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Mentally Ill, HIV-Positive, or Sexual Predator?
Determining Myths Perceived as Representative of Transgender People

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Abstract

Discrimination and prejudice toward transgender individuals are pervasive in the United States. Stereotypes, or myths, may partially explain why anti-transgender prejudice is so prevalent. The present study recruited a community sample online via Amazon's Mechanical Turk ($N = 1450$) to determine potential myths held by the American public about transgender people. In a between-subjects 5x6 factorial design, participants read a description of a target described as either: mentally ill, HIV-positive, a sexual predator, an ally of transgender people, or a person who is unfair to others (control). They then completed an intuitive judgment task regarding the target's gender and provided feeling thermometer ratings for a variety of groups. Results indicate that mental illness is perceived as most representative of transgender people, while HIV and sexual predation do not appear to be representative of transgender people. Consistent with previous literature, feeling thermometer ratings were significantly lower toward transgender people than for other gender groups and were significantly negatively correlated with participant religiosity and conservatism. We discuss these findings in terms of the gender binary and present implications for gender-related stigma as well as the potential role of mental illness in explaining anti-transgender prejudice.

Keywords: transgender, prejudice, myths, gender binary

Mentally Ill, HIV-Positive, or Sexual Predator? Determining Myths Perceived as Representative
of Transgender People

Transgender individuals (i.e., those whose current gender identity and/or gender expression does not match their gender assigned at birth; American Psychological Association, n.d.) widely face discrimination in the United States. For example, transgender people experience denial of medical care (Grant et al., 2011), being kicked out of their homes (Begun & Kattari, 2016; Durso & Gates, 2012; Koken, Bimbi, & Parsons, 2009), familial rejection (Koken et al., 2009), harassment from community members (Begun & Kattari, 2016; Jauk, 2013), and even marginalization from other transgender people within transgender support groups (Roen, 2002). As a result, transgender individuals are at a significantly heightened risk for negative emotional outcomes and risky behaviors, including depression, alcohol/substance abuse, smoking, and suicidality (Grant et al., 2011). Given the severity of these outcomes, it is of practical significance to understand the etiology of discrimination toward transgender people. Attitudes and behavior (i.e., discrimination) are functionally linked (Bem, 1967; Girandola, 1997), and as could be expected, attitudes toward transgender individuals are markedly negative (Norton & Herek, 2013). One explanation for the valence and strength of these attitudes may be their specific content. In particular, there may be certain myths or stereotypes unique to transgender populations that account for the pronounced negativity in attitudes toward this demographic. However, there is a dearth in the literature with regard to exact myths about transgender people. The present study endeavors to understand the prevalence of certain myths about transgender people. Before delving into the specific myths, we will review the relationship between stereotypes/myths, attitudes, and discrimination.

Interplay between Attitudes, Stereotypes, and Discrimination

Attitudes are overall evaluations (i.e., like, dislike, ambivalence) toward a target and encompass three interrelated components: affect, cognition, and behavior (Eagly & Chaiken, 1998). Attitudes directed at people based on their group membership are termed prejudices. In the context of prejudice, the attitudinal components correspond to generally negative feelings, stereotypes (i.e., generalized beliefs), and discrimination (i.e., unfair treatment), respectively. For the purpose of the present study, we focus on the stereotype component of prejudiced attitudes. Stereotypes are specific beliefs about a group that are then applied to the group's individual members (e.g., "Transgender people are usually mentally ill").

Attitudinal components have significant interplay with one another; for instance, beliefs/stereotypes can predict (Bagozzi & Burnkrant, 1980) and lead to behavior/discrimination, and vice versa, such that engaging in a discriminatory behavior can lead to the formation of stereotypic beliefs that justify the behavior (Bem, 1967). Most importantly, because each attitudinal component informs the overall attitude, negative or threatening stereotypes would therefore lead to a negative attitude. This could then lead to discriminatory behavior, including both blatant behaviors as well as more subtle behaviors such as refusing to endorse policies that support certain groups of people. The need or motivation for consistency between attitudes and behavior is partially explained by cognitive dissonance, or the psychological distress that arises as a result of discrepancies between attitudes and behavior (Girandola, 1997). The link between attitudes and behaviors helps to explain why prejudice and discrimination against transgender people is commonplace (i.e., negative attitudes or treatment can be justified by believing in threatening stereotypes; Uhlmann, Brescoll, & Machery, 2010).

Expanding the Literature

General attitudes about transgender people have been well-reported. For example, Norton and Herek (2013) found that feeling thermometer ratings (i.e., 0 *very cold* to 100 *very warm*) toward transgender people were significantly lower than those toward lesbian, gay, and bisexual people. Male attitudes and feelings toward transgender people tend to be significantly more negative than those of their female counterparts (Elischberger, Glazier, Hill, & Verduzco, 2016; Norton & Herek, 2013; Silveira & Goff, 2016). Additionally, religiosity, endorsement of traditional gender roles, and political conservatism correlate with negative attitudes toward transgender people (Elischberger et al., 2016; Norton & Herek 2013).

However, research examining attitudes toward transgender people has been somewhat generalized in that it has not examined the specific component of stereotypes. An understanding of this influential factor as it relates to attitudes would enrich previous literature about transgender people and could aid in the development of interventions. For example, if attitudes are largely cognitively-based, then solutions would be more effective if they challenged stereotypic beliefs about transgender individuals. The particular focus of the present study was to determine whether certain myths, or stereotypes, were uniquely associated with transgender people compared to other gender groups (i.e., man, woman) as well as two sexual minority groups (i.e., gay man, lesbian). Specifically, the present study sought to determine whether the public believed that sexual predation (i.e., being a sexual predator), HIV-positive status, and mental illness were associated with transgender people. In addition to potential myths about transgender people specifically, we explored whether allies (i.e., people who support transgender individuals) were likely to be perceived as being transgender. Individuals are potentially at risk to take on the stigma of the groups to which they are proximate, and by extension, could be at

risk to experience discrimination (Hernandez et al., 2016; Jefferson & Bramlett, 2010). We elaborate more specifically on the rationale for each myth below.

Myths

Sexual predation myth. In the past several years, school bathroom and locker room policies have been brought into question with regard to barriers faced by self-identified transgender students (e.g., Kansas State Legislature, 2016). Mass-media reporting made student petitions for self-identified bathroom choice highly salient and greatly increased public discussion on the challenges of incorporating transgender individuals into the largely binary system (i.e., a majority of facilities are either male or female). Online article comment sections provide one lens into public feelings about this issue. While the public has expressed some support for the idea of gender-neutral bathrooms (e.g., “Gender-neutral restrooms... would be a good idea for many more groups than trans people”, Rode, 2013), criticism has emerged in response to this suggestion as well. Some responses have been blatantly hostile toward transgender individuals in general (e.g., “Science will sort out this dysfunction in human genome”, Rode, 2013), while many have cited external reasons such as concerns about women’s sexual privacy/security and the safety of children. These concerns gave particular focus to potential male sexual predators; for instance, “...if the bathroom is neutral, I’d feel a lot less safe having a man in the same bathroom with me” (Rode, 2013). Smiler and Gelman (2008) found that adults essentialize gendered concepts such that they believe there are fixed gender properties that do not really change from birth through death. Therefore, individuals who deviate from their gender assigned at birth (i.e., transgender people) may be viewed as illegitimate. Specifically, transgender people’s gender assigned at birth may be viewed as more legitimate than their self-identification (Bettcher, 2009). Further, in Smiler and Gelman’s (2008) study, masculine

concepts had particularly high essentialism scores; therefore, transgender women (i.e., assigned male at birth, identify as female) may be essentialized as masculine. As such, they may be perceived as men trying to invade women's private spaces. Thus, a sexual predation myth may exist particularly with regard to transgender women.

HIV myth. Transgender women are at a significantly heightened risk for HIV for a number of reasons, such as performing sex work due to poverty, social/institutional barriers to medical care, and exposure to used needles due to increased risk for drug abuse (Grant et al., 2011). This risk has been well-documented and given that some of these reports are available to the public, this may convey an HIV-positive stereotype about transgender women. Moreover, the AIDS epidemic of the 1980s in the United States left gay men with the stigma of being infected with HIV. Therefore, it is possible that transgender people may take on the HIV stigma of gay men because sexual and gender minorities are typically conceptualized together (i.e., LGBT). It may also be that the public confuses transgender women and gay men with one another (Burke & LaFrance, 2015, unpublished manuscript).

Mental illness myth. The Diagnostic and Statistical Manual of Mental Disorders (DSM), had previously listed transgenderisms (i.e., behaviors that violate traditional gender norms) as symptomatic of Gender Identity Disorder (American Psychiatric Association, 2013). This specific label indicates a pathology, or a mental illness requiring treatment. This diagnosis was reworked in the DSM-5 as Gender Dysphoria, shifting the focus from identity itself to the psycho-social implications of having a transgender identity (American Psychiatric Association, 2013). However, given the ubiquity of the DSM in psychiatric work and its accessibility to the public, the original name likely had a significant influence on public perceptions of what being transgender even means. It is possible that because transgender identity is, or at least has been,

regarded as a mental illness per se, features of other mental illnesses may confound people's understanding of what a transgender identity entails. For example, being transgender might be perceived as a form of insanity or delusion. As a result, the public may conflate transgender identities with mental illness (Reed, Franks, & Scherr, 2015).

Allies as transgender myth. Stigma-by-association (SBA) is the process by which an individual feels threatened about or takes on a group's stigma without actually being a member of that group (Hernandez et al., 2016; Jefferson & Bramlett, 2010). In other words, people may misconstrue characteristics about an individual or even misidentify that person as a member of a group because the person is proximate to the group, either physically, conceptually, or both (e.g., Rudman, Mescher, & Moss-Racusin, 2012). Allyship (i.e., the role of supporting a group of people) makes people especially proximate to a group and could therefore increase the likelihood for them to experience SBA. For example, an ally of transgender people may be seen often at events supporting transgender rights. The concept of SBA would predict that this person is more likely to be judged as being transgender even if they are not. Although this myth is not about transgender people themselves, it has potentially serious implications. If transgender allies take on the stigma of transgender people simply by being around or supporting them, allies may also be stereotyped and/or discriminated against in a similar fashion to transgender individuals. If the above myths are especially associated with transgender individuals, allies could also be seen as representative of the myths due to SBA. In contexts where an individual is not empowered to assert their identity (e.g., "I support transgender rights but that does not make me transgender") or is simply not believed, SBA could lead to negative outcomes for allies.

The Representativeness Heuristic and the Present Study

In order to determine whether the public perceived the above myths as associated with transgender people, we employed a task intended to evoke the representativeness heuristic. The representativeness heuristic is an automatic thought process whereby a target is associated with, or seen as representative of, a category (Tversky & Kahneman, 1974). When perceiving a target, individuals attend to various characteristics of that target and use these characteristics to determine which category the target belongs to (Tversky & Kahneman, 1974). Tversky and Kahneman's 1983 publication contains a classic example of a test of the representativeness heuristic. Participants were presented with the following:

Linda is 31 years old, single, outspoken and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice, and also participated in anti-nuclear demonstrations.

After reading this description, participants were asked to rank the likelihood that she belonged to various categories, most importantly including "a bank teller and is active in the feminist movement", and "a bank teller". Eighty-five percent of the time, participants indicated that it was more likely that Linda was both a bank teller and active in the feminist movement than just a bank teller. However, this represents a judgment error in that it is more probable for Linda to possess one attribute than two. This erroneous choice (i.e., the conjunction fallacy) demonstrates that the description was compelling enough for participants to make a judgment error in terms of Linda's group membership because it was seen as highly representative of a feminist.

Research on the representativeness heuristic has significant implications with regard to stereotypes, in that humans make automatic, implicit assumptions about a target's group

membership by simply perceiving that target. The representativeness heuristic has been applied in experimental research to determine whether people associate certain characteristics with particular groups (e.g., atheists; Gervais, 2014). This prior research has used a slightly altered version of the method described above, now referred to as the conjunction fallacy paradigm. The present research employed this method and we theorized that targets possessing characteristics consistent with the previously mentioned myths (e.g., sexually predacious) would likely be seen as more representative of transgender individuals compared to the following groups: cisgender (i.e., gender identity is congruent with gender assigned at birth) men and women, gay men, and lesbians. We should note that we only examined “transgender man” and “transgender woman” as categories and did not include non-binary gender identities such as genderqueer or genderfluid to allow for greater statistical power and a more manageable design. Additionally, because binary transgender individuals may pass (i.e., become indistinguishable from their cisgender counterparts; Roen, 2002) or be miscategorized as sexual minorities (Burke & LaFrance, 2015), it was practical to compare those groups directly to determine whether the myths were uniquely representative of transgender people, independent of any confusion between the groups. Representativeness was measured by conjunction errors, meaning that participants selected the conjunction (e.g., a bank teller and transgender) over a single attribute (e.g., a bank teller).

The present study employed a between-subjects 5x6 factorial design. Although the study was exploratory, we hypothesized the following to direct our analyses: 1) The sexual predator myth would be perceived as more representative of transgender women compared to all other categories except men and gay men; 2) The HIV myth would be perceived as more representative of transgender women compared to all other categories except gay men; 3) The mental illness myth would be perceived as more representative of transgender women and

transgender men compared to men and gay men; and 4) The ally myth would be perceived as more representative of transgender women and transgender men compared to men. Additionally, we hypothesized that feelings toward transgender people would be unfavorable overall. Further, we expected that feelings toward transgender people would negatively correlate with participant religiosity and political conservatism.

Method

Participants

One thousand four hundred sixty-five community members were recruited online via Amazon's Mechanical Turk (MTurk; Buhrmester, Kwang, & Gosling, 2011) to complete the survey for a nominal compensation. Fifteen participants who had completed the study were excluded from analyses because they indicated that they had previously seen questions contained in the study. Therefore, the final sample was comprised of 1450 participants ages 18 to 98 ($M = 37.61$, $SD = 12.76$). The majority of the sample was White/Caucasian (78.0%), with 8.5% Black/African American, 6.5% Asian, 6.3% Hispanic/Latino, 2.7% multi-racial, 2.3% American Indian/Alaskan Native, and 0.4% Native Hawaiian/Pacific Islander. A little over half of participants identified as female (58.6%); 40.4% identified as male, 0.4% other/prefer not to say, 0.3% genderqueer, 0.1% transgender man, and 0.1% transgender woman. A majority of our sample was heterosexual (88.1%), with 6.8% bisexual, 3.5% homosexual, and 1.7% other/prefer not to say. On average, our sample was slightly liberal ($M = 3.58$; $SD = 1.81$; scores ranged from 1 *very liberal* to 7 *very conservative*) and slightly religious ($M = 4.53$; $SD = 2.99$; scores ranged from 1 *not at all religious* to 7 *extremely religious*). Given that we wanted our results to generalize to adult U.S. citizens, participants were prevented from completing the study if they were not U.S. citizens and least 18 years old.

Materials and Measures

Vignettes. We created four unique descriptions about different targets, each describing an imaginary person “A.” who was either: a sexual predator, HIV-positive, mentally ill, or an ally of transgender people. There was significant variability between vignettes in terms of their content in order to both increase ecological validity as well as make each myth salient. For example, the HIV vignette described an individual who learned that they were HIV-positive from donating to a blood drive, whereas the sexual predation vignette described someone who would invade dressing room stalls (see Appendix A).

We also included a control vignette describing someone who was unfair to others (adapted from Gervais, 2014). This vignette was included to determine whether participants perceived the vignettes as representative of transgender people as a function of their content and not their valence. For example, the sexual predator vignette describes someone that might be considered an amoral person. Consequently, sexual predation may be perceived as representative of transgender people because it is a negative attribute, not because that particular behavior is necessarily representative of transgender people. In other words, negative attitudes toward transgender people may lead to negative attributes being more readily perceived as representative of transgender people.

We pilot tested these vignettes with a separate MTurk sample ($N = 67$) to ensure that they conveyed intended characteristics (i.e., sexual predator = perverted, HIV positive = promiscuous, mentally ill = mentally ill, ally = activist) and were realistic. Vignettes did not vary significantly in their perceived realism compared to the control vignette. The sexual predator was rated as significantly more perverted ($M = 6.47$, $SD = 1.40$) compared to the control target [$M = 2.24$, $SD = 1.40$; $t(65) = -18.77$, $p < .001$]. The HIV-positive target was rated as significantly more

promiscuous ($M = 4.64$, $SD = 1.79$) compared to the control target [$M = 2.95$, $SD = 1.75$; $t(65) = -5.83$, $p < .001$]. The mentally-ill target was rated as significantly more mentally ill ($M = 5.56$, $SD = 1.43$) compared to the control target [$M = 2.80$, $SD = 1.68$; $t(65) = -14.46$, $p < .001$]. Lastly, the ally target was rated as significantly more activist ($M = 5.92$, $SD = 1.56$) compared to the control target [$M = 1.79$, $SD = 1.32$; $t(65) = -14.92$, $p < .001$].

Judgment task. Participants were asked to intuitively judge whether it was more likely that the person in the vignette was “a bank teller” or “a bank teller and XXXXX”. The conjunction (i.e., XXXXX) randomly included one of the following six gender/sexual orientation categories: man, woman, transgender man (i.e., born female, identifies as male), transgender woman (i.e., born male, identifies as female), gay man, or lesbian.

Syllogistic reasoning questions. We included several syllogistic reasoning questions reflecting the structure of the representativeness judgment task in order to obscure the purpose of the judgment task (Gervais, 2014). The questions posed factual statements and then asked participants to select one of two logical conclusions based on the statements. For instance, participants viewed: “All flight attendants are singers. At least part of the women are flight attendants. What conclusion can you draw based on these statements?” They then selected from one of two possible conclusions (e.g., “Some women are singers”).

Feeling thermometers. A feeling thermometer is a continuous scale rating that assesses how warm an individual feels toward a target (i.e., 0 = *very cold*, 100 = *very warm*). Feeling thermometers were set at 50 by default. Participants were asked to “Please rate the following groups based on how warm you feel toward them”. They rated 13 different social groups (including the six gender/sexual orientation categories featured in the judgment task) using feeling thermometers. The additional groups (e.g., alcoholics) were included as distractors.

Participants could adjust their rating by clicking and dragging a slider either left (approaching 0) or right (approaching 100).

Procedure

Participants completed the survey online through Qualtrics.com. They first provided informed consent and indicated whether they were a United States citizen and at least 18 years old. They were then randomly presented with one of the five vignettes and completed the judgment task afterward. Following the judgment task, they completed three syllogistic reasoning questions. Next, participants completed the feeling thermometers. Demographic questions were included second-to-last in order to control for potential effects (e.g., primes) on the judgment task. Lastly, we asked participants whether they had previously been exposed to any questions or descriptions from our survey, as well as what they thought the study was about.

Results

First, we tested our hypotheses regarding the perceived representativeness of the myths for the transgender man and transgender woman categories. Representativeness was measured as whether participants made a conjunction error or not. Given that our dependent variable was dichotomous, we used logistic regression for analysis. We conducted a series of logistic regressions for each myth, which allowed us to test whether it was more or less likely for participants to make the conjunction error for the transgender man or transgender woman categories compared to the other gender/sexual orientation categories (see Table 1 for logistic regression results).

For the control vignette, we found that the likelihood of conjunction errors was significantly less when participants were presented with transgender man or transgender woman compared to man, and not significantly different from the other categories. For the sexual

predator vignette, we expected that conjunction errors would be significantly more likely when participants were presented with transgender woman compared to all other categories except man and gay man. Results indicated that conjunction errors were significantly more likely when participants were presented with transgender woman compared to woman, but significantly less likely for both transgender categories compared to man. We hypothesized that conjunction errors in the HIV vignette would be significantly more likely when participants were presented with transgender woman compared to all other categories except gay man. Conjunction errors were significantly more likely when participants were presented with transgender man compared to woman and lesbian, while errors were significantly less likely for transgender woman compared to man. Regarding the mental illness vignette, we anticipated that conjunction errors would be significantly more likely when participants were presented with transgender woman or transgender man compared to man and gay man. We found that conjunction errors were significantly more likely when participants were presented with transgender man or transgender woman compared to woman, gay man, and lesbian. Finally, for the ally vignette, we predicted that conjunction errors would be significantly more likely when participants were presented with transgender woman or transgender man compared to man. Results demonstrated that conjunction errors were significantly more likely when participants were presented with transgender man compared to man, and marginally more likely for transgender woman compared to man.

Finally, we examined the relationship between participant demographics and their attitudes toward transgender individuals. We hypothesized that feelings toward transgender people would be unfavorable overall. Participants provided feeling thermometer ratings for each gender/sexual orientation group (within-subjects factor) on a continuous scale; therefore, we conducted a repeated-measures ANOVA. A repeated-measures ANOVA with a Greenhouse-

Geisser correction indicated that there were significant differences between mean feeling thermometer ratings for the six gender/sexual orientation categories, $F(2.19, 3152.85) = 352.82$, $p < .001$. Post hoc tests using the Bonferroni correction revealed that the mean ratings for transgender men and transgender women were significantly lower than the ratings for men, women, gay men, and lesbians (see Figure 1). Consistent with previous literature, participants' political conservatism had a moderate negative correlation with their feeling thermometer ratings toward transgender men, transgender women, gay men, and lesbians (see Table 2). Religiosity was also negatively correlated with feeling thermometer ratings toward transgender men, transgender women, gay men, and lesbians (see Table 2).

Discussion

American attitudes toward transgender individuals are demonstrably negative, which helps to explain discriminatory behaviors targeted toward this group. In other words, if people have negative attitudes toward transgender people, then it follows that they would treat transgender people in a discriminatory manner. Although useful per se, this research does not necessarily identify the source of these attitudes. Therefore, the present study sought to investigate one component of attitudes—stereotypes, or myths—with the intent of bringing light to one potential source of anti-transgender prejudice. We hypothesized that the American public believes that sexual predation, HIV-positive status, and mental illness are associated with transgender identity. We also hypothesized that transgender allies are likely to be stigmatized as transgender. Using the conjunction fallacy paradigm, we tested whether the public perceived those attributes as especially representative of transgender people.

Our data suggest that the American public may have gendered assumptions about sexual predators, HIV-positive people, mentally-ill people, and allies of transgender people. First, our

control data indicated that the negatively-described control target was not perceived as representative of transgender people, suggesting that those vignettes perceived as representative of either or both transgender categories were truly representative of those characteristics and not representative because they conveyed negative attributes generally. However, the control target was perceived as significantly more representative of men compared to the two transgender categories. Given that the vignette described gambling behavior in a bar context, this may indicate that the control vignette was perceived as specifically masculine behavior. If the control vignette was confounded with perceptions of masculinity, this may limit our aforementioned conclusion regarding the effect of the valence of the myths. Regardless, if the control vignette is perceived as more masculine, it is noteworthy that participants did not perceive it as representative of transgender men. This could suggest that the public perceives transgender men as less masculine than cisgender men.

Our data on the sexual predator vignette suggest that sexual predation is not strongly perceived as representative of transgender people, especially compared to men. Although the error rates for the transgender woman category (27.5%) and cisgender woman category (11.1%) were relatively low overall, participants exhibited significantly higher likelihood of making the conjunction error for the transgender woman category. This difference demonstrates that transgender women may be perceived differently than cisgender women. That is, although transgender women and cisgender women identify in the same way (i.e., female), the public appears to perceive them differently in this particular context. It may be that transgender women are perceived as having characteristics consistent with sexual predators. For instance, given that sexual predation was seen as more representative of men compared to transgender women, but less representative of women compared to transgender women, it is possible that transgender

women are seen as more masculine than cisgender women; this may be due to transgender women's identities being essentialized as male. Future research could examine perceptions of whether cisgender and transgender female targets are sexual predators, with perceived masculinity as a potential mediator of this relationship.

Our analyses on the HIV vignette data suggest that HIV is perceived as significantly more representative of transgender men compared to women and lesbians, and more representative of men compared to transgender women. Perhaps this indicates that HIV is associated with masculine identities. In reality, research suggests that transgender women demonstrate a higher prevalence of and risk for HIV than transgender men (Centers for Disease Control and Prevention, 2017). Given that our results suggest that the public perceives HIV as more representative of the male categories relative to female categories, future work may focus on the relationship between perceived masculinity and variables related to HIV, such as promiscuity or recklessness. Perhaps males are viewed as more sexually active and therefore more likely to contract HIV. Additionally, HIV stigma surrounding gay men may play a role in peoples' perceptions of all men, such that the public sees all men as more likely to have HIV due to stigma-by-association with gay men.

While men may be stigmatized as being HIV-positive, transgender people may be stigmatized as being mentally ill. Results from the mental illness vignette indicate that mental health stigma surrounds transgender individuals. As stated, previous versions of the DSM may have contributed to the depiction of transgender individuals as mentally ill. However, future work should empirically investigate sources of this perception to better understand why mental illness is especially representative of transgender targets. Perhaps salient media depictions of aggressive, volatile transgender/transsexual individuals, such as Dr. Frank N. Furter in *The*

Rocky Horror Picture Show, factor into perceptions of these individuals' mental health. Another explanation could be deviance from a gender binary (i.e., gender construed as two distinct categories of male and female). Greater endorsement of a gender binary predicts negative feelings toward transgender people (although this relationship falls to non-significance when controlling for anti-homosexual prejudice; Norton & Herek, 2013). Nonetheless, deviance from a gender binary appears to be received unfavorably, not just for transgender people but for cisgender individuals as well (e.g., Reidy, Shirk, Sloan, & Zeichner, 2009; Rudman et al., 2012), with discrimination against binary-deviant individuals varying from gender-related stigmatization to aggression. Individuals who strongly believe that gender is characterized by mutually-exclusive categories may view deviations from this system as unnatural and disorderly, possibly conveying mental illness.

In the way of gender roles, our results indicate that allyship with transgender people may be viewed as especially atypical for men. Alternatively, it may be that allyship is simply perceived as more representative of gender/sexual minorities or women because they are subject to gender-related oppression. Future work could determine why being an ally of transgender people is not seen as representative of males. For instance, there may be a stigma toward men who are allies of transgender people. Rudman et al. (2012) found that gender egalitarian men were stigmatized as more feminine and more likely to be gay. Perhaps gender egalitarianism is perceived as incompatible with masculinity or traditional male gender roles. As a result, American men may experience stigmatization while attempting to adhere to egalitarian norms. It would be practical to examine cross-sectional differences in different age-groups' perceptions of gender-egalitarian men if egalitarianism is becoming a more highly valued norm in newer generations.

Other aspects of culture, such as religiosity and conservatism, are also important factors to consider when discussing gender-related attitudes. Regarding our correlational data on religiosity/political orientation and feelings toward transgender people, we found that religiosity and political conservatism were negatively associated with feelings toward transgender people, a finding consistent with previous literature (Elischberger et al., 2016; Norton & Herek, 2013). Religious and conservative ideologies have an imperative to maintain tradition, which may include gender roles. Sexual and gender minorities represent a deviation from or threat to tradition, which could partially explain why conservatism and religiosity correlate with negative attitudes toward these groups. A complementary explanation, posited by Altemeyer and Hunsberger (1992), suggests that religious fundamentalism and right-wing authoritarianism are strongly correlated with measures of anti-minority prejudice. Given these data, it is likely that areas with large politically conservative or religious populations may demonstrate a negative climate for gender/sexual minorities, particularly when residents are high in religious fundamentalism and right-wing authoritarianism.

The present study has several limitations. First, it is exploratory, and therefore it is entirely possible that there are other myths surrounding transgender people that we did not consider when designing the present study. Second, although our results suggest that the public perceives mental illness as particularly representative of transgender people, we only theorize as to why this is the case; we have not experimentally tested any variables that necessarily explain our finding. Third, due to concerns regarding statistical power and making the design more parsimonious, we excluded several non-binary groups from the conjunction fallacy task, such as “transgender” (no gender attributes specified), genderfluid, and genderqueer. Consequently, our design inadvertently adheres transgender targets to a more traditional construction of gender (i.e.,

male vs. female). Therefore, it should be noted that although we refer to “transgender” people throughout our results, our use of this term truly denotes transgender women and transgender men as opposed to the larger umbrella of identities covered by the “transgender” label. Fourth, our sample was slightly liberal and slightly religious, limiting the generalizability of our findings to a national level (see Lewis, Djupe, Mockabee, & Su-Ya Wu, 2015). Lastly, because transgender issues and gender issues in general are regularly debated in current-day America, attitudes, and factors involved in attitude formation, are constantly changing. Therefore, this work reflects the current social context and its influence on related stereotypes and attitudes.

In conclusion, the results suggest that transgender and sexual minority targets are perceived differently than male or female targets. Specifically, mental illness is seen as particularly representative of transgender people, potentially indicating a myth that transgender people are mentally ill. The perception of mental illness in transgender people could contribute to anti-transgender prejudice and discrimination. Future research should determine why mental illness is perceived as representative of transgender people, as well as whether it significantly contributes to anti-transgender prejudice and discrimination. The literature has thus far underscored the societal importance of a gender binary and traditional gender roles in perceptions of individuals, particularly when these systems are violated or challenged. Sexual and gender minorities are conspicuous threats to these systems, which may help to explain why prejudice toward these groups is so pervasive. The present study’s findings echo this idea and highlight the need for continued research in this avenue, which could have significant implications in reducing gender-based prejudice and discrimination.

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Table 1

Logistic Regression Data for Gender Categories Within Each Vignette

	Transgender Man			Transgender Woman		
	OR	CI	p	OR	CI	p
Control						
Man	11.85	3.74 – 37.58	<.001	9.26	3.18 – 26.97	<.001
Woman	0.24	0.03 – 2.27	.216	0.19	0.02 – 1.70	.138
Gay Man	0.00	0.00 – 0.00	.998	0.00	0.00 – 0.00	.997
Lesbian	0.72	0.16 – 3.55	.717	0.59	0.13 – 2.61	.483
Transgender Man				0.78	0.20 – 3.11	.727
Transgender Woman	1.28	0.32 – 5.09	.727			
Sexual Predator Myth						
Man	22.48	8.26 – 61.16	<.001	10.31	3.95 – 26.90	<.001
Woman	0.72	0.23 – 2.23	.568	0.33	0.11 – 0.99	.035
Gay Man	2.14	0.80 – 5.72	.131	0.98	0.38 – 2.51	.965
Lesbian	2.24	0.87 – 5.79	.095	1.03	0.42 – 2.54	.951
Transgender Man				0.46	0.17 – 1.28	.135
Transgender Woman	2.18	0.79 – 6.06	.135			
HIV Myth						
Man	1.19	0.53 – 2.67	.666	2.60	1.14 – 5.90	.023
Woman	0.32	0.13 – 0.78	.012	0.69	0.28 – 1.71	.420
Gay Man	0.92	0.41 – 2.06	.839	2.00	0.88 – 4.54	.098
Lesbian	0.35	0.14 – 0.83	.018	0.75	0.31 – 1.84	.529
Transgender Man				2.17	0.92 – 5.15	.077
Transgender Woman	0.46	0.19 – 1.09	.077			
Mental Illness Myth						
Man	1.97	0.81 – 4.78	.132	2.10	0.95 – 4.64	.065
Woman	0.32	0.12 – 0.87	.026	0.35	0.14 – 0.86	.022
Gay Man	0.20	0.07 – 0.54	.001	0.21	0.09 – 0.53	.001
Lesbian	0.25	0.09 – 0.72	.010	0.27	0.10 – 0.71	.008
Transgender Man				1.07	0.46 – 2.46	.880
Transgender Woman	0.94	0.41 – 2.16	.880			
Ally as Transgender Myth						
Man	0.31	0.13 – 0.72	.006	0.46	0.20 – 1.05	.066
Woman	0.72	0.32 – 1.63	.429	1.08	0.49 – 2.39	.854
Gay Man	1.20	0.50 – 2.85	.687	1.79	0.77 – 4.19	.180
Lesbian	0.60	0.27 – 1.33	.208	0.90	0.41 – 1.95	.785
Transgender Man				1.50	0.69 – 3.26	.309
Transgender Woman	0.67	0.31 – 1.45	.309			

Note. OR > 1.0 indicate an increase in the odds of making a conjunction error compared to the transgender category. OR < 1.0 indicate a decrease in the odds of making a conjunction error compared to the transgender category.

Table 2

Correlations Between Participant Conservatism, Religiosity, and Feeling Thermometer Ratings for Gender/Sexual Orientation Groups

	2	3	4	5	6	7	8
1. Political orientation	.397**	.055*	-.085**	-.468**	-.463**	-.442**	-.422**
2. Religiosity		.129**	.066*	-.238**	-.218**	-.237**	-.276**
3. Men			.527**	.274**	.255**	.330**	.299**
4. Women				.306**	.311**	.366**	.394**
5. Transgender men					.950**	.861**	.828**
6. Transgender women						.847**	.815**
7. Gay men							.871**
8. Lesbians							

Note. Political orientation on a scale from 1 (*very liberal*) to 7 (*very conservative*). Religiosity on a scale from 1 (*not at all religious*) to 7 (*extremely religious*). Feeling thermometer ratings on a scale from 0 (*very cold*) to 100 (*very warm*). * $p < .05$, ** $p < .01$.

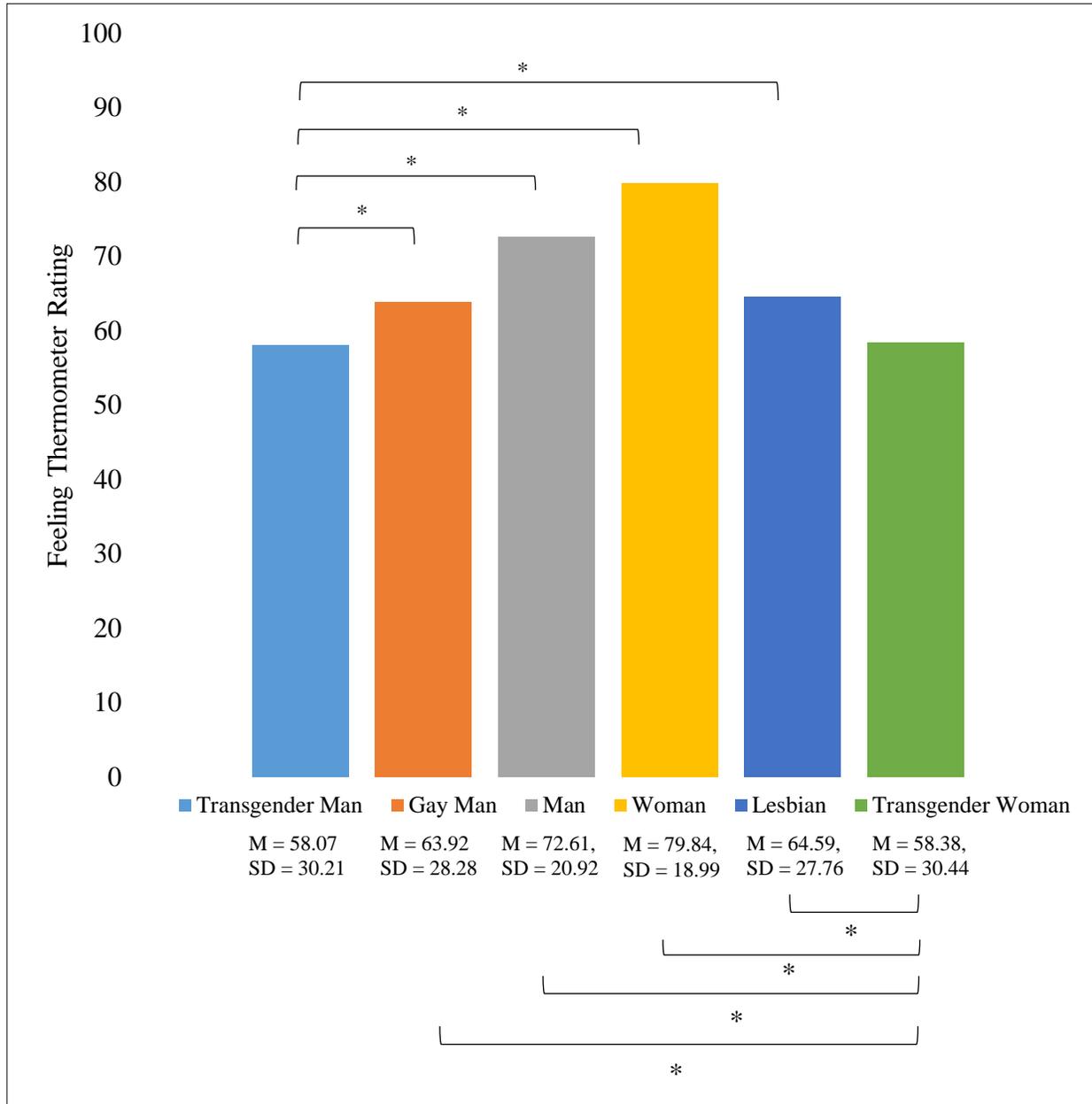


Figure 1. Repeated-measures ANOVA for feeling thermometer ratings toward gender/sexual orientation groups. Feeling thermometer ratings ranged from 0 (very cold) to 100 (very warm).

* $p < .05$

Appendix A

Sexual Predation: As a teenager, "A." was studying at a classmate's home. "A." began to sexually touch the classmate despite the classmate's objections. Later in life, "A." had several relationships in which "A." would violate the partner's objections to sex. Eventually, "A." began to go to department stores and wait in changing room stalls, spying on customers as they changed. Occasionally "A." would enter occupied changing stalls.

HIV: "A.'s" community center was hosting a blood drive. "A." participated in the drive and gave blood, which was tested as per standard protocol. Later, "A." was contacted by a representative of the drive and was informed that the blood sample tested positive for HIV. "A." went to a clinic to get tested for HIV to confirm the test. The clinic's test also came back HIV positive.

Mental Illness: Growing up, "A." had difficulty in school and was described by teachers as unstable. "A." would draw things that school faculty and the parents called "disturbing". "A." once said "I sometimes don't know who I am or where I came from," to the school guidance counselor. Later in life, one of "A.'s" bosses reported that "A." would sometimes behave explosively toward customers or break down unexpectedly.

Ally: "A." has lots of friends, including several transgender individuals. "A." will occasionally participate in rallies for transgender rights, and enjoys going to Pride events yearly. "A." will respectfully correct people when they use words like "tranny" or "he-she". Whenever relevant, "A." will vote for legislation that promotes transgender equality.

Control: "A." just moved into a new apartment. A coworker helped move "A.'s" belongings into the new apartment. One day, the same coworker emailed "A." to ask for help in moving into a

new apartment. "A." ignored the email and did not help the coworker. "A." also enjoyed gambling at a local bar. "A." would usually cheat in order to win money when playing against strangers.