post hoc test because it copes with very different sample sizes while controlling for type I error (Field, 2009). Hochberg GT2 is also better for a smaller number of comparisons. The Hochberg GT2 test revealed that the responses for the participants in the transgender lecture condition ( $M = -9.80, SD = 4.02$ ) significantly differed from the responses for the participants in the transgender panel condition ( $M = -12.08, SD = 3.95$ ). This shows that on the pretest there was a difference in the participants' responses on the Genderism subscale between the transgender lecture condition and the transgender panel condition. There were no significant differences for the other two subscales of the Genderism-Transphobia scale.

The ANOVA also revealed that there was a main effect on Religious Fundamentalism scale,  $F(3, 40) = 3.61, p < .05$ . The Hochberg GT2 test showed that there was a significant difference in the participants' responses for the transgender lecture condition ( $M = -12.41, SD = 9.40$ ) and the transgender panel condition ( $M = -25.11, SD = 8.97$ ). This shows that there was a difference in participants' responses on the Religious Fundamentalism scale on the pretest between the transgender lecture condition and the transgender panel condition. Even before the

intervention, the participants' responses differed on the Genderism subscale and the Religious Fundamentalism scale depending on the condition they were in.

Independent samples t-tests were conducted to assess any significant differences between men and women on the measures at time I. Men ( $M = 94.78$ ,  $SD = 30.04$ ) scored higher on the Genderism-Transphobia scale than women ( $M = 88.44$ ,  $SD = 27.73$ ), however, this difference was not significant. Even though this finding was not significant, this sex difference has been found in other studies.

Men ( $M = -2.40$ ,  $SD = 13.29$ ) scored significantly lower than women ( $M = 8.63$ ,  $SD = 8.73$ ) on the Motivation to Control Prejudiced Reactions Scale,  $t(44) = -3.12$ ,  $p < .05$ . This indicates that men were much less likely to try to control their prejudiced opinions than women were. Men ( $M = 83.80$ ,  $SD = 13.61$ ) also scored significantly higher than women ( $M = 65.00$ ,  $SD = 16.54$ ) on the Aggression Questionnaire,  $t(44) = -3.28$ ,  $p < .05$ . This suggests that men were more aggressive than women in this sample. There were no other significant differences between men and women on any of the other scales in this study.

Correlational analyses were run first for pretest data, to test the relationships between different subscales of the GTS and with the other measures. As expected, the three subscales of the Genderism-Transphobia Scale all positively correlated with each other. As shown in Table 3, the Genderism subscale correlated with the Transphobia subscale,  $r(44) = .82$ ,  $p < .05$ , and the Gender-Bashing subscale,  $r(44) = .47$ ,  $p < .05$ . The Transphobia subscale correlated with the Gender-Bashing subscale,  $r(44) = .53$ ,  $p < .05$ . This means that if a participant scored high on one of these subscales then they were probably transphobic and more likely to discriminate and commit an act of violence towards transgender individuals. As expected there was also a positive correlation between the Aggression Questionnaire and the Gender-Bashing subscale,

$r(44) = .31, p < .05$ . This suggests that if a person has an aggressive personality, they are more likely to commit an act of violence towards a transgender individual. As shown in table 3, there was a negative correlation between the Religious Fundamentalism scale and the Gender Role Beliefs Scale,  $r(44) = -.52, p < .05$ . This suggests that the more a participant adheres to religion the more traditionally they think about traditional gender roles. The Religious Fundamentalism Scale significantly correlated with the Genderism subscale,  $r(44) = .52, p < .05$ . This suggests that the more a participant adheres to religion the more transphobic they are. Finally, the Gender Role Beliefs Scale negatively correlated with the Genderism-Transphobia Scale,  $r(44) = -.72, p < .05$ . Specifically the Gender Role Beliefs Scale negatively correlated with the Genderism subscale,  $r(44) = -.71, p < .05$ , and the Transphobia subscale,  $r(44) = -.76, p < .05$ . This suggests that the more traditional a participant is in terms of gender roles the more transphobic they are.

### **Posttest Analysis**

Aggregate pretest and posttest data were analyzed for each of the four conditions. A two-way mixed ANOVA was used to analyze differences in participants' responses from part I to part II for each of the conditions. The condition is the between-subjects variable since no participant could have been in more than one condition. Time is a within-subjects variable since every participant took the survey at two different times. The results showed only one main effect for condition on the Religious Fundamentalism scale,  $F(3, 39) = 2.87, p < .05$ , but no main effects on any of the Genderism-Transphobia subscales. This shows that the participants' responses to the Religious Fundamentalism scale changed depending on the condition they were in.

Bonferroni and Hochberg GT2 post hoc tests were conducted upon finishing the mixed ANOVA. The Hochberg GT2 test revealed that the responses for the participants in the transgender lecture condition ( $M = -9.03, SD = 10.00$ ) lowered compared to the responses for the participants in the

control condition ( $M = -26.83$ ,  $SD = 11.18$ ); however, this difference was not statistically significant ( $p = .12$ ). The Hochberg GT2 also revealed that the responses for the participants in the transgender lecture condition ( $M = -9.03$ ,  $SD = 10.00$ ) differed slightly from the responses for the participants in the transgender panel condition ( $M = -21.58$ ,  $SD = 9.27$ ) however, this difference only approached significance with  $p = .14$ . No other main effects were found from the two-way mixed ANOVA.

Independent samples t-tests were conducted on the posttest data to assess any significant differences between men and women. Men ( $M = 29.78$ ,  $SD = 9.71$ ) scored significantly higher than women ( $M = 23.18$ ,  $SD = 6.85$ ) on the Gender-Bashing subscale,  $t(39) = 2.35$ ,  $p < .05$ . This indicated that men were more likely to commit an act of violence towards a transgender individual. There were no other significant gender differences on the Genderism-Transphobia scale. Men ( $M = 84.44$ ,  $SD = 18.20$ ) also scored significantly higher than women ( $M = 67.45$ ,  $SD = 19.22$ ) on the Aggression Questionnaire,  $t(39) = 2.38$ ,  $p < .05$ . This suggests that men were more aggressive than women, congruent with results found in the pretest data. Finally, despite the fact that Levene's test for equality of variances revealed that there were not equal variances between men and women, men ( $M = 5.67$ ,  $SD = 6.06$ ) scored significantly lower than women ( $M = 12.74$ ,  $SD = 11.00$ ) on the Motivation to Control Prejudiced Reactions Scale,  $t(39) = -2.50$ ,  $p < .05$ . This indicates that women were more motivated to control their prejudiced reactions than men.

Correlational analyses were run on the posttest data, to test the relationships between the different scales. Similarly, to the pretest data there were positive correlations between all three of the Genderism-Transphobia subscales. As shown in Table 3, the Genderism subscale correlated with the Transphobia subscale,  $r(39) = .83$ ,  $p < .05$ , and the Gender-Bashing subscale,

$r(39) = .47, p < .05$ . The Transphobia subscale also correlated with the Gender-Bashing subscale,  $r(39) = .69, p < .05$ . This means that if a participant scored high on one of the subscales that participant more than likely scored high on the other subscales as well. Another positive correlation that showed up in the pretest and posttest data was a correlation between the Aggression Questionnaire and the Gender-Bashing subscale,  $r(39) = .36, p < .05$ . This suggests that the more aggressive a person scored on this measure, the more likely they would admit to committing an act of violence towards a transgender individual. There was also a negative correlation between the Genderism-Transphobia scale and the Gender Role Belief Scale  $r(39) = -.74, p < .05$ , similar to the pretest data. In the posttest data, however, the Gender Role Belief Scale correlated with all three Genderism-Transphobia subscales instead of just two. As shown in Table 3, the Gender Role Belief Scale negatively correlated with the Genderism subscale,  $r(39) = -.65, p < .05$ , the Transphobia subscale,  $r(39) = -.78, p < .05$ , and the Gender-Bashing subscale,  $r(39) = -.44, p < .05$ . This suggests that the more a participant believed in traditional gender roles the more transphobic they were and the more likely they were to commit an act of violence towards a transgender individual.

There were also a few correlations that presented themselves in the posttest data but not in the pretest data such as the positive correlation between the Social Desirability scale and the Aggression Questionnaire,  $r(39) = .45, p < .05$ . This suggests that the participants who were giving more socially desirable answers were more aggressive. There was also a negative correlation between the Motivation to Control Prejudiced Reactions Scale and the Aggression Questionnaire,  $r(39) = -.42, p < .05$ , which suggests that the more aggressive a participant was, the less they tried to control their prejudiced reactions. Finally there was a negative correlation between the Motivation to Control Prejudiced Reactions Scale and the Genderism-Transphobia

Scale,  $r(39) = -.37, p < .05$ . Specifically the Motivation to Control Prejudiced Reactions Scale significantly correlated with the Genderism subscale,  $r(39) = -.37, p < .05$ , and the Gender-Bashing subscale,  $r(39) = -.48, p < .05$ . This suggests that the more transphobic a participant is and the more likely they are to commit an act of violence towards a transgender individual the less they tried to control their prejudiced reactions.

## Discussion

### Interpretation of Data

This study was a start to researching teaching about transgender-specific issues in a college setting. It utilized the unique resource of a transgender panel, which most universities do not offer. This study also had very solid controls. The content in the gender-based lecture (condition 3) was very representative of what a basic psychology lecture on gender would contain. However, the results of this study did not support the author's hypothesis. The participants' pretest to posttest responses did not significantly decrease for the experimental conditions of the transgender panel or the transgender lecture.

Even though the main hypotheses were not supported, there were some interesting results. On the pretest, men scored higher on the Genderism-Transphobia scale than women. Even though this finding was not significant, it also makes sense in concordance with society's gender roles. It is a possibility that women, especially younger women, tend to be much more open-minded and to have less difficulty accepting gender nonconforming people than men do (Colliera, Bosb & Sandfort, 2012). Also on the pretest, men scored significantly lower than women on the Motivation to Control Prejudiced Reactions Scale and men also scored significantly higher than women on the Aggression Questionnaire. It is possible that in society's typical gender roles today women are expected to withhold strong reactions and be more agreeable than men (Lehmann, Denissen, Allemand, & Penke, 2012).

There were some scale correlations on the pretest as well. The Gender Role Belief Scale negatively correlated with the Genderism-Transphobia scale. This relationship was expected because if a person believes in traditional gender roles then it makes sense that they are more prejudiced towards gender nonconforming people and are therefore more transphobic. The

Gender Role Beliefs Scale also negatively correlated with the Religious Fundamentalism scale. Most religious texts hold traditional views on gender roles so the author speculated that it is possible that most people who believe in religious texts, also hold traditional gender roles (Miller & Stark, 2002). The Religious Fundamentalism Scale positively correlated with the Genderism-Transphobia Scale. More specifically the Religious Fundamentalism Scale significantly correlated with the Genderism subscale, and the Transphobia subscale. Considering the relationship between adherence to religion and traditional gender roles, it is possible that the more people adhere to religion the more transphobic they are and the more they are prejudiced towards gender nonconforming people.

When comparing the posttest and pretest data, no significant results were found on the main scale, the Genderism-Transphobia scale, but it is interesting to note that almost all of the scores from participants in all conditions increased from the pretest to posttest. This might mean that almost all of the participants became more transphobic and more gender-bashing. There are two exceptions; on the Genderism subscale and the Transphobia subscale the only condition that decreased was the panel condition. The other three conditions increased on the Genderism and Transphobia subscales however, these increases were not significant. Perhaps having more personal stories and anecdotal style information is more effective in decreasing transphobia and prejudice towards gender nonconformity whereas lecture style information such as facts and statistics are less effective. Conversely, on the Gender-Bashing subscale the only condition to decrease was the transgender lecture condition. All of the other conditions increased from pretest to posttest on the Genderism subscale, however this finding was not significant. A possible explanation for this finding is that during the transgender lecture the researcher specifically talked about transgender violence and hate crimes. So perhaps being specifically

exposed to that material made those participants more aware of trans-specific violence, and as a result they became less violent indicating their transphobia. The fact-based style of delivering information may have been more effective in decreasing gender-bashing.

Even though there were no significant findings on the Genderism-Transphobia scale, there was a significant finding on the Religious Fundamentalism scale as seen by the different scores from pretest to posttest for each of the four conditions. All of the conditions decreased their adherence to religion after the intervention except for the transgender panel condition (condition 2). The participants in this condition became more adherent to religion after the panel occurred, however this increase was not statistically significant. The author speculates that the reason behind this is that religion was specifically discussed during the panel condition. As stated earlier, a panel is formatted in such a way that panel members tell their personal stories and experiences and then the participants and the panel members engage in an open-ended question and answer session. In the panel condition, some panelists expressed their own adherence to religion while others expressed a dislike for religious communities based on previous experiences with them. The researcher noticed that a few of the participants greatly disagreed with the panel members opinions about religion. It is possible that the direct discussion and challenge of religion caused the participants in this condition to increase adherence to their religion following the panel. Conversely, in terms of adherence to religion, participants in the transgender lecture condition (condition 1) decreased the most on the Religious Fundamentalism Scale. Even though there were some personal stories told in the lecture condition there were far more statistics, facts, and information and less anecdotal information. There was also absolutely no discussion about religion. Perhaps the lecture style of

presenting transgender specific information was more effective in decreasing adherence to religion while the anecdotal nature of the panel only increased it.

There were also sex differences on the posttest. On the posttest, men scored significantly higher than women on the Gender-Bashing subscale meaning they were more likely to commit an act of violence towards a transgender person. Considering that men tend to be more aggressive than women, this finding was expected (Buss & Perry, 1992). Similarly to the pretest, men scored significantly lower than women on the Motivation to Control Prejudiced Reactions Scale and men also scored significantly higher than women on the Aggression Questionnaire on the posttest. Since this reflects the results on the pretest it makes sense that they remained consistent, however interestingly, both men's and women's scores increased from the pretest to the posttest. So after the intervention the participants reported higher levels of aggression and a higher likelihood to control their prejudiced reactions. It is possible that if people were prejudiced against transgender individuals, then being exposed to transgender individuals regardless of the intent makes them more aggressive because they were uncomfortable with the situation or afraid of those individuals. If people were transphobic and then they were put in a room with a transgender panel, their answers may have become more aggressive, so in this case it is possible that direct exposure had an opposite effect on the participants. It is also possible that exposure to controversial material, such as transgender information and culture, initially made the participants more afraid to share their true opinions if they have prejudiced opinions. Perhaps the researcher talking about trans-specific violence made people hesitant to reveal their opinions on the posttest.

Overall, the hypotheses were not supported and most of the participants' scores indicated higher levels of prejudice from the pretest to the posttest. It is possible that since there was a

two-week period of time between the pretest and the posttest that the participants were exposed to inaccurate information about the transgender population, which negatively swayed their opinions of that population. It is also possible that since the pretest was taken in a computer lab with other people that there was an illusion of being watched, whereas the posttest was taken online, thus a greater degree of anonymity was assured. If that was the case then the posttest scores were a more accurate reflection of how the participants actually felt.

Another possible explanation for the results is that any effects of the intervention were not long lasting. The intervention lasted no more than one hour, then the participants waited two weeks to take the posttest. Perhaps having an extended intervention with additional contact would be more effective. If participants interacted with transgender individuals for multiple hours the participant's responses may have changed more dramatically on the posttest. It is possible that the longer people are exposed to something the less they are prejudiced towards it, so future studies should consider looking at extend contact with transgender individuals.

### **Limitations**

This study had some limitations that may have affected the internal validity of the results. The first point to note is that is the fact that the author could not analyze the qualitative data in time. Therefore, it is possible that a portion of the participants may have been very knowledgeable about transgender issues, thus tainting the results. If participants already had knowledge and exposure to transgender issues and transgender culture then my intervention probably had very little effect on their responses.

There were also a few limitations that affected external validity. Due to the imperfect participant recruiting system, the sample sizes were not equal. As stated above the smallest condition only had six participants and the largest condition had 17 participants. That is quite a

large difference. Also due to the demographic makeup of James Madison University, the participants were mostly white female participants, so there were severe differences in population variances. Beyond the analytical difficulties, having mostly white females means that the sample population is not representative of the national population. It is possible that women are more open-minded and accepting of gender differences than men, and that white people, especially those who are privileged, are less aware of their privilege and their discrimination against others. However, it is also possible that white people are more unlikely to change their opinions than people of other races are (Bobo, 2003). Further, even if the author had found significant results on the Genderism-Transphobia scale they might only be generalizable white, female college students. In an ideal world, the researchers would prefer a larger and equal number of participants in all conditions as well as for the participants to be more representative of the population.

### **Future Studies**

Due to the limitations of this study, there are many ways in which future studies can improve on this research. Future researchers should conduct similar research but with participants that adequately reflect the population's parameters. Having a corresponding number of men and women as well as an equal number of participants across conditions may result in finding a main effect. Future studies should also research the possibility of conducting interventions in a classroom setting. Students may be more open minded and more prepared to learn if they are already in class. Additionally having a certified teacher conduct the intervention may positively affect the results. Transphobia is still a very prominent issue in today's society and figuring out the most effective way to decrease transphobia in a college setting needs to continue to be researched.

**Figure 1**  
**Chart of Conditions**

Condition 1	Condition 2	Condition 3	Condition 4
<ul style="list-style-type: none"> <li>- Transgender lecture</li> <li>- Co-taught with a transgender student</li> <li>- Direct contact</li> <li>- Personal stories</li> <li>- Interactive activity</li> </ul>	<ul style="list-style-type: none"> <li>- Transgender Panel</li> <li>- No lecture</li> <li>- Direct contact</li> <li>- Lots of personal stories</li> </ul>	<ul style="list-style-type: none"> <li>- Gender lecture</li> <li>- Definition of transgender</li> <li>- Interactive activities</li> </ul>	<ul style="list-style-type: none"> <li>- Control condition</li> <li>- Diversity essay</li> <li>- No intervention</li> </ul>

**Table 1**  
**Pretest Means and Standard Deviations**

	Condition 1		Condition 2		Condition 3		Condition 4	
	M	SD	M	SD	M	SD	M	SD
Social Desirability Scale	17.71	3.20	18.54	2.54	18.76	2.20	18.17	2.32
Motivation to Control Prejudiced Reactions Scale	4.71	9.95	10.42	9.44	8.21	8.95	2.17	12.86
Aggression Questionnaire	68.86	19.36	71.83	12.92	67.75	23.37	69.50	12.76
Religious Fundamentalism Scale	-19.83	15.28	-11.60	12.17	-.94	25.04	5.33	17.952
Gender Role Belief Scale	95.00	16.59	84.50	9.16	88.19	17.55	85.83	19.39
Genderism Subscale	23.00	5.52	32.23	8.64	33.87	8.66	31.17	7.36
Transphobia Subscale	21.83	7.41	42.09	13.34	36.94	17.70	35.60	17.24
Gender-Bashing Subscale	24.00	7.17	25.31	7.69	23.29	6.78	21.33	5.92

**Table 2**  
**Posttest Means and Standard Deviations**

	Condition 1		Condition 2		Condition 3		Condition 4	
	M	SD	M	SD	M	SD	M	SD
Social Desirability Scale	17.71	2.56	18.46	2.56	18.47	2.83	18.33	2.07
Motivation to Control Prejudiced Reactions Scale	11.86	9.89	12.50	12.19	11.21	10.74	8.17	9.54
Aggression Questionnaire	66.86	23.91	73.33	13.17	70.56	25.36	74.50	15.45
Religious Fundamentalism Scale	-24.83	15.63	-15.00	14.17	-.56	23.72	3.67	19.89
Gender Role Belief Scale	96.17	15.15	80.67	14.17	87.19	14.77	84.33	23.58
Genderism Subscale	23.00	5.52	32.23	8.64	33.87	8.66	31.17	7.36
Transphobia Subscale	21.83	7.41	42.09	13.34	36.94	17.70	35.60	17.24
Gender-Bashing Subscale	22.71	8.06	26.62	8.03	23.41	7.78	25.50	8.64

**Table 3**  
**Pretest and Posttest Correlations**

		Pretest (Time I)							
Posttest (Time II)		SD	Mo	AQ	RF	GRB	Gen	Trans	GB
	SD	-----	.075	.203	.095	.153	.210	.125	.117
	Mo	-.198	-----	-.321*	.011	-.031	-.193	.033	-.266
	AQ	.447**	-.421**	-----	-.015	.062	.100	.045	.313*
	RF	.026	-.030	-.077	-----	-.521**	.522**	.529**	-.050
	GRB	.103	.031	-.098	-.242	-----	-.705**	-.756**	-.249
	Gen	-.018	-.366*	.293	.287	-.647**	-----	.823**	.467**
	Trans	-.012	-.288	.120	.289	-.779**	.825**	-----	.525**
	GB	-.085	-.479**	.357*	-.070	-.439**	.617**	.689**	-----

Note: \*Correlation is significant at the 0.05 level; \*\*Correlation is significant at the 0.01 level

Table Key

- SD = Social Desirability Scale
- Mo = Motivation to Control Prejudiced Reactions Scale
- AQ = Aggression Questionnaire
- RF = Religious Fundamentalism Scale
- GRB = Gender Role Beliefs Scale
- Gen = Genderism Subscale
- Trans = Transphobia Subscale
- GB = Gender-Bashing Subscale

## **Appendix A**

[The six measures below will be in both the pretest and the posttest: Social Desirability Scale, Transphobia Scale, Gender Role Beliefs Scale, Motivation to Control Prejudiced Reactions Scale, The Aggression Questionnaire, and Religious Fundamentalism Scale]

### **Social Desirability Scale Form-A Crowne & Marlowe (1982)**

INSTRUCTIONS : Please respond to the following items using the number that best reflects your own beliefs. There are no right or wrong answers. Just answer as honestly as possible.

1 – False, 2 – True

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. No matter who I'm talking to, I'm always a good listener. (R)
4. There have been occasions when I took advantage of someone.
5. I'm always willing to admit it when I make a mistake. (R)
6. I sometimes try to get even rather than forgive and forget.
7. I am always courteous, even to people who are disagreeable. (R)
8. I have never been irked when people expressed ideas very different from my own. (R)
9. There have times when I was quite jealous of the good fortune of others.
10. I am sometimes irritated by people who ask favors of me.
11. I have never deliberately said something that hurt someone's feelings. (R)

NOTE: (R) = reversed-scored.

**Appendix B**  
**Genderism-Transphobia Scale**  
**Hill & Willoughby (2005)**

INSTRUCTIONS: Please indicate how you respond to the following statements using the 7-point scale described below. Please respond THOUGHTFULLY and HONESTLY to each question. It is important to indicate how you really feel NOW and not how you might have felt in the PAST. Some of the situations may be unfamiliar to you, but try to think about similar situations you might have found yourself in. Respond to each item and do not worry about your previous responses.

THERE ARE NO RIGHT OR WRONG ANSWERS.

Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

Genderism Subscale

1. God made two sexes and two sexes only (R)
2. I have teased a man because of his feminine appearance or behavior (R)
3. Children should be encouraged to explore their masculinity and femininity
4. Men who shave their legs are weird (R)
5. I cannot understand why a woman would act masculine (R)
6. I have teased a woman because of her masculine appearance or behavior (R)
7. Children should play with toys appropriate to their own sex (R)
8. Passive men are weak (R)
9. Individuals should be allowed to express their gender freely
10. People are either men or women (R)

Transphobia Subscale

1. If I found out that my best friend was changing their sex, I would freak out (R)
2. If a friend wanted to have his penis removed in order to become a woman, I would openly support him
3. Men who cross-dress for sexual pleasure disgust me (R)
4. Men who act like women should be ashamed of themselves (R)
5. Women who see themselves as men are abnormal (R)
6. I would avoid talking to a woman if I knew she had a surgically created penis and testicles (R)
7. A man who dresses as a woman is a pervert (R)
8. Feminine boys should be cured of their problem (R)
9. Sex change operations are morally wrong (R)
10. Feminine men make me feel uncomfortable (R)
11. Masculine women make me feel uncomfortable (R)
12. It is morally wrong for a woman to present herself as a man in public (R)

Gender-Bashing Subscale

1. I have beat up men who act like sissies (R)
2. I have behaved violently toward a woman because she was too masculine (R)
3. 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 (R)
4. If I found out that my lover was the other sex, I would get violent (R)
5. I have behaved violently toward a man because he was too feminine (R)

6. If a man wearing makeup and a dress, who also spoke in a high voice, approached my child, I would use physical force to stop him (R)
7. I would go to a bar that was frequented by females who used to be males
8. My friends and I have often joked about men who dress like women (R)
9. It is all right to make fun of people who cross-dress (R)
10. If I encountered a male who wore high-heeled shoes, stockings, and makeup, I would consider beating him up (R)

NOTE: (R) = reversed-scored.

**Appendix C**  
**Gender Role Beliefs Scale**  
**Kerr & Holden (1996)**

INSTRUCTIONS: Please indicate how you respond to the following statements using the 7-point scale described below. Please respond **THOUGHTFULLY** and **HONESTLY** to each question. It is important to indicate how you really feel **NOW** and not how you might have felt in the **PAST**. Some of the situations may be unfamiliar to you, but try to think about similar situations you might have found yourself in. Respond to each item and do not worry about your previous responses.

THERE ARE NO RIGHT OR WRONG ANSWERS.

Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

1. It is disrespectful for a man to swear in the presence of a lady.
2. Women should not expect men to offer them seats on buses. (R)
3. Homosexual relationships should be as socially accepted as heterosexual relationships. (R)
4. The initiative in courtship should usually come from the man.
5. It bothers me more to see a woman who is pushy than a man who is pushy.
6. When sitting down at the table, proper respect demands that the gentleman hold the lady's chair.
7. Women should have as much sexual freedom as men. (R)
8. Women should appreciate the protection and support that men have traditionally given them
9. Women with children should not work outside the home if they don't have to financially.
10. I see nothing wrong with a woman who doesn't like to wear skirts or dresses. (R)
11. The husband should be regarded as the legal representative of the family group in all matters of law.
12. I like women who are outspoken. (R)
13. Except perhaps in very special circumstances, a gentleman should never allow a lady to pay the taxi, buy the tickets, or pay the check.
14. Some equality in marriage is good, but by and large the husband ought to have the main say-so in family matters.
15. Men should continue to show courtesies to women such as holding open the door or helping them on with their coats.
16. It is ridiculous for a woman to run a locomotive and for a man to darn socks.
17. A woman should be as free as a man to propose marriage. (R)
18. Women should be concerned with their duties of childrearing and housetending, rather than with desires for professional and business careers.
19. Swearing and obscenity is more repulsive in the speech of a woman than a man.
20. There are some professions and types of businesses that are more suitable for men than women.

NOTE: (R) = reversed-scored.

**Appendix D**  
**Motivation to Control Prejudiced Reactions Scale**  
**Dunton & Fazio (1997)**

INSTRUCTIONS: Please indicate the extent to which you agree or disagree with each statement on a scale ranging from -3 (strongly disagree) to +3 (strongly agree)

Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree
3	2	1	0	-1	-2	-3

1. In today's society it is important that one not be perceived as prejudice in any manner.
2. I always express my thoughts and feelings, regardless of how controversial they might be. (R)
3. I get angry with myself when I have a thought or feeling that might be considered prejudice.
4. If I were participating in a class discussion and a transgender student expressed an opinion with which I disagreed, I would hesitate to express my own viewpoint.
5. Going through life worrying about whether you might offend someone is just more trouble than it's worth. (R)
6. It's important to me that other people not think I'm prejudice.
7. I feel it's important to behave according to society's standards.
8. I'm careful not to offend my friends, but I don't worry about offending people I don't know or don't like. (R)
9. I think that it is important to speak one's mind rather than to worry about offending someone. (R)
10. It's never acceptable to express one's prejudice.
11. I feel guilty when I have a negative thought or feeling about a transgender person.
12. When speaking to a transgender person, it's important to me that he/she not think I'm prejudice.
13. It bothers me a great deal when I think I've offended someone so I'm always careful to consider other people's feelings.
14. If I have a prejudice thought or feeling, I keep it to myself.
15. I would never tell jokes that might offend others.
16. I'm not afraid to tell others what I think, even when I know they disagree with me. (R)
17. If someone who made uncomfortable sat next to me on a bus, I would not hesitate to move to another seat. (R)

NOTE: (R) = reversed-scored.

**Appendix E**  
**The Aggression Questionnaire**  
**Buss & Perry (1992)**

INSTRUCTIONS: Please rate each item on a scale ranging from 1 (extremely uncharacteristic of me) to 5 (extremely characteristic of me).

Extremely Uncharacteristic of Me	Somewhat Uncharacteristic of Me	Neutral	Somewhat Characteristic of Me	Extremely Characteristic of Me
1	2	3	4	5

**Physical Aggression Subscale**

1. Once in a while I can't control the urge to strike another person.
2. Given enough provocation, I may hit another person.
3. If somebody hits me, I hit back.
4. I get into fights a little more than the average person.
5. If I have to resort to violence to protect my rights, I will.
6. There are people who pushed me so far that we came to blows.
7. I can think of no good reason for ever hitting a person.\*
8. I have threatened people I know.
9. I have become so mad that I have broken things.

**Verbal Aggression Subscale**

1. I tell my friends openly when I disagree with them.
2. I often find myself disagreeing with people.
3. When people annoy me, I may tell them what I think of them.
4. I can't help getting into arguments when people disagree with me.
5. My friends say that I'm somewhat argumentative.

**Anger Subscale**

1. I flare up quickly but get over it quickly.
2. When frustrated, I let my irritation show.
3. I sometimes feel like a powder keg ready to explode.
4. I am an even-tempered person.\*
5. Some of my friends think I'm a hothead.
6. Sometimes I fly off the handle for no good reason.
7. I have trouble controlling my temper.

**Hostility Subscale**

1. I am sometimes eaten up with jealousy.
2. At times I feel I have gotten a raw deal out of life.
3. Other people always seem to get the breaks.
4. I wonder why sometimes I feel so bitter about things.
5. I know that "friends" talk about me behind my back.
6. I am suspicious of overly friendly strangers.
7. I sometimes feel that people are laughing at me behind my back.
8. When people are especially nice, I wonder what they want.

\* The scoring of these items are reversed

**Appendix F**  
**Religious Fundamentalism Scale**  
**Altemeyer & Hunsberger (2004)**

INSTRUCTIONS: Please rate each item on a scale ranging from 4 (very strongly agree) to -4 (very strongly disagree). You may find that you sometimes have different reactions to different parts of a statement. For example, you might very strongly disagree (“-4”) with one idea in a statement, but slightly agree (“+1”) with another idea in the same item. When this happens, please combine your reactions, and write down how you feel on balance (a “-3” in this case).

Very Strongly Agree	Strongly Agree	Moderately Agree	Slightly Agree	Exactly and Precisely Neutral	Slightly Disagree	Moderately Disagree	Strongly Disagree	Very Strongly Disagree
4	3	2	1	0	-1	-2	-3	-4

1. God has given humanity a complete, unfailing guide to happiness and salvation, which must be totally followed.
2. No single book of religious teachings contains all the intrinsic, fundamental truths about life.\*
3. The basic cause of evil in this world is Satan, who is still constantly and ferociously fighting against God.
4. It is more important to be a good person than to believe in God and the right religion.\*
5. There is a particular set of religious teachings in this world that are so true, you can't go any "deeper" because they are the basic, bedrock message that God has given humanity.
6. When you get right down to it, there are basically only two kinds of people in the world: the Righteous, who will be rewarded by God; and the rest, who will not.
7. Scriptures may contain general truths, but they should NOT be considered completely, literally true from beginning to end.\*
8. To lead the best, most meaningful life, one must belong to the one, fundamentally true religion.
9. "Satan" is just the name people give to their own bad impulses. There really is no such thing as a diabolical "Prince of Darkness" who tempts us.\*
10. Whenever science and sacred scripture conflict, science is probably right.\*
11. The fundamentals of God's religion should never be tampered with, or compromised with others' beliefs.
12. All of the religions in the world have flaws and wrong teachings. There is no perfectly true, right religion.\*

\* Indicates item is worded in the con-trait direction, for which the scoring key is reversed

[The four measures below are the filler questions created to distract the participants from knowing the purpose of this study. These measures will be in the pretest only: Political Scale, Race/Ethnicity Scale, Economy Scale, and Language Scale]

**Appendix G**  
**Political Filler Scale**

INSTRUCTIONS: Please indicate how you respond to the following statements using the 7-point scale described below. Please respond **THOUGHTFULLY** and **HONESTLY** to each question. It is important to indicate how you really feel **NOW** and not how you might have felt in the **PAST**. Some of the situations may be unfamiliar to you, but try to think about similar situations you might have found yourself in. Respond to each item and do not worry about your previous responses.

THERE ARE NO RIGHT OR WRONG ANSWERS.

Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

1. I believe that more money should be spent on providing adequate health care to everyone in this country.
2. I believe that the United States should reinstate the quota system of Affirmative Action in all public universities.
3. I am proud to live The United States of America.
4. I believe that abortion should be an option for everyone in the U.S.
5. I believe that people should have the right to have concealed weapons on campus in the U.S.
6. I believe that the legal drinking age should be lower.
7. I tend to be more conservative on political issues.
8. I believe illegal immigrants should not receive any civil rights in America.
9. Marijuana should be legalized in America.
10. I believe that the use of affirmative action is unfair to certain ethnic groups.
11. People categorized in the upper class should not have to pay a greater percentage of taxes than those in lower income classes.
12. I believe that the United States is the greatest country in the world.
13. I believe that we should stop the U.S. military efforts in the Middle East.
14. I tend to be more liberal on political issues.
15. I think that it is unpatriotic to disagree with decisions made by our country's leaders.
16. Job positions should be reserved for minorities.
17. I would die for my country.
18. I agree that abortion should never be allowed.

**Appendix H**  
**Race/Ethnicity Filler Scale**

INSTRUCTIONS: Please indicate the extent to which you agree or disagree with each statement on a scale ranging from -3 (strongly disagree) to +3 (strongly agree)

Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree
3	2	1	0	-1	-2	-3

1. I am most comfortable around people of my own race/ethnicity.
2. I believe that race should not influence my opinions of others.
3. I believe that my race is more accepted in U.S. society than others.
4. I would not mind having a roommate who has a different ethnic background than I do.
5. I often stereotype people based on their race.
6. I do not feel comfortable with interracial marriages.
7. I feel strongly connected to my ethnicity.
8. I have been discriminated against because of my race.
9. I feel like my race is the minority.
10. I am very aware of the traditional values of my ethnicity.
11. I feel that I have been stereotyped because of my race.
12. Racism is still a significant problem today.
13. White Americans receive more privileges than minorities do.
14. I feel uncomfortable around people of different races than my own.
15. I have discriminated against others because of their race.
16. I prefer to date people with skin color similar to my own.
17. I feel secure in having friends who have a different ethnic background than I do.

**Appendix I**  
**Economy Filler Scale**

INSTRUCTIONS: Please rate each item on a scale ranging from 1 (totally disagree) to 4 (totally agree).

Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
1	2	3	4

1. I believe that the US economy is the strongest it has ever been.
2. I believe that persons living in low socioeconomic areas are not motivated to improve their living conditions.
3. I feel uncomfortable around people of a lower socioeconomic status than my own.
4. I have stereotypes about people according to their socioeconomic status.
5. I find it easy to identify with someone from a different socioeconomic status.
6. I believe that persons living in low socioeconomic areas are lazy.
7. I believe that the biggest issue facing our country today is the economy.
8. Once I know someone's socioeconomic status I feel that I know a lot about their personality.
9. I feel that I have been stereotyped because of my socioeconomic status.
10. I believe that persons living in high socioeconomic areas are snobby.

**Appendix J**  
**Language Filler Scale**

INSTRUCTIONS: Please rate each item on a scale ranging from 1 (extremely uncharacteristic of me) to 5 (extremely characteristic of me).

Extremely Uncharacteristic of Me	Somewhat Uncharacteristic of Me	Neutral	Somewhat Characteristic of Me	Extremely Characteristic of Me
1	2	3	4	5

1. I believe that everyone living in the U.S. who cannot speak English needs to learn.
2. I feel uncomfortable when talking to people with accents.
3. I enjoy meeting people who speak languages other than English.
4. It annoys me when I can't communicate in my first language with others around me.
5. I feel uncomfortable when I am around others who are speaking a language I do not understand.
6. I believe that English should be spoken at all times.  
I go to restaurants where the staff do not speak English as their first language.
7. I feel uncomfortable when interacting with someone who speaks a different language.
8. I often feel uncomfortable when I speak in a language other than English.
9. I want to learn another language other than English.

## Appendix K Demographics Questions

1. Please record your gender.  
Male  
Female  
Transgender
  
2. Please record your date of birth in the format MM/DD/YYYY. For example, July 15th, 1993 would be entered as 07/15/1993.
  
3. Please record your racial/ethnic background. Circle all that apply.  
White, Non-Hispanic  
Black/African-American  
Asian American/Pacific Islander  
Arabic/Middle Eastern  
Hispanic/Latino  
Native American  
Other \_\_\_\_\_
  
4. Please indicate your current class year:  
Freshman/First-Year  
Sophomore  
Junior  
Senior
  
5. What is your academic major?
  
6. What is your hometown?
  
7. What do you think this study was about?
  
8. Please give a brief description of the activities you participated in during this study. Two-three sentences should be sufficient.
  
9. Have you ever come in physical contact with a transgender person at any time before today?  
Yes  
No  
I don't know
  
10. How many friends do you have who are transgender?
  
11. Have you ever learned about gender minorities in your classes?
  
12. If so which classes?

13. Have you ever learned about LGBT issues in any of your classes?
14. If so which ones?
15. In your lifetime have you ever personally witnessed someone being discriminated against because they were transgender?
- Yes
  - No
  - I can't remember
16. If so, can you describe the situation and how you reacted?

**Appendix L**  
**Part II Open Ended Questions**

1. What do you think this study was about?
  
2. What is your definition of gender?
  
3. What is your definition of transgender?
  
4. Have you covered gender in any of your classes since you participated in Part I of this study?

**Appendix M**  
**Class Activity: “Can You Tell?”**  
**Picture Examples**



- A. Male
- B. Female
- C. Transgender



- A. Male
- B. Female
- C. Transgender



- A. Male
- B. Female
- C. Transgender

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