Development and validation of the transgender prejudice scale

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Development and Validation
of the Transgender Prejudice Scale

By
Maxwell Davidson

Accepted in Partial Completion
Of the Requirements for the Degree
Masters of Science

Kathleen L. Kitto, Dean of the Graduate School

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Maxwell Davidson

November 13, 2014
Development and Validation
of the Transgender Prejudice Scale

A Thesis
Presented to
The Faculty of
Western Washington University

In Partial Fulfillment
Of the Requirements for the Degree
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Maxwell Davidson
November 2014
Abstract

The Transgender Prejudice Scale (TPS) was developed and validated across four studies as a measure of transgender prejudice (transprejudice). The TPS is a 25-item scale with two subscales: sex essentialism and discomfort. Exploratory and Confirmatory factor analyses support the two-factor structure, while tests of convergent, construct, and discriminant validity support the TPS as a valid measure of transprejudice. Importantly, the TPS predicts negative evaluations of transgender individuals, and support for transgender civil rights, beyond the ability of a current popular transprejudice scale. The TPS does this by measuring the extent to which individuals conceptualize gender as dichotomous, unchanging, and biologically based (sex essentialism), as well as the extent to which individuals feel comfortable sharing physical and social space with transgender individuals (discomfort). The TPS' strong focus on sex essentialism makes it unique among transprejudice scales, and gives insight into an underlying factor of transprejudice.
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Development and Validation of the Transgender Prejudice Scale

The seriousness of the problems associated with transgender prejudice cannot be understated. Not only are transgender individuals harassed at a high rate in school and at work, but transgender individuals report being denied equal treatment even at times when critical care is needed, such as at hospitals, domestic violence shelters, and when turning to public servants such as police and EMT crews (Grant et al., 2011). A proper measurement scale to evaluate levels of transgender prejudice can help evaluate the success of programs or interventions aimed at lessening the problems associated with transgender prejudice.

However, few of the existing transgender prejudice scales correctly tap into transgender prejudice. Instead, current scales are narrow in scope, measuring only part of the variance that underlies transgender prejudice, or generalize too much to other attitudinal targets.

The goal of this project is to create and validate a scale that will more accurately capture the ways in which prejudice is expressed towards transgender individuals. Because the scales that currently exist to measure transgender prejudice may be methodologically flawed, it is difficult to know whether a given study that attempts to measure, correlate, or reduce levels of transgender prejudice is accurately measuring the proper construct. A properly designed scale can not only contribute to the nascent field of transgender prejudice research, but also allow researchers to trust that the construct they are measuring is the construct they wish to measure.

Gender and Transgender

Gender as a concept is more complicated than the simple male/female dichotomy that is often used. Instead, gender is a multidimensional concept that includes how an individual perceives themselves, how society perceives them, and the physical reality of their body
(Egan & Perry, 2001; Johnson & Repta, 2012). How a person perceives themselves is a person’s *gender identity*: their innate sense of identification as a man, woman, or other. In that “other” category fall many gender variant individuals, including genderqueer, genderfluid, and agender individuals. A person’s gender identity may or may not be congruent with their *sex*, which is their gender assigned to them at birth, generally by the attending physician, and based upon genitals. In order to refer to gender in a simple way, I will define *gender*, for the purposes of this thesis, as equal to one’s *gender identity*. Generally speaking, when we assess an individual’s gender, it is through how they present themselves through their gender identity, rather than what sex they were identified as at birth.

Individuals whose gender identity matches or is congruent with their sex are termed *cisgender*, while individuals whose gender identity is different from or incongruent with their sex are termed *transgender*. It is important to note that the term *transgender* has no one definition. The definition in the Diagnostic and Statistical Manual of Mental Disorders (DSM) for a transgender individual, for example, is different than the definition that the Gay and Lesbian Alliance Against Defamation (GLAAD) uses. Furthermore, not all studies use the term *transgender*, instead using the word *transsexual*. *Transsexual* is an older term that often carries connotations of gender re-assignment surgery, and therefore it is not as inclusive or popular as the term *transgender* is (Creager, Tillman, & Bass, 2010). When referring to someone who is transgender, *transgender individual* or *trans person* is appropriate, however *transgendered* is not, as it infers a condition has happened to the individual, rather than reflecting that a person identifies a certain way. Some individuals also identify as *transmen* or *transwomen*. A *transman* is a transgender individual who was assigned at birth as a
woman, but identifies as a man. A *transwoman* is the reversed scenario. There are also individuals who identify as *genderqueer* or *genderfluid*, who identify outside of, or somewhere in between, any man/woman identification.

This research project focuses on negative attitudes toward transgender individuals, which I will term *transprejudice*. Transprejudice is defined as “the negative valuing, stereotyping, and discriminatory treatment of individuals whose appearance and/or identity does not conform to the current social expectations or conventional conceptions of gender” (King, Winter, & Webster, 2009, pg. 20). Researchers often instead use the term *transphobia*, because of the perceived similarities between negative attitudes toward transgender persons and homosexuals, stemming from a fear that people may be transgender without knowing it (Hill & Willoughby, 2005), as well as from a sense of disgust toward transgender individuals (Nagoshi et al., 2008). I do not use this term because prejudice toward transgender individuals is distinct from prejudice toward homosexual individuals, and should be treated thusly in the literature (Worthen, 2012). Furthermore, using transprejudice rather than transphobia is more reflective of the theory that a violation of believed norms is at the core of prejudice against transgender individuals. This theory forms the core of this project.

**Current Research on Transprejudice**

Although research on transprejudice is limited in comparison to other forms of prejudice (Worthen, 2012), several studies have helped inform what it is we know about the construct of transprejudice. Numerous correlational studies indicate that transprejudice is strongly positively correlated to homonegativity (Gerhardstein & Anderson, 2010; Hill & Willoughby, 2005; Nagoshi et al., 2008; Tebbe & Moradi, 2012; Tee & Hegarty, 2006),
belief in traditional gender role norms (Hill & Willoughby, 2005; Nagoshi et al., 2008; Tebbe & Moradi, 2012; Tee & Hegarty, 2006), and right wing authoritarianism (Nagoshi et al., 2008; Tebbe & Moradi, 2012; Tee & Hegarty, 2006). Similar to other forms of prejudice, men often report more negative attitudes toward transgender individuals than do women (Davidson & Czopp, 2014; Gerhardstein & Anderson, 2010; Nagoshi et al., 2008; Tebbe & Moradi, 2012; et al., 2009; Wrubleski, 2010). Furthermore, Carroll, Guss, Hutchinson, and Gauler (2012) found that although women seem to rate transmen and transwomen equally, men make gender-based distinctions in their ratings. Specifically, men regarded transmen with more negative reactions than transwomen, and reported more comfort with transwomen than with transmen. This is contentious, however, as other studies have not found differences in attitudinal ratings between transmen and transwomen (Davidson & Czopp, 2014; Gerhardstein and Anderson, 2010).

Some evidence supports that contact with transgender individuals can reduce negative attitudes toward transgender individuals. Walch et al. (2012b) measured the transprejudice scores of college freshmen in a human sexuality class before and after a panel discussion led by a group of transgender individuals. The researchers found that transprejudice scores after the panel discussion dropped more than a comparison group which had experienced only a lecture about transgender issues. The researchers theorized this finding supported the contact hypothesis, which states that contact with a group can lessen negative attitudes towards said group (Allport, 1954). This finding mirrors that of King et al. (2009), who found in a Hong Kong sample that contact with transgender individuals was modestly correlated with lower
negative attitudes toward transgender individuals, as well as an increase in support for anti-discrimination legislation and transgender civil rights.

Hill and Willoughby (2005) found similar results in a Canadian sample; those participants who reported previous contact with transgender individuals or cross dressers (cisgender individuals who engage in cross-gender dressing behavior, but still identify as cisgender) had significantly lower scores of transphobia than those who had no contact with transgender individuals or cross dressers. Hill and Willoughby (2005) used a scale of their own design to measure transprejudice in their study. Their scale, the Genderism and Transphobia Scale (GTS) was one of the first published transprejudice scales, and still remains the most widely cited (51 citations as of October 2014) transprejudice scale in the literature. Since 2005, only two other scales have been created and validated for the purposes of transprejudice research: the Transphobia Scale (Nagoshi et al., 2008), and the Attitudes Toward Transgendered Individuals Scale (Walch, Ngamake, Francisco, Stitt, & Shingler, 2012). Other scales have been created by researchers to measure transprejudice, but these three named scales are the only scales that have been validated and published with the intention of other researchers using them, rather than developed specifically for one study (such as the prejudice toward transwomen scale used by Winter et al. (2009)). Although well intentioned, the methodology used to create these published scales casts doubt on their validity as measures of prejudice unique to trans persons.

Current Measures of Transprejudice

Genderism and transphobia scale. The GTS (Hill & Willoughby, 2005), the most widely employed scale developed specifically to measure transprejudice, provides a good
starting point when investigating the details of transprejudice scale construction. The GTS captures three underlying constructs: genderism, transphobia, and gender-bashing. Hill and Willoughby defined genderism as a belief that devalues and reinforces negative attitudes towards those who do not conform to traditional gender role norms. Those who hold this belief feel that men should act like stereotypical men and women should act like stereotypical women. A sample genderism item is, “Men who shave their legs are weird.” Transphobia is defined by disgust or repulsion felt toward transgender individuals, characterized in the scale with items such as, “Sex change operations are morally wrong.” Finally, gender-bashing is defined as a violent or harassing behavior toward gender non-conforming individuals, with a sample item being “I have behaved violently towards a woman because she was too masculine.”

The scale consists of 32 items with two subscales: genderism/transphobia, and gender-bashing. The original intent of the scale was to create three separate subscales matching the measured constructs; however the researchers collapsed the genderism and transphobia factors upon realizing they had a high correlation with one another. An overall alpha of .96 was reported for the combined scale.

The main issue with this scale is evident in the sample items. Out of the total 32 questions of the scale, none of the items specifically include the term “transgender,” nor do the instructions to the scale mention that the scale is measuring attitudes toward transgender individuals. The scale items, “women who see themselves as men are abnormal,” and “I would go to a bar that was frequented by females who used to be males” are the items that most closely identify the attitudinal target as transgender individuals. Although one could
argue that asking specifically about transgender individuals may cause participants to attempt to answer in a more socially-desirable way, not mentioning transgender individuals in any of the items lowers the construct validity of the scale. The majority of the questions (e.g., “Passive men are weak”) would presumably measure attitudes towards a feminine-behaving cisman just as well as, if not better, than a transwoman, as without giving an explicit trans identifier or appropriate context, the participant may infer the targets (the “passive men” in the example item) are cisgender. This fits with the scale’s genderism concept, but does not match well with the scale’s intended transphobia concept. Beliefs in gender role norms may be an important underlying construct in transprejudice, but it is a construct that shares much overlap with other gender non-conforming groups (e.g., gay men, lesbians, masculine heterosexual ciswomen, etc.), and therefore a scale based largely upon this construct will invariably measure constructs unrelated to the intent of the scale.

A study by Wrubleski (2010) provides a good example of how the GTS may be measuring a construct not exclusive to transprejudice. In this study, Wrubleski predicted comfort with, and approval of, a lesbian relationship and a cisman/transwoman relationship, using the GTS, intended to measure transprejudice, and the Short Internalized Homonegativity Scale (SIHS, Currie, Cunningham, & Findlay, 2004), intended to measure prejudice toward lesbians. In her final regression models, Wrubleski reported that although the GTS uniquely predicted attitudes toward the lesbian relationship (and the cisman/transwoman relationship), the SIHS did not. That is, the GTS was a better predictor of attitudes toward a lesbian relationship than the SIHS, which was developed specifically to measure attitudes towards homosexual individuals. One conclusion we can draw from this is,
because the GTS was able to predict both attitudes toward transgender individuals and homosexual individuals, the construct it is measuring is not attitudes toward transgender individuals, but attitudes towards gender non-conformers in general. Because the GTS is not necessarily measuring what it claims to be measuring, its validity as a transprejudice measure is questionable.

**Nagoshi et al.’s Transphobia scale.** Nagoshi et al. (2008) created a transprejudice scale because they believed that some of the theoretical underpinnings of the GTS (e.g., gender bashing) failed to capture transprejudice. Nagoshi et al.’s Transphobia Scale (TS) has a reported Cronbach’s alpha of .82, and consists of nine items such as “I avoid people on the street whose gender is unclear to me,” “I don’t like it when someone is flirting with me and I can’t tell if they are a man or a woman,” and “I believe that a person can never change their gender.” Nagoshi and colleagues based the scale upon items from the Gender Aptitude Test (GAT) in Bornstein’s (1998) *My Gender Workbook*. Bornstein, a New York-based performance artist and queer theorist, wrote the workbook for the casual reader, and it is an introductory guide to critically thinking about one’s own gender, as well as the societal forces that shape our concept of gender. The GAT is a self-assessment tool to help the reader discern how it is they view their own gender identity, and as such the items used for the GAT were not validated or created with the intention of evaluating attitudes the test-taker holds about transgender individuals. Nagoshi and colleagues’ intent with using the GAT appears to be that, because the GAT assesses feelings toward gender fluidity and identity, these items would also capture attitudes about transgender individuals. The problem with this logic is
that these items capture not just attitudes towards transgender individuals, but also attitudes that any gender non-conformer would face.

The Transphobia Scale reflects many of the same problems the GTS has. The TS never actually uses the term *transgender*, instead using items that hint at transgender individuals without actually discussing them. Of the nine items only one, “I would be upset, if someone I’d known a long time revealed to me that they used to be another gender,” directly acknowledges a trans person as an attitudinal target. The rest of the items simply reflect attitudes towards gender non-conformers, such as “I don’t like it when someone is flirting with me, and I can’t tell if they are a man or a woman,” or “When I meet someone, it is important for me to be able to identify them as a man or a woman.” Although transgender individuals are gender non-conformers, not all gender non-conformers are transgender individuals. Therefore, the specific construct this scale is measuring is not transprejudice but attitudes towards gender non-conformers.

**Attitudes toward transgendered individuals scale.** Walch and colleagues (2012a) created the Attitudes Toward Transgendered Individuals Scale (ATTIS) in an effort to create a scale that was based only on attitudinal items, as opposed to the GTS, which uses behavioral as well as attitudinal items. Furthermore, Walch et al. acknowledged that the GTS asked questions mainly about gender non-conformers in general rather than trans persons in specific, and that a scale created to measure transgender prejudice would have to ask about trans persons specifically. The resulting scale consists of 20 items and had a Cronbach’s alpha of .96. Sample questions include, “Transgenderism is immoral,” “There should be no restrictions on transgenderism,” and “Transgendered individuals should not be allowed to
cross dress in public.” Furthermore, Walch and colleagues included a definition of “transgender” with their scale, indicating that the scale was meant for an audience who may be unfamiliar with transgender concepts.

Although the scale achieves its goal in dealing specifically with transgender individuals, it is still methodologically unsound in its construction due to the method of scale construction used. Of the 20 questions on the scale, only four questions were generated by Walch et al., while the balance of the questions were taken from either the Heterosexual Attitudes Toward Homosexuals scale (HATH; Larsen, Reed, & Hoffman, 1980) or the Index of Homophobia scale (IHP; Hudson & Ricketts, 1980). Questions taken from these two scales replaced the words “homosexuals,” “gay men,” and “lesbians” with “transgendered individuals,” or “homosexuality” with “transgenderism.”

The problem with modifying a scale intended to measure homophobia to create a scale to measure transprejudice is that it can conflate the two constructs. Creating a scale in this way does not create a scale that measures the unique ways in which transgender individuals are discriminated against. Instead it creates a scale focusing on issues relevant to both homosexual and transgender individuals. If all scale items are interchangeable between homosexuals and transgender individuals, it only measures the ways in which these two prejudices are similar, rather than what is unique about transgender prejudice. This not only decreases the validity, and usefulness, of the scale, but it does not accomplish the goal that Walch et al. set out with, to create a scale that uniquely measures attitudes toward transgender individuals.
Development of a New Scale

Despite the problems transgender individuals encounter due to transprejudice, the scales reviewed here are the only transprejudice measures available for researchers. As this paper has shown, there are serious concerns regarding the current state of transprejudice scale construction, which indicates that current scales are potentially inappropriate as measures of transprejudice.

The aim of this thesis was to create a scale that will measure negative attitudes toward transgender individuals specifically, rather than gender non-conformers in general. This scale will measure the unique ways in which transgender individuals face discrimination by measuring three constructs that underlay transprejudice: Essentialism, gender role norm belief, and social distance.

**Essentialism and transprejudice.** Essentialism is the belief that certain traits are biologically based, immutable, informative, and discrete (Bastian & Haslam, 2006). Individuals who have essentialist beliefs about sex believe that sex chromosomes, represented by which set of genitalia were present at birth, are biologically tied to one’s gender identity. These individuals would also believe that gender is an un-changing characteristic, and that a person will be born, live, and die, all with the same gender. Furthermore, those who essentialize gender would base evaluations of a person’s inherent abilities, likes, dislikes, and other traits on that person’s gender. An example would be deciding that a person likes the color pink, likes to sew, and does not know anything about cars, because that person happens to be a woman. Finally, individuals who essentialize gender believe gender to exist only in strict categories with no overlap, denying the existence
of gender as a multidimensional construct. In summary, when a person essentializes sex, they believe gender to be a series of discrete categories that are stable across a lifetime, defined by the genitalia one is born with, and informative of the kinds of behaviors that one will engage in.

Bastian and Haslam (2006) described these essentialist beliefs through the creation of their scale, the Essentialism Index (EI), which consists of three subscales: biological basis (“The kind of person someone is can be largely attributed to their genetic inheritance”), discreteness (“A person either has a certain attribute or they do not”), and informativeness (“When getting to know a person it is possible to get a picture of the kind of person they are very quickly”). Bastian and Haslam asked participants to rate how true certain stereotypes are regarding groups such as aboriginals, homosexuals, and politicians. The researchers found a moderate correlation between both positive and negative stereotype endorsement and overall Essentialism score, such that the more a person essentializes generally about traits, the more likely they are to endorse stereotypical views of various social and cultural groups. Based upon results from follow-up analyses, the researchers concluded that participants were assigning biological explanations to these stereotypic views.

At its core, essentialism is a belief that assigns biological explanations to observable characteristics. Howell, Weikum, and Dyck (2011), for example, found that those who are high in essentialism are more likely to stigmatize those with substance abuse problems or mental illnesses than those low in essentialism. Instead of believing these problems arise from external forces thrust upon the individual, people high in essentialism attribute the problems to internal factors, such as biology, and these personal attributions lead to negative
attitudes towards those with problems. Transprejudice may operate in much the same way. Those who essentialize sex believe gender to be a biological factor, one that is immutable and dichotomous. Transgender individuals challenge these essentialist beliefs by being an example that gender is not tied to one’s sex chromosomes. By thinking that gender is a stable biological construct, those who are high in essentialism may believe that the gender the transgender individual was assigned at birth is their true gender. In this way, essentializing sex may work to deny transgender individuals their gender identity, with those high in essentialism evaluating transgender individuals not as men born women or women born men, but as women dysfunctionally acting like men and men dysfunctionally acting like women.

Tee and Hegarty (2006) show evidence of an essentialism-transprejudice link. The researchers used items based upon the ideas of gender essentialism, among other items, to determine what factors are predictive of opposition to transgender rights in a United Kingdom sample. The researchers found that the belief that changing one’s gender went against a person’s biology was highly correlated with their opposition to transgender rights. Those who believed that, for example, “Transsexual people are fooling themselves in believing that they, and not their bodies, determine what their gender identity will be,” were less likely to believe that transgender individuals should be allowed to, among other things, have their birth certificate changed to reflect their gender identity.

Similarly, Davidson and Czopp (2014) found a relationship between essentialism and transprejudice in an American sample by using a shortened essentialism scale containing eight questions taken from Bastian and Haslam’s (2006) Essentialism Index. To measure transprejudice, the researchers created a modified social distance scale with items such as “I
would feel comfortable with [a transgender individual] using the same locker room as I.” Davidson and Czopp found that participants were more uncomfortable sharing a bathroom or locker room with a trans person than they were working with or going to school with a trans person. Men who were high in essentialism felt less comfortable sharing a bathroom with transmen than men who were low in essentialism; a pattern also seen with women and transwomen.

Winter et al. (2009), in a seven country study of attitudes toward transwomen, created a series of items they felt measured transprejudice, and factor analyzed their items into a series of underlying constructs. They found a high correlation between the constructs of Denial-Woman (containing all reverse-scored items such as “transwomen are just as female as ‘real’ women”) and Social-Rejection (“I could not accept a son of mine dating a transwoman.”), as well as a high correlation between Denial-Woman and Peer-Rejection (“A university student who is a transwoman should use a specially designed toilet on campus”). The researchers concluded that this relationship may be evidence that participants who would deny transwomen their gender identity would also be those who are most likely to avoid transwomen and reject their rights as members of society. Based upon this study, it is possible that the attitudes measured by Tee and Hegarty (2006) as well as Davidson and Czopp (2014) tapped into this same pattern. Those who essentialize sex do not want to be around transgender individuals nor do they agree with transgender rights, and this same population may also deny transgender individuals their gender.

**Gender role norm beliefs.** It is important to acknowledge that, even though the transprejudice scales reviewed previously in this thesis rely too heavily on gender role norm
beliefs, this construct may be an important one in the study of transprejudice. The GTS and TS both rely on gender role norm belief as a key construct underlying transprejudice, and both have high correlations with negative evaluations of transgender individuals (Hill & Willoughby, 2005; Nagoshi et al., 2008; Walch et al., 2012b). The predictive ability of gender role belief items on these scales indicate that gender role norm belief may be an important underlying factor of transprejudice. As perceived gender role violators, transgender individuals would receive more negative evaluations than those who are not perceived as gender role violators. Lehavot and Lambert (2007) explored this effect with cisgender targets. They had participants read biosketches of fictional targets who were either heterosexual or homosexual men or women, who engaged in either masculine or feminine behaviors, and rate the targets on a scale of general likableness. The researchers found that, regardless of sexual orientation, targets who violated gender role norms—men who acted feminine, women who acted masculine—had ratings lower in likeableness than those who did not violate gender role norms. The strong relationship between gender role beliefs and transprejudice (e.g., Hill & Willoughby, 2005), and the negative evaluations of gender role violators (Lehavot and Lambert, 2007), suggest the need for the inclusion of gender role belief items on a scale measuring transprejudice.

**Social distance and transprejudice.** The purpose of a social distance scale is to measure how comfortable one is with a target individual in different domains in life, with the idea that, if people hold prejudice towards a target, they will feel less comfortable with the target the closer they are physically or socially (Bogardus, 1925). This underlying theory makes social distance an appropriate measure of transprejudice due to how transprejudice
manifests. According to statistics gathered by Grant et al. (2011), transgender individuals are refused access to housing (19% of the sample), public accommodations (such as hotels and restaurants, 44%), employment (47%), and health care facilities (19%) because of their transgender status. Furthermore, 57% of the sample reported rejection by one or more family members after coming out as transgender.

Empirical evidence shows that a measure of social distance is a valid assessor of attitudes toward transgender individuals. Notably, Carroll et al. (2012) used a modified social distance scale based upon interpersonal distance items ranging from “[a transgender individual] is the kind of person that I tend to avoid” at the furthest distance to “I would like [a transgender individual] to be a close personal friend,” at the closest. Carroll et al. found that men in particular rated themselves as less comfortable with transmen than with cismen. King et al. (2009) used a social distance scale (sample item: “Would you support a friend choosing to have a sex change?”) as one of many scales examining the effects of prior contact with transgender individuals and transprejudice, finding a modest correlation between social distance ratings of transgender individuals and prior contact with transgender individuals, with participants feeling more comfortable around transgender individuals the more prior contact they have had with transgender individuals. Finally, Davison & Czopp (2014), as previously reported, used a social distance scale to measure the effect of essentialist beliefs on comfort with transgender individuals, with items such as “I would feel comfortable using the same bathroom as [a transgender individual],” finding that individuals high in essentialism were less comfortable being physically close to transgender individuals than they are with cisgender individuals.
Because social distance assesses an individual’s comfort level in either physical or social distance with a target individual, it transfers well as a behavioral component to the study of attitudes towards transgender individuals (Breckler, 1985; Regan & Fazio, 1977). Furthermore, social distance can easily map onto areas where transgender individuals report feeling the effects of discrimination.

**The Current Project**

Previous scales created to measure transprejudice are either a modified version of another scale or based upon methodological tactics that have created scales with low validity. This thesis project aims to create a scale that uniquely predicts transprejudice by measuring people’s levels of sex essentialism, gender role belief, and how comfortable they would feel in certain proximities to transgender individuals, based upon social distance scale design. This builds upon earlier work that has shown these constructs to be predictive of negative attitudes toward transgender individuals.

To create and validate the scale, I have carried out four studies. Study 1 is a focus group study, to determine how participants comprehend the items and the definitions used in the scale. Study 2 is an exploratory factor analysis to determine the number of factors, and items, the scale has. Study 3 is a validation and confirmatory factor analysis of the scale, to verify the reliability of the scale and to determine the construct and criterion validity of the scale. Finally, Study 4 tests the predictive validity of the scale by determining how well it can predict attitudes toward transgender individuals compared to a current popular transprejudice scale.
STUDY 1

In order to determine whether participants would understand the definitions and items created for the scale, I convened two focus groups. Each group reviewed an initial pool of items and the definitions created for the scale. Participants were instructed to pay attention to the wording of the items, noting ones that were peculiar, awkward, or did not make sense. There were no specific hypotheses for this study. Instead, their results were analyzed for agreements on what was or was not understandable, as well as thoughts in general about the items and definitions.

Method

Participants

Twelve participants (six men, six women) were recruited through convenience sampling via WWU’s Sona system. All participants were undergraduate students from WWU; no other demographics were collected from participants. The participants signed up for focus groups described as intending to evaluate the understanding of a new scale. All participants received research credit for their participation.

Procedure

I held two sessions, one for male participants, and one for female participants. The participants first completed the 92-items that made up the initial item pool. Participants were instructed to answer the questions honestly, but that their answers were irrelevant to the study at hand. Instead, they were instructed to pay attention to each question’s wording and to indicate on a provided piece of scratch paper any questions that were awkward, confusing, or that made them feel uncomfortable.
After completion, participants moved to a different room and a female discussion leader led group discussion of the scale, based upon a series of previously-generated discussion questions and topics. I took notes silently throughout the sessions. Afterward participants received compensation for their time.

Materials

Transgender Prejudice Scale. The 94 items of the Transgender Prejudice Scale were created to fit one of three constructs: essentialism, gender role beliefs, and social distance. Furthermore, within each construct, items were created to address transmen, transwomen, and transgender individuals in general. 32 items for the essentialism construct and 31 items each for the gender role belief and social distance constructs were created. For the essentialism construct, 10 items addressed transgender individuals in general, and 11 addressed each transwomen and transmen. For the gender role belief construct, 9 items addressed transgender individuals in general, and 11 addressed each transwomen and transmen. For the social distance construct, 13 items addressed transgender individuals in general, and 9 items addressed each transwomen and transmen. The item pool is in Appendix A.

I based essentialist items upon Bastian and Haslam’s (2006) Essentialism Index, as well as based upon the negative ways in which individuals on online message boards and comment sections on transgender news stories discussed transgender individuals. Items assess participants’ acceptance of trans persons identifying different than their birth-assigned gender. Items include “Transmen cannot change the fact that they were born as women and
will therefore always be women” and “Even if they had a sex change operation, a transman would still always be a woman.”

Gender role belief items are items representing transgender individuals acting counter-stereotypically to their birth-assigned gender. Items assess participants’ acceptance of trans persons breaking gender role norms. Items in this category include “I think it is wrong that transgender individuals do not act like proper men or women should,” and “I do not like it when women dress up and pretend they are men.”

Finally, social distance items represent Bogardus’ (1925) ideas of social distance, as well as the areas of life that Grant and colleagues (2011) found to be common areas of transgender discrimination. Items assess participant comfort sharing physical and social spaces with transgender individuals. Items include “If a family member of mine came out as transgender, I don’t think I would be comfortable being around them anymore,” and “I wouldn’t want a child of mine taught by a transwoman.”

To ensure that participants understood what it means for a person to identify as transgender, the following definition of the term *transgender* was included at the top of each page of the survey: “someone who feels as though they were born with the ‘wrong’ gender and now lives life as the opposite gender. This has no connection with a person’s sexual orientation; some transgender people are gay, while others are straight. Furthermore, while some transgender people choose to undergo a ‘sex change’ operation, many do not.”

Furthermore, *transmen* and *transwomen* were also defined for participants. A transman was defined as, “someone born female but has a psychological self-concept of a man, and who is
now living life as a man,” and a transwoman was defined as, “someone born male but has a psychological self-concept of a woman, and who is now living life as a woman.”

The response scale was a 1 to 6 Likert-type scale, with 1 labeled “Strongly disagree” and 6 labeled “Strongly agree.” I chose a response scale without a midpoint so that participants would be “forced” to decide one way or the other about transgender individuals, to avoid any issues with participants choosing a neutral option rather than admitting a bias against transgender individuals.

**Focus group protocol.** I created a list of questions for the discussion leader to prompt discussion with, to ensure all points about the TPS were addressed. Questions inquired about all main points of concern regarding the TPS’ items and definitions. A sample question is, “What questions struck you as particularly effective in capturing your thoughts about transgender individuals?” The full list of questions is in Appendix B.

**Results**

All participants in the focus groups were given equal chances to respond to questions posed by discussion leader. The all-women focus group was more talkative and had more suggestions to offer than the all-men focus group, offering on average five discussion points or answers per question versus three answers for the all-men group. Furthermore, four out of the six women in the all-women group knew a transgender individual, while no man in the all-men condition reported any contact with transgender individuals.

**Instructions**

Responses differed between groups when asked if participants had a particular image of a transgender individual. While the all-men group said that they pictured a generic
transwoman, the all-female group pictured a wide spectrum of transgender individuals. Some mentioned that they pictured the transgender individuals they have personally known, while others relied on previous human sexuality classes to build their understanding of who a transgender person is. Furthermore, while the all-men group intimated that they pictured a fully-transitioned individual, the all-women group were more likely to think of a person mid-transition. Related to this, the all-men group found the instructions helpful in understanding what “transgender” means. A common theme among the men was that they did not know beforehand that transgender status is unrelated to sexual orientation. For example, one participant noted that, before reading the definition, he thought all transwomen were attracted to men. Other participants agreed with this sentiment. For the women, who had a clearer picture of what transgender meant, the definitions of “transman” and “transwomen” were particularly helpful. Thus, it appears that the definitions are helpful to both those who have no concept of what identifying as transgender means, as well as those who have a reasonable assumption.

**Specific Items**

When asked to identify particularly difficult questions to answer, a common theme was questions regarding safety. Across groups, participants had a difficult time understanding questions regarding trans person safety. An example of this type of question is, “I don’t think it is safe to let transwomen have unsupervised access to children.” Participants had a difficult time deciding if the question was intending to ask about the children’s safety or the safety of the transwoman, who may be the target of violence by bigoted parents. Recommendations for this type of question was to specify the target; for
example, using “I don’t think it is safe for the children to let transwomen have unsupervised access to children [emphasis added],” instead.

There were also group differences to the question of which items were difficult to answer. The all-men focus group indicated questions about biology were difficult to answer, such as “I believe that a transwoman is a woman, even though their biology may say they are male,” because they did not feel informed enough to make a decision about how biology does or does not affect one’s gender. The all-female focus group indicated that questions regarding feelings were the most difficult to answer. Specifically, some questions, such as “If I found out the person I had a crush on was actually transgender, I would feel disgusted,” which used the emotion “disgust,” were said to be too strongly worded in their emotion words. In essence, they felt there was little room to agree or disagree; they wouldn’t feel disgusted, for example, but they wouldn’t necessarily feel okay either.

Asking what items best captured their attitudes, participants from both groups felt that questions invoking scenarios about oneself were most effective in capturing their attitudes. For example, “If I found out the person I had a crush on was actually transgender, I would feel disgusted,” was singled out by the women-only focus group as particularly effective in getting at their true feelings. The all-men focus group indicated that questions pertaining to transgender individuals and children, such as, “I wouldn’t feel safe letting my children be looked after by a transwoman,” was particularly effective at getting to their own feelings about transgender individuals.
Discussion

In general, both focus groups found the scale items to be clear, and while some were challenging, they were all able to determine how they felt about the issues raised by the items. Questions that were personally relevant, asking about the survey taker and their immediate family, were identified as strong questions, while those that were more general were identified as weaker. A small number of questions had wording changed to this effect. As both focus groups indicated that the definitions were understandable and easy to remember, I made no changes to the definitions.

The focus group reinforced the idea that definitions for transgender concepts are required for a transgender scale. The majority of those in the all-men focus group did not know what “transman” and “transwomen” meant, and at least one of the members did not know what “transgender” meant. One member of the all-men group made the telling comment that they had thought all transwomen were attracted to men. This indicates that not everyone has a clear idea of who a transgender individual is, or what it means to be transgender. It would be difficult for an individual to answer questions about a class of individuals without knowing who it is they are supposed to be evaluating.

The changes I made to the TPS between Study 1 to Study 2 were minimal and amounted to slight grammar changes or stating questions more clearly. An example is the question, “I don't think it is safe to let transwomen have unsupervised access to children,” was changed to say, “I don't think it is safe for the children to let transwomen have unsupervised access to children, [emphasis added]” to reflect concerns from the focus groups that questions such as this make it unclear who would feel unsafe. Some in the all-women
focus group identified that they would not think it safe for the transwomen to have access to the children, as it may anger the parents of the children. These changes were made to the TPS for usage in Study 2.

**STUDY 2**

The following study used the revised item pool to determine the factor structure of the TPS. Three main constructs went into the construction of the pool, and therefore I expected that three main factors would emerge: essentialism, gender role beliefs, and social distance.

**Method**

**Participants**

Three hundred sixty one participants (52% male, mean age = 36.6 (14.11), 77.6% Caucasian) recruited from an American sample using Amazon’s Mechanical Turk (MTurk) took part in a study measuring general perceptions. Participants were compensated 50 cents for their participation.

**Procedure**

Participants elected to take the study described as a “general perceptions” study. Participants were administered the 92-item TPS as well as a demographic questionnaire. Participants read a short debriefing statement and were compensated for their participation.

**Materials**

**Transgender Prejudice Scale.** The 92-item TPS is similar to the TPS described in Study 1, except with the edits discussed in the results and discussion section from Study 1. The 92 items used are in Appendix C.
Results

Data Screening

Before running any factor analyses, I checked for items with restricted ranges, items whose means were apparent outliers, and items with small (less than 1.0) standard deviations. I would eliminate these items to ensure the items in the scale would have a good amount of variability within the responses. An analysis of the data showed no items that fit within these selection criteria, so no items were removed at this step.

Factor Analysis

All analyses used principal axis factoring and a promax rotation. A non-oblique rotation was chosen under the theory that the factors were related, and should be allowed to correlate. The first step of the factor analysis was to check for item Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) statistics that were in the unacceptable range (below .5). This cutoff was identified by Kaiser (1974) to indicate an item that is not similar to the other items in the scale. The larger this statistic, the more similar the item’s responses are to other items in the scale (Dziuban & Shirkey, 1974). None of the items had a KMO statistic below .5, so no items were removed at this step.

The initial factor solution (Table 2) extracted seven factors, based upon the criteria of extracting any factor with an eigenvalue greater than 1, and explained 77.94% of the variance. Factor 1 uniquely explained the majority the variance at 66%. I locked factor extraction at three factors, as factors after three did not have any items that did not cross-load on other factors.
Next I began the iterative process of eliminating any item whose largest factor loading was still smaller than .6, or any item which cross-loaded on an additional factor greater than .2, based upon Clark and Watson’s (1995) suggested criteria for factor analysis item selection. This would eliminate any item that did not do as good of a job of representing its factor’s construct as other items with higher loading, as well as any item that was not clearly representative of a single theoretical construct. After iteration 2, the eigenvalue of Factor 3 was minimal, 1.107, and no items loaded strongly on that factor. An examination of the items on Factor 3 found no clear theoretical connection between items. Therefore, I restricted the extraction to two factors, and trimmed items once more based upon factor loadings before coming to a factor solution with no items cross-loading or under-loading.

This factor solution explained 78.5% of the variance with 42 items across two factors. The KMO coefficients, both overall and item, were marvelous (as considered by Kaiser’s (1974) standards), indicating that the items all shared a large amount of variance. Furthermore, Bartlett’s Test was significant, $p < .001$, indicating that the items share enough variance with one another that a factor analysis would find meaningful results. As an analysis of the pattern matrix revealed that no item under-loaded or cross-loaded on any factor, I began examining the items in a qualitative manner.

I examined each of the 42 items and grouped them according to which construct they measured (essentialism, social distance, and gender role), and within the construct, the target they assessed (transman, transwoman, and trans persons in general). Then, I examined each question in order of factor loadings highest to lowest. I compared items that asked similar questions (e.g., “Transwomen are not women because they were born with a penis, and
therefore are men,” and “Transwomen may think they are women but because they were born with a penis they will never really be women.”) and eliminated the item which had the lower factor loading on that factor. In cases where factor loadings were similar, I chose items based upon the wording of the sentence, choosing the item which was most descriptive or most clearly worded. A full accounting of each item that I deleted is in Table 3.

This final two-factor solution explained 78.35% of the variance with 25 items, had overall and item KMO coefficients that were marvelous, and a statistically significant Bartlett’s test. All items on this factor analysis had acceptable primary loadings with no cross-loadings. The two factors correlate with one another at .78. See Table 4 for the factor and structure loadings of the final two-factor solution.

To determine if there were any gender differences in how the factor structure emerged, I factor analyzed the 25 items separately for men and women. Although the individual item factor loadings were different, items loaded consistently on their factors across genders. See Table 5 for this break-down.

The first factor consists of 16 items relating to essentialism, and thus I have titled it the Sex Essentialism factor. Sample items from this factor include, “Transmen are not really men because you can never change your gender,” and “transwomen cannot go against their biology; they will always be men.” This factor uniquely explains 71.93% of the variance in responses. Factor two consists of nine items relating to social distance, which I have named the Discomfort factor. Sample items from this factor include, “I don’t think it is safe for the children to let transwomen have unsupervised access to children,” and “I don’t think I could
maintain a relationship with a friend who came out to me as transgender.” This factor uniquely explains 6.42% of the variance in responses.

The overall Cronbach’s alpha for the scale was .98. Reliability statistics for the Sex Essentialism and Discomfort factors are .98 and .94, respectively.

**Discussion**

The resulting scale has excellent reliability and strong factor structure over 25 items. I expected the existence of a three-factor measure of transprejudice, consisting of the factors essentialism, social distance, and gender role belief. While the essentialism and social distance factors did emerge, a gender role belief factor did not emerge during analysis. One explanation for the lack of this expected factor is that the gender role belief items did not accurately capture attitudes about gender role beliefs. For example, the item, “Transmen are just not manly enough to serve along-side real men on the front lines in the military,” was meant to capture the idea that transmen are not “capable” of being thought of as manly. However, this item loaded heavily on the Discomfort subscale alongside social distance items. By discussing transmen and the military, this item may have related more to participants’ feelings toward the inclusion of transmen in the military, which is a social distance-based evaluation, rather than their evaluation of the supposed “manliness” of transmen.

Another example is the item, “Transwomen are just men who feel feminine.” This item was intended to capture the feeling that transwomen are men acting deviantly feminine, which I intended to fit alongside other gender role items. However, this item loaded high on the essentialism subscale. I theorize that by framing transwomen as men, this item was
capturing the essentialist idea that one cannot change their gender, and that biology trumps gender identity, rather than disliking an individual due to their perceived gender/gender role incongruity. This would place this item within the essentialism construct rather than the gender role belief construct.

Another explanation may be that gender role belief is not related to transprejudice once sex essentialism is taken into account. When an individual essentializes gender, they deny an individual the ability to self-identify as their gender, instead insisting that genetic or birth-assigned gender is more important. Therefore, if one were to dislike a transman because they were subverting the gender role norm that women act feminine, they would be denying the transman’s gender and insisting upon their birth assigned gender’s importance in explaining how they “should” be acting. The essentializing individual would be engaging in gender denial before passing evaluations on how the transman is behaving. Therefore, it could be that there was no gender role belief factor because, in order to believe that a transgender individual is acting against gender role norms, one must first deny that transgender individual their gender identity, which is an action explained by essentialism.

A final possible explanation for why the gender role belief factor did not emerge is due to the specificity of the scale’s attitudinal targets. Previous scales relied heavily on gender role belief, but this may be due in part to the slight difference in attitudinal targets between previous scales and the Transgender Prejudice Scale (TPS). The Genderism and Transphobia Scale (GTS) was created to measure negative attitudes toward gender non-conformers in general, rather than toward transgender individuals in specific. Similarly, the Transphobia Scale (TS) does not include a definition of terms, so that participants would be
able to imagine a trans person in line with their own understanding, which could include gender non-conformers. These scales do not specify trans persons as attitudinal targets, instead asking participants about gender non-conformity in general. This reliance on gender role belief could be important in understanding attitudes toward gender non-conformers in general. However, when we look at specific attitudes toward trans persons, it may be less important. That is, after understanding a trans person through the specific definitions provided with the TPS, gender role belief may no longer be as relevant as other constructs. Therefore, while other scales have a heavy reliance upon gender role belief to measure attitudes generally about gender non-conformers, to understand specific attitudes toward trans persons, other constructs such as discomfort and sex essentialism, become necessary.

One concern with these findings is that, with Factor 1’s high eigenvalue in relation to Factor 2, and large correlation between the two factors, that this is truly a one-factor scale. While there is a clear pattern structure indicating a two-factor solution, perhaps these two factors are so similar that a one-factor solution would explain the variance more succinctly. I further investigated this question in Study 3.

**STUDY 3**

The previous study created a measure of transprejudice with 25 items across two subscales. Although reliability tests and the factor analysis indicated the scale was internally reliable, the validity of the scale still needed to be tested. The purpose of this study was to determine the convergent, construct, and discriminant validity of the TPS. Furthermore, though the factor analysis indicated a two-factor solution, the high correlation between factors indicates that the scale may only be a one-factor scale.
My first hypothesis is that a two-factor model rather than a one-factor model best explains the TPS. I will demonstrate this by running a confirmatory factor analysis on both the one-factor and two-factor models, and compare the models to determine if the two-factor model is a statistically significantly better fit than the one-factor model.

My second hypothesis is that the TPS will show acceptable convergent, construct, and discriminant validity. I will demonstrate this by examining the correlations between the TPS and similar and unrelated scales. As evidence of construct validity, the TPS was predicted to correlate moderately-to-strongly with pre-existing transprejudice scales, as well as scales of gender role belief, essentialism, and homonegativity. As evidence of good discriminant validity, the TPS was predicted to correlate weakly with the Modern Racism scale and a social desirability scale.

Method

Participants

Two hundred seventy participants (179 men, 88 women, 3 transmen; mean age = 39.5 (13.49); 82.2% Caucasian) recruited via MTurk participated for 60 cents. Of the participants, 50.3% (136) had reported that they had had prior known contact with a trans person.

Procedure

Participants elected to participate in the study which was described as a series of general surveys for social science research. To control for the possibility that the Gender Role Beliefs Scale (GRBS) or the Essentialism Index (EI) might prime essentialist or gender role belief-related thinking that could potentially skew the results of the Transgender Prejudice Scale (TPS), the presentation order of the three scales was partially
counterbalanced across four conditions: GRBS/ EI/ TPS; GRBS/ TPS/ EI; EI/ TPS/ GRBS; and TPS/ EI/ GRBS. Order of presentation for the remaining scales was stable across conditions.

Participants answered all surveys, filled out a brief demographic questionnaire, and were debriefed and compensated.

Materials

**Gender Role Beliefs Scale.** The Gender Role Beliefs Scale (GRBS, Kerr & Holden, 1996) is a 7-point Likert scale (1 = strongly agree, 7 = strongly disagree) with 20 items, which measure an individual’s endorsement of traditional gender role beliefs. Sample items include, “It bothers me more to see a woman who is pushy than a man who is pushy,” and “Men should continue to show courtesies to women such as holding open the door or helping them with their coats.” Higher scores on the GRBS correspond to more progressive views and a rejection of traditional gender role beliefs. Cronbach’s α = .92 for this sample. See Appendix D for all items.

**Essentialism Index.** Bastian and Haslam’s (2006) Essentialism Index is a 6-point Likert scale (1= strongly agree, 6 = strongly disagree) with 23 items. The scale is conceptualized as three separate scales that measure three main constructs of essentialism: biological basis (“The kind of person someone is can be largely attributed to their genetic inheritance”), discreteness (“A person either has a certain attribute or they do not”) and informativeness (“It is possible to know about many aspects of a person once you become familiar with a few of their basic traits”). Cronbach’s α = .89 for this sample. See Appendix E for all items.
Transgender Prejudice Scale. The TPS is a 6-point Likert scale (1 = strongly disagree, 6 = strongly agree) with two subscales and 25 items. Cronbach’s $\alpha = .98$ for this sample. See Appendix F for all items.

Attitudes Toward Transgendered Individuals Scale. The Attitudes Toward Transgendered Individuals Scale (ATTIS, Walch et al., 2012a) is a 5-point Likert scale (1 = strongly agree, 5 = strongly disagree) with 20 items. Sample items include “Transgenderism is a sin” and “Transgendered individuals are really just closeted gays.” Contrary to the other transphobia scales, higher scores on the ATTIS indicate more tolerant attitudes toward transgender individuals. Cronbach’s $\alpha = .98$ for this sample. See Appendix G for all items.

Transphobia Scale. The Transphobia Scale (TS, Nagoshi et al., 2008) is a 7-point Likert scale (1 = completely disagree, 7 = completely agree) made up of nine items. Sample items include “I avoid people on the street whose gender is unclear to me,” and “I believe a person can never change their gender.” Higher scores on TS reflect higher scores of transphobia. Cronbach’s $\alpha = .92$ for this sample. See Appendix H for all items.

Genderism and Transphobia Scale. The Genderism and Transphobia Scale (GTS, Hill & Willoughby, 2005) is a 7-point Likert scale (1 = strongly agree, 7 = strongly disagree) with two subscales. The first subscale is the genderism/transphobia sub-scale, consisting of 29 items, such as “Men who shave their legs are weird,” and “I can’t understand why a woman would act masculine.” The other subscale is the gender-bashing subscale, consisting of 3 items, including, “I have behaved violently towards a woman because she was too masculine.” The responses for all but three items are reversed when coding, such that higher
scores indicate higher amounts of prejudice toward transgender individuals. Cronbach’s $\alpha = .967$ for this sample. See Appendix I for all items.

**Attitudes Toward Lesbians and Gay Men.** The Attitudes Toward Lesbians and Gay Men scale (ATLG, Herek, 1988) is a 9-point Likert scale ($1 = $ strongly disagree, $9 = $ strongly agree) that consists of two subscales of 10-items each. The first subscale is Attitudes Toward Lesbians (ATL), which has items such as “Female homosexuality is a threat to many of our basic social institutions,” and “Lesbians just can’t fit into our society.” The other subscale is Attitudes Toward Gay Men (ATG), which includes items such as “I think male homosexuals are disgusting,” and “homosexual behavior between two men is just plain wrong.” Higher scores correspond to greater levels of heterosexism. Cronbach’s $\alpha = .98$ for this sample. See Appendix J for all items.

**Modern Racism scale.** The Modern Racism scale (MR, McConahay, 1986) is a 5-point Liker scale ($1 = $ strongly disagree, $5 = $ strongly agree) consisting of seven items. Sample questions include “Discrimination against blacks is no longer a problem in the United States” and “Blacks should not push themselves where they are not wanted.” Higher scores indicate greater levels of racism. Cronbach’s $\alpha = .85$ for this sample. See Appendix K for all items.

**Social Desirability Scale.** The Marlowe-Crowne Social Desirability Scale short form (MC-SDS Form C, Reynolds, 1978) is a 13-item scale of true/false questions which assesses an individual’s need to be seen as behaving in a socially desirable manner. This short form scale is derived from the original 33-item Marlowe-Crowne Social Desirability Scale (MC-SDS, Crowne & Marlowe, 1960). The 13-item form was found to correlate strongly (.93)
with the original longer version, and have a high reliability (KR20 = .76). Sample items include “It is sometimes hard for me to go on with my work if I am not encouraged,” and “I sometimes feel resentful when I don’t get my way.” High scores reflect a greater need to seem socially desirable. KR20 = .83 for this sample. See Appendix L for all items.

Results

Group Differences

No significant differences in scores on the TPS were found between presentation order ($F (3,266) = 1.892, p = .131$; see Table 6 for means), so I collapsed all conditions for analyses.

An analysis of gender differences revealed that men reported statistically significantly more prejudice than women on all prejudice scales included in the study except the ATTIS and the ATLG. No gender differences were found scores on the GRBS, EI, or on social desirability. See Table 7 for specific mean differences and significance.

To determine if those who had had any form of personal contact with transgender individuals ($n = 136$) would respond differently than those who had not ($n=133$), I performed an independent-samples $t$-test to determine the effect of contact with a trans person on the DVs. Participants who had prior contact with a trans person were statistically significantly lower in transprejudice across all scales than those who had no contact with a trans person. Furthermore, those who had prior contact with a trans person reported statistically significantly lower adherence to gender norm belief than those who had not. Finally, there
were no differences between participant groups for either social desirability or Essentialism. See Table 8 for specific mean differences and significance.

**Confirmatory Factor Analysis**

I used EQS version 6.2 to run the confirmatory factor analyses to test my first hypothesis. For a model to be declared a good fit for the data, the model should have a CFI equal to or greater than .95, and a RMSEA of less than .05, (although others have suggested an RMSEA less than .08 is also indicative of good fit (Hu & Bentler, 1999)). To test the two-factor model, I constructed a model in which the sex essentialism items loaded only on the sex essentialism factor, while the discomfort items loaded only on the discomfort factor, and let the discomfort and sex essentialism factors correlate; see Figure 1 for this model.

The initial analysis revealed the data violated assumptions of multivariate normality, as well as three participants who were multivariate outliers. Furthermore, analysis excluded 32 participants due to missing data. An examination of these participants did not suggest a systematic reason for missing data. I re-ran the model with a robust statistics, which accounts for violations of multivariate normality (Chou, Bentler, & Satorra, 1991), and excluded the multivariate outliers. After these exclusions, my data set consisted of 235 valid cases. I kept these settings for all further analyses of this data.

Neither the CFI nor the RMSEA of the two-factor model were indicative of good fit, and the Satorra-Bentler $\chi^2$ was statistically significant; see Table 9 for all fit indices for this and all hypothesized models. An examination of the LM test indicated numerous error term correlations that would improve the fit of the model. Two of the highest error term pairs made theoretical sense to allow to correlate\(^1\). The first pair, “Transwomen cannot go against
their biology; they will always be men,” and “Transwomen were born as men and will therefore always be men,” both deny transwomen the ability to identify as anything other than a man because of their biology. The second pair, “Transwomen may think they are women but because they were born with a penis they will never really be women,” and “Transmen can never really be men because they were not born as men with male genitalia,” both infer that male genitalia stops men from identifying as women (because they have it) and stops women from identifying as men (because they do not have it).

With these two error terms correlated, the modified two-factor model fit statistically significantly better; \( \Delta \chi^2 (2) = 212.2, p < .001 \). Although the Satorra-Bentler \( \chi^2 \) was statistically significant (See Table 9), the RMSEA was .063, and the CFI was .971, indicating this model has adequate fit. All paths in the model were statistically significant; see Figure 1 for all path weights in this model.

To test the one-factor model, all measured variables were set to load directly on one factor; see Figure 2 for this model. The initial fit was not good, with none of the fit indices indicating the model (see Table 9) had good fit. An examination of the LM test indicated that correlating the same two pairs of items correlated for the two-factor model would improve the fit of the one-factor model as well. The fit of the one-factor model with two correlated error terms improved by a statistically significant amount, \( \Delta \chi^2 (2) = 201.69, p < .001 \), although overall fit was still not good, as no fit indices were indicative of good fit (See Table 9).

Comparing the two models, the two-factor model is a statistically significantly better fit of the data than the one-factor model, \( \Delta \chi^2 (1) = 574.2, p < .001 \).
Construct Validity

I assessed construct validity by correlating my scale with three existing measures of transprejudice: the Genderism and Transphobia Scale (GTS), Transphobia Scale (TS), and the Attitudes Toward Transgendered Individuals Scale (ATTIS). The correlation between the TPS and the GTS was very strong, $r(268) = .84, p < .001$. The correlation between the TPS and the TS was very strong, $r(268) = .73, p < .001$. Finally, the correlation between the TPS and the ATTIS was very strong, $r(268) = -.90, p < .001$. High scores of transprejudice on the TPS was related to high scores of transphobia measured using all transphobia scales. These and all other correlations, including between subscales of the TPS and other scales, can be seen in Table 10.

The correlation between the TPS and the GRBS was strong, $r(268) = -.55, p < .001$. The correlation between the TPS and the EI was moderate, $r(268) = -.39, p < .001$. Finally, the correlation between the TPS and the ATLG was very strong, $r(268) = .79, p < .001$. The more likely one was to endorse transprejudice beliefs, the less likely they were to endorse the belief that biology is unrelated to other traits, and that those traits are not descriptive or informative of other traits. Those that endorsed the belief that men and women should be treated the same and given the same opportunities were less likely to endorse transprejudiced beliefs. Lastly, the more likely one was to endorse homonegative attitudes, the more likely they were to endorse transprejudiced attitudes.

I assessed discriminant validity by correlating the TPS with the Modern Racism (MR) scale, as well as the Marlow-Crowne Social Desirability Scale (MC-SDS). The correlation between the TPS and the MR scale was strong, $r(268) = .43, p < .001$. The correlation
between the TPS and the MR-SDS was not significant, \( r(269) = -.04, p = .532 \). The more likely one was to endorse anti-Black attitudes, the more likely they were to endorse transprejudiced attitudes as well. Finally, there is no relation between endorsing transprejudiced beliefs and wanting to be seen as behaving in a socially desirable manner.

**Discussion**

My first hypothesis was that the two-factor model of the TPS would fit the data better than the one-factor model. This hypothesis was supported, with the two-factor model displaying better fit than the one-factor model. The fit of the two-factor model was decent, showing a good CFI and an acceptable RMSEA. I can conclude by this that not only is the TPS a two-factor solution, but that it is an internally reliable scale.

My second hypothesis was that the TPS would demonstrate good convergent, construct, and discriminant validity. This hypothesis was supported as the TPS was highly correlated with related measures of transprejudice and moderately correlated with measures of related constructs. Although the correlation between the TPS and the Modern Racism scale was higher than predicted (.43), it is comparatively lower than the correlations between any of the other transprejudice scales (ranging from .73-.90), indicating that the TPS may be a better measure of transprejudice than racism. Furthermore, it is within the range of the correlations between the other transprejudice scales and the Modern Racism scale (ranging from .39 to .49), indicating that racism and transprejudice may not be unrelated constructs, and some amount of a relationship between the two constructs should be expected. Better evidence for discriminant validity, however, is the non-significant correlation between the
TPS and the MC-SDS, indicating that the TPS is not related to an unrelated construct, the need to be seen to act in a socially desirable way.

Of specific importance in these results was the high correlations between the TPS and existing measures of transprejudice. This shows strong construct validity, suggesting the TPS is truly measuring transprejudice. However, as these correlations were high, it is important to determine that the TPS is not a redundant measure, but that it is able to measure prejudice that the preexisting scales cannot.

To measure prejudice, the TPS relies on essentialism and social distance. The TPS’ focus on essentialism is what separates the TPS from pre-existing scales. While the GTS, currently the most widely used transprejudice scale, has a few items that tap into essentialist beliefs, the TPS is based primarily around the unique ways in which gender identity is denied to transgender individuals based upon essentialist viewpoints. This focus should allow the TPS to independently predict variance in attitudes toward trans persons that other scales cannot. To demonstrate that the TPS is unique in its predictive ability, the next study investigated how predictive the TPS is of attitudes toward transgender individuals, and how it predicts prejudice in comparison to the GTS.

**STUDY 4**

Although the construct validity of the TPS is high, the predictive ability has yet to be determined. This study investigated the extent to which the TPS is predictive of general attitudes toward transgender individuals. In this experiment, participants read fictional social media profiles of potential job candidates. All profiles were matched for experience and skill, with the only difference being one candidate is transgender and the other is cisgender.
Participants rated the extent to which they liked each candidate, as well as who they would hire for the position. My hypothesis is that the TPS will significantly predict scores of likability for transgender individuals, but not cisgender individuals. Furthermore, I predict that the TPS will do this above and beyond what the current leading transprejudice scale, the GTS, is able to predict.

**Method**

**Participants**

Eighty three participants (53 men, 29 women, 1 transman; mean age = 29.2 (8.84); 80% Caucasian) recruited from MTurk took part in a study described as a study investigating what kind of information individuals use on LinkedIn when looking for job candidates. Participants were paid 55 cents for their participation. Of the participants, 50.6% (43) participants had answered that they had had contact with a transgender individual at some point in the past.

**Procedure**

Instructions told participants to imagine they were the hiring manager of a non-profit, and that the profiles they would see were of job candidates who were both well-qualified for the position. Participants then read fake LinkedIn profiles of either a cisman or a ciswoman, and a transman or a transwoman, so that each participant saw both a cis- and trans- target but always the same gender. To control for possible order effects, I counterbalanced presentation order, such that there were four conditions: Cisman / Transman, Transman / Cisman, Ciswoman/ Transwoman, and Transwoman / Ciswoman. After reading each profile, participants rated their feelings toward the target, as well as judged how hard of a worker
they perceived the candidates to be. Participants then chose one candidate to hire for the fictitious job opening. Afterward they filled out a survey measuring their support for various transgender rights issues, as well as the TPS and the GTS. Participants read a debriefing statement and received compensation.

Materials

Profiles. Both the cisgender and transgender profiles indicated that the fictional targets were passionate about helping out local non-profits due to personal reasons. For the transgender targets, the personal reason was that the transition to live as the gender they identified as was difficult, and local non-profit centers helped them deal with the stress. For cisgender targets, the personal reason was that, after high school, the targets were homeless for a short period of time, during which local non-profits helped them get back on track. This personal reason was selected so that each target would have a potentially stigmatizing feature that could affect how a candidate is normally chosen.

Each profile was equally vague about how many years of experience they had, although both were matched for work history, and both indicated that they got their degree at the University of Washington. The profiles of men and the profiles of women were similar except the profiles of women used feminine-sounding names and female pronouns, while the profiles of men used masculine-sounding names and male pronouns. Profiles are in Appendix M.

Likability. Three questions, “How much do you like this person?”, “To what extent could you see yourself becoming friends with this person?”, and “How comfortable would you be with this person?” were combined into a measure of positive feelings toward the
target. The questions are on a 6-point Likert scale (1 = not at all, 6 = very much) and were asked of each target, such that each participant answered these three questions twice: once for the trans target (trans likability) and once for the cis target (cis likability). The reliability for the trans likability scale was $\alpha = .96$, and the reliability for the cis likability scale was $\alpha = .94$.

**Work-ethic.** Three questions, “How hard-working do you think this person is?”, “How well do you think this person would follow directions?”, and “How willing do you think this person would be to go ‘above and beyond’?” were combined into one general scale of employee work ethic for the trans target and a general scale for the cis target. The questions are on a 6-point Likert scale (1 = not at all, 6 = very much), and similar to the likability questions, were asked of each target separately. The reliability for the trans work-ethic scale was $\alpha = .79$, and the reliability for the cis work-ethic scale was $\alpha = .84$.

**Transgender Rights.** The Transgender rights scale is a 6-point Likert scale (1 = not at all likely, 6 = very likely) assessing the extent to which participants would support various bills or decisions made in favor or not in favor of transgender individuals. The 10-item scale includes items such as “How likely would you be to SUPPORT a law that would allow individuals to change the gender on their driver’s licenses?” which are meant to assess support for essentialist based laws, and “How likely would you be to OPPOSE a bill guaranteeing employment non-discrimination toward transgender individuals?” meant to assess support for laws addressing proximity with transgender individuals. Higher scores on the TR indicate greater support for laws favoring transgender individuals. Cronbach’s $\alpha = .93$ for this sample. All items are in Appendix N.
Transgender Prejudice Scale. The TPS is a 6-point Likert scale (1 = strongly disagree, 6 = strongly agree) with two subscales and 25 items. Higher scores indicate greater prejudice toward trans persons. Cronbach’s α = .99 for this sample.

Genderism and Transphobia Scale. The Genderism and Transphobia Scale (GTS, Hill & Willoughby, 2005) is a 7-point Likert scale (7 = strongly disagree, 1 = strongly agree) with two subscales. Higher scores indicate higher amounts of prejudice toward transgender individuals. Cronbach’s α = .97 for this sample.

Results

Preliminary Analyses

To ensure that there was no effect of the order of candidate presented, I conducted a one-way analysis of variance (ANOVA) with order condition as the independent variable and with likability of both transgender and cisgender individuals, work-ethic of both targets, scores on the GTS as well as the TPS, and support for transgender rights as the dependent variables. None of the ANOVAs were statistically significant at the $p < .05$ level. See Table 11 for complete means, F values and significance values.

To determine if there was an effect of participant gender on the predictor variables (the GTS and the TPS) I conducted an independent samples $t$-test with participant gender as the independent variable and scores on the GTS and the TPS as the dependent variables. There was one participant who identified as a transman. I did not include this participant in this and all other gender-based analyses, as their third gender group had only one member. Therefore, I completed this analysis looking at the differences between participants identifying as men and women only. There was no significant difference between how men
and women responded to either the TPS ($t(80)=1.415, p = .161$) or the GTS ($t(80) = 1.142, p = .257$).

To determine if prior contact with a trans person had an effect on transprejudice, I conducted an independent samples $t$-test with prior contact status as the independent variable and the TPS, GTS, trans likability, and the trans rights scale as the dependent variables. There were no differences between participants who had prior contact with a trans person and those who had not on any measure. See Table 12 for complete means and significance values.

**Effects on Predicted Variables**

To determine the effects of participant gender and gender identification of the target on support for transgender rights, I conducted a 2 (participant gender: man or woman) by 2 (target gender identity: man or woman) between-subjects ANOVA, with transgender rights scores as the dependent variable. There were no main effects of participant gender ($F = 1.251, p = .267, \eta^2 = .016$), or target gender identity ($F = .364, p = .548, \eta^2 = .005$) on transgender rights scores, and no interaction between the two ($F = 2.678, p = .106, \eta^2 = .033$).

To determine the effects of participant gender, gender identification of the target, and whether the target identifies as transgender or cisgender on overall likability scores, I conducted a 2 (participant gender: man or woman) by 2 (target gender identity: man or woman) by 2 (status: transgender or cisgender) mixed ANOVA, with likability scores as the dependent variable, and transgender status as a within-subjects independent variable. The main effect of participant gender on likability was not statistically significant, $F (1, 78) = 3.869, p = .052, \eta^2 = .048$. The main effect of target gender on likability ratings was not
statistically significant, $F(1, 78) = .472, p = .494, \eta^2 = .006$. The main effect of transgender status on likability was statistically significant, $F(1, 78) = 26.496, p < .001, \eta^2 = .254$.

Transgender individuals were rated as less likable ($M = 4.12, SE = .17$) than cisgender individuals ($M = 4.99, SE = .11$). None of the interactions was statistically significant; see Table 13 for all means and Table 14 for interaction $F$ and $p$ values.

To determine the effects of participant gender, target gender identity, and whether the target identifies as transgender or cisgender on perceptions of the target’s work ethic, I conducted a 2 (participant gender: man or woman) by 2 (target gender identity: man or woman) by 2 (status: transgender or cisgender) mixed ANOVA, with work ethic as the dependent variable, and transgender status as a within-subjects independent variable. The main effect of participant gender on work ethic was not statistically significant, $F(1, 78) = 1.494, p = .225, \eta^2 = .02$. The main effect of target gender on work ethic was not statistically significant, $F(1, 78) = .711, p = .402, \eta^2 = .01$. The main effect of transgender status was statistically significant, $F(1, 78) = 18.902, p < .001, \eta^2 = .195$. Participants rated the transgender target as less hard working ($M = 4.82, SE = .09$) than the cisgender target ($M = 5.21, SE = .10$). None of the interactions between the main effects were statistically significant; see Table 15 for all means and Table 16 for interaction $F$ and $p$ values.

**Hypothesis Testing**

Trans likability. To test the primary hypothesis, that the TPS predicts attitudes toward transgender individuals above and beyond what the GTS can, I conducted a sequential multiple regression analysis. I entered the GTS in at Step 1, and the TPS in at Step 2, with the average of the trans likability scale as the dependent variable. High scores on this
scale indicate a warmer attitude toward the transgender individual. The overall regression was statistically significant, $R = .792, R^2 = .628$, adjusted $R^2 = .619$, $F (2,82) = 69.17, p < .001$.

To assess the contributions of the individual scales, I examined the results for the individual predictors at the level they were entered. In Step 1, the GTS was statistically significant, $\beta = -.104, t(83) = -8.968, p < .001, \Delta R^2 = .492$. In Step 2, the TPS was statistically significant, $\beta = -.702, t(82) = -5.469, p < .001, \Delta R^2 = .136$. Both the GTS and the TPS have a negative relationship with trans likability; high scores on a measure of transprejudice are associated with liking a trans person less. When using both scales to predict transgender likability, the TPS explains about 14% more variability in liking scores than the GTS does.

**Cisgender likability.** By comparison, the same analysis but with the dependent variable of cisgender likability was not statistically significant, $R = .144, R^2 = .021$, adjusted $R^2 = -.003$, $F(2,82) = 1.699, p = .196$. In Step 1, the GTS was not statistically significant, $\beta = -.142, t(83) = -1.303, p = .196, R^2 = .020$. In Step 2, the TPS was not statistically significant, $\beta = -.050, t(82) = -.238, p = .812, \Delta R^2 = .001$.

**Transgender civil rights.** To further test that the TPS can explain prejudice above and beyond the GTS, I conducted a sequential multiple regression, with the GTS at Step 1, the TPS at Step 2, and scores on the transgender rights scale as the dependent variable. High scores on the transgender rights scale indicate greater support for transgender rights issues. The overall regression was statistically significant, $R = .882, R^2 = .779$, adjusted $R^2 = .773$, $F(2,82) = 144.215, p < .001$. 
In Step 1, the GTS was statistically significant, $\beta = -0.223$, $t(83) = -12.397$, $p < .001$, $\Delta R^2 = .649$. In Step 2, the TPS was statistically significant, $\beta = -0.685$, $t(82) = -6.921$, $p < .001$, $\Delta R^2 = .129$. High scores on both scales were associated with low support for transgender rights. When both scales are entered together, the TPS explains approximately 13% more variability in support than the GTS alone.

**Hiring decision.** To determine if the TPS predicts behavior toward a transgender individual better than the GTS, I performed a binary logistic regression. The outcome variable, hiring decision, was coded 1 = cisgender and 0 = transgender job candidate. I standardized scores on the GTS and TPS to allow for a more direct comparison of the odds ratio. I entered the GTS into Step 1 of the regression, and the TPS into Step 2.

The test of the full model was statistically significant, $\chi^2(2) = 11.744$, $p < .001$, meaning that the model with two predictors fit statistically significantly better than the null model. The strength of the association between the two scales and the hiring decision was weak with Cox and Snell $R = .129$ and Nagelkerke $R = .213$. However, the difference in model fit after adding the TPS was not statistically significant, $\chi^2(1) = .003$, $p = .957$. The TPS does not predict whether or not the cisgender or transgender job candidate will be hired above and beyond what the GTS can already predict.

Alone, the GTS was a significant predictor of hiring decision, $e^{b_1} = 3.92$, $\chi^2(1) = 7.358$, $p = .007$. For every standard deviation increase on the GTS, the odds that participants would hire the cisgender candidate rather than the transgender candidate increased almost four times.
I performed a separate analysis of the TPS predicting hiring behavior, as the TPS was not more predictive than the GTS. The test of the full model was statistically significant, \( \chi^2(1) = 9.235, p = .002 \), indicating the model was a statistically significant better fit than the null model. The model fit indices were small, with the Cox and Snell \( R = .104 \), and Nagelkerke \( R = .172 \). The TPS predicted a significant change in odds over the null model, \( e^{b_1} = 2.920, \chi^2(1) = 6.756, p < .001 \). For every one standard deviation increase in scores on the TPS, the odds that the cisgender candidate would be hired rather than the transgender candidate increased almost three times.

A final follow-up to determine if the difference between the GTS’ predictive ability was statistically significantly different from the TPS revealed no significant difference, \( \chi^2(1) = 2.013, p = .156 \).

**Discussion**

On all but one dependent outcome, the TPS predicted attitudes toward transgender individuals above and beyond what the GTS can predict, supporting the primary hypothesis. The TPS was a better predictor for general liking scores as well as whether or not the participant believed they would support transgender civil rights laws. However, the TPS did not predict hiring decisions any better than the GTS did.

The TPS may not have predicted beyond what the GTS predicts for hiring decisions because of the either/or nature of the question. Because there is little variability in responses to a dichotomous answer, the TPS was unable to pick up “additional” variability that the GTS did not.
Similarly, it may be that the TPS is able to predict behaviors better than the GTS, but the “threshold” for answering this question is low enough that both scales can equally predict the answer. Had the question had more nuance to it, or had the question been more difficult to answer (such as the question being made personally relevant to the participant, or otherwise require more thought), it may be that the “threshold” of prejudice to select the cisgender target over the transgender target would be harder to predict, requiring a scale of higher predictive ability, and in this situation the TPS may predict better than the GTS.

An important limitation in these results is the order in which stimuli were presented to respondents. Participants first saw the profiles, then rated the targets, decided who they would hire, rated their support for transgender rights issues, and finally completed the transprejudice scales. Because participants answered the scale items after their decision and ratings, it is possible that the participants’ answers on the transprejudice scales were influenced by their behavior on the previous items. It may not be appropriate to predict a behavior from answers participants gave after the behavior. The decision to have the participants view the stimuli in this order was so that there would be no priming of participant opinions of transgender individuals before they read the target profiles and rated their likability, which was deemed a larger concern than the influence of the behavior on their opinions.

**GENERAL DISCUSSION**

Previously developed scales of transprejudice appear to have been theoretically and methodologically flawed, either because they are based upon pre-existing scales not intended to measure bias toward trans persons, or because they measure attitudes toward gender non-
conformers in general rather than trans persons in specific. Over the course of four studies these issues have been addressed through the creation and validation of the Transgender Prejudice Scale (TPS). The results support a two-factor solution for the TPS: Factor one, sex essentialism, covers the belief that gender is a biologically- innate and unchanging characteristic of an individual, and factor two, discomfort, covers the discomfort individuals may feel by being socially or physically near a trans person. Despite the high correlations between the two factors, a CFA confirmed the two-factor structure, indicating that two factors explained the responses better than a one-factor structure. The TPS has good construct validity, showing high correlations with previous transprejudice scales as well as moderate-to-high correlations with related constructs such as general essentialism and gender role beliefs. The TPS also shows some discriminant validity, showing no correlation with social desirability or with attitudes toward cisgender individuals. Finally, the TPS can not only predict general feelings of likability toward trans persons, it does so beyond the current popular transphobia scale (the Genderism and Transphobia Scale; GTS, Hill & Willoughby, 2005).

**Important properties**

One explanation for its predictive ability beyond the GTS is the TPS’ important combination of properties. First, the TPS is only one of two transprejudice scales that define its target. Defining an attitudinal target is important in order for the responses to be meaningful; for example, responses to the Modern Racism scale would not be meaningful if the participant taking it did not know who a Black person was, or what being black meant. The Modern Racism scale doesn’t require a definition, however, as it is reasonable to assume
that participants know what being black means. In comparison, a recent survey has found that 23% of Americans polled do not understand what the term “transgender” means, and cannot conceptualize a trans person (Public Religion Research Institute, 2011). Therefore, it is important for a scale measuring transprejudice to define the terms used so the responses are meaningful. Having a definition for transgender is something the TPS shares with the Attitudes Toward Transgendered Individuals Scale (ATTIS), so this by itself is not unique; however the ATTIS lacks the second important property of the TPS, which is that the TPS is based upon wholly original items intended to measure transprejudice.

Creating a scale to measure transprejudice based upon original items designed specifically for the scale, rather than copying pre-existing scales, is important for many reasons. Transprejudice is a relatively understudied construct, and as such what we know about the underlying factors of transprejudice is dwarfed by what we do not yet know. Because there are still many questions unanswered about transprejudice, it is important to study the ways in which transprejudice is uniquely affected by underlying constructs rather than making assumptions about its similarity to other prejudices.

Both the ATTIS (Walch et al., 2012a) and the Transphobia Scale (TS; Nagoshi et al., 2008) are based upon pre-existing scales that may be related to transprejudice. However, it is difficult to say whether or not these scales capture what is unique about transprejudice if they are based upon pre-existing measures. For example, the TS focuses mainly upon gender role violation, a construct that was found to not be uniquely relevant in the TPS. While the TS may be good at understanding attitudes toward gender role violators in general, it is difficult to say whether it is also good at predicting attitudes toward transgender individuals.
specifically, as it was not originally created for this purpose. The TPS addresses this issue by basing its items on the unique ways in which transgender individuals have identified discrimination occurring to them, as well as through the ways in which individuals have voiced their bias against transgender individuals through internet message boards and comments on transgender news stories. By addressing these issues specifically, the TPS is unique.

Finally, the TPS gives important weight to the idea of gender denial through the sex essentialism subscale. Although the term gender essentialism is often used in literature when discussing gender and essentialism (e.g. Heyman & Giles, 2006; Smiler & Gelman, 2008), the strict definition of gender I am using in this project necessitates a term with a different focus. By the definition of gender I have given, those who essentialize it would potentially be more accepting of transgender individuals, as gender identity would be seen as the stable, biological, and informative component of gender. Those high in sex essentialism would potentially be less accepting of transgender individuals, however, as they would believe sex to be the stable, biological, and informative aspect of gender. They would be engaging in gender denial.

Gender denial is a specific way in which transgender individuals receive prejudice. It occurs whenever a transwoman is denied usage of the women’s restroom, or when a transman is allowed to attend a women-only event, but a transwoman is not. This is a unique factor of transgender prejudice, as most other forms of prejudice are not based upon denying an individual’s right to exist in that category (e.g., racist individuals rarely claim that Black
people are not actually Black). When an individual essentializes sex as the dominant characteristic of gender, they deny transgender individuals their gender identity.

Previous studies have linked essentialism to denial of gender, finding that individuals are less comfortable with trans persons using restrooms that do not match their birth-assigned gender, but only when those individuals are also high in essentialism (Davidson & Czopp, 2014). More directly, Mahalingam (2003) found that transwomen in southern India were less likely to believe that women could transition into men than they were to believe that men could transition into women, specifically because the transwomen believed womanhood to be a stable, unchanging construct, while manhood was fluid and dynamic. The transwomen were engaging in gender denial by disallowing the ability of someone identified at birth as a woman to identify as a man. Mahalingam describes the transwomen participants essentializing the feminine gender, believing it to be a static force, but not the masculine, and that the cultural background of Indian mythos, in which great male warriors become female warriors, but not the other way around, affected the way the participants essentialized gender. This sex essentialism, for these transwomen, led to gender denial. Although this gender denial had no direct consequences within the confines of the study, gender denial can have serious consequences for those on the receiving end.

When individuals deny a transgender individual their right to identify as their gender, they are shutting down the conversation. By saying “You cannot use this restroom because you weren’t born a woman,” the speaker is not allowing the transgender individual to reply or defend her point of view. It is an absolute point-of-view; a technically correct statement—a transwoman was assigned at birth as a man, most likely due to having male genitalia—but a
point-of-view that denies the existence of gender identity existing separately from genetic sex by implying that there is a direct and perfect correlation between genitalia and gender identity.

It could also prevent others from empathizing with the transgender individual. By denying transgender individuals their identity, a speaker is denying the transgender individual their right to feel hurt, offended, angry, or any other emotions they may feel about being denied their gender by implying the transgender individual is factually incorrect. If those hurt feelings are not seen as valid, then it will be harder for the speaker, or others, to empathize with the transgender individual, even to see the transgender individual as a person worthy of equal treatment. Generally, a decrease in empathy can lead to an increase in prejudice (Bäckström & Björklund, 2007), and while this has yet to be explored in transgender prejudice, the treatment transgender individuals receive—verbal harassment, physical abuse, and rejection from family and social life (Grant et al., 2011) certainly bespeaks a lack of empathy.

This lack of empathy can also have serious consequences for the development of a healthy transgender identity and formation of self-esteem. Denying that an individual is the gender they identify as could cause that individual to become confused about their identity, perhaps not identifying as strongly with their transgender identity, due to the treatment of that identity by friends, family, and society. For lesbian adolescents, a strong identity with their sexual minority status, based upon social support of the identity, is important for self-esteem development (Swann & Spivey, 2004). Being denied the ability to self-identify as transgender by having their social-support systems deny their identity could lead to lower
levels of self-esteem for transgender adolescents, causing problems with their feelings of self-concept and self-worth.

Being denied the ability to identify as transgender may also cause transgender adolescents to internalize the stigma surrounding cross-gender activities (Burgess, 2000). Hearing that identifying as transgender is a deviant behavior, or a behavior driven by mental illness, could cause transgender adolescents to internalize the idea that they are deviant, mentally ill, or that they should hate their body and by extension, themselves. These thoughts and feelings can lead to dire consequences. Transgender youth reported that when friends, family, and society have denied their identity, they have turned to suicidal ideation and suicidal attempts (Grossman & Augelli, 2007).

Gender denial as a form of harassment, at its core, denies the existence of a transgender identity, and without that identity, transgender youth, or those who are attempting to understand their identity, can feel lost, hurt, and in extreme cases, feel the need to turn to self-harming behaviors. As this form of harassment is such a unique expression of anti-transgender prejudice, it warrants closer examination and study than it has so far received in the research literature.

**Limitations & Future Directions**

The most important limitation of the TPS is the marginalization of the 17% of trans persons who identify outside the traditional gender spectrum, identifying not as a transman or a transwoman, but as genderqueer, genderfluid, or agender (Grant et al., 2011). The TPS is highly predictive and a valid measure of attitudes toward transgender individuals, but only as far as those transgender individuals identify as transmen or transwomen, men or women. The
scale has not been validated with attitudinal targets that identify as genderfluid, genderqueer, or agender, therefore the TPS may not apply to all trans-identified individuals. However, the TPS does include items directed at transgender individuals in general, so these items may be able to predict attitudes toward transgender individuals who do not identify as transmen or transwomen.

Furthermore, I utilized an American sample to create and validate this scale, and it reflects the feelings of Americans only. Winter and colleagues (2009) demonstrated that views of transgender individuals differ greatly across the globe, and therefore the results of the TPS may not be meaningful in an international sample. For example, in Winter et al (2009) essentialist items did not correlate with attitudes that trans individuals should be rejected from society in Chinese and Thailand samples, and the correlation was only moderate between essentialist items and attitudes that trans individuals should be shunned as friends and associates in the Thailand sample, whereas essentialist items were strongly correlated with both of these attitudes in the U.S. sample. In these scenarios, the TPS may be found to be less predictive in countries other than the U.S. than scales created and validated in the other country. However, as the TPS also relies on social comfort with transgender individuals as an indication of transprejudice, it may still be a relevant measure even in other countries where essentialism has been shown to play less of a role in transprejudice.

Finally, because the TPS largely relies upon essentialism for the measure of transprejudice, it may not capture accurately prejudice toward trans persons among populations who are low in essentialism but are still high in transprejudice for other reasons. Transgender prejudice correlates with a need for closure (Tebbe & Moradi, 2012), right wing
authoritarianism, and religious fundamentalism (Nagoshi et al., 2008). These constructs are theoretically unrelated with essentialism, and therefore the TPS would not detect prejudice that stems from these sources. There is no data to describe how common it would be for one to feel negatively toward transgender individuals due to one of these reasons without also denying their gender (a function of essentialism and therefore measurable by the TPS) or feeling uncomfortable around transgender individuals (also measured by the TPS), so it is difficult to determine how serious a limitation this is.

Future research can focus on the ways in which transgender individuals have reported facing discrimination on a daily basis and how transprejudice plays a part. For example, trans people have identified employment discrimination as a serious factor in their lives (Bradford, Reisner, Honnold, & Xavier, 2013; Grant et al., 2011), and Study 4 examined how predictive transprejudice was of this kind of discrimination. Similar studies can examine bias in housing decisions, treatment in hospital admissions, and in education.

Another possible direction for future research is educating groups of people about the differences between genetic sex, gender identity, and gender role. If individuals are conflating these three constructs, it may be that teaching the difference between these three constructs would lead to individuals essentializing gender less, which may lead to a reduction in transprejudice.

As mentioned previously, gender denial-based harassment is a serious issue facing transgender individuals. This scale, with its strong focus on sex essentialism, is a first step in studying this kind of harassment. The TPS could be a useful tool in studying the relation between gender denial-based discrimination and other models of prejudice. For example,
how would gender-denial fit into the shifting standard paradigm (e.g. Biernat, Manis, & Nelson, 1991)? This theory states that a group that is not seen as stereotypically adept at a task (e.g., the belief that men are more competent at women at novel tasks) are given different standards to meet. For example, a woman may be praised more than a man for doing equally as well in a sports-based task, but would then be held to higher standards than a man would be when considering if the woman is actually good at the task. Perhaps participants high in gender denial-based prejudice would hold transwomen to the same standards as cismen, while participants low in gender denial-based prejudice would hold transwomen to the same standards as ciswomen.

Another prejudice model that could be investigated with the TPS is the internal/external motivation theory (Plant & Devine, 1998). Under this theory, some individuals are motivated to respond without prejudice due to internal factors, such as wanting to be egalitarian, or based upon their own personal values, while others are motivated to respond based upon external factors, such as not wanting to seem prejudiced or associated with those who are prejudiced. As transprejudice is a relatively novel form of prejudice, there may not be high external motivation to seem non-prejudiced toward transgender individuals. Perhaps those who behave in non-prejudicial ways toward transgender individuals are driven by internal motivations. Furthermore, as gender-denial seems to be based upon a conflation of gender identity/birth-assigned sex/gender roles, perhaps individuals do not see gender denial as a form of prejudice to be motivated to control. This may point to a difference in motivation between those who are high in sex essentialism and those who are not.
Transprejudice is a serious issue that is overlooked in the current research literature, and there are numerous ways for research to continue in this field. However, given the severity of the prejudice, focusing on a reduction of these opinions would be beneficial both to the literature and to the trans individuals who have to face this prejudice every day. The Transgender Prejudice Scale was created as a way for researchers to accurately assess the role transprejudice plays in the discrimination of transgender individuals. With the knowledge of what this form of prejudice is constructed from and how it affects transgender individuals, researchers may be able to determine the best ways to alleviate the discrimination transgender individuals face.
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FOOTNOTES

1 Due to the high correlations of the error terms, and the similarity of the items that
correlated, I conducted separate analyses of the two-factor model to determine if the model
would fit better if correlated items were removed altogether. I chose the item among
correlated pairs that had the lowest initial factor loading for elimination. No model with an
eliminated item indicated better fit than leaving all items in the model.
Table 1

Study 2: Means and Standard Deviations for all items, sorted by smallest to largest mean

<table>
<thead>
<tr>
<th>ITEM</th>
<th>MEAN</th>
<th>SD</th>
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</thead>
<tbody>
<tr>
<td>43_C_M</td>
<td>2.464</td>
<td>1.505</td>
</tr>
<tr>
<td>19_G_W</td>
<td>2.540</td>
<td>1.415</td>
</tr>
<tr>
<td>21_C_T</td>
<td>2.581</td>
<td>1.511</td>
</tr>
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Note: Item numbers correspond to item numbers listed in Appendix C.
Table 2

*Study 2: Extracted factors for Factor Analysis 1*

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<tr>
<th>Factor</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
<th>Rotation SS Loadings&lt;sup&gt;a&lt;/sup&gt;</th>
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<tbody>
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<td></td>
<td>Total</td>
<td>% of Variance</td>
<td>Cumulative %</td>
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<td>61.421</td>
<td>66.762</td>
<td>66.762</td>
</tr>
<tr>
<td>2</td>
<td>3.353</td>
<td>3.645</td>
<td>70.407</td>
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<tr>
<td>3</td>
<td>2.096</td>
<td>2.278</td>
<td>72.685</td>
</tr>
<tr>
<td>4</td>
<td>1.445</td>
<td>1.571</td>
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<td>5</td>
<td>1.230</td>
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<td>1.093</td>
<td>1.189</td>
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<td>7</td>
<td>1.070</td>
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<td>.906</td>
<td>.985</td>
<td></td>
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<tr>
<td>9</td>
<td>.816</td>
<td>.887</td>
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<tr>
<td>10</td>
<td>.780</td>
<td>.848</td>
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Note: Extraction Method: Principal Axis Factoring.

<sup>a</sup> When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.
Table 3

*Study 2: Pattern matrix for Study 2 Factor Analysis, with items kept in **bold***

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<tr>
<th>ITEMS</th>
<th>FACTOR 1</th>
<th>FACTOR 2</th>
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<tr>
<td>A transman cannot &quot;become&quot; a man because biology says they are a woman.</td>
<td>1.01</td>
<td>-.08</td>
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<tr>
<td>Transwomen are not women because they were born with a penis, and therefore are men.</td>
<td>.96</td>
<td>-.02</td>
</tr>
<tr>
<td><strong>Transwomen may think they are women but because they were born with a penis they will never really be women.</strong></td>
<td>.95</td>
<td>.01</td>
</tr>
<tr>
<td>Transmen can never really be men because they were not born as men with male genitalia.</td>
<td>.93</td>
<td>.02</td>
</tr>
<tr>
<td>You are either a man or a woman, and you cannot change that.</td>
<td>.92</td>
<td>.01</td>
</tr>
<tr>
<td>Transmen cannot change the fact that they were born as women and will therefore always be women.</td>
<td>.91</td>
<td>.01</td>
</tr>
<tr>
<td>A transman was not born with a penis and so can never be a real man.</td>
<td>.91</td>
<td>.04</td>
</tr>
<tr>
<td>Because there can only be men or women, transwomen are still just men, regardless of what they may think.</td>
<td>.90</td>
<td>.05</td>
</tr>
<tr>
<td><strong>A transman cannot be a real man because they were born with a vagina and will always be a woman.</strong></td>
<td>.89</td>
<td>.07</td>
</tr>
<tr>
<td>Transmen are still women because there is only men and women; no other categories exist.</td>
<td>.88</td>
<td>.09</td>
</tr>
<tr>
<td>Transwomen can never really be women because they were not born with female genitalia.</td>
<td>.87</td>
<td>.05</td>
</tr>
<tr>
<td>Because a person's gender is the same thing as a person's sex, which is biological, it is impossible for transpeople to change their gender, no matter what they think.</td>
<td>.86</td>
<td>.06</td>
</tr>
<tr>
<td>Transmen are not really men because you can never change your gender.</td>
<td>.85</td>
<td>.10</td>
</tr>
<tr>
<td>Even with a surgically created vagina, transwomen will never truly be women.</td>
<td>.84</td>
<td>.05</td>
</tr>
<tr>
<td>A woman cannot “become” a man.</td>
<td>.83</td>
<td>.10</td>
</tr>
<tr>
<td><strong>Transmen are just women who claim to be men, but they are still just women.</strong></td>
<td>.80</td>
<td>.13</td>
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<tr>
<td>For a transwoman to claim they are a woman is unnatural because they were born a man.</td>
<td>.80</td>
<td>.18</td>
</tr>
<tr>
<td><strong>Transwomen were born as men and will therefore always be men.</strong></td>
<td>.79</td>
<td>.14</td>
</tr>
<tr>
<td>A person's sex is the same thing as a person's gender.</td>
<td>.79</td>
<td>.06</td>
</tr>
<tr>
<td>You are either a man or a woman; there is nothing in between or outside of those two categories.</td>
<td>.78</td>
<td>.12</td>
</tr>
<tr>
<td>No matter what a person thinks, they are either a man or a woman; there are no other categories.</td>
<td>.78</td>
<td>.16</td>
</tr>
<tr>
<td><strong>I think that transmen are just women acting like men.</strong></td>
<td>.74</td>
<td>.17</td>
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<tr>
<td>Transwomen cannot go against their biology; they will always be men.</td>
<td>.70</td>
<td>.17</td>
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<tr>
<td>Statement</td>
<td>Value</td>
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<tr>
<td>---------------------------------------------------------------------------</td>
<td>-------</td>
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<tr>
<td>It does not matter how they think of themselves, I will always consider</td>
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<td></td>
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<td>transwomen to be men because you cannot change your gender.</td>
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<tr>
<td>Even if they had a sex change operation, a transman would still always be</td>
<td>.69</td>
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<tr>
<td>a woman.</td>
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</tr>
<tr>
<td>Transwomen are just men who feel feminine.</td>
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<tr>
<td>I don't think it is safe for the children to let transwomen have</td>
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<tr>
<td>unsupervised access to children.</td>
<td>.89</td>
<td></td>
</tr>
<tr>
<td>I don’t think I could maintain a relationship with a friend who came out</td>
<td>-.01</td>
<td></td>
</tr>
<tr>
<td>to me as transgender.</td>
<td>.88</td>
<td></td>
</tr>
<tr>
<td>If my child were in a class taught by a transgender individual, I would</td>
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</tr>
<tr>
<td>want them put in another class.</td>
<td>.85</td>
<td></td>
</tr>
<tr>
<td>I don’t want a transgender person teaching my kids because I don’t know</td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>what they would teach my children.</td>
<td>.85</td>
<td></td>
</tr>
<tr>
<td>I wouldn’t want a child of mine taught by a transwoman</td>
<td>.08</td>
<td></td>
</tr>
<tr>
<td>I would not be comfortable making friends with a transgender individual.</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>Transgender people shouldn’t become doctors because their patients would</td>
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<td></td>
</tr>
<tr>
<td>never feel comfortable around them.</td>
<td>.79</td>
<td></td>
</tr>
<tr>
<td>If I found out my brother was serving in the army with a transman, I</td>
<td>-.07</td>
<td></td>
</tr>
<tr>
<td>would be concerned with my brother’s safety.</td>
<td>.78</td>
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<tr>
<td>I do not think a child of mine would be safe if left in the care of a</td>
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<tr>
<td>transman.</td>
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<td>I would be uncomfortable around a transgender individual because they</td>
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<tr>
<td>cannot decide if they are a man or a woman.</td>
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<td></td>
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<tr>
<td>If a family member of mine came out as transgender, I don’t think I would</td>
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</tr>
<tr>
<td>be comfortable being around them anymore.</td>
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<td>I wouldn’t feel comfortable sharing such close, intimate space with a</td>
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<tr>
<td>transgender roommate.</td>
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<tr>
<td>I wouldn’t feel safe letting my children be looked after by a transwoman.</td>
<td>.19</td>
<td></td>
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<tr>
<td>I would feel violated if I had to use the same locker room that I knew a</td>
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<tr>
<td>transgender individual was also using.</td>
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<tr>
<td>I wouldn’t feel comfortable with transmen using the same locker rooms as</td>
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<tr>
<td>my dad.</td>
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<tr>
<td>Transmen are just not manly enough to serve along-side real men on the</td>
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<td>front lines in the military.</td>
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Table 4

Study 2: Final Transgender Prejudice Scale with pattern (and structure) coefficients

<table>
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<tr>
<th>Sex Essentialism</th>
<th>Sex Essentialism</th>
<th>Discomfort</th>
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<tr>
<td>A transman cannot &quot;become&quot; a man because biology says they are a woman.</td>
<td>0.99 (-0.94)</td>
<td>-0.07 (-0.70)</td>
</tr>
<tr>
<td>Transwomen may think they are women but because they were born with a penis they will never really be women.</td>
<td>0.95 (-0.95)</td>
<td>-0.01 (-0.73)</td>
</tr>
<tr>
<td>Transmen can never really be men because they were not born as men with male genitalia.</td>
<td>0.90 (-0.94)</td>
<td>0.05 (-0.75)</td>
</tr>
<tr>
<td>Because there can only be men or women, transwomen are still just men, regardless of what they may think.</td>
<td>0.90 (-0.94)</td>
<td>0.05 (-0.75)</td>
</tr>
<tr>
<td>You are either a man or a woman, and you cannot change that.</td>
<td>0.89 (-0.92)</td>
<td>0.04 (-0.73)</td>
</tr>
<tr>
<td>Transmen cannot change the fact that they were born as women and will therefore always be women</td>
<td>0.89 (-0.92)</td>
<td>0.03 (-0.72)</td>
</tr>
<tr>
<td>A transman cannot be a real man because they were born with a vagina and will always be a woman.</td>
<td>0.88 (-0.94)</td>
<td>0.09 (-0.77)</td>
</tr>
<tr>
<td>Because a person's gender is the same thing as a person's sex, which is biological, it is impossible for transpeople to change their gender, no matter what they think.</td>
<td>0.86 (-0.90)</td>
<td>0.05 (-0.72)</td>
</tr>
<tr>
<td>Even with a surgically created vagina, transwomen will never truly be women.</td>
<td>0.84 (-0.89)</td>
<td>0.06 (-0.70)</td>
</tr>
<tr>
<td>Transmen are not really men because you can never change your gender.</td>
<td>0.83 (-0.92)</td>
<td>0.12 (-0.76)</td>
</tr>
<tr>
<td>Transmen are just women who claim to be men, but they are still just women.</td>
<td>0.82 (-0.91)</td>
<td>0.11 (-0.75)</td>
</tr>
<tr>
<td>Transwomen were born as men and will therefore always be men.</td>
<td>0.81 (-0.90)</td>
<td>0.11 (-0.74)</td>
</tr>
<tr>
<td>I think that transmen are just women acting like men.</td>
<td>0.75 (-0.87)</td>
<td>0.16 (-0.74)</td>
</tr>
<tr>
<td>Transwomen cannot go against their biology; they will always be men.</td>
<td>0.74 (-0.84)</td>
<td>0.13 (-0.70)</td>
</tr>
<tr>
<td>It does not matter how they think of themselves, I will always consider transwomen to be men because you cannot change your gender.</td>
<td>0.72 (-0.83)</td>
<td>0.14 (-0.70)</td>
</tr>
<tr>
<td>Transwomen are just men who feel feminine.</td>
<td>0.69 (-0.72)</td>
<td>0.03 (-0.57)</td>
</tr>
<tr>
<td><strong>Discomfort</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I don’t think I could maintain a relationship with a friend who came out to me as transgender.</td>
<td>-0.01 (-0.68)</td>
<td>0.89 (-0.88)</td>
</tr>
<tr>
<td>I don't think it is safe for the children to let transwomen have unsupervised access to children.</td>
<td>0.08 (-0.72)</td>
<td>0.82 (-0.89)</td>
</tr>
<tr>
<td>Transgender people shouldn’t become doctors because their patients would never feel comfortable around them.</td>
<td>0.06 (-0.70)</td>
<td>0.82 (-0.87)</td>
</tr>
<tr>
<td>If I found out my brother was serving in the army with a transman, I would be concerned with my brother’s safety.</td>
<td>-0.08 (-0.54)</td>
<td>0.80 (-0.74)</td>
</tr>
<tr>
<td>If a family member of mine came out as transgender, I don’t think I would be comfortable being around them anymore.</td>
<td>0.03 (-0.63)</td>
<td>0.78 (-0.80)</td>
</tr>
<tr>
<td>I would be uncomfortable around a transgender individual because they cannot decide if they are a man or a woman.</td>
<td>0.14 (-0.72)</td>
<td>0.75 (-0.86)</td>
</tr>
<tr>
<td>Transmen are just not manly enough to serve along-side real men on the front lines in the military.</td>
<td>0.16 (-0.67)</td>
<td>0.66 (-0.78)</td>
</tr>
<tr>
<td>I would feel violated if I had to use the same locker room that I knew a transgender individual was also using.</td>
<td>0.22 (-0.72)</td>
<td>0.65 (-0.82)</td>
</tr>
<tr>
<td>I wouldn’t feel comfortable sharing such close, intimate space with a transgender roommate.</td>
<td>0.23 (-0.69)</td>
<td>0.60 (-0.78)</td>
</tr>
</tbody>
</table>
Table 5

*Study 2: Differences in pattern (and structure) factor loadings for male and female participants*

<table>
<thead>
<tr>
<th>Transmen cannot change the fact that they were born as women and will therefore always be women.</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transwomen are just men who feel feminine.</td>
<td>Factor 1</td>
<td>Factor 2</td>
</tr>
<tr>
<td>If a family member of mine came out as transgender, I don’t think I would be comfortable being around them anymore.</td>
<td>0.87</td>
<td>-0.9</td>
</tr>
<tr>
<td>Transwomen cannot go against their biology; they will always be men.</td>
<td>0.72</td>
<td>-0.7</td>
</tr>
<tr>
<td>If I found out my brother was serving in the army with a transman, I would be concerned with my brother’s safety.</td>
<td>0.18</td>
<td>-0.7</td>
</tr>
<tr>
<td>Transwomen were born as men and will therefore always be men.</td>
<td>0.87</td>
<td>-0.9</td>
</tr>
<tr>
<td>I would be uncomfortable around a transgender individual because they cannot decide if they are a man or a woman.</td>
<td>0.34</td>
<td>-0.8</td>
</tr>
<tr>
<td>I think that transmen are just women acting like men.</td>
<td>0.84</td>
<td>-0.9</td>
</tr>
<tr>
<td>Because there can only be men or women, transwomen are still just men, regardless of what they may think.</td>
<td>0.9</td>
<td>-1</td>
</tr>
<tr>
<td>I wouldn’t feel comfortable sharing such close, intimate space with a transgender roommate.</td>
<td>0.15</td>
<td>-0.7</td>
</tr>
<tr>
<td>A transman cannot be a real man because they were born with a vagina and will always be a woman.</td>
<td>0.87</td>
<td>-1</td>
</tr>
<tr>
<td>I don’t think it is safe for the children to let transwomen have unsupervised access to children.</td>
<td>0.08</td>
<td>-0.7</td>
</tr>
<tr>
<td>Transmen are just women who claim to be men, but they are still just women.</td>
<td>0.89</td>
<td>-0.9</td>
</tr>
<tr>
<td>I would feel violated if I had to use the same locker room that I knew a transgender individual was also using.</td>
<td>0.29</td>
<td>-0.8</td>
</tr>
<tr>
<td>Even with a surgically created vagina, transwomen will never truly be women.</td>
<td>0.82</td>
<td>-0.9</td>
</tr>
<tr>
<td>A transman cannot “become” a man because biology says they are a woman.</td>
<td>1.01</td>
<td>-1</td>
</tr>
<tr>
<td>Transgender people shouldn’t become doctors because their patients would never feel comfortable around them.</td>
<td>-0.1</td>
<td>-0.7</td>
</tr>
<tr>
<td>Transmen are not really men because you can never change your gender.</td>
<td>0.82</td>
<td>-0.9</td>
</tr>
</tbody>
</table>
Table 5

*Study 2: Differences in pattern (and structure) factor loadings for male and female participants (continued)*

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th></th>
<th>Male</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>You are either a man or a woman, and you cannot change that.</td>
<td>0.87</td>
<td>-0.9</td>
<td>0.9</td>
<td>-0.9</td>
</tr>
<tr>
<td>I don’t think I could maintain a relationship with a friend who came out to me as transgender.</td>
<td>0</td>
<td>-0.7</td>
<td>0.88</td>
<td>-0.9</td>
</tr>
<tr>
<td>Transwomen may think they are women but because they were born with a penis they will never really be women.</td>
<td>0.91</td>
<td>-1</td>
<td>0.07</td>
<td>-0.8</td>
</tr>
<tr>
<td>Transmen can never really be men because they were not born as men with male genitalia.</td>
<td>0.9</td>
<td>-1</td>
<td>0.07</td>
<td>-0.8</td>
</tr>
<tr>
<td>Because a person's gender is the same thing as a person's sex, which is biological, it is impossible for transpeople to change their gender, no matter what they think.</td>
<td>0.85</td>
<td>-0.9</td>
<td>0.09</td>
<td>-0.8</td>
</tr>
<tr>
<td>Transmen are just not manly enough to serve along-side real men on the front lines in the military.</td>
<td>0.07</td>
<td>-0.7</td>
<td>0.77</td>
<td>-0.8</td>
</tr>
<tr>
<td>It does not matter how they think of themselves, I will always consider transwomen to be men because you cannot change your gender.</td>
<td>0.78</td>
<td>-0.9</td>
<td>0.11</td>
<td>-0.7</td>
</tr>
</tbody>
</table>

**Note:** The values in the table represent factor loadings for male and female participants.
Table 6

Study 3: Means (standard deviations) and F values for presentation order

<table>
<thead>
<tr>
<th></th>
<th>Order 1</th>
<th>Order 2</th>
<th>Order 3</th>
<th>Order 4</th>
<th>F(3, 266)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPS</td>
<td>2.83 (.15)</td>
<td>2.76 (.16)</td>
<td>2.99 (.19)</td>
<td>2.40 (.18)</td>
<td>1.892</td>
<td>.131</td>
</tr>
<tr>
<td>EI</td>
<td>3.61 (.069)</td>
<td>3.57 (.07)</td>
<td>3.69 (.09)</td>
<td>3.68 (.08)</td>
<td>.564</td>
<td>.639</td>
</tr>
<tr>
<td>GRBS</td>
<td>4.63 (.13)</td>
<td>4.55 (.14)</td>
<td>4.30 (.16)*</td>
<td>4.95 (.15)*</td>
<td>3.087</td>
<td>.028</td>
</tr>
</tbody>
</table>

* Means differ at p < .05

Note: TPS = Transgender Prejudice Scale; EI = Essentialism Index; GRBS = Gender Role Beliefs Scale; Order 1 = GRBS/EI/TPS; Order 2 = GRBS/TPS/EI; Order 3 = EI/TPS/GRBS; and Order 4 = TPS/EI/GRBS
Table 7

Study 3: Means (and standard deviations) for differences in scale by gender

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>t(268)</th>
<th>p</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPS</td>
<td>3.05 (1.32)</td>
<td>2.62 (1.41)</td>
<td>-2.377</td>
<td>.018</td>
<td>.31</td>
</tr>
<tr>
<td>GRBS</td>
<td>4.49 (1.05)</td>
<td>4.68 (1.19)</td>
<td>1.226</td>
<td>.221</td>
<td>.17</td>
</tr>
<tr>
<td>EI</td>
<td>3.54 (0.63)</td>
<td>3.66 (0.62)</td>
<td>1.505</td>
<td>.133</td>
<td>.19</td>
</tr>
<tr>
<td>TS</td>
<td>5.11 (1.52)</td>
<td>4.67 (1.69)</td>
<td>-2.140</td>
<td>.034</td>
<td>.27</td>
</tr>
<tr>
<td>GTS</td>
<td>2.86 (1.23)</td>
<td>2.38 (1.25)</td>
<td>-2.914</td>
<td>.004</td>
<td>.39</td>
</tr>
<tr>
<td>ATTIS</td>
<td>3.65 (1.06)</td>
<td>3.88 (1.05)</td>
<td>1.687</td>
<td>.093</td>
<td>.22</td>
</tr>
<tr>
<td>MC-SDS</td>
<td>.51 (.26)</td>
<td>.49 (.28)</td>
<td>-.532</td>
<td>.595</td>
<td>.07</td>
</tr>
<tr>
<td>MR</td>
<td>2.60 (0.86)</td>
<td>2.24 (0.79)</td>
<td>-3.428</td>
<td>.001</td>
<td>.44</td>
</tr>
<tr>
<td>ATLG</td>
<td>3.47 (2.31)</td>
<td>3.02 (2.34)</td>
<td>-1.498</td>
<td>.135</td>
<td>.19</td>
</tr>
</tbody>
</table>

Note: TPS = Transgender Prejudice Scale; GRBS = Gender Role Beliefs Scale; EI = Essentialism Index; TS = Transphobia Scale; GTS = Genderism and Transphobia Scale; ATTIS = Attitudes Toward Transgendered Individuals Scale; MC-SDS = Marlowe-Crowne Social Desirability Scale; MR = Modern Racism; ATLG = Attitudes toward Lesbians and Gay men.
### Table 8

**Study 3: Means (and standard deviations) for differences in scale by prior contact with a transgender individual**

<table>
<thead>
<tr>
<th></th>
<th>No prior contact</th>
<th>Prior contact</th>
<th>t (267)</th>
<th>p</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPS</td>
<td>3.22 (1.35)</td>
<td>2.29 (1.29)</td>
<td>5.723</td>
<td>&lt;.001</td>
<td>.70</td>
</tr>
<tr>
<td>GRBS</td>
<td>4.34 (1.10)</td>
<td>4.88 (1.16)</td>
<td>-3.928</td>
<td>&lt;.001</td>
<td>.48</td>
</tr>
<tr>
<td>EI</td>
<td>3.56 (0.58)</td>
<td>3.68 (0.66)</td>
<td>-1.598</td>
<td>.111</td>
<td>.19</td>
</tr>
<tr>
<td>TS</td>
<td>5.32 (1.36)</td>
<td>4.26 (1.80)</td>
<td>5.467*</td>
<td>&lt;.001</td>
<td>.66</td>
</tr>
<tr>
<td>GTS</td>
<td>2.92 (1.29)</td>
<td>2.14 (1.16)</td>
<td>5.234*</td>
<td>&lt;.001</td>
<td>.64</td>
</tr>
<tr>
<td>ATTIS</td>
<td>3.45 (1.09)</td>
<td>4.17 (0.88)</td>
<td>-5.932*</td>
<td>&lt;.001</td>
<td>.73</td>
</tr>
<tr>
<td>MC-SDS</td>
<td>.49 (.27)</td>
<td>.53 (.27)</td>
<td>-1.254</td>
<td>.211</td>
<td>.15</td>
</tr>
<tr>
<td>MR</td>
<td>2.51 (0.79)</td>
<td>2.20 (0.84)</td>
<td>3.074</td>
<td>.002</td>
<td>.38</td>
</tr>
<tr>
<td>ATLG</td>
<td>3.81 (2.44)</td>
<td>2.51 (2.04)</td>
<td>4.738*</td>
<td>&lt;.001</td>
<td>.59</td>
</tr>
</tbody>
</table>

**Note:** TPS = Transgender Prejudice Scale; GRBS = Gender Role Beliefs Scale; EI = Essentialism Index; TS = Transphobia Scale; GTS = Genderism and Transphobia Scale; ATTIS = Attitudes Toward Transgendered Individuals Scale; MC-SDS = Marlowe-Crowne Social Desirability Scale; MR = Modern Racism; ATLG = Attitudes toward Lesbians and Gay men.

**Note:** * = adjusted degrees of freedom were used for these t tests due to a statistically significant Levene’s test.
Table 9

*Fit indices for structural equation models*

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>S-B $\chi^2$</th>
<th>AIC</th>
<th>CFI</th>
<th>RMSEA</th>
<th>RMSEA 90% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two Factors</td>
<td>274</td>
<td>735.07*</td>
<td>187.07</td>
<td>.947</td>
<td>.085</td>
<td>.077-.092</td>
</tr>
<tr>
<td>Two Factors, errors correlated</td>
<td>272</td>
<td>522.87*</td>
<td>-21.13</td>
<td>.971</td>
<td>.063</td>
<td>.055-.071</td>
</tr>
<tr>
<td>One Factor</td>
<td>275</td>
<td>1298.77*</td>
<td>748.77</td>
<td>.883</td>
<td>.126</td>
<td>.119-.133</td>
</tr>
<tr>
<td>One Factor, errors correlated</td>
<td>273</td>
<td>1097.07*</td>
<td>551.07</td>
<td>.906</td>
<td>.114</td>
<td>.106-.120</td>
</tr>
</tbody>
</table>

Note: S-B $\chi^2$ = Satorra-Bentler Scaled Chi squared test; AIC = Akaike Information Criterion; CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation.
### Table 10

**Study 3: All Correlations**

<table>
<thead>
<tr>
<th></th>
<th>TS</th>
<th>GTS</th>
<th>GTS GB</th>
<th>GTS TP</th>
<th>ATTIS</th>
<th>GRBS</th>
<th>EI</th>
<th>EI BIO</th>
<th>EI DISC</th>
<th>EI INFO</th>
<th>MC</th>
<th>MR</th>
<th>ATG</th>
<th>ATGL</th>
<th>ATL</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPS</td>
<td>.725**</td>
<td>.839**</td>
<td>.247**</td>
<td>.864**</td>
<td>-.900**</td>
<td>-.548**</td>
<td>-.390**</td>
<td>-.130**</td>
<td>-.464**</td>
<td>-.330**</td>
<td>-.038</td>
<td>.427**</td>
<td>.793**</td>
<td>.792**</td>
<td>.756**</td>
</tr>
<tr>
<td>TS</td>
<td>.697**</td>
<td>.709**</td>
<td>.709**</td>
<td>.247**</td>
<td>.864**</td>
<td>-.900**</td>
<td>-.548**</td>
<td>-.390**</td>
<td>-.130**</td>
<td>-.464**</td>
<td>-.330**</td>
<td>-.038</td>
<td>.427**</td>
<td>.793**</td>
<td>.792**</td>
</tr>
<tr>
<td>GTS</td>
<td>.554**</td>
<td>.933**</td>
<td>.593**</td>
<td>.727**</td>
<td>.503**</td>
<td>-.432**</td>
<td>-.290**</td>
<td>-.411**</td>
<td>-.304**</td>
<td>-.066</td>
<td>.487**</td>
<td>.591**</td>
<td>.585**</td>
<td>.552**</td>
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</tr>
<tr>
<td>GTS GB</td>
<td>1</td>
<td>.453**</td>
<td>-.282**</td>
<td>-.189**</td>
<td>.201**</td>
<td>-1.119</td>
<td>-2.05**</td>
<td>-1.150</td>
<td>.070</td>
<td>.197**</td>
<td>.249**</td>
<td>.256**</td>
<td>.251**</td>
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<td></td>
</tr>
<tr>
<td>GTS TP</td>
<td>1</td>
<td>-.913**</td>
<td>-.569**</td>
<td>-.414**</td>
<td>-1.175**</td>
<td>-.456**</td>
<td>-.347**</td>
<td>-.062</td>
<td>.385**</td>
<td>.820**</td>
<td>.828**</td>
<td></td>
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<td>.800**</td>
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</tr>
<tr>
<td>ATTIS</td>
<td>1</td>
<td>.562**</td>
<td>.389**</td>
<td>.149**</td>
<td>.436**</td>
<td>.338**</td>
<td>.084</td>
<td>-.430**</td>
<td>-.857**</td>
<td>-.867**</td>
<td>-.841**</td>
<td></td>
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<tr>
<td>GRBS</td>
<td>1</td>
<td>.318**</td>
<td>.133**</td>
<td>.389**</td>
<td>.212**</td>
<td>.121**</td>
<td>-.318**</td>
<td>-.532**</td>
<td>-.539**</td>
<td>-.524**</td>
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</tr>
<tr>
<td>EI</td>
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<td>.832**</td>
<td>.781**</td>
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<td>-.265**</td>
<td>-.333**</td>
<td>-.330**</td>
<td>-.313**</td>
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<tr>
<td>EI BIO</td>
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<td>.336**</td>
<td>.332**</td>
<td>.043</td>
<td>-.102</td>
<td>-.104</td>
<td>-.100</td>
<td>-.091</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>EI DISC</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td>.610**</td>
<td>.119</td>
<td>-.326**</td>
<td>-.390**</td>
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<td></td>
</tr>
<tr>
<td>MR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATGL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: TPS = Transgender Prejudice Scale; GRBS = Gender role Belief Scale; EI = Essentialism Index; EI Bio = EI Biological subscale; EI Disc. = EI Discreet subscale; EI Info. = EI Informativeness subscale; TS = Transphobia Scale; GTS = Genderism and Transphobia Scale; GTS GB = GTS Gender-bashing subscale; GTS TP = GTS Transphobia subscale; ATTIS = Attitudes Toward Transgender Individuals Scale; MC = Marlow-Crowne Social Desirability Scale; MR = Modern Racism scale; ATG = Attitudes toward Gay Men; ATGL = Attitudes toward Gay Men and Lesbians; ATL = Attitudes toward Lesbians.

*p < .05  **p < .01*
Table 11

**Study 4: Means (and standard deviations), and F and p values for ANOVAs by condition**

<table>
<thead>
<tr>
<th></th>
<th>Cisman/Transman</th>
<th>Transman/Cisman</th>
<th>Ciswoman/Transwoman</th>
<th>Transwoman/Ciswoman</th>
<th>$F(3,81)$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TPS</strong></td>
<td>2.92 (1.66)</td>
<td>2.66 (1.57)</td>
<td>3.16 (1.65)</td>
<td>2.57 (1.56)</td>
<td>.688</td>
<td>.562</td>
</tr>
<tr>
<td><strong>GTS</strong></td>
<td>5.49 (1.41)</td>
<td>5.33 (1.46)</td>
<td>4.98 (1.47)</td>
<td>5.70 (1.07)</td>
<td>1.270</td>
<td>.290</td>
</tr>
<tr>
<td><strong>TR</strong></td>
<td>4.19 (1.64)</td>
<td>4.39 (1.60)</td>
<td>4.00 (1.49)</td>
<td>4.55 (1.34)</td>
<td>.620</td>
<td>.604</td>
</tr>
<tr>
<td><strong>TransLike</strong></td>
<td>3.58 (1.69)</td>
<td>4.41 (1.39)</td>
<td>3.88 (1.36)</td>
<td>4.54 (1.30)</td>
<td>1.908</td>
<td>.135</td>
</tr>
<tr>
<td><strong>CisLike</strong></td>
<td>4.96 (0.56)</td>
<td>4.75 (1.36)</td>
<td>4.98 (0.74)</td>
<td>5.19 (0.70)</td>
<td>.828</td>
<td>.482</td>
</tr>
<tr>
<td><strong>TransWork</strong></td>
<td>4.73 (0.70)</td>
<td>4.85 (1.03)</td>
<td>4.71 (0.64)</td>
<td>5.10 (0.76)</td>
<td>1.139</td>
<td>.338</td>
</tr>
<tr>
<td><strong>CisWork</strong></td>
<td>5.31 (0.56)</td>
<td>4.91 (1.23)</td>
<td>5.24 (0.48)</td>
<td>5.32 (0.86)</td>
<td>1.092</td>
<td>.357</td>
</tr>
</tbody>
</table>

Note: TPS = Transgender Prejudice Scale; GTS = Genderism & Transphobia Scale; TR = Transgender Rights support; TransLike/CisLike = Transgender/Cisgender Likability; TransWork/CisWork = Transgender/Cisgender work ethic.
### Study 4: Means (and standard deviations), and t and p values by contact with trans person

<table>
<thead>
<tr>
<th></th>
<th>No Contact</th>
<th>Contact</th>
<th>(t(80))</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPS</td>
<td>3.09 (1.56)</td>
<td>2.57 (1.67)</td>
<td>1.415</td>
<td>.161</td>
</tr>
<tr>
<td>GTS</td>
<td>5.15 (1.33)</td>
<td>5.51 (1.43)</td>
<td>-1.142</td>
<td>.257</td>
</tr>
<tr>
<td>TR</td>
<td>4.12 (1.47)</td>
<td>4.35 (1.55)</td>
<td>-0.658</td>
<td>.513</td>
</tr>
<tr>
<td>TransLike</td>
<td>3.85 (1.46)</td>
<td>4.38 (1.34)</td>
<td>-1.599</td>
<td>.114</td>
</tr>
<tr>
<td>CisLike</td>
<td>4.83 (0.95)</td>
<td>5.18 (0.66)</td>
<td>-1.799</td>
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</tr>
<tr>
<td>TransWork</td>
<td>4.75 (0.79)</td>
<td>4.91 (0.73)</td>
<td>-0.924</td>
<td>.358</td>
</tr>
<tr>
<td>CisWork</td>
<td>5.10 (0.91)</td>
<td>5.34 (0.55)</td>
<td>-1.320</td>
<td>.191</td>
</tr>
</tbody>
</table>

Note: TPS = Transgender Prejudice Scale; GTS = Genderism & Transphobia Scale; TR = Transgender Rights support; TransLike/CisLike = Transgender/Cisgender Likability; TransWork/CisWork = Transgender/Cisgender work ethic.
Table 13

Study 4: Means (and standard deviations) for Likability

<table>
<thead>
<tr>
<th>Participant Gender</th>
<th>Transgender</th>
<th></th>
<th></th>
<th>Cisgender</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male-identified</td>
<td>Female-identified</td>
<td>Male-identified</td>
<td>Female-identified</td>
<td>Male-identified</td>
<td>Female-identified</td>
</tr>
<tr>
<td>Male</td>
<td>3.68 (1.53)</td>
<td>3.99 (1.41)</td>
<td>4.64 (1.14)</td>
<td>4.97 (0.76)</td>
<td>5.11 (0.67)</td>
<td>5.22 (0.67)</td>
</tr>
<tr>
<td>Female</td>
<td>4.44 (1.49)</td>
<td>4.35 (1.31)</td>
<td>5.11 (0.67)</td>
<td>5.22 (0.67)</td>
<td>5.11 (0.67)</td>
<td>5.22 (0.67)</td>
</tr>
</tbody>
</table>
### Study 4: F values for main effects and interactions for Likability

<table>
<thead>
<tr>
<th></th>
<th>MS</th>
<th>F(1, 78)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant gender</td>
<td>7.119</td>
<td>3.896</td>
<td>.052</td>
</tr>
<tr>
<td>Target gender identification</td>
<td>.862</td>
<td>.472</td>
<td>.494</td>
</tr>
<tr>
<td>Transgender status</td>
<td>25.375</td>
<td>26.496</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Participant gender x target gender</td>
<td>.804</td>
<td>.440</td>
<td>.509</td>
</tr>
<tr>
<td>Participant gender x transgender status</td>
<td>.350</td>
<td>.366</td>
<td>.547</td>
</tr>
<tr>
<td>Gender identification x transgender status</td>
<td>.096</td>
<td>.1</td>
<td>.752</td>
</tr>
<tr>
<td>Participant gender x gender identification x transgender status</td>
<td>.073</td>
<td>.076</td>
<td>.784</td>
</tr>
</tbody>
</table>
Table 15

*Study 4: Means (and standard deviations) for Hardworking*

<table>
<thead>
<tr>
<th>Participant Gender</th>
<th>Transgender</th>
<th>Cisgender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male-identified</td>
<td>Female-identified</td>
</tr>
<tr>
<td>Male</td>
<td>4.67 (.089)</td>
<td>4.82 (0.73)</td>
</tr>
<tr>
<td>Female</td>
<td>4.85 (0.80)</td>
<td>4.95 (0.72)</td>
</tr>
</tbody>
</table>
Table 16

*Study 4: F values for main effects and interactions for Hardworking*

<table>
<thead>
<tr>
<th></th>
<th>MS</th>
<th>F(1,78)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant gender</td>
<td>1.467</td>
<td>1.494</td>
<td>.225</td>
</tr>
<tr>
<td>Target gender identification</td>
<td>.698</td>
<td>.711</td>
<td>.225</td>
</tr>
<tr>
<td>Transgender status</td>
<td>5.071</td>
<td>18.902</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Participant gender x target gender</td>
<td>.252</td>
<td>.257</td>
<td>.614</td>
</tr>
<tr>
<td>Participant gender x transgender status</td>
<td>.092</td>
<td>.344</td>
<td>.559</td>
</tr>
<tr>
<td>Gender identification x transgender status</td>
<td>.010</td>
<td>.037</td>
<td>.848</td>
</tr>
<tr>
<td>Participant gender x gender identification x transgender status</td>
<td>.113</td>
<td>.421</td>
<td>.519</td>
</tr>
</tbody>
</table>
Figure 1. Final two-factor model for the TPS (Model 2b).
Figure 2. Final one-factor model of the TPS (Model 1b).
Appendix A
Initial item pool and instructions

INSTRUCTIONS
Please indicate the extent to which you personally agree with the following statements using the provided 6-point scale. Please consider each question individually and respond honestly. If you do not know how you feel about any given question, please make your best guess based upon your “gut” feeling.

While answering the survey, please keep the following definitions in mind:

Transgender person: someone who feels as though they were born with the “wrong” gender and now lives life as the opposite gender. This has no connection with a person’s sexual orientation; some transgender people are gay, while others are straight. Furthermore, while some transgender people choose to undergo a “sex change” operation, many do not.

Transwoman: Someone born male but has a deep-seated psychological self-concept of a woman, and who is now living life as a woman.

Transman: Someone born female but has a psychological self-concept of a man, and who is now living life as a man.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Disagree a little</th>
<th>Agree a little</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

1. Transmen are just women who feel masculine.
2. It is annoying that transgender individuals do not behave like proper men or women should.
3. It does not matter how they think of themselves, transwomen will always be men because you cannot change your gender.
4. Transwomen cannot go against their chromosomes; they will always be men.
5. Transwomen are just disturbed men who want to act womanly.
6. Even if they had a sex change operation, a transman would still always be a woman.
7. I do not like it when women dress up and pretend they are men.
8. I wouldn’t feel safe letting my children be looked after by a transwoman.
9. Letting transwomen use women’s only shelters would lead to unsafe situations.
10. I would be comfortable with a transwoman using the same public restroom my sister was using.
11. It would be easier to accept transmen if they would act more like proper women.
12. You are either a man or a woman; there is nothing in between or outside of those two categories.
13. It is disturbing to me when a man puts on a dress and thinks he is a woman.
14. It is irritating when men or women act as if they are the opposite gender.
15. I would not feel safe letting a transman care for a child of mine.
16. Transwomen irritate me because they are men pretending they can pass as women.
17. No matter what a person thinks, they are either a man or a woman; there are no other categories.
18. Transmen cannot pass as men because they lack the natural toughness of real men.
19. I do not expect transwomen to be very compassionate; they are men, after all.
20. If I found out the person I had a crush on was actually transgender, I would be disgusted.
21. If a family member of mine came out as transgender, I don’t think I would be comfortable being around them anymore.
22. Transmen are just women who claim to be men.
23. Transgender individuals are uncomfortable to be around because they cannot decide if they are a man or a woman.
24. There is a strict line between men and women, and transgender individuals violate that line.
25. Transmen are just women who wish they were as powerful as men.
26. It is irritating when men call themselves women and act feminine.
27. No one can be both a man and a woman, to any degree.
28. Transmen aren't men because no one can stop being a woman.
29. I think it is wrong that transgender individuals do not act like proper men or women should.
30. Transwomen were born as men and will therefore always be men.
31. I don’t think I could maintain a relationship with a friend who came out to me as transgender.
32. It is relieving when I see a man or a woman acting like a man or a woman is supposed to act.
33. If my child were in a class taught by a transgender individual, I would want them put in another class.
34. If transmen had access to men-only spaces, it could lead to unsafe situations.
35. A woman cannot “become” a man.
36. No matter what a transgender person thinks their gender is, their gender is based on their biology, so they cannot change their gender.
37. When I see a woman dressing like a man and calling herself a man, it upsets me.
38. I would not be comfortable making friends with a transgender individual.
39. It is upsetting to me that transwomen are men who think they are women.
40. Transgender people annoy me because they really think they can change their gender.
41. Transwomen should not try to act like women because when men act like women, it is disgusting.
42. If people are allowed to use the restroom of their choice, perverted men will just claim to be women to gain access to women’s restrooms for perverted reasons.
43. If I found out my brother was serving in the army with a transman, I would be concerned with my brother’s safety.
44. I would feel more comfortable around transgender people if they acted like typical men and women instead of acting like deviants.
45. Allowing transmen to use whichever changing room or bathroom they want would allow sexually deviant women to abuse the situation.
46. Transwomen can never really be women because they were not born with female genitalia.
47. Letting transwomen into women’s only spaces would allow perverted men to abuse the situation.
48. I wouldn’t want a child of mine taught by a transwoman.
49. Hiring a transwoman could lead to unsafe situations for the female employees.
50. It is disgusting when women call themselves men and act masculine.
51. A transman cannot be a man because biology says they are a woman.
52. Transwomen are not women because they were born with a penis, and therefore are men.
53. I think that transmen are just women acting like men.
54. Your biology sets your gender for life, which is why transgender people cannot change their gender.
55. I would feel violated if I had to use the same locker room that I knew a transgender individual was also using.
56. I would be grossed out if my male friend went on a date with a transwoman.
57. If I began flirting with someone and they turned out to be transgender, I would feel tricked.
58. Because a person’s gender is set at birth, no one can change it, not even a transgender person.
59. It would be comforting to me if transwomen would give up thinking they were women.
60. I wouldn’t feel comfortable sharing such close, intimate space with a transgender roommate.
61. Transwomen are just men who feel feminine.
62. Transmen are probably not very assertive because deep down they are still women.
63. I would feel comfortable with a transgender individual whose birth sex is different than mine using the same restroom as me.
64. I don’t want a transgender person teaching my kids because I don’t know what they would teach my children.
65. A transman cannot be a real man because they were born with a vagina and will always be a woman.
66. Because there can only be men or women, transwomen are still just men, regardless of what they may think.
67. Transmen can never really be men because they were not born as men with male genitalia.
68. Transgender individuals cannot change their gender because, biologically, they cannot ever change their chromosomes.
69. I find it irritating when women think they are men.
70. Transmen cannot change the fact that they were born as women and will therefore always be women.
71. I think it is wrong for women to claim they are men, like transmen do.
72. I would be disgusted with the idea of a male family member marrying a transwoman.
73. For a transwoman to claim they are a woman is unnatural because they were born a man.
74. I think I would be fine with a transgender nurse attending to me.
75. Transwomen may think they are women but because they were born with a penis they will never really be women.
76. Transmen and transwomen are deviants who don’t want to act like men and women should.
77. I wouldn’t feel comfortable with transmen using men’s locker rooms.
78. Allowing transmen to serve in the military alongside real men would weaken the brotherhood that serving in the military builds.
79. Transgender people shouldn’t become doctors because their patients would never feel comfortable around them.
80. Transmen are still women because there is only men and women; no other categories exist.
81. A transwoman can never be a woman because biologically they will always be a man.
82. Even with a surgically created vagina, transwomen will never truly be women.
83. Letting women use men’s restrooms just because they claim to be men could lead to dangerous situations.
84. If transwomen are allowed access to women’s only spaces, it would make those spaces un-safe for real women.
85. It’s possible for transwomen to be just as nurturing as real women.
86. Transmen are not really men because you can never change your gender.
87. If my sister announced that she was marrying a transman, I would be disgusted.
88. Transmen who want to gain access to men’s changing rooms are just sexually deviant women.
89. You are either a man or a woman, and you cannot change that.
90. If I went on a date with someone who I found out after the fact was transgender, I would feel disgusting.
91. I feel men should behave like proper men and women should behave like proper women.
92. A transman was not born with a penis and so can never be a real man.
Appendix B
Focus group protocol

Focus Group Protocol

Before the group begins, ensure that there are copies of the scale at each seat.

WELCOME

“Thank you for agreeing to be a part of this study. [INTRODUCE YOURSELF, AND NOTE TAKER].”

PURPOSE

“For the remainder of this study, we will be discussing the scale that you have completed. Please keep in mind, we do not know what you answered on the scale, and your attitudes and opinions toward transgender individuals will not be a topic for discussion. Instead, we will only discuss the scale and how you felt about it. Of primary importance is how understandable the definitions were, and how easily you were able to interpret the questions. Your input as a participant is crucial for this scale to be an accurate assessor of transgender attitudes.”

RULES

“As moderator, it is my job to stimulate the conversation, but it is you we want to do the talking. We would like everyone to participate and share their opinions. There are no right or wrong answers to any of the questions I will ask. We only want your honest and thoughtful opinions about the scale. The note-taker will record only what you say, and will not write down any names or identifiable information. Only he, myself, and the faculty advisors will see any of the written notes. If you do not feel comfortable at any moment, please let me know and you will be excused from the focus group with no penalty. After you leave, please make sure that you do not talk with others about the content of our discussion or identify specific people who are part of this discussion. We want everyone to feel like this is a safe environment for sharing your opinions. Are there any questions before we begin?”

Questions:

1. What do you think these questions were trying to assess? [Guide response as needed until construct of interest is clear]
2. Do you think they effectively captured your thoughts about transgender individuals?
   a. What related topics are important, but not included in the survey questions?
3. What questions struck you as particularly effective in capturing your thoughts about transgender individuals?
   a. Why were they so effective?
4. What questions were the hardest to answer?
   a. Why were they difficult?
   b. Did you feel you had enough information to answer these questions?
5. What questions seemed to be asking about unrealistic scenarios?
   a. What about the question made it seem so unrealistic?
6. How helpful were the definitions for transgender people, transwomen, and transmen?
   a. Was there anything in particular that made them so helpful?
7. What would have made the definitions easier to understand or remember?
8. How often do you think you had to refer back to those definitions during the scale completion?
   a. Which definition did you have hardest time keeping track of?
9. When you read the phrase, “transgender person,” was there a particular image that was conjured up in your head?
   a. Who do you picture when I ask you to think about a “transgender person”?
      Give your first thoughts that come to mind—don’t worry about offending me or others. This is just brainstorming to get at people’s gut reactions.
10. What is the most challenging or confusing thing about understanding transgender issues?
    a. Why do you think this is so challenging?
11. Was there anything else about the scale that you thought should have been more clear or should be made more understandable?

ENDING

“Thank you all for helping out with our study. Your input is valuable to help us make this scale easy to understand for anyone who takes it. One credit hour will be added to your SONA account for your participation. [HAND OUT DEBRIEF FORMS AND MAKE SURE ALL COPIES OF SCALE ARE ACCOUNTED FOR].”

FOR MODERATOR

Please keep in mind that your role is to facilitate discussion. If a participant has not spoken in a while, attempt to bring them into the discussion. If someone has made a long and ambiguous comment, attempt to paraphrase and clarify for the benefit of the group. Please attempt to remain positive and energetic, but remain neutral; do not agree verbally or physically (e.g. nodding, eyebrow raising) with anyone’s comments. Make eye contact with everyone equally. If an answer is too “surface level,” ask a corresponding probing question to get a more detailed answer.

Attempt to keep the topic on the question currently under discussion. If the topic begins to veer into an area covered by another question, gently nudge the group back; “That is an interesting insight; please hold on to that for a bit longer and we can discuss it a bit more. I would like to bring the discussion back to…”

If the conversation begins to steer towards attitudes toward transgender individuals, gently guide the conversation back to the scale. “Thank you for your input but I would like to bring the discussion back to the scale…”

When conversation begins to lull, either move on to the next question, or if you believe there is still things unsaid about the current question, ask a probing question or rephrase the original question.
Appendix C

92-Item Pool

1. I think that transmen are just women who feel masculine.
2. It is annoying to me that transgender individuals do not behave like proper men or women should.
3. It does not matter how they think of themselves, I will always consider transwomen to be men because you cannot change your gender.
4. Transwomen cannot go against their biology; they will always be men.
5. Transwomen are just disturbed men who want to act womanly.
6. Even if they had a sex change operation, a transman would still always be a woman.
7. I do not like it when women dress up and pretend they are men.
8. I wouldn’t feel safe letting my children be looked after by a transwoman.
9. Letting transwomen into women’s only shelters would lead to unsafe situations for the other women at the shelter.
10. I would be comfortable with a transwoman using the same public restroom my mother was using.
11. It would be easier for me to accept transmen if they would act more like proper women.
12. You are either a man or a woman; there is nothing in between or outside of those two categories.
13. It is disturbing to me when a man puts on a dress and thinks he is a woman.
14. It is irritating to me when men or women act as if they are the opposite gender.
15. I do not think a child of mine would be safe if left in the care of a transman.
16. Transwomen irritate me because they are men pretending they can pass as women.
17. No matter what a person thinks, they are either a man or a woman; there are no other categories.
18. Transmen cannot pass as men because they lack the natural toughness of real men.
19. I do not expect transwomen to be very compassionate; they are men, after all.
20. If I found out the person I had a crush on was actually transgender, I would feel disgusted.
21. If a family member of mine came out as transgender, I don’t think I would be comfortable being around them anymore.
22. Transmen are just women who claim to be men, but they are still just women.
23. I would be uncomfortable around a transgender individual because they cannot decide if they are a man or a woman.
24. There is a strict line between men and women, and transgender individuals violate that line.
25. Transmen are just women who wish they were as powerful as men.
26. It is irritating when men call themselves women and act feminine.
27. No one can be both a man and a woman, to any degree.
28. Transmen aren't men because no one can just "stop" being a woman.
29. I think it is wrong that transgender individuals do not act like proper men or women should.
30. Transwomen were born as men and will therefore always be men.
31. I don’t think I could maintain a relationship with a friend who came out to me as transgender.
32. I would be fine with a male or female friend of mine if they didn’t act like a traditional man or woman.
33. If my child were in a class taught by a transgender individual, I would want them put in another class.
34. I feel transmen should be allowed to use mens-only facilities.
35. A woman cannot “become” a man.
36. Because a person’s gender is the same thing as a person’s sex, which is biological, it is impossible for transgender people to change their gender, no matter what they think.
37. When I see a woman dressing like a man and calling herself a man, it upsets me.
38. I would not be comfortable making friends with a transgender individual.
39. It is upsetting to me that transwomen are men who think they are women.
40. Transgender people annoy me because they really think they can change their gender.
41. Transwomen should not try to act like women because when men act like women, it is disturbing.
42. Transwomen shouldn’t be allowed to use women-only restrooms because perverted men will abuse the law to endanger "real" women in restrooms.
43. If I found out my brother was serving in the army with a transman, I would be concerned with my brother’s safety.
44. I would feel more comfortable around transgender people if they acted like typical men and women instead of acting like deviants.
45. The benefits of allowing transmen to use men’s restrooms aren’t worth the risk of allowing sexually-deviant women to abuse the situation.
46. Transwomen can never really be women because they were not born with female genitalia.
47. I feel transwomen should be allowed to use women’s only restrooms, if that is what they feel more comfortable using.
48. I wouldn’t want a child of mine taught by a transwoman
49. I would be supportive if a good friend of mine came out as transgender.
50. It is disgusting when women call themselves men and act masculine
51. A transman cannot "become" a man because biology says they are a woman.
52. Transwomen are not women because they were born with a penis, and therefore are men.
53. I think that transmen are just women acting like men.
54. Your gender is not set by your biology, which allows transgender people to transition to a different gender than they were born with.
55. I would feel violated if I had to use the same locker room that I knew a transgender individual was also using.
56. I would be grossed out if my male friend went on a date with a transwoman.
57. If I began flirting with someone and they turned out to be transgender, I would feel tricked.
58. Because gender and sex are distinct categories, transgender people can have genders that are different from their birth sex.
59. It would be comforting to me if transwomen would give up thinking they were women.
60. I wouldn’t feel comfortable sharing such close, intimate space with a transgender roommate.
61. Transwomen are just men who feel feminine.
62. Transmen are probably not very assertive because deep down they are still women.
63. I would feel comfortable with a transgender individual whose birth sex is different than mine using the same restroom as me.
64. I don’t want a transgender person teaching my kids because I don’t know what they would teach my children.
65. A transman cannot be a real man because they were born with a vagina and will always be a woman.
66. Because there can only be men or women, transwomen are still just men, regardless of what they may think.
67. Transmen can never really be men because they were not born as men with male genitalia.
68. A person’s sex is the same thing as a person’s gender.
69. I find it irritating when women think they are men.
70. Transmen cannot change the fact that they were born as women and will therefore always be women.
71. I think it is wrong for women to claim they are men, like transmen do.
72. I would be disgusted with the idea of a male family member marrying a transwoman.
73. For a transwoman to claim they are a woman is unnatural because they were born a man.
74. I think I would be fine with a transgender nurse attending to me.
75. Transwomen may think they are women but because they were born with a penis they will never really be women.
76. Transmen and transwomen are deviants who don’t want to act like men and women should.
77. I wouldn’t feel comfortable with transmen using men’s locker rooms.
78. Transmen are just not manly enough to serve along-side real men on the front lines in the military.
79. Transgender people shouldn’t become doctors because their patients would never feel comfortable around them.
80. Transmen are still women because there is only men and women; no other categories exist.
81. I believe that a transwoman is a woman, even though their chromosomes may say they are male.
82. Even with a surgically created vagina, transwomen will never truly be women.
83. I don't think it is safe for the children to let transwomen have unsupervised access to children.
84. Allowing transwomen access to women's only spaces would cause too much stress and too many problems for the real women in those spaces.
85. It’s possible for transwomen to be just as nurturing as real women.
86. Transmen are not really men because you can never change your gender.
87. If a female family member of mine announced that she was marrying a transman, I would be disgusted.
88. Transmen who want to gain access to men’s changing rooms are just sexually deviant women.
89. You are either a man or a woman, and you cannot change that.
90. If I went on a date with someone who I found out after the fact was transgender, I would feel unclean.
91. I feel men should behave like proper men and women should behave like proper women.
92. A transman was not born with a penis and so can never be a real man.
Appendix D

Gender Role Beliefs Scale

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 busses.
3. Homosexual relationships should be as socially accepted as heterosexual relationships.
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.
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.
11. The husband should be regarded as the legal representative of family group in all matters of law.
12. I like women who are outspoken.
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.
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.
Appendix E

Essentialism Index

1. The kind of person someone is can be largely attributed to their genetic inheritance.
2. Very few traits that people exhibit can be traced back to their biology.
3. I think that genetic predispositions have little influence on the kind of person someone is.
4. Whether someone is one kind of person or another is determined by their biological make-up.
5. There are different types of people and with enough scientific knowledge these different ‘types’ can be traced back to genetic causes.
6. A person’s attributes are something that can’t be attributed to their biology.
7. With enough scientific knowledge, the basic qualities that a person has could be traced back to, and explained by, their biological make-up.
8. A person’s traits are never determined by their genes.
9. The kind of person someone is, is clearly defined; they either are a certain kind of person or they are not.
10. People can behave in ways that seem ambiguous, but the central aspects of their character are clear-cut.
11. A person’s basic qualities exist in varying degrees, and are never easily categorized.
12. Everyone is either a certain type of person or they are not.
13. A person’s basic character is never easily defined.
14. A person either has a certain attribute or they do not.
15. No matter what qualities a person has, those qualities are always indefinite and difficult to define.
16. People can have many attributes and are never completely defined by any particular one.
17. When getting to know a person it is possible to get a picture of the kind of person they are very quickly.
18. It is possible to know about many aspects of a person once you become familiar with a few of their basic traits.
19. A person’s behavior in a select number of contexts can never tell you a lot about the kind of person they are.
20. Although a person may have some basic identifiable traits, it is never easy to make accurate judgments about how they will behave in different situations.
21. Generally speaking, once you know someone in one or two contexts it is possible to predict how they will behave in most other contexts.
22. It is never possible to judge how someone will react in new social situations.
23. There are different ‘types’ of people and it is possible to know what ‘type’ of person someone is relatively quickly.
Appendix F
Transgender Prejudice Scale

INSTRUCTIONS

Please indicate the extent to which you personally agree with the following statements using the provided 6-point scale (1 = strongly disagree, 6 = strongly agree). Please consider each question individually and respond honestly. If you do not know how you feel about any given question, please make your best guess based upon your “gut” feeling.

While answering the survey, please keep the following definitions in mind:

Transgender person: someone who feels as though they were born with the “wrong” gender and now lives life as the opposite gender. This has no connection with a person’s sexual orientation; some transgender people are gay, while others are straight. Furthermore, while some transgender people choose to undergo a “sex change” operation, many do not.

Transwoman: Someone born male but has a deep-seated psychological self-concept of a woman, and who is now living life as a woman.

Transman: Someone born female but has a psychological self-concept of a man, and who is now living life as a man.

1. Transmen cannot change the fact that they were born as women and will therefore always be women
2. Transwomen are just men who feel feminine.
3. If a family member of mine came out as transgender, I don’t think I would be comfortable being around them anymore.
4. Transwomen cannot go against their biology; they will always be men.
5. If I found out my brother was serving in the army with a transman, I would be concerned with my brother’s safety.
6. Transwomen were born as men and will therefore always be men.
7. I would be uncomfortable around a transgender individual because they cannot decide if they are a man or a woman.
8. I think that transmen are just women acting like men.
9. Because there can only be men or women, transwomen are still just men, regardless of what they may think.
10. I wouldn’t feel comfortable sharing such close, intimate space with a transgender roommate.
11. A transman cannot be a real man because they were born with a vagina and will always be a woman.
12. I don’t think it is safe for the children to let transwomen have unsupervised access to children.
13. Transmen are just women who claim to be men, but they are still just women.
14. I would feel violated if I had to use the same locker room that I knew a transgender individual was also using.
15. Even with a surgically created vagina, transwomen will never truly be women.
16. A transman cannot "become" a man because biology says they are a woman.
17. Transgender people shouldn’t become doctors because their patients would never feel comfortable around them.
18. Transmen are not really men because you can never change your gender.
19. You are either a man or a woman, and you cannot change that.
20. I don’t think I could maintain a relationship with a friend who came out to me as transgender.
21. Transwomen may think they are women but because they were born with a penis they will never really be women.
22. Transmen can never really be men because they were not born as men with male genitalia.
23. Because a person's gender is the same thing as a person's sex, which is biological, it is impossible for transpeople to change their gender, no matter what they think.
24. Transmen are just not manly enough to serve along-side real men on the front lines in the military.
25. It does not matter how they think of themselves, I will always consider transwomen to be men because you cannot change your gender.
Appendix G

Attitudes Toward Transgendered Individuals Scale

1. It would be beneficial to society to recognize transgenderism as normal
2. Transgendered individuals should not be allowed to work with children
3. Transgenderism is immoral
4. All transgendered bars should be closed down
5. Transgendered individuals are a viable part of our society
6. Transgenderism is a sin
7. Transgenderism endangers the institution of the family
8. Transgendered individuals should be accepted completely into our society
9. Transgendered individuals should be barred from the teaching profession
10. There should be no restrictions on transgenderism
11. I avoid transgendered individuals whenever possible
12. I would feel comfortable working closely with a transgendered individual
13. I would enjoy attending social functions at which transgendered individuals were present
14. I would feel comfortable if I learned that my neighbor was a transgendered individual
15. Transgendered individuals should not be allowed to cross dress in public
16. I would like to have friends who are transgendered individuals
17. I would feel comfortable if I learned that my best friend was a transgendered individual
18. I would feel uncomfortable if a close family member became romantically involved with a transgendered individual
19. Transgendered individuals are really just closeted gays
20. Romantic partners of transgendered individuals should seek psychological treatment
Appendix H

Transphobia Scale

1. I don’t like it when someone is flirting with me, and I can’t tell if they are a man or a woman.
2. I think there is something wrong with a person who says that they are neither a man nor a woman.
3. I would be upset, if someone I’d known a long time revealed to me that they used to be another gender.
4. I avoid people on the street whose gender is unclear to me.
5. When I meet someone, it is important for me to be able to identify them as a man or a woman.
6. I believe that the male/female dichotomy is natural.
7. I am uncomfortable around people who don’t conform to traditional gender roles, e.g., aggressive women or emotional men.
8. I believe that a person can never change their gender.
9. A person’s genitalia define what gender they are, e.g., a penis defines a person as being a man, a vagina defines a person as being a woman.
Appendix I

Genderism and Transphobia 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.”

1. I have beat up men who act like sissies
2. I have behaved violently toward a woman because she was too masculine
3. If I found out that my best friend was changing their sex, I would freak out
4. God made two sexes and two sexes only
5. If a friend wanted to have his penis removed in order to become a woman, I would openly support him
6. I have teased a man because of his feminine appearance or behavior
7. Men who cross-dress for sexual pleasure disgust me
8. Children should be encouraged to explore their masculinity and femininity
9. 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
10. Men who act like women should be ashamed of themselves
11. Men who shave their legs are weird
12. I can not understand why a woman would act masculine
13. I have teased a woman because of her masculine appearance or behavior
14. Children should play with toys appropriate to their own sex
15. Women who see themselves as men are abnormal
16. I would avoid talking to a woman if I knew she had a surgically created penis and testicles
17. A man who dresses as a woman is a pervert
18. If I found out that my lover was the other sex, I would get violent
19. Feminine boys should be cured of their problem
20. I have behaved violently toward a man because he was too feminine.
21. Passive men are weak
22. 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
23. Individuals should be allowed to express their gender freely
24. Sex change operations are morally wrong
25. Feminine men make me feel uncomfortable
26. I would go to a bar that was frequented by females who used to be males
27. People are either men or women
28. My friends and I have often joked about men who dress like women
29. Masculine women make me feel uncomfortable
30. It is morally wrong for a woman to present herself as a man in public
31. It is all right to make fun of people who cross-dress
32. If I encountered a male who wore high-heeled shoes, stockings, and makeup, I would consider beating him up
Appendix J

Attitudes Toward Lesbians and Gay Men Scale

1. Lesbians just can’t fit into our society.
2. A woman’s homosexuality should not be a cause for job discrimination in any situation.
3. Female homosexuality is detrimental to society because it breaks down the natural divisions between the sexes.
4. State laws regulating private, consenting lesbian behavior should be loosened.
5. Female homosexuality is a sin.
6. The growing number of lesbians indicate a decline in American morals.
7. Female homosexuality in itself is no problem, but what society makes of it can be a problem.
8. Female homosexuality is a threat to many of our basic social institutions.
9. Female homosexuality is an inferior form of sexuality.
10. Lesbians are sick.
11. Male homosexual couples should be allowed to adopt children the same as heterosexual couples.
12. I think male homosexuals are disgusting.
13. Male homosexuals should not be allowed to teach school.
14. Male homosexuality is a perversion.
15. Just as in other species, male homosexuality is a natural expression of sexuality in human men.
16. If a man has homosexual feelings, he should do everything he can to overcome them.
17. I would not be too upset if I learned that my son were a homosexual.
18. Homosexual behavior between two men is just plain wrong.
19. The idea of male homosexual marriage seems ridiculous to me.
20. Male homosexuality is merely a different kind of lifestyle that should not be condemned.
Appendix K

Modern Racism scale

1. Discrimination against blacks is no longer a problem in the United States.
2. It is easy to understand the anger of black people in America.
3. Blacks have more influence upon school desegregation plans than they out to have.
4. Blacks are getting too demanding in their push for equal rights.
5. Blacks should not push themselves where they are not wanted.
6. Over the past few years, blacks have gotten more economically than they deserve.
7. Over the past few years, the government and news media have shown more respect to blacks than they deserve.
Appendix L

Marlowe-Crown Social Desirability Scale-13

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

Profiles for Study 4

Jonathan Hart

Seattle, WA | Business Advising

Previous: Teen Health Line
Education: University of Washington

BACKGROUND

SUMMARY

For the past few years I have worked with Teen Health Line, which is committed to helping out teens who are at-risk of becoming homeless, or who have become homeless. It has been extremely rewarding and I wish to continue working for organizations similarly dedicated to help those in need.

This is a personal mission for me; I was homeless for a short period of time after high school, and if it weren’t for the help I received through organizations and shelters, I don’t know if I would have been able to escape it like I did. My experience with helping individuals with budgeting and financial advising allow me to help those who need help the most.
I have spent the last few years working with the Northwest Crisis Center, a small group that helps teens and recent graduates through the tough times that come with the later teen years. Knowing I was helping such an organization reach their goals was deeply rewarding, and something I would love to continue to do.

When I first began transitioning to live as a man, it was a local non-profit group that helped me understand my gender identity, helped me understand that I may have been born a woman, but that I am truly a man. I want to continue to give back to the non-profit sector in any way I can as a sort of thanks for all that it has done for me. I hope that my skills at budgeting and accounting help me to do this.
For the past few years I have worked with Teen Health-line, which is committed to helping out teens who are at-risk of becoming homeless, or who have become homeless. It has been extremely rewarding and I wish to continue working for organizations similarly dedicated to help those in need.

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When I first began transitioning to live as a woman, it was a local non-profit group that helped me understand my gender identity, helped me understand that I may have been born a man, but that I am truly a woman. I want to continue to give back to the non-profit sector in any way I can as a sort of thanks for all that it has done for me. I hope that my skills at budgeting and accounting help me to do this.
Appendix N

Transgender civil rights scale

1. How likely would you be to SUPPORT a law that would allow individuals to change the gender on their driver’s licenses?
2. How likely would you be to SUPPORT a law allowing individuals to use the changing rooms that match their gender identity rather than their birth-assigned sex?
3. How likely would you be to SUPPORT a decision to allow transgender individuals to serve in the military?
4. How likely would you be to OPPOSE a bill guaranteeing employment non-discrimination toward transgender individuals?
5. How likely would you be to SUPPORT a law requiring health insurance companies to cover gender transition related (e.g. sex change operation, hormone therapy, etc) expenses?
6. How likely would you be to SUPPORT a bill allowing individuals to use the restroom that matches their gender identity rather than their birth-assigned sex?
7. How likely would be to SUPPORT a bill that allows non-sports related private organizations (e.g. private clubs) to restrict membership based upon birth-assigned sex rather than gender identity?
8. How likely would you be to OPPOSE a law that would allow individuals to change their name and gender on their birth certificate?
9. How likely would you be to SUPPORT a bill that would guarantee non-discrimination for transgender individuals in childcare-related jobs (e.g. teaching, daycare, etc)?
10. How likely would you be to OPPOSE a law that would allow individuals to change the gender on their passport?