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Attitudes toward Transsexual People: Effects of Gender and Appearance

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ABSTRACT

The transgendered community, like other gender non-conforming communities, is the subject of stigmatization, discrimination, and violence. However, there is a notable lack of research investigating the specific attitudes toward various manifestations of transgenderism, and the factors that may be contributing to these attitudes. The goal of this study was to investigate factors that contribute to negative attitudes toward, and discrimination against, this consistently marginalized group of people. The present study explored the relationship between attitudes toward transsexuals and several gender-related variables, including gender of the rater, sex and apparent gender of the transsexual, as well as gender role beliefs, personal gender-role identification, and general attitudes toward transgenderism and homosexuality.

The sample population for the main analyses consisted of 251 heterosexual undergraduate students, including 131 men and 120 women. Participants rated one of two vignettes, which were paired with one of four different pictures. The vignettes described either a male-to-female or female-to-male transsexual, and the corresponding picture depicted an individual whose appearance was stereotypically consistent with either the vignette character's post-operative sex or his or her biological sex. Additionally, participants completed the Genderism and Transphobia Scale, the Kite Homosexuality Attitudes Scale, the Hypergender Ideology Scale, and the Personal Attributes Questionnaire to determine whether a relationship existed between these scales and ratings of the target vignette characters. There were significant main effects for appearance of the transsexual, gender of the participant, and sex of the

transsexual. Participants reported more positive general perceptions and more positive evaluations of the transsexual character's attractiveness as a friend or romantic partner when his/her appearance was congruent with the desired sex. Compared to women, men rated the transsexual character more negatively. There was also a significant interaction for gender of the participant and sex of the transsexual, such that females rated the attractiveness of the FTM transsexual significantly more positively than the MTF transsexual, whereas men's attractiveness ratings for the FTM and MTF transsexuals were not significantly different. More negative attitudes toward gender non-conformists in general were associated with more negative general perceptions and more negative evaluations of the transsexual character's attractiveness. Results of the present study suggest that gender-related variables, including appearance, are associated with attitudes toward transsexuals. In addition, there are both similarities and differences in the patterns of the relationships between gender and attitudes toward transsexuals and the patterns observed in attitudes toward gay and lesbian people.

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INTRODUCTION

Overview

Individuals who stray from societal norms have long been the target of discrimination and stigmatization. Although these societal norms often serve the purpose of maintaining an organized, safe, and predictable environment, they are also often the source of a tremendous amount of stress and anguish for the targets of this discrimination. This situation is no different for individuals who in some way deviate from gender norms (e.g., Holmes & Cahill, 2004). There is an increasing body of research that examines the impact of such discrimination on the Lesbian, Gay, Bisexual, and Transgender (LGBT) community (e.g., Pusch, 2005). However, this community, even as its title implies, is extremely heterogeneous, and it is likely that possible variations among these groups are lost in research that does not differentiate between them. Research that examines the transgendered community, and explicitly others' perceptions of these individuals, is limited. The present study sought to expand upon the published research that examines attitudes towards transgendered and homosexual individuals to identify potentially important factors in college students' perceptions of transsexual individuals. According to the available research, gender of the raters (e.g., Antoszewski, Kasielska, Jędrzejczak, & Kruk-Jeromin, 2007; Herek, 2002; Landén and Innala, 2000), appearance (e.g., Madson, 2000), and gender role variables (e.g., Whitley, 2001) demonstrate significant relationships with perceptions of various non-normative gender expressions.

The present study investigated the role of gender and gender-related appearance as they manifest in attitudes toward transsexual individuals. This goal was achieved by eliciting the attitudes of college undergraduate students toward a target vignette character described as a post-operative transsexual, and who was depicted in a corresponding photograph that portrayed an individual who had facial features that were either congruent or incongruent with the transsexual character's post-operative sex. The specific variables of interest included the gender of the participant, sex of the transsexual, and whether or not the transsexual's facial features were congruent with the desired sex or the biological sex. In addition, this study also examined the relationship between attitudes toward the transsexual vignette character and participants' gender role beliefs, self-identified gender role, and general attitudes toward homosexuality and transsexuality.

Before pursuing this topic, however, a clarification of the terminology often used in the study of transgender issues requires attention, as terms and phrases sometimes represent slightly different concepts for different writers. Transgender is typically considered an umbrella term used to capture various presentations, types of behaviors, and styles of dress that challenge traditional notions of gender (Papoulias, 2006). More simply, transgender has been defined as "that which moves across or beyond gender as it is defined by the culture" (Golden, 2008, p. 142). An assortment of technical and slang terms are often used to mark distinctions between the nature, intention, and, in some cases, the etiology of these various nontraditional gender manifestations. For example, in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR), the American Psychiatric Association (APA, 2000) delineates between "transvestic fetishism" and "gender identity disorder." Transvestic fetishism is a condition thought to occur in heterosexual males who experience "recurrent, intense sexually

arousing fantasies, sexual urges, or behaviors involving cross-dressing" (APA, 2000, p. 575), (i.e., dressing in clothing made for females). Gender identity disorder is the label used to define the experience of an individual who has "a strong and persistent cross-gender identification" (APA, 2000, p. 581), and "a persistent discomfort with his or her sex" (APA, 2000, p. 581). The term "transsexual" is not used in the DSM-IV-TR, but "transsexualism" is included in the International Classification of Diseases (ICD-10). The definition offered in the ICD-10 (World Health Organization, [WHO], 1990) is reflective of the commonly understood distinction between transsexualism and other forms of gender discordant behavior, which emphasizes the intention of transsexuals to acquire the physical characteristics of the other sex by hormonal and surgical treatment. Furthermore, the terms male-to-female (MTF) and female-to-male (FTM) transsexual are often used to distinguish between a biological male seeking sex reassignment surgery and a biological female seeking surgery, respectively.

It is important to mention, however, that there is a notable group of professionals in the field who disagree with viewing various manifestations of transgenderism as a disorder. For example, the feminist psychological perspective argues that the distress experienced by those who do not fit neatly into the traditional dichotomous gender categorization that currently prevails, may be a product of the confining classification system rather than a problem that lies within the distressed individual (Golden, 2008). Although worth noting, it is beyond the scope of this paper to fully explore the question regarding the appropriateness of the medicalization of transgenderism. Rather, the present study will focus mainly on examining perceptions of both male-to-female and female-to-male transsexuals seeking sex reassignment surgery.

Limitations in Current Research

There is a relatively extensive body of research that examines stereotypes and discrimination faced by members of the lesbian, gay, bisexual, and transgendered (LGBT) community (e.g., Holmes & Cahill, 2004). However, research that focuses solely on the transgendered population is far less common. The research that is available often examines potential etiological factors contributing to a transgendered experience and the psychological outcomes associated with sex reassignment surgery and hormone replacement therapy (e.g., Brotto, Gehring, Klein, Gorzalka, Thomson, & Knudson, 2005; Haraldsen, Egeland, Haug, Finset, & Opjordsmoen, 2005; Krege, Bex, Lümmen, & Rübben, 2001; Levy, Crown, & Reid, 2003). There is a notable lack of research investigating the specific attitudes toward various manifestations of transgenderism, and the factors that may be contributing to these attitudes.

Early research in this area demonstrated an assumption of transsexuality as a condition predominantly affecting biological men. For example, Kando (1972) examined the perceptions of transsexuality held by men, women, and transsexuals, with no clear mention of female-to-male transsexuals. The more recent published survey research in this area acknowledges a distinction between male-to-female and female-to-male transsexuals but, with rare exceptions, does not distinguish attitudinal differences in the analysis of the data (Antoszewski et al., 2007; Franzini & Casinelli, 1986; Landen & Innala, 2000). The dearth of available research in the study of transgenderism in general, and the more restricted range of research available that specifically examines attitudes toward transsexualism, creates an opportunity for further exploration in this area.

The Impact of Negative Attitudes

Despite the limited published research on perceptions of transsexuality, evidence from the available literature suggests that individuals with a transgendered identification are affected by others' attitudes toward them. Early research that examined the etiological origins of transsexuality suggested that the stigmatization of homosexuality was actually a contributing factor in the expression of gender dysphoric symptoms (e.g., Jonas, 1976). Specifically, it was hypothesized that in an effort to avoid the internalized stigmatization associated with sexual deviance, individuals adopted a transsexual identity, seeking surgery to allow them to live conventionally as the other sex. More recent research conducted by Pusch (2005) suggested that negative societal reactions toward transgendered people led to an increasing sense of isolation and stigmatization among these individuals. Perhaps it is not surprising that negative perceptions of transsexuals lead to negative outcomes among these people. However, as members of a "helping profession," the question regarding how these harmful effects can be reduced remains. From the perspective of a researcher, there needs to be an understanding of how to scientifically address this larger question.

There are at least two main strategies from which to approach the question regarding how to reduce the negative impact of others' attitudes on the mental health of transsexual individuals. One approach would involve investigation of psychotherapy strategies for working with transsexual individuals to reframe the perception of others' negative attitudes in a way that make these negative attitudes less powerful.

Unfortunately, research in this area suggests that, although psychotherapy is a successful tool for educating and informing transgendered individuals about sex reassignment surgery, providing relief and guidance both pre-and postoperatively (APA, 1995; Becker & Kavoussi,

1996), there is also evidence that psychological treatment aimed at assisting transgendered individuals in reconciling their cross-gender identities is often ineffective (Wren, 2004). These conclusions intimate that investigations into other ways of minimizing the negative impacts that stereotypes and stigmatization have on transsexuals may be appropriate and necessary. The second approach would involve transforming popular attitudes and stereotypes regarding transsexuals, so that transsexual people would less often be a target of these negative and debilitating perceptions. The present study aims to provide a foundation for creating a more positive shift in public perceptions of transgenderism by contributing to an understanding of popular attitudes toward transsexuals, as well as factors that may be related to these attitudes.

Gender Theory in Attitudes Toward Transsexuality

It is clear that the research investigating perceptions of transsexuality is intended to uncover possible means by which to minimize negative attitudes toward transsexuals, as well as the damaging effects that these attitudes have on individuals in the transgender community. However, as Papoulias (2006) points out, the study of transgenderism also paves the road for the development of a social constructionist view of gender, suggesting that the investigations of transsexuality have broader implications for the study of gender theory. The social constructionist view of gender has emerged from several lines of research that highlight the importance of perception in defining and evaluating gender. This research includes, but is not limited to, exploration of cross-cultural notions of gender, the study of intersex conditions, and the consistent findings demonstrating the relationship between gender and perceptions of gender-nonconformist expressions. The present study is intended to contribute to this last line of research and additionally contribute to gender theory.

Existing cross-cultural research on transgenderism stresses the notion of gender as a social construction, citing numerous examples of cultures that honor gender variant individuals. Among some Native American cultures, for instance, are the two-spirit people, men who dressed as women, assumed the role of women, and never married (Ettner, 1999). Among most tribes these people were considered sacred people, and were given elite economic and social status. In some tribes, the two-spirit people were thought to possess such wisdom that even the shaman would ask their advice. Similarly, Hawaiian tradition, which comes from a Polynesian culture, emphasizes an integration and balance of the male and female gods. In fact, the Hawaiian language does not contain female or male adjectives or articles, and even proper names are androgynous.

Some researchers use the existence of intersex conditions, congenital conditions that lead to the presence of both male and female sex characteristics, to make a case for the societal construction of gender. Anne Fausto-Sterling (1993) argues that intersexuals may constitute as many as four percent of human births, suggesting that perhaps two categories are not sufficient for defining sex. Evidence from cross-cultural studies and research on intersex conditions, not only challenges the predominant, dichotomous view of gender in Western society, but also demonstrates the influence that societal perceptions of gender can have on attitudes toward gender non-conformists.

Finally, as noted, there is a considerable body of research, to be discussed later, that emphasizes the relationship between gender and the perceptions of non-normative expressions of gender and sexuality. This research suggests that there may be aspects of the socialization process that serve to shape our understanding and evaluations of sex, gender, and sexuality, thereby advancing the social constructionist view of gender theory. The present study aims to

test hypotheses grounded in this literature, further contributing to broader notions of gender theory.

Gender and Physical Appearance

Gender-related variables are the key points of interest in the present study, and because appearance is often the most salient indicator of transsexuality, it follows that gender-related appearance ought to be a principal variable in the study of attitudes toward transsexuals. The importance of appearance in determining perceptions of others' personalities is already well established (e.g., Berry & McArthur, 1986; Secord, Dukes, & Bevan, 1954). More recent research conducted by Madson (2000) suggests that conclusions about an individual's sexuality are made based on that individual's physical appearance. In three related studies, Madson elicited participants' inferences about physically androgynous people. Participants in her sample rated physically androgynous people as less masculine than male targets and less feminine than female targets. Additionally, participants were more likely to indicate that the physically androgynous people were homosexual and less likely to be heterosexual than the male or female targets. Although this study does not provide information on whether or not perceptions were either positive or negative, it does offer evidence that appearance is an important characteristic related to perceptions of individuals' gender roles and sexuality.

Direct evidence suggesting that appearance is related to positive or negative perceptions of transsexuals is lacking, but there is research indicating that appearance is an important aspect in perceptions of transsexuals. For example, in a qualitative study involving interviews with seven male-to-female transsexuals and their male partners, Money and Brennan (1970) concluded that transsexuals consciously and often effectively elicit male attention when their appearance more closely resembles a female. Furthermore, the initial attraction of the males to

their transsexual partner was based on their belief that the individual was a female. Additionally, all the males in the sample who had a partner without a constructed vagina wished their partner had a vagina, which suggests that, in part, the initial female appearance may have been sufficient to sustain the attraction. Despite the small sample-size, this study suggests, as one might intuitively expect, that the outward physical appearance of male-to-female transsexuals is probably important in eliciting desired perceptions and responses from others.

Additional research (Kockott & Fahrner, 1988) that compares the social integration of male-to-female and female-to-male transsexuals also suggests that appearance is important in others' perceptions of these individuals. In a study comparing male-to-female and female-to-male transsexuals, female-to-male transsexuals were significantly more likely to be in lasting partnerships than their male-to-female counterparts. The authors noted that differences exist within male-to-female relationships depending on the sex of their partner. In other words, rare partnerships between females and male-to-female transsexuals demonstrate longer lasting relationships than partnerships between males and male-to-female transsexuals, indicating that sex differences in partner expectations may also play a role in the differences between male-to-female and female-to-male relationship patterns. However, the authors suggested that this finding may be to some extent explained by the greater ease with which female-to-male transsexuals were often living convincingly in the male gender role. In other words, female-to-male transsexuals are able to alter their appearance to more successfully match their desired sex than are male-to-female transsexuals. Similarly, Money and Brennan (1970) postulated that an effective alteration of appearance is thought to be associated with elicitation of desired responses from romantic interests. In both of these studies, it was concluded that appearance had a significant impact on the perceptions of the transsexuals sampled.

Finally, in a rare study examining female-to-male transsexuals ("transmen") only, evidence emerged that female-to-male transsexuals incur advantages as a result of possessing physical qualities typically associated with masculinity (Schilt, 2006). In-depth interviews with 29 female-to-male transsexuals were conducted in order to investigate possible differences between working as a man and working as a woman. Although several interesting findings emerged, that which pertains to the present study involves the height of the participants. The results suggested that participants who were taller received more advantages in the work place than transmen who were shorter. The author concluded that being tall is "part of the cultural construction for successful, hegemonic masculinity" (Schilt, 2006, p. 484), and the participants' experience of short stature as a disadvantage is evidence of this social construction. Furthermore, it provides additional evidence for the powerful role that gender congruent appearance plays in the responses that transsexual individuals elicit from others.

The present study aims to expand upon this literature by changing the appearance of a male and female transsexual in order to explore the relationship between appearance and perceptions of these individuals. More specifically, photographic images of male and female faces were altered such that each individual either possesses facial features that look more or less like their post-operative sex. Based on the research described above, the expectation was that attitudes would be more positive when the facial features match the post-operative sex of the individual.

Gender Differences in Attitudes Toward Transsexuals

Although there is limited available research examining perceptions of transsexuality, there is a considerable body of research examining perceptions of homosexuality. Furthermore, because homosexuality and transsexuality are both in essence a manifestation of a

violation of gender norms, results from research on homosexuality can be cautiously used to draw conclusions about expected attitudes toward transsexuality. Therefore, the ample literature supporting the relationship between gender and attitudes toward homosexuality suggests that gender may also be a factor related to perceptions of transsexuality. Additionally, this research may also be useful in making predictions about the nature of the relationship between gender and attitudes toward transsexuality.

A common conclusion that often emerges from the literature regarding perceptions of homosexuality is that men tend to have more negative views of homosexuality than women. For example, Herek (2002) concluded that, compared to heterosexual men, heterosexual women tended to demonstrate more support for the rights of gay men and lesbian women, specifically regarding employment protection, adoption rights, and employee benefits for homosexuals. There is also evidence that there may be differences in the way that the general public views lesbians compared to gay men. For example, using data derived from a 1997 national survey, Herek (2000) concluded that although heterosexuals appear to have negative attitudes toward both lesbians and gay men, gay men were viewed more negatively than lesbian women. In a later analysis of data, Herek (2002) found that in general, people have a more negative personal reaction to gay men than to lesbians.

If homosexuality is viewed as a violation of gender norms, then it might be inferred from these results that similar patterns would emerge in peoples' attitudes toward transsexuals as well. In other words, it might be expected that men would endorse more negative attitudes toward transsexuals than women. Furthermore, the results also appear to suggest that both men and women have more negative reactions to men than to women who violate gender norms,

indicating that men and women would be likely to rate male-to-female transsexuals more negatively than female-to-male transsexuals.

As mentioned, the research examining attitudes toward transsexuality is less substantial, and the study of the relationship between gender and perceptions of transsexuality is particularly patchy and more inconsistent than the findings associated with attitudes toward homosexuality. There is some evidence that suggests that, compared to men, women are less accepting of transsexuality. For example, in a study designed to compare the perceptions of 17 males, 17 females, and 17 transsexuals regarding their beliefs of others' attitudes toward transsexuals, Kando (1972) determined that individuals tend to project their own negative attitudes on to others. Information regarding participants' attitudes toward transsexuals was measured using seven yes/no items, including questions such as, "Should the conversion operation be available to transsexuals?" and "Should the operated transsexual be allowed to adopt a child?" Data regarding participants' personal attitudes suggested that compared to men, women were less tolerant of "feminized transsexuals" (i.e., male-to-female). The author suggested that a possible explanation for this result was related to gender differences regarding the accepted criteria for defining womanhood. In other words, compared to men, women were more likely to identify social criteria rather than biological criteria in defining womanhood, and when women cited biological criteria, they were more likely to identify ovaries, rather than the vagina as a necessary aspect of womanhood. The author concludes that these criteria make it less likely that women will grant male-to-female transsexuals with the status of "full-fledged females," and will therefore be less tolerant of these individuals as well.

Although interesting, this study has several limitations. First, this study was published over 35 years ago, and it is hard to tell what impact numerous sociocultural and political changes

would have on a similar study if it were conducted today. Second, the purpose of the study was not to solely examine participants' attitudes toward transsexuality, but rather their perception of others' attitudes toward transsexuality. Therefore, the design used was not intended to elicit the most accurate attitudes toward transsexuals. For example, the questionnaire was chosen because it had been used in a previous study, and participants were asked to guess how those earlier research participants responded to the same items. For this reason, it is likely that the validity and reliability of the measure was not particularly important, and was therefore not reported. Furthermore, the short questionnaire's use of dichotomous items likely limits the breadth of attitudes assessed. Finally, the small sample size also reduces the robustness of the results. Despite these limitations, the results suggesting that, compared to men, women held more negative perceptions of transsexuals are interesting; especially in light of the extensive research on attitudes toward homosexuality indicating that women tend to hold more positive attitudes.

More recent research on the attitudes toward transsexualism suggests that gender trends in perceptions of transsexuality are comparable to those found in the research on attitudes toward homosexuality. In Sweden, Landén and Innala (2000) conducted a general inventory of the views on sex reassignment and attitudes toward transsexuals in which attitudes were compared based on gender, age, and etiological explanations of transsexualism. The questionnaire was comprised of fifteen dichotomous items with an option to refrain from asserting an opinion. Example items included "Who should bear the expenses for sex change?" and "Are you of the opinion that persons who have undergone a sex change should have the right to adopt and raise children on equal terms with other single people?" Participants included 668 respondents from a sample of 992 individuals randomly selected from the National Registration. Results suggested

that compared to women, men held more restrictive views on sex-reassignment, on transsexual marriage, and on potential personal relations with a transsexual person.

A similar survey study was conducted at a university in Poland (Antoszewski et al., 2007). Three hundred college students were polled in order to determine level of understanding of transsexualism, perceptions of the etiology of transsexualism, attitudes toward transsexualism, and the rights that should be granted to transsexuals. Approximately 13 questions of the 30-item questionnaire were designed to elicit etiological understanding of and attitudes toward transsexualism. These items were similar to those used in Landén and Innala and included items such as, "Has transsexualism an environmental basis?" and "Should transsexuals have the right to work with children in kindergarten or school?" Although respondents were provided response options on a Likert-type scale, the authors dichotomized these responses in the presentation of results. Results pertaining to gender differences indicated that females were more likely than men to express acceptance and understanding of transsexual people and their needs.

It is difficult to know what drives the apparent inconsistencies between the results presented by Kando (1972) and the two survey studies (Antoszewski et al., 2007; Landén & Innala, 2000) described above. Although the substantial differences in methodology and design may play a role, cultural differences in the populations sampled and the time lag between these studies may also be contributing factors. One might speculate that changes in society and particularly in the status of women may contribute to the observed differences. Many women have increasingly held the belief that societal norms have served to limit opportunities for women compared to men. This changing trend in the mindset of many women has led them to assume the role of activist and too often identify with other marginalized groups who are also speaking out against discrimination. Presumably increasing identification with groups such as

homosexuals and transsexuals will lead to greater acceptance and tolerance as well. Therefore, although Kando's (1972) findings and argument are interesting, it was expected that the results of the present study would yield conclusions more similar to the recent research in this area. More specifically, based on the research on perceptions of homosexuality and the more recent research on attitudes toward transsexuality, it was expected that in this sample, women would demonstrate more positive attitudes towards transsexuals compared to men.

As indicated in the research described above, the role of gender has been examined in studies of both attitudes toward homosexuality and attitudes toward transsexuality. However, only research on perceptions of homosexuality has expressly investigated the interaction between the gender of the rater and the gender of the individual being rated. Herek (2002) noted that heterosexual men tend to have more negative attitudes toward gay men than toward lesbians, whereas heterosexual women tend to have more negative attitudes toward lesbian women than toward gay men. Herek (2002) offered a conceptual explanation for this sex-related result, which is embedded in the idea that the stigmatization of homosexuality results in individuals' desire to distance themselves from a gay or lesbian label. He also suggested that efforts to minimize identification with a homosexual label are likely to result in more negative attitudes toward the specific group from which an individual is trying to distance him or herself (i.e., homosexuals of the same sex). This rationale might suggest that men would be more likely to want to distance themselves from a man seeking to become a woman. In addition, research suggests that sexual orientation is an important aspect of men's sense of masculine identity (Kilmartin, 2007; McCreary, 1994; Messner, 2004), suggesting that men may be particularly invested in distancing themselves from gender nonconforming males via negative attitudes. However, this is counter to the argument presented by Kando (1972) who maintained that

women, rather than men, would be more likely to want to distance themselves from a male-to-female transsexual. The question remains whether heterosexual men and women would want to distance themselves from an individual rejecting their same biological sex or from an individual seeking to become the sex with which they identify. In other words, the available research does not elucidate whether women would want to distance themselves from a biological male seeking to become a female or a biological female who rejected a feminine identity to become a male. A similar question remains for heterosexual men, as well. Although a clear prediction regarding the effect of the interaction of participant gender and type of transsexual on attitudes toward transsexuality was deemed premature, findings from studies of perceptions of homosexuality suggested that an interaction may occur, making this an important area of exploratory investigation.

A possible solution to reducing the ambiguity regarding the interaction between gender of the participant and the gender of the transsexual involves additional exploration of gender related variables. In other words, operating under a social constructionist understanding of gender, it can be argued that gender is defined differently for different people. As Kando (1972) pointed out, men and women may identify different characteristics that distinguish between a man and a woman. Similarly, definitions of a man and a woman differ among various individuals. There are several measures aimed at identifying individuals' understanding of gender. The present study aimed to identify participants' beliefs, attitudes, and stereotypes related to gender by obtaining information regarding participants' personal gender identification, general gender role beliefs, attitudes toward homosexuality, and broad beliefs associated with genderism and transphobia.

In the present study, including general measures of transphobia and attitudes toward homosexuality as moderating variables is conceptually intuitive. As alluded to above, researchers in the field consistently argue that negative attitudes toward homosexuality may be a reflection of negative perceptions of gender norm violations, in general. In addition, previous research (Hill & Willoughby, 2005) suggests that attitudes toward transsexuality and homosexuality are related. Therefore, it seems that the potential moderating effect of general attitudes toward transsexuality and homosexuality is a worthy consideration when examining perceptions of a specific transsexual.

The importance of gender-role beliefs and gender-role self-concept in predicting attitudes toward gender deviant behavior are alluded to in a meta-analysis and follow-up study conducted by Whitley (2001) who examined the relationship between perceptions of homosexuality and gender-role self-concept and gender-role beliefs. Whitley distinguishes between gender-role beliefs, which represent individuals' ideal notions of proper roles and behavioral norms for men and women in society, and gender-role self-concepts that denote people's views of themselves in terms of gender-stereotypic personality traits. According to his analysis, compared to gender-role self-concept, gender-role beliefs were stronger predictors of attitudes toward homosexuality, demonstrating correlations across a variety of measures. Although gender-role self-concept did not appear to be reliably related to perceptions of homosexuality, a component of gender-role self-concept, masculinity/instrumentality, as measured by the Personal Attributes Questionnaire (PAQ) demonstrated a statistically significant effect size for the relationship between masculinity/instrumentality and attitudes toward homosexuality. However, the author noted that the femininity/expressiveness factor in the PAQ did not yield similarly significant effect sizes, and the effect size revealed in the correlations between masculinity/instrumentality and

perceptions of homosexuality was not large enough to be practically applicable. In the same paper, Whitley noted that although hypergender ideologies did not appear to be consistently related to attitudes toward homosexuality, such strict gender role beliefs were significantly correlated with anti-gay behavior. Although indeterminate, the results of this study highlight the potential importance of gender-role beliefs and personal gender identifications in clarifying how gender is related to attitudes toward homosexuality as well as perceptions of transsexuality.

Summary of Study

The proposed study aimed to expand upon the literature that highlights the importance of gender variables in predicting attitudes toward homosexuality and transgenderism by investigating how these factors were associated specifically with attitudes toward transsexuality. Gender of the participant, as well as sex and gender-related appearance of the transsexual were expected to be predictors of college students' perceptions of a transsexual vignette character. In addition, transphobia, attitudes toward homosexuality, gender-role beliefs, and gender-role self-concept were proposed as moderating variables. The methodology involved the use of vignettes and photographs designed to elicit attitudinal ratings toward a transsexual vignette character, as well as previously validated measures of the stated moderating variables including the Genderism and Transphobia Scale (GTS) (Hill & Willoughby, 2005), the Kite Homosexuality Attitude Scale (Kite & Deaux, 1986), the Hypergender Ideology Scale (HGIS) (Hamburger, Hogben, McGowan, & Dawson, 1996), and the Personal Attributes Questionnaire (PAQ) (Spence, Helmreich, & Stapp, 1974). The attitudinal ratings of the transsexual person were derived from questions similar to those used in comparable research (Moulton & Adams-Price, 1997) and assessed perceived attractiveness, general perception, and emotional health of the transsexual character. The two vignettes described either a male-to-female or female-to-male

transsexual who recently underwent sex-reassignment surgery. The picture paired with each vignette depicted an individual who possessed facial characteristics that were either stereotypically consistent or inconsistent with the transsexual's post-operative sex.

The use of vignettes and self-report questionnaires has limitations in eliciting "real-life" reactions. However, the successful use of vignette approaches in research on attitudes about sensitive social phenomena (Schoenberg & Ravdal, 2000), and evidence suggesting that vignettes are capable of shedding light on behavior as it may occur in natural settings (Atkinson & Hammersley, 1994), indicate that vignettes were an appropriate method in the present study. Static facial photographs have also been successfully used to elicit attitudes of observers (e.g., Berry, 1991), and, as noted later, a pilot study was conducted in order to establish the validity of the photographs that were used. Similarly, despite their limitations, self-report measures are an easily controlled method for obtaining information about individuals' thoughts, beliefs, feelings, and behaviors. Furthermore, in an effort to reduce the effects of participants' attempts to respond in socially desirable ways, the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960) was used.

The present study used a college undergraduate student sample. Although ideally participants would be recruited from a random sample of United States citizens, including a wide range of ages and levels of education, a college student sample is convenient and often used in this line of research, making the use of such a sample necessary for drawing more accurate comparisons with the existing literature. It was expected that the final sample population would be predominantly Caucasian and heterosexual. Due to the emphasis on gender in this study, efforts were made to recruit roughly equal numbers of males and females. Although it would have been interesting to compare attitudes of heterosexual students and homosexual students, the

sample did not consist of enough homosexual students to make meaningful comparisons. Therefore only the data of heterosexual students were used.

The resulting study was designed to predict college students' perceptions of transsexuals from various gender-related predictor variables including gender of the rater, sex of the transsexual, and the gender-congruent facial features of the transsexual. In addition, gender-role ideologies, gender-role self-concepts, and general attitudes toward homosexuality and transgenderism were assessed to determine whether these variables moderate the relationship between these dependent and independent variables. Based on the literature described above several hypotheses emerged.

1. Participants will rate the transsexual person more negatively when his/her facial features are incongruent with the individual's post-operative sex.
2. There will be an interaction between gender of the participant and the post-operative gender of the transsexual.
3. Overall, both men and women will rate the male-to-female transsexual more negatively than the female-to-male transsexual.
4. Overall, men will demonstrate less favorable attitudes toward transsexuals compared to women.
5. Negative attitudes toward homosexuals, high levels of transphobia, traditional gender-role beliefs, and strict adherence to traditional gender role identifications will be associated with more negative attitudes toward the transsexual depicted in the vignette.

METHOD

Design

This study used a 2 x 2 x 2 between-subject factorial design. Sex of the participant, biological sex of the transsexual vignette character, and appearance of the transsexual vignette character (masculine or feminine) served as predictors of participants' attitude ratings toward the transsexual vignette character. Expected moderating variables included participants' general attitudes toward transgenderism, attitudes toward homosexuality, gender role beliefs, and personal gender role identifications. These variables were measured using the Genderism and Transphobia Scale, the Kite Homosexuality Attitude Scale, the Hypergender Ideology Scale, and the Personal Attributes Questionnaire, respectively.

Power analysis. No data documenting the specific relationship between attitudes toward transsexuality, gender, and appearance have been established at this time. Despite a lack of relevant research that suggests an appropriate effect size, it is generally accepted that a medium effect size is an appropriate target. Consistent with suggestions for determining sample size in a 2 x 2 x 2 between-subject factorial design, a sample of approximately 30 participants per condition, or a total of 240 participants, was proposed to obtain a medium effect size with an alpha level of 0.05 (Cohen, 1992).

Participants. Participants included 284 Indiana State University undergraduate students recruited from a variety of psychology courses. Of all the participants, 255 self-identified as heterosexual and were therefore selected to be included in the analyses. The data of 4

participants were not included due to incorrect use of the Likert scales or missing information on multiple measures. The final sample used for the primary analyses was comprised of 131 (52.2%) men and 120 (47.8%) women. Six people did not respond to the question about age. The mean age of the sample who did respond was 20.27 years (*SD* = 3.91), ranging from 18 to 56 years of age. Of those who responded to the question about ethnicity, the majority identified as either "White/Caucasian" (78.5%), or "Black/African American" (15.1%). The remaining respondents identified as follows: "Hispanic/Latino (a)," (1.2%); "Indian Asian/Asian American," (0.8%); "Native American/American," (0.8%); and "Other," (3.6%). In addition, 112 (44.6%) of the students identified their year in school as "First-year," 76 (30.3%) identified as "Sophomore," 36 (14.3%) as "Junior," and 27 (10.8%) as "Senior". All students were provided with a description of the study before deciding whether or not to participate, and students received extra credit for their participation.

The data of six participants was excluded from the secondary analyses due to failure to properly complete multiple items on at least one scale. See Appendix A for the demographic information regarding this sample.

Vignettes and Stimuli. The stimuli included two vignettes describing a transsexual individual and four different photographic images of human faces. The vignettes were identical except that one described a biological male living as a female and the other described a biological female living as a male. The names given to the vignette characters (i.e., "Brian" and "Karen") were selected based on research that suggests that these opposite-sex stimulus names receive similar ratings on attractiveness and competence (Kasof, 1993). The photographs depicted an individual with facial features that were stereotypically characteristic of either a man or a woman. The photographs were created from two original images (obtained online from

PICS images database at Stirling University [http://pics.psych.stir.ac.uk/cgi-bin/PICS/New/pics.cgi?filename=shop-gklYag]) that were digitally altered using the computer program Photo Shop to generate two modified images. The vignettes that described a biological female, living as a male, were paired with one of two images of a male. One of the photographs depicted a male with stereotypically masculine features (congruent features), and the other portrayed the same male image that was digitally altered to resemble feminine facial features (incongruent features). The vignettes that described a biological male, living as a female, were paired with one of two photographs of a female. One photograph depicted a female that possessed facial features commonly associated with femininity (congruent features), and the other was a digitally altered image of the same female made to portray more stereotypically masculine facial features (incongruent features).

The vignettes and photographs were presented to the participants in one of four combinations, such that each vignette was paired with a photograph that depicts an individual with facial features that were either congruent or incongruent with that individual's desired sex. Following the vignette and photograph, participants received several Likert-type questions derived from those used in comparable research (Moulton & Adams-Price, 1997) that assessed attitudes toward a homosexual vignette character. The selected questions were designed to assess perceived attractiveness, likeability, and emotional health of the transsexual character. See Appendices B, C, and D for examples of the vignettes, photographs, and Attitudes Towards Transsexual Character Questionnaire, respectively.

Pilot Study. A pilot study was conducted to ensure that the altered photographs depicted facial features that demonstrate the intended feminine or masculine appearance. Five photographs of women and five photographs of men were altered to appear more masculine and

feminine, respectively. Twenty-two Indiana State University undergraduate students rated the resulting 20 images on masculinity, femininity, attractiveness, and mood using a 6-point, Likert-type scale. Paired t-tests were conducted to examine mean differences on each of these dimensions for the original and altered image pairs. The pair of males and the pair of females that demonstrated the most robust significant differences on ratings of masculinity (male images: $t(21) = 9.200$, $p < .001$; female images: $t(19) = -5.458$, $p < .001$), and femininity (male images: $t(19) = -11.000$, $p < .001$; female images: $t(21) = 5.257$, $p < .001$) were selected.

Moderating Variables Questionnaires

Genderism and Transphobia Scale (GTS). The Genderism and Transphobia Scale (Hill & Willoughby, 2005) is a 32-item scale designed to measure discrimination and prejudice toward gender non-conformists. The items were generated from the literature on negative attitudes toward transgendered individuals and the discrimination faced by transgendered people on a day-to-day basis. The measure is divided into two factors: Transphobia/Genderism (general attitudes toward gender non-conformists) and Gender-Bashing (more violent attitudes toward gender non-conformists). Participants rate each item on a Likert-type scale from 1 (*Strongly Agree*) to 7 (*Strongly Disagree*). "Men who shave their legs are weird," is an example of an item captured under the Transphobia/Genderism factor, and "I have beat up men who act like sissies," is an example of an item in the Gender-Bashing factor. Possible total scores range from 32 to 224, with higher scores indicative of more negative attitudes toward gender non-conformists.

The Genderism and Transphobia Scale was developed in a series of three studies (Hill & Willoughby, 2005) that used both college undergraduate and graduate students as well as parents recruited from a community sample. The authors reported overall alpha coefficients between .88 and .96 for the three studies. Regarding discriminant validity, the GTS total scores correlated

poorly with self-reported self-esteem as measured by the Rosenberg Self-Esteem Scale (r = .11, p = ns), masculinity (Bem Sex Role Inventory Masculine-BSRI-M; r = -.06, p = ns), femininity (Bem Sex Role Inventory-Feminine-BSRI-F; r = -.09), and tendencies to present oneself in a positive light (Eysenck Lie Scale-ELS; r = .23, p = .01), suggesting that, as intended the GTS is measuring a construct other than self-esteem, masculinity, femininity, and social desirability. However, as expected, the GTS total score demonstrated moderate correlations with a measure of attitudes toward gender non-conformity (Attitude Function Index-AFI), r = .55, p = .01. The internal consistency in the current study for the GTS total score (α = .93) and each subscale (Transphobia/Genderism, α = .93; Gender-Bashing, α = .77) was similar to those of the original authors. The analyses in the present study used the two subscales of the GTS. See Appendix E for a copy of the GTS.

Kite Homosexuality Attitude Scale (KHAS). This is a 21-item measure designed to assess attitudes toward homosexuality by drawing on common stereotypes, misconceptions, and anxieties about homosexuals as demonstrated by questions asked during a gay rights presentation (Kite & Deaux, 1986). Items are rated on a 5-point, Likert-type scale from *Strongly Agree* (1) to *Strongly Disagree* (5) with a possible *Neutral* (3) response designated in the middle of the scale. Example items include: "Homosexuals should be forced to have psychological treatment," and "I would not mind having homosexual friends." Possible total scores range from 21 to 105 with high scores indicative of more positive attitudes toward homosexuality.

The scale was developed using a college sample (Kite & Deaux, 1986), and the reported alpha coefficient was .93. The Kite Homosexuality Scale demonstrated significant correlations with the FEM Scale, a measure of attitudes toward feminism, r = .50, p < .001, and the femininity scale of the Personal Attributes Questionnaire, r = .10, p < .05. In the present study,

the internal consistency of the total score on the KHAS (α = .95) was similar to the alpha coefficient reported in the original study. See Appendix F for a copy of the Kite Homosexuality Attitude Scale.

Hypergender Ideology Scale (HGIS). The Hypergender Ideology Scale (Hamburger et al., 1996) was designed to serve as a gender-neutral measure of the extent to which individuals adhere to stereotypic beliefs regarding gender-specific characteristics. The HGIS is a 57-item questionnaire derived from a pool of 142 items created from modifications of items included on the Hypermasculinity Inventory (Mosher & Sirkin, 1984) and the Hyperfemininity Scale (Murnen & Byrne, 1991). In the interest of parsimony, the authors concluded that the resulting measure should be considered a unidimensional scale, and the measure is used as such in the present study. Each item is rated on a Likert-type scale from 1 (*Strongly Disagree*) to 6 (*Strongly Agree*). Example items include: "Most women will lie to get something they want," and "A true man knows how to command others." Scores can range from 57 to 342 with high scores representing more hypergender attitudes, or stereotypic beliefs regarding gender characteristics.

The scale was developed and tested (Hamburger et al., 1996) using introductory psychology students at a Northeastern university, and the scale's creators reported a coefficient α of .96. As expected, the HGIS was significantly correlated with the Hyperfemininity Scale, r = .53, $p < .001$, and the Hypermasculinity Inventory, r = .54, $p < .001$, as well as other measures that have established associations with these individual measures (Hamburger et al., 1996). Internal consistency for this study's sample (α = .95) was similar to previous results. See Appendix G for a copy of the HGIS.

Personal Attributes Questionnaire (PAQ). In its original form, the PAQ is a 55-item scale that reflects various female-valued ("expressive") and male-valued ("instrumental") characteristics (Spence et al., 1974). The present study uses the shortened version of the PAQ, which includes 8 bipolar items selected from each of the three subscales. These three subscales include male-valued (e.g., independent), female-valued (e.g., emotional), and sex-specific (e.g., aggressive) characteristics. Participants provide self-ratings on each item measured on a 5-point Likert-type scale from "Not at all" (0) to "Very" (4). The present study used each of these three subscales in the final analyses. Female-valued items and select items on the sex-specific subscale were reverse scored, such that high scores on each of the subscales indicate a more masculine identification. Scores on each subscale range from 0 to 32.

The measure was developed using male and female college students, and the reported alpha coefficients for the original version were .73 and .91 for men and women, respectively. In addition, the authors reported total score correlations of r = .92 between the long and short versions (Spence et al., 1974). Internal consistencies for this study's sample were as follows: PAQ Total Score, α = .74; Male-valued, α = .70; Female-valued, α = .64; and Sex-Specific, α = .62. See Appendix H for a copy of the PAQ.

Marlowe-Crowne Social Desirability Scale (M-C SDS). The Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960) is a widely used measure designed to assess the extent to which respondents are answering items in a socially desirable way. The scale is comprised of 33 true and false items intended to reflect socially sanctioned behaviors that rarely occur. For example, "I have never intensely disliked anyone." Of the 33 items, 18 are keyed true and 15 are keyed false, with a possible range of scores from 0 to 33. The scale was developed on a college undergraduate sample, and the reported internal consistency based on the Kuder-

Richardson formula was .88. The M-C SDS demonstrated significant correlations with other measures of social desirability, including the Edward Social Desirability scale (r = .35, p = .01) and the validity scales of the MMPI (K Scale; r = .40, p = .05; L Scale; r = .54, p = .01; F Scale; r = -.36, r = .05).

Due to a clerical error, two items were inadvertently eliminated from the M-C SDS in the present study. Therefore total scores ranged from 0 to 31, with higher scores suggesting an increased effort to respond to questions in a socially desirable way. Cronbach's alpha in the present study was .78. See Appendix I for a copy of the Marlowe-Crowne Social Desirability Scale.

Demographic Questionnaire. Participants were asked to provide information regarding their age, gender, sexual orientation, year in school, and race. See Appendix J for a copy of the demographic questionnaire.

Procedure

Participants were recruited from a variety of psychology courses at Indiana State University. Group administration of the materials was conducted at various points throughout the school year until the desired number of participants was obtained. Participants were informed that participation was voluntary and asked to read the informed consent. (See Appendix K for an example of the informed consent.)

The four vignette and photograph conditions were distributed randomly among the male and female participants. The various materials were counterbalanced such that half of the female and half of the male participants received the vignette, photograph, and Attitudes Towards Transsexual Character Questionnaire before the remaining questionnaires and the other half of each group received the questionnaires first. The remaining questionnaires were presented to

each participant in the same order: Genderism and Transphobia Scale, Kite Homosexuality Attitude Scale, the Hypergender Ideology Scale, the Personal Attributes Questionnaire, and the Marlowe-Crowne Social Desirability Scale. All participants completed the demographic questionnaire last. The packet of materials took approximately 20 to 30 minutes to complete. Upon completion, the researcher or research assistant thanked the students for their participation, and provided them with a written debriefing (see Appendix L for a copy), asking them to refrain from discussing the study with their friends who may also be invited to participate in the study at some point in the future. Participants were also referred to the primary investigator should they have additional questions about the study.

RESULTS

Descriptive Analysis

Data reduction. Data were reduced by using a principal components analysis with varimax rotation on the 10 questions that made up the Attitudes Toward Transsexual Character Questionnaire. Three components were extracted with eigenvalues of 1.0 or higher, and these accounted for 63.7% of the variance. A three-component extraction was consistent with an examination of the scree plot and promoted ease of interpretability. The items included in each component had loadings that were higher than .60 and cross loadings that were less than .45 (see Table 1 for items and factor loadings). Five items were included in the first component (eigenvalue = 4.0; 40.19% of variance). This component appeared to be a measure of general perceptions, and was labeled as such. The second component consisted of three items (eigenvalue = 1.3; 13.02% of variance). This component was labeled *attractiveness/relationship evaluation*, as its items reflected the extent to which the transsexual character would be attractive as a friend or romantic partner. Component three, labeled *mental health evaluation*, included two items (eigenvalue = 1.05; 10.48% of variance). This component reflected evaluations of the transsexual character's need for mental health services.

The alpha coefficients for the three components were .81 (general perceptions), .63 (attractiveness/relationship evaluation), and .72 (mental health evaluation). The items in each component were summed, and the average item score, which could range from 1 to 6, was used

in the analyses described below. Select items (items 6 and 7) were reverse scored such that higher scores indicated a more positive evaluation of the transsexual vignette character.

Correlations. Pearson correlations were calculated between general perceptions, attractiveness/relationship evaluation, and mental health evaluation. Higher scores on each variable were significantly correlated with higher scores on the other two variables at $p < .001$.

The correlation between the general perceptions and the attractiveness/relationship was .539; between general perceptions and mental health, .400; and between attractiveness/relationship and mental health, .257.

Primary Analyses: Multivariate Analysis of Covariance (MANCOVA)

A four-way MANCOVA was conducted to determine the effect of sex of the participant, sex of the transsexual (MTF or FTM), appearance of the transsexual (congruent or incongruent with the desired sex), and order of the stimuli (vignette first or last) on attitudes toward the transsexual while statistically accounting for social desirability. A custom model was used to test the proposed hypotheses, which included examination of the main effects of gender of the participant, sex of the transsexual, and appearance of the transsexual, as well as the interaction between gender of the participant and sex of the transsexual. Order was not significant. Therefore, the results of a three-way MANCOVA excluding order of stimuli are presented. The results of the four-way MANCOVA with order and three-way MANCOVA without order demonstrated similar main and interaction effects.

Multivariate statistics. The Box's Test of Equality of Covariance Matrices was not significant ($F(42, 93{,}730.9) = .971$, $p = .542$) with fairly equal group sample sizes, supporting the use of the Wilks' Lambda test statistic. The main effects of the transsexual's sex (Wilks' $\Lambda = .958$, $F(3, 243) = 3.570$, $p = .015$, multivariate $\eta^2 = .042$), appearance of the transsexual (Wilks

$\Lambda = .925$, $F(3, 243) = 6.538$, $p < .001$, multivariate $\eta^2 = .075$), and gender of the participant (Wilks' $\Lambda = .836$, $F(3, 243) = 15.911$, $p < .001$, multivariate $\eta^2 = .164$) were significant for the combined dependent variables. The interaction between the sex of the transsexual and the gender of the participant (Wilks' $\Lambda = .952$, $F(3, 243) = 4.062$, $p = .008$, multivariate $\eta^2 = .048$) was also significant for the combined dependent variables. The covariate (social desirability) significantly influenced the combined dependent variables, Wilks' $\Lambda = .957$, $F(3, 24) = 3.609$, $p = .014$, multivariate $\eta^2 = .043$.

Univariate statistics. Table 2 presents the univariate results for general perceptions, attractiveness/relationship, and mental health evaluation. To account for multiple tests, a Bonferroni adjustment was incorporated, and was set at .017. Tables 3, 4, and 5 present the adjusted group means for evaluations of the transsexual character, including general perceptions, evaluations of attractiveness as a friend or romantic partner, and evaluations of mental health, respectively.

The appearance of the transsexual, gender of the participant, and the covariate of social desirability significantly affected general perceptions of the transsexual. Table 3 presents the adjusted group means for the general perceptions of the transsexual character. Evaluations were more positive when the transsexual's appearance was congruent with his or her desired sex, compared to being incongruent. Compared to women, men reported lower general perceptions of the transsexual character (men: $M = 3.39$, $SD = .98$; women: $M = 3.71$, $SD = .99$). General perceptions were also higher when social desirability scores were higher ($r = .13$, $p = .049$).

Participants' evaluations of the transsexual character's attractiveness as a friend or romantic partner were significantly affected by gender of the participant, appearance of the transsexual, and the interaction of gender of the participant and sex of the transsexual. The effect

of the transsexual's sex on evaluations of attractiveness approached significance (See Table 2). Table 4 presents the adjusted group means for the evaluations of the transsexual's attractiveness as a friend or romantic partner. Compared to women, men reported lower evaluations of the attractiveness of the transsexual character as a friend or romantic partner (men: $M = 1.86$, $SD = .76$; women: $M = 2.54$, $SD = .91$). Evaluations of the transsexual's attractiveness were higher when the transsexual's appearance was congruent with his or her desired sex. With regard to the interaction between gender of the participant and sex of the transsexual, evaluations of the transsexual's attractiveness were higher among women when the transsexual was FTM (female-to-male) than when the transsexual was MTF (male-to-female), $t\ (118) = 3.52$, $p = .001$. However, the difference between evaluation scores of the MTF and the FTM transsexual was not significant for men $t\ (129) = .48$, $p = .63$.

Evaluations of the transsexual's mental health were significantly affected by the covariate of social desirability (see Tables 2 and 5). Higher scores on social desirability were associated with higher evaluations of the transsexual character ($r = .17$, $p = .008$).

Secondary Analyses: Multivariate Analysis of Covariance (MANCOVA)

A one-way MANCOVA was conducted to determine the effect of gender of the participant on the Genderism and Transphobia Scale (GTS), the Kite Homosexuality Attitudes Scale (KHAS), the Hypergender Ideology Scale (HIS), and the Personal Attributes Questionnaire (PAQ), while statistically accounting for social desirability.

Multivariate statistics. The Box's Test of Equality of Covariance Matrices was significant, $F\ (28{,}203,\ 455.07)=2.97$, $p<.000$, supporting the use of the Pillai's Trace test statistic. The main effect of gender of the participant, $F(7,\ 236)=15.68$, $p < .001$, multivariate $\eta^2 = .317$), indicated a significant effect on the combined dependent variables. The covariate

(social desirability) also significantly influenced the combined dependent variables, $F(7, 236) = 11.89$, $p < .001$, multivariate $\eta^2 = .261$.

Univariate Statistics. Table 6 presents the univariate results for the GTS subscales (gender-bashing and transphobia/genderism), the KHAS, the HGIS, and the PAQ subscales (male-valued, female-valued, and sex-specific). To account for multiple tests, a Bonferroni adjustment was incorporated, and was set at .017. Table 7 presents the adjusted group means for the GTS subscales (gender-bashing and transphobia/genderism), the KHAS, the HGIS, and the PAQ subscales (male-valued, female-valued, and sex-specific). Compared to women, men had more negative attitudes toward gender non-conformists (higher scores on the GTS subscales), more negative attitudes toward homosexuality (lower scores on the KHAS), and more hypergender, or stereotypic beliefs regarding gender characteristics (higher scores on the HGIS). In addition, compared to women, men indicated a more masculine identification (higher scores on all PAQ subscales, including the reverse-scored female-valued subscale).

Higher levels of socially desirable responses were significantly correlated with more positive attitudes toward gender non-conformists (GTS gender-bashing: $r = -.25$, $p < .001$; GTS transphobia/genderism: $r = -.21$, $p = .001$), and less hypergender, or stereotypic beliefs about gender characteristics (HGIS: $r = -.15$, $p = .019$). In addition, higher levels of socially desirable responses were significantly associated with a more masculine identification (PAQ male-valued: $r = .23$, $p < .001$; PAQ female-valued: $r = -.17$, $p = .007$).

Regressions

Table 8 presents the zero-order correlations between the MCSDS, the GTS subscales, the KHAS, the HGIS, the PAQ subscales, and the evaluations of the transsexual character for men and women. With a few exceptions, there was overlap between men and women with respect to

the scales that correlated with measures of attitudes toward the transsexual character. Separate hierarchical multiple regression analyses for male and female participants were calculated to predict the general perceptions, the evaluation of attractiveness as a friend or romantic partner, and mental health evaluations of the transsexual character. Social desirability scores were entered on the first step followed by the scores on the remaining measures (GTS [gender-bashing and transphobia/genderism], KHAS, HGIS, and PAQ [male-valued, female-valued, sex-specific]), which were entered simultaneously.

Table 9 presents the standardized β coefficients for the evaluations of the transsexual character. The regressions for general perceptions, evaluations of attractiveness, and evaluations of mental health were significant for men and women. More negative attitudes toward gender non-conformists (higher GTS: Transphobia/Genderism subscale scores) were associated with lower general perceptions, and lower attractiveness/relationship evaluations of the transsexual character for both men and women. More positive attitudes toward homosexuality (higher KHAS scores) were associated with more positive general perceptions of the transsexual character, but only for men. More positive attitudes toward homosexuality and higher levels of socially desirable responses were associated with higher evaluations of the transsexual character's mental health for women only.

DISCUSSION

The broad goal of the present study was to examine the impact of gender, appearance, and other gender-related variables on college students' attitudes toward transsexual individuals. Although there is a great deal of research on attitudes toward other gender non-conformist communities (e.g., gay and lesbian people), there is currently very limited information regarding attitudes toward transsexuals in the United States. Furthermore, no research has yet experimentally examined the role of appearance and other gender-related variables on attitudes toward transsexuals. As predicted, the results of the present study suggest that the appearance of the transsexual, as well as gender of the rater were significantly associated with attitudes toward a transsexual character, even after statistically accounting for participants' tendency to respond in socially desirable ways. Several specific hypotheses were proposed.

Hypothesis 1: Participants will rate the transsexual person more negatively when his/her facial features are incongruent with the individual's post-operative sex

As predicted, when the transsexual's appearance was congruent with his or her desired sex (i.e., masculine facial features for the FTM transsexual; feminine facial features for the MTF transsexual), participants rated the transsexual character more positively. Specifically, general perceptions and evaluations of the transsexual's attractiveness as a friend or romantic partner were significantly affected by the appearance of the transsexual. These results extend existing literature, which suggests that appearance is an important factor for MTF transsexuals in eliciting romantic interests from male partners (Money & Brennan, 1970), and for FTM transsexuals in

eliciting impressions of competence in work settings (Schilt, 2006). The results of this study suggest that for *both* FTM and MTF transsexual people appearance may play an important role in eliciting perceptions of general success and well being, as well as attractiveness.

However, evaluations of the transsexual's mental health were not significantly affected by the appearance of the transsexual, indicating that perhaps other variables are more important in predicting attitudes regarding transsexuals' mental health. Indeed evaluations of the transsexual's mental health were significantly affected by only the covariate of social desirability. Higher scores on social desirability were associated with higher evaluations of the transsexual character's mental health. This finding may be associated with the fact that participants were recruited from, and in many cases were surveyed in, psychology courses. The material covered in these courses may communicate the idea that it is unacceptable to view mental illness negatively. In addition, only two questions assessed evaluations of the transsexual character's mental health, and one of these was somewhat value-laden, asking participants to rate the extent to which the character was "disturbed." It is possible that a broader assessment of attitudes toward certain aspects of the transsexual's mental health may have yielded somewhat different results, such as asking participants whether the character could manage emotional distress or maintain healthy interpersonal relationships.

Hypothesis 2: There will be an interaction between gender of the participant and the post-operative gender of the transsexual

Research on attitudes toward homosexuality suggested that heterosexual people have more negative attitudes toward homosexual people of their same sex (Herek, 2002). It has been argued that this interaction is related to efforts to minimize identification with a homosexual label, resulting in more negative attitudes toward the specific group from which an individual is

trying to distance him or herself (i.e., homosexuals of the same sex). It was, therefore, expected that there would also be an interaction between gender of a heterosexual rater and sex of a transsexual when examining attitudes toward transsexuals. However, previous research did not elucidate whether heterosexual individuals would be similarly more negative toward a transsexual who was *born* their same sex or who was *seeking to become* their same sex.

As expected, results demonstrated an interaction between gender of the participant and sex of the transsexual, but only for the attractiveness/relationship variable. However, the interaction did not follow the same pattern that has been observed in studies of attitudes toward homosexuals. Specifically, results suggested that with respect to evaluations of the transsexual's attractiveness as a friend or romantic partner, women rated the FTM transsexual significantly higher than the MTF transsexual. For men, there was not a significant difference in ratings for the MTF and FTM transsexual. Incidentally, this pattern is seemingly inconsistent with the interaction observed in Herek's (2002) study of attitudes toward homosexuality in which the difference in evaluations of gender non-conforming men versus women was more pronounced among men.

Given the fact that the sample in the present study consisted of heterosexuals only, it is perhaps not surprising that females rated the FTM transsexual higher than the MTF transsexual on attractiveness, as it is expected that heterosexual men and women will express more attraction to the other sex. However, it may be worth noting that, although not statistically significant, the mean scores for the general perceptions and evaluations of the MTF and FTM transsexuals' mental health for both men and women demonstrated patterns that were similar to the evaluations of attractiveness. In other words, mean scores among men were slightly higher for MTF than FTM, and means scores among women were slightly higher for FTM than for MTF.

Although these results may be simply an expression of heterosexuality in the sample, they hint at the possibility that, not only is gender an important factor in understanding attitudes toward transsexuality, but its role may be slightly different when compared to the impact of gender on attitudes toward homosexuality. Perhaps, as Kando (1972) suggested, negative attitudes toward transsexuals are affected by the criteria used to define gender. The author asserted that women were less tolerant of MTF transsexuals because they were less likely to grant these individuals with the status of "full-fledged females," indicating social criteria and the presence of ovaries as more necessary aspects of womanhood than having a vagina. Kando's (1972) research and ideas were generated in a different sociopolitical context, however, and it is unclear whether the same concepts would apply today. It is also possible that women were simply more positive toward FTM transsexuals because they were able to relate to biological females as more similar to themselves. In any case, the results of the present study suggest that there may be different cognitive mechanisms operating in the perception of MTF and FTM transsexuals, especially for women. Furthermore, at least for women, the way these differences are conceptualized may not be readily explained using the same arguments that are employed when describing gender differences in attitudes toward homosexual people.

A return to the literature on attitudes toward homosexuality may offer an explanation for the results suggesting that men did not distinguish between the MTF and FTM transsexual to the same extent as women in their evaluations of the transsexual's attractiveness. Although, as suggested above, women may evaluate transsexual people in terms of defining womanhood, perhaps men consider it an issue of sexual orientation, which may be especially relevant in appraisals of a transsexual's attractiveness. Indeed, research suggests that sexual orientation is an important aspect of men's sense of masculine identity (Kilmartin, 2007; McCreary, 1994;

Messner, 2004). When men are asked to rate a transsexual's attractiveness, the issue of sexual orientation may be equally unclear when evaluating both a MTF and FTM transsexual. If a man rates a MTF transsexual as attractive he may interpret this as an endorsement of homosexuality because the transsexual is a biological male. On the other hand, rating a FTM transsexual as attractive may also be viewed as an indication of homosexuality because the person appears to be male. This line of reasoning suggests that men were more likely to evaluate the transsexual based on a strong tendency to avoid a homosexuality identity, which is consistent with Herek's (2002) argument that people are more negative toward homosexuals of their same sex in an effort to distance themselves from a homosexual label. However, perhaps men simply have more negative attitudes toward any manifestation of gender nonconformity.

Hypothesis 3: Overall, both men and women will rate the male-to-female transsexual more negatively than the female-to-male transsexual

The literature addressing attitudes toward homosexuality consistently suggests that, in general, gay men are viewed more negatively than lesbian women (Herek 2000, 2002). Furthermore, it has been suggested that negative attitudes toward homosexual people are a result of the perceived violation of gender norms involved in a homosexual lifestyle, and that there is a particular stigmatization of gay men who are viewed as having relinquished the advantaged status of being male (Kite & Whitley, 1998). Therefore, it was predicted that men who violate gender norms (i.e., MTF transsexuals) would be viewed more negatively than women who do the same (i.e., FTM transsexuals). Indeed there was a main effect for sex of the transsexual character on the combined dependent variable. However, univariate analyses revealed no significant differences for the individual dependent variables. Although the evaluations of the transsexual's attractiveness among men and women demonstrated a non-significant tendency

toward higher scores when the transsexual was FTM, this may be attributable to the interaction in which women rated the FTM transsexual higher than the MTF transsexual, and women in general rated both transsexual types higher, compared to men. In addition, although not significant, the mean scores for the general perceptions actually demonstrated an unexpected direction, such that scores were slightly higher, though not significant, for the MTF transsexual, compared to the FTM transsexual.

Here again, the trend observed in the literature regarding attitudes toward homosexuality seems to be somewhat different when examining attitudes toward transsexuality. Although the present study does not elucidate the reason for this difference, a return to existing literature comparing attitudes toward homosexuality and transsexuality offers some possible explanations. Differences in attitudes toward transsexual people versus perceptions of homosexual people may result from a greater tendency to attribute transsexuality to a biological cause (Landén & Innala, 2000; Leitenberg & Slavin, 1983). Perhaps participants in this study did not tend to view the transsexual character as having consciously decided to reject his or her gender identity, but instead believed that there was a biological basis for the decision. If that were the case, perhaps the biological male transsexual was not viewed so negatively for having rejected his privileged status, but instead was viewed as being compelled to part with it. This explanation seems more plausible when taking into account the words used in the vignette (See Appendix B), which depicted the transsexual character as believing him/herself to be the opposite of his/her biological sex since childhood, perhaps subtly communicating an innate feature in his/her biological make-up.

Hypothesis 4: Overall, men will demonstrate less favorable attitudes toward transsexuals compared to women

Research on attitudes toward gender non-conformists, specifically gay and lesbian people, consistently suggests that men have more negative reactions toward these groups than women (Herek, 2000, 2002). In addition, survey research on attitudes toward transsexuality in Sweden and Poland suggested that compared to women, men hold more restrictive views on sex-reassignment, transsexual marriage, and potential personal relations with a transsexual person (Landén & Innala, 2000). Men were also less likely to express tolerance and acceptance of people with gender identity disorders (Antoszewski et al., 2007). Consistent with previous research, and as predicted, gender of the participant had a significant effect on the combined dependent variables. Compared to women, men rated the transsexual character significantly more negatively on the general perceptions and evaluations of the transsexual's attractiveness.

Gender differences remained robust across other measures of gender-related attitudes, as well. Compared to women, men scored significantly higher on measures of transphobia, genderism, and gender-bashing. Men also endorsed significantly more negative evaluations of homosexuality and more stereotypic beliefs regarding gender characteristics. These results were consistent with the data presented by the developers of the scales used to measure these constructs (Hamburger et al., 1996; Hill & Willoughby, 2005; Kite & Deaux, 1986). In addition, compared to women, men were significantly more likely to identify themselves as having characteristics that are more stereotypically associated with males. Again, these results were expected as the items of this measure were designed to differentiate between men and women (Spence et al., 1974). Because there were significant gender differences on each of these

measures, the relationship between each measure and the attitudes toward the transsexual character were examined separately for men and women.

Hypothesis 5: Negative attitudes toward homosexuals, high levels of transphobia, traditional gender-role beliefs, and strict adherence to traditional gender-role identifications will be associated with more negative attitudes toward the transsexual depicted in the vignette

In an effort to elucidate the expected relationship between gender and attitudes toward transsexuality, measures related to general perceptions of transsexuality and homosexuality were assessed. Previous research identified a relationship between negative attitudes toward transsexuality, as measured by the Genderism and Transphobia Scale, and negative attitudes toward homosexuality, as measured by the Homophobia Scale (Hill & Willoughby, 2005). Therefore, it was expected that there would be a positive correlation between attitudes toward the transsexual character and general attitudes toward transsexuality and homosexuality, such that negative beliefs regarding transsexuality and homosexuality would predict negative evaluations of the transsexual character. In addition, although somewhat more ambiguous, there is evidence suggesting that gender-role beliefs and gender-role self-concept may predict attitudes toward homosexuality (Whitley, 2001). Consistent with this literature, it was expected that more traditional gender-role beliefs and gender-role self-concepts would predict more negative attitudes toward the transsexual character.

In the present study, these predictions were supported in a few instances. Results indicated that negative beliefs regarding transsexuality in general, but not aggressive attitudes toward transsexuals such as gender bashing, predicted general perceptions of the transsexual character. Average scores and variability on the Gender-Bashing subscale were low, diminishing the predictive validity of this scale. In addition, perhaps the Gender-Bashing subscale is a better

predictor of more violent behavior, rather than attitudes, toward transsexual people. Positive attitudes toward homosexuality predicted positive general perceptions of the transsexual character for men, but not women. Measures of gender-role beliefs and gender-role self-concept were not significant predictors of general perceptions of the transsexual character for either men or women. Regarding evaluations of the transsexual character's attractiveness as a friend or romantic partner, negative beliefs regarding transsexuality in general, was the only significant predictor of negative evaluations, for both men and women. Positive evaluations of the transsexual's mental health were predicted by positive attitudes toward homosexuality and high social desirability scores, but for women only. No measures studied significantly predicted mental health evaluations among men.

Attitudes toward transsexuality and homosexuality. Although there was some evidence that general attitudes toward transsexuality and homosexuality predicted attitudes toward the transsexual character, results were inconsistent. It is not clear what accounts for this inconsistency. The irregular pattern regarding evaluations of the transsexual character's mental health and negative attitudes toward transsexuality was particularly surprising in light of previous research that supported the use of the GTS in predicting intolerant attitudes toward gender non-conformist children, specifically addressing issues of mental health (Hill & Willoughby, 2005). As suggested previously, the departure from previous literature in this study may be a reflection of the fact that the study's sample was recruited from psychology courses where discussions of mental health issues may influence responses to questions involving this type of content. In addition the measure of mental health included only two questions, and it is possible that a broader measure of mental health may give rise to different results.

The relationship between general attitudes toward homosexuality and perceptions of the transsexual character were similarly inconsistent. It is possible that the lack of relationship between attitudes toward homosexuality and perceptions of the transsexual character resulted from the different methods used to elicit these attitudes. The KHAS required participants to consider their attitudes toward homosexuals, in general, whereas, the questions pertaining to the transsexual character required participants to evaluate a distinct individual transsexual who was both described and pictured. It is possible, for example, that the observed inconsistencies reflect a tendency to view the transsexual character as an exception to general conceptions of transsexuality. On the other hand, perhaps these results provide additional support for initial findings in this study, suggesting that the cognitive organization among heterosexual people in their judgments of gender non-conforming individuals varies when the target of evaluation is homosexual versus transsexual.

Gender-role beliefs and self-concepts. Although previous research demonstrated a relationship between attitudes toward homosexuality and gender-role beliefs and gender-role self-concepts, these relationships were frequently inconsistent and appeared to be dependent on the measures used. For example, in a meta-analysis examining a variety of gender-role variables and attitudes toward homosexuality, femininity as measured by the Personality Attributes Questionnaire (PAQ) sometimes demonstrated a different relationship with attitudes toward homosexuality than when femininity was measured using the Bem Sex Role Inventory (Whitley, 2001). Furthermore, Whitley suggested that the correlation between the femininity/expressiveness measure of the PAQ and attitudes toward homosexuality was only slightly significant, indicating that this measure may not be the most robust predictor of attitudes toward homosexuality. Perhaps the various subscales of the PAQ were not correlated with

attitudes toward the transsexual character for similar reasons. Another possibility is that there are different factors at work in the evaluations of transsexual people, compared to homosexual people. For example, it was suggested above that negative attitudes toward transsexuality for men and women may not be driven by a desire to distance themselves from an identity they do not accept, as is suggested in explanations of negative attitudes toward homosexuals. Following this same line reasoning, it is not surprising that individual's personal gender-role identifications are not associated with their attitudes toward transsexuals.

Research from a follow-up study to the meta-analysis previously described also revealed different results when examining attitudes toward homosexuality versus anti-gay behavior. Attitudes were conceptualized as affective responses and stereotypes regarding lesbian women and gay men. Anti-gay behavior was assessed using questions regarding participants' behavior toward each group of people (e.g., "I have been rude to someone because I thought she was a lesbian." [Whitley, 2001, p. 706]). The endorsement of male gender roles was a significant predictor of attitudes toward homosexuality, but a hyper-gender role orientation was a better predictor of reported anti-gay behavior, such as playing jokes or being rude to people because they were believed to be homosexual (Whitley, 2001). In the present study gender role beliefs were measured using the Hypergender Ideology Scale, perhaps tapping into more extreme gender-role beliefs, which may have a stronger correlation to actual behavior toward transsexuals, but would not predict general attitudes toward a specific transsexual character.

Differences in Type of Evaluation

Although results supported significant main effects for the combined dependent variables, differences emerged in the examination of the relationship between the independent variables and the individual dependent variables. Although the nature of the study does not

permit full exploration of the reason for these differences, existing literature in the study of attitudes toward gender non-conforming groups suggests that these results are not unusual. Herek (2002) found different patterns in gender gaps regarding attitudes toward homosexuals depending on the type of questions asked. For example, respondents did not discriminate between gays and lesbians in their attitudes regarding employment nondiscrimination and marriage and domestic partnership, but were less likely to endorse adoption rights for gay men than for lesbians. In the present study, results consistently demonstrated an impact of gender-related variables on evaluations of the transsexual's attractiveness, but evaluations of the transsexual's mental health were not similarly related to these variables. Compared to questions regarding the transsexual's mental health and well being, the questions related to the transsexual character's attractiveness as a friend or romantic partner may be more likely to require participants to imagine more personal reactions that he/she may have toward the transsexual. Although this is only one example of the potential differences, it points out how tapping into various dimensions of attitudes may account for seemingly inconsistent gender-related patterns.

Limitations and Future Directions

The present study is subject to the same limitations that plague similar research examining attitudes. Self-report measures, vignettes, and static photographs present limitations in their usefulness for capturing how individuals actually think, feel, or behave in a real-life setting. For example, participants were able to learn a bit of information regarding the vignette character, but if they were to encounter the same individual without any background information, it is possible that stereotypes related to the transsexual's appearance might be especially more salient. In addition, the use of static photographs eliminates examination of the role of other gender- and appearance-related characteristics, such as height/stature and voice. In the future, it

may be useful to examine whether the significant appearance and gender-related factors demonstrated in the present study would be associated with behavioral manifestations of attitudes toward transsexuals. The use of a heterosexual college student sample at a Midwest university, also limits the generalizability of the results obtained. However, the present research provides a starting point for prospective studies to examine an older sample or college students at universities in other parts of the country.

Also, it may be helpful to create a larger set of questions that assess specified areas of interest. For example, future studies may include questions aimed at examining differences between personal reactions toward a transsexual character and beliefs regarding this character's right to various civil liberties. Indeed, these distinctions have been associated with gender differences in the examination of attitudes toward homosexuality (Herek, 2002), and therefore, are worthy of attention in the study of attitudes toward transsexuals as well. Along a similar vein, based on the arguments made in the present study, it may be helpful to assess beliefs regarding transsexuality, including ideas about its etiology and relationship toward sexual orientation, as well as the specific criteria participants used to define womanhood and manhood. This information may help to provide credence to the results presented here.. In addition, using a paradigm that relies less on participants' self-report, such as, an Implicit Attitudes Test, may help minimize the role of social desirability in the assessment of attitudes toward transsexuality.

Summary

The present study examined attitudes toward transsexuality, expressly addressing attitudes toward a specific transsexual character described in a vignette and depicted photographically. Results were generally consistent with previous literature on attitudes toward homosexuality and transsexuality, suggesting that the gender, especially gender of the rater,

plays a significant role in predicting attitudes toward these groups. In addition, the role of gender-related appearance was also supported. However, there were unexpected results as well, intimating the possibility that there are different cognitive mechanisms at work for men and women when making judgments about a transsexual versus a homosexual person. Including questions regarding ideas about transsexualism, (i.e., etiology and its relationship to sexual orientation) may shed light on possible differences in the way men and women understand and react to transsexuals. The results of the present study do not negate the possibility that homosexuality and transsexuality are similarly viewed as departures from gender norms, but instead may only suggest that the reasons for these departures are viewed differently, in turn affecting the way these individuals are perceived. Obtaining a better understanding regarding how these groups are evaluated and how perceptions negatively impact gender non-conforming communities can promote educational programs that effectively address and transform negative beliefs that adversely affect transsexual people. For example, identifying how men and women view transsexuality and other departures from gender norms may allow for tailoring educational programs based on gender to address differential beliefs and misconceptions that lead to negative beliefs about gender nonconforming groups. In any case the conclusions based on the present study set the stage for an exciting new line of research that examines attitudes toward transsexuality, just in time for the increasing media attention given to the transgendered community.

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APPENDIX A: DEMOGRAPHIC INFORMATION OF THE SAMPLE USED IN SECONDARY ANALYSES

The final sample used for the secondary analyses was comprised of 127 (51.8%) males and 118 (48.2%) females. Six people did not respond to the question about age. The mean age of the sample who did respond was 20.14 years (M = 20.14, SD = 3.21), ranging from 18 to 43 years of age. Of those who responded to the question about ethnicity, the majority identified as either "White/Caucasian" (78.4%), or "Black/African American" (15.1%). The remaining respondents identified as follows: "Hispanic/Latino (a)," (1.2%); "Indian Asian/Asian American," (0.8%); "Native American/American," (0.8%); and "Other," (3.7%). In addition, 109 (44.5%) of the students identified their year in school as "First-year," 75 (30.6%) identified as "Sophomore," 34 (13.9%) as "Junior," and 27 (11.0%) as "Senior".

APPENDIX B: VIGNETTES

Below are copies of the two vignettes that will be used in the proposed study. The first describes a male-to-female (MTF) transsexual and the second describes a female-to-male (FTM) transsexual.

Karen, pictured to the right, was born and reared as a biological male, but has always thought of himself as a woman. For example, as a child he enjoyed borrowing his sister's clothes and as a young adult he decided to begin hormone replacement treatment and live his life as a female. Recently he had surgery to alter his genitals so that he could finally feel comfortable in his own body.

Brian, pictured to the right, was born and reared as a biological female, but has always thought of herself as a man. For example, as a child she enjoyed borrowing her brother's clothes and as a young adult she decided to begin hormone replacement treatment and live her life as a male. Recently she had surgery to alter her genitals so that she could finally feel comfortable in her own body.

APPENDIX C: PHOTOGRAPHIC STIMULI

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APPENDIX D: ATTITUDES TOWARD TRANSSEXUAL CHARACTER QUESTIONNAIRE

Based on the description and photograph of this individual, please indicate how strongly you agree or disagree with the following statements using the scale below. For example, if you strongly agree with a statement mark a 6 in the blank; if you strongly disagree, mark a 1 in the blank.

<---1----------2----------3----------4----------5----------6--->

Strongly Disagree **Strongly Agree**

1. _____ Karen (Brian) is happy.
2. _____ Karen (Brian) is attractive.
3. _____ I would like Karen (Brian) as a friend.
4. _____ I would like Karen (Brian) as a romantic partner.
5. _____ Karen (Brian) is emotionally stable.
6. _____ Karen (Brian) may need counseling.
7. _____ Karen (Brian) is disturbed.
8. _____ Karen (Brian) is well-adjusted.
9. _____ Karen (Brian) is successful.
10. _____Karen (Brian) is confident.

APPENDIX E: GENDERISM AND TRANSPHOBIA SCALE

Genderism and Transphobia Scale

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

Write the number that best indicates how you feel.

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

Genderism and Transphobia Scale (con't)

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

Write the number that best indicates how you feel.

12. _____ I cannot 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 problems

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

Genderism and Transphobia Scale (con't)

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

Write the number that best indicates how you feel.

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 F: KITE HOMOSEXUALITY ATTITUDE SCALE

Please indicate your level of agreement with the items below using the following scale:

1	2	3	4	5
Strongly Agree		Neutral		Strongly Disagree

1. _____I would not mind having homosexual friends
2. _____Finding out that an artist was gay would have no effect on my appreciation of his/her work
3. _____I won't associate with known homosexuals if I can help it
4. _____I would look for a new place to live if I found out my roommate was gay
5. _____Homosexuality is a mental illness
6. _____I would not be afraid for my child to have a homosexual teacher
7. _____Gays dislike members of the opposite sex
8. _____I do not really find the thought of homosexual acts disgusting
9. _____Homosexuals are more likely to commit deviant sexual acts, such as child molestation, rape, and voyeurism (Peeping Tom), than are heterosexuals
10. _____Homosexuals should be kept separate from the rest of society (i.e., separate housing, restricted employment)
11. _____Two individuals of the same sex holding hands or displaying affection in public is revolting
12. _____The love between two males or two females is quite different from the love between two persons of the opposite sex

Kite Homosexuality Attitude Scale (con't)

Please indicate your level of agreement with the items below using the following scale:

1	2	3	4	5
Strongly Agree		Neutral		Strongly Disagree

13. _____I see the gay movement as a positive thing

14. _____Homosexuality, as far as I'm concerned, is not sinful

15. _____I would not mind being employed by a homosexual

16. _____Homosexuals should be forced to have psychological treatment

17. _____The increasing acceptance of homosexuality in our society is aiding in the deterioration of morals

18. _____I would not decline membership in an organization just because it had homosexual members

19. _____I would vote for a homosexual in an election for public office

20. _____If I knew someone were gay, I would still go ahead and form a friendship with that individual

21. _____If I were a parent, I could accept my son or daughter being gay

APPENDIX G: HYPERGENDER IDEOLOGY SCALE

Please indicate your level of agreement with the items below using the following scale:

1	2	3	4	5	6
Strongly Disagree					Strongly Agree

1. _____I think it's gross and unfair for men to use alcohol and drugs to convince a woman to have sex with them
2. _____Physical violence never solves an issue
3. _____Most women need a man in their lives
4. _____I like to see a relationship in which the man and woman have equal power
5. _____Using alcohol or drugs to convince someone to have sex is wrong
6. _____Gays sicken me because they are not real men
7. _____Sex should never be used as a bargaining tool
8. _____A real man fights to win
9. _____Real men look for fast cars and fast women
10. _____A true man knows how to command others
11. _____When a man spends a lot of money on a date, he should expect to get sex for it
12. _____The only thing a lesbian needs is a good stiff cock
13. _____I like relationships in which both partners are equals
14. _____Sometimes it doesn't matter what you do to get sex
15. _____Women should show off their bodies

Hypergender Ideology Scale (con't)

Please indicate your level of agreement with the items below using the following scale:

1	2	3	4	5	6
Strongly Disagree					Strongly Agree

16. _____Men should be ready to take any risk if the payoff is large enough

17. _____A woman can be complete with or without a partner

18. _____No wife is obliged to provide sex for anybody, even her husband

19. _____Most women use their sexuality to get men to do what they want

20. _____Most women play hard-to-get

21. _____Women should break dates with female friends when guys ask them out

22. _____Lesbians have chosen a particular life style and should be respected for it

23. _____Men have to expect that most women will be something of a prick-tease

24. _____A real man can get any woman to have sex with him

25. _____Women should be flattered when men whistle at them

26. _____It is important that my partner and I are equally satisfied with our relationship

27. _____Some gay men are good people, and some are not, but it has nothing to do with their sexual orientation

28. _____Women instinctively try to manipulate men

29. _____Most women will lie to get something they want

30. _____Men shouldn't measure their self-worth by their sexual conquests

31. _____Get a woman drunk, high, or hot and she'll let you do whatever you want

32. _____Men should be in charge during sex

33. _____If you're not prepared to fight for what's yours, then be prepared to lose it

Hypergender Ideology Scale (con't)

Please indicate your level of agreement with the items below using the following scale:

1	2	3	4	5	6
Strongly Disagree					Strongly Agree

34. _____It's okay for a man to be a little forceful to get sex

35. _____Women don't mind a little force in sex sometimes because they know it means they must be attractive

36. _____Homosexuals can be just as good at parenting as heterosexuals

37. _____Any man who is a man can do without sex

38. _____Gays and lesbians are generally just like everybody else

39. _____Pickups should expect to put out

40. _____Some women are good for only one thing

41. _____Women often dress provocatively to get men to do them favors

42. _____If men pay for a date, they deserve something in return

43. _____It's natural for men to get into fights

44. _____Effeminate men deserve to be ridiculed

45. _____All women, even feminists, are worthy of respect

46. _____If a woman goes out to a bar for some drinks, she's looking for a real good time

47. _____I do what I have to do to get sex

48. _____Any man who is a man needs to have sex regularly

49. _____Masculinity is not determined by sexual success

50. _____Homosexuality is probably the result of a mental imbalance

51. _____Nobody should be in charge in a romantic relationship

Hypergender Ideology Scale (con't)

Please indicate your level of agreement with the items below using the following scale:

1	2	3	4	5	6
Strongly Disagree					Strongly Agree

52. _____Real men look for danger and face it head on

53. _____A gay man is an affront to real men

54. _____He who can, fights; he who can't, runs away

55. _____Gay men often have masculine traits

56. _____Women sometimes say "no" but really mean "yes"

57. _____I believe some women lead happy lives without male partners

APPENDIX H: PERSONAL ATTRIBUTES QUESTIONNAIRE

Each pair of words below describes contradictory characteristics-that is a person cannot be both at the same time. The numbers form a scale between each two extremes. Please choose a number which describes where you think you fall on the scale.

Example: Not at all artistic 0 1 2 3 4 Very artistic

If you think you have no artistic ability you would choose 0. If you think you are a pretty good artist, you would choose 3. If you were only medium- level artist you would choose 2, and so forth. Please circle one response for each item.

1.	Not at all aggressive	0	1	2	3	4	Very aggressive
2.	Not at all independent	0	1	2	3	4	Very independent
3.	Not at all emotional	0	1	2	3	4	Very emotional
4.	Very submissive	0	1	2	3	4	Very dominant
5.	Not at all excitable in a major crisis	0	1	2	3	4	Very excitable in a major crisis
6.	Very passive	0	1	2	3	4	Very active
7.	Not at all able to devote self completely to others	0	1	2	3	4	Able to devote self completely to others
8.	Very rough	0	1	2	3	4	Very gentle
9.	Not at all helpful to others	0	1	2	3	4	Very helpful to others
10.	Not at all competitive	0	1	2	3	4	Very competitive

Personal Attributes Questionnaire (con't)

11.	Very home oriented	0	1	2	3	4	Very worldly
12.	Not at all kind	0	1	2	3	4	Very kind
13	Indifferent to other's approval	0	1	2	3	4	Highly needful of other's approval
14.	Feelings not easily hurt	0	1	2	3	4	Feelings easily hurt
15.	Not at all aware of feelings of others	0	1	2	3	4	Very aware of feelings of others
16	Can make decisions easily	0	1	2	3	4	Has difficulty making decisions
17.	Gives up very easily	0	1	2	3	4	Never gives up easily
18.	Never cries	0	1	2	3	4	Cries very easily
19	Not at all self-confident	0	1	2	3	4	Very self-confident
20.	Feels very inferior	0	1	2	3	4	Feels very superior
21.	Not at all understanding of others	0	1	2	3	4	Very understanding of others
22.	Very cold in relations with others	0	1	2	3	4	Very warm in relations with others
23.	Very little need for security	0	1	2	3	4	Very strong need for security
24	Goes to pieces under pressure	0	1	2	3	4	Stands up well under pressure

APPENDIX I: MARLOW-CROWNE SOCIAL DESIRABILITY SCALE

Personal Reaction Inventory

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is *true* or *false* as it pertains to you personally, and circle your response.

1. Before voting I thoroughly investigate the qualifications of all the candidates.	True	False
2. I never hesitate to go out of my way to help someone in trouble.	True	False
3. It is sometimes hard for me to go on with my work if I am not encouraged.	True	False
4. I have never intensely disliked anyone.	True	False
5. On occasion I have had doubts about my ability to succeed in life.	True	False
6. I sometimes feel resentful when I don't get my way.	True	False
7. I am always careful about my manner of dress.	True	False
8. My table manners at home are as good as when I eat out in a restaurant.	True	False
9. If I could get into a movie without paying and be sure I was not seen I would probably do it.	True	False
10. On a few occasions, I have given up doing something because I thought too little of my ability.	True	False
11. I like to gossip at times.	True	False
12. There have been times when I felt like rebelling against people in authority even though I knew they were right.	True	False
13. No matter who I'm talking to, I'm always a good listener.	True	False

14. I can remember “playing sick” to get out of something. True False

15. There have been occasions when I took advantage of someone. (ERRONEOUSLY OMITTED) True False

16. I’m always willing to admit when I make a mistake. True False

17. I always try to practice what I preach. True False

18. I don’t find it particularly difficult to get along with loud mouthed, obnoxious people. True False

19. I sometimes try to get even rather than forgive and forget. True False

20. When I don’t know something I don’t at all mind admitting it. True False

21. I’m always courteous, even to people who are disagreeable. True False

22. At times I have really insisted on having things my own way. True False

23. There have been occasions when I felt like smashing things. True False

24. I would never think of letting someone else be punished for my wrongdoings. True False

25. I never resent being asked to return a favor. True False

26. I have never been irked when people expressed ideas very different from my own. True False

27. I never make a long trip without checking the safety of my car. True False

28. There have been times when I was quite jealous of the good fortune of others. True False

29. I have almost never felt the urge to tell someone off. True False

30. I am sometimes irritated by people who ask favors of me. True False

31. I have never felt that I was punished without cause. True False

32. I sometimes think when people have a misfortune they only got what they deserved. True False

33. I have never deliberately said something that hurt someone’s feelings. (ERRONEOUSLY OMITTED) True False

APPENDIX J: DEMOGRAPHIC QUESTIONNAIRE

Age: _____

Please mark the number of the relevant response on the line provided.

Gender: _____
1. Male
2. Female
3. Transgender

Sexuality: _____
1. Heterosexual
2. Gay/Lesbian
3. Bisexual
4. Other _____

Year in School: _____
1. First-Year
2. Sophomore
3. Junior
4. Senior

Race: _____
1. White/Caucasian
2. Black/African American
3. Hispanic/Latino(a)
4. Native American/American
5. Indian Asian/Asian American
6. Other (please specify) _____

APPENDIX K: INFORMED CONSENT

You are being asked to participate in a research study on social attitudes. This research is being conducted by doctoral student, Kelly R. Gerhardstein and Dr. Veanne Anderson of the Psychology Department at Indiana State University. Your participation in this study is entirely voluntary. Please read the information below and ask questions about anything you do not understand, before deciding whether or not to participate.

If you volunteer to participate in this study, you will be asked to fill out a questionnaire that assesses your attitudes towards men and women. Also, there will be questions about your social attitudes, race, sex, sexuality, age and year in school. The total time that is needed to fill out the questionnaires is approximately 30 minutes. You will receive class credit for participation in this study.

Your participation and responses will be held strictly anonymous and confidential. You will not be asked to put any identification on the questionnaires so there is no way to identify your answers. All data will be kept in a secure container, separate from this form.

You can choose whether or not to be in this study. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind or loss of extra credit to which you are otherwise entitled. You may also refuse to answer any questions you do not want to answer.

Risks of participation are minimal and not expected to be greater than you encounter in everyday activities. You may experience some mild anxiety when completing some of the questions due to examining your own beliefs and remember personal experiences. By participating in this experiment you will benefit by learning about scientific psychological research and having a chance to evaluate some of your beliefs. In addition, the benefits to society include the contribution to our understanding of attitudes toward individuals.
This project has been reviewed and approved by the Institutional Review Board (IRB) of Indiana State University as adequately safeguarding the participant's privacy, welfare, civil liberties, and rights. If you have any questions about your rights as a research subject, you may contact the Indiana State University Institutional Review Board (IRB) by mail at 114 Erickson Hall, Terre Haute, IN 47809, by phone at (812) 237-8217, or e-mail the IRB at irb@indstate.edu.

If you have any questions or concerns about this research, please contact the project supervisor, Veanne N. Anderson, in the Department of Psychology at 812-237-2459, or by e-mail at vanderson1@isugw.indstate.edu. You may also contact the primary researcher, Kelly R. Gerhardstein in the ISU Psychology Clinic at 812-237-3317, or by email, kgerhardste@mymail.indstate.edu.

I confirm that I am at least 18 years old. I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

_____	_____	_____
Printed Name of Participant	Date	Signature of Participant

APPENDIX L: WRITTEN DEBRIEFING

In this study we are interested in college students' perceptions of transsexuals, homosexuality, gender-role beliefs, and personal gender-role identifications. Previous research indicates that gender and gender roles are associated with attitudes toward homosexuality. We are interested in whether similar factors are related to attitudes toward transsexuality.

Thank you for your participation in this study. If you have any questions or if you are interested in the results of the study please contact Veanne N. Anderson, Department of Psychology at 812-237-2459. You can also email her at vanderson1@isugw.indstate.edu. If you experience any distress as a result of participating in this study, you can access psychological services at the University's Student Counseling Center (812-237-3939) or the Psychology Clinic in Root Hall (812-237-3317). Also, please do not discuss this study with your friends because they may be participating in it in the future.

APPENDIX M: RESULTS OF STATISTICAL ANALYSES

Table 1

Component Loadings for General Perceptions, Attractiveness/Relationship Evaluation, and the Mental Health Evaluation of the Transsexual Character

	Loading
Component 1: General Perceptions	
Karen (Brian) is happy	.724
Karen (Brian) is emotionally stable	.633
Karen (Brian) is well-adjusted	.714
Karen (Brian) is successful	.708
Karen (Brian) is confident	.776
Component 2: Attractiveness/Relationship Evaluation	
Karen (Brian) is attractive	.748
I would like Karen (Brian) as a friend	.671
I would like Karen (Brian) as a romantic partner	.730
Component 3: Mental Health Evaluation	
Karen (Brian) may need counseling	.886
Karen (Brian) is disturbed	.828

Note. $N = 251$

Table 2

Univariate Results for Overall, Attractiveness/Relationship, and Mental Health Evaluations of the Transsexual Character

	Variable	*F (1, 245)*	*partial* η^2	*p*
General	Sex of Transsexual	.28	.001	.589
Perceptions	Appearance of Transsexual	13.09	.051	.000
	Gender of Participant	8.36	.033	.004
	Social Desirability	6.91	.027	.009
	Transsexual Sex x Participant Gender	.68	.003	.410
Attractiveness/	Sex of Transsexual	5.49	.022	.020
Relationship	Appearance of Transsexual	6.90	.027	.009
Evaluation	Gender of Participant	47.48	.162	.000
	Social Desirability	.45	.002	.502
	Transsexual Sex x Participant Gender	9.16	.036	.003
Mental Health	Sex of Transsexual	.82	.003	.366
Evaluation	Appearance of Transsexual	.54	.002	.463
	Gender of Participant	1.66	.007	.199
	Social Desirability	7.28	.029	.007
	Transsexual Sex x Participant Gender	3.50	.014	.062

Table 3

Means and Standard Deviations for General Perceptions of Transsexual Character by Gender of Participant and Transsexual's Sex and by Gender of Participant and Appearance of the Transsexual

	Transsexual's Sex				Appearance of Transsexual			
	MTF		FTM		Congruent with Desired Sex		Incongruent with Desired Sex	
Gender:	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*
Men	3.47 (1.11)	63	3.32 (.86)	68	3.74 (.90)	66	3.04 (.94)	65
Women	3.68 (1.04)	64	3.74 (.95)	56	3.76 (.98)	60	3.65 (1.01)	60
Total	3.57 (1.07)	127	3.51 (.92)	124	3.75 (.94)	126	3.33 (1.02)	125

Table 4

Means and Standard Deviations for Evaluations of Attractiveness of Transsexual Character by Gender of Participant and Transsexual's Sex and by Gender of Participant and Appearance of the Transsexual

	Transsexual's Sex				Appearance of Transsexual			
	MTF		FTM		Congruent with Desired Sex		Incongruent with Desired Sex	
Gender	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*
Men	1.90 (.79)	63	1.83 (.74)	68	1.97 (.78)	66	1.75 (.72)	65
Women	2.28 (.85)	64	2.84 (.89)	56	2.71 (.95)	60	2.38 (.84)	60
Total	2.09 (.84)	127	2.29 (.95)	124	2.32 (.94)	126	2.05 (.84)	125

Table 5

Means and Standard Deviations for Evaluations of Transsexual Character's Mental Health by Gender of Participant and Transsexual's Sex and by Gender of Participant and Appearance of the Transsexual

	Transsexual's Sex				Appearance of Transsexual			
	MTF		FTM		Congruent with Desired Sex		Incongruent with Desired Sex	
Gender	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*
Men	3.60 (1.43)	63	3.42 (1.50)	68	3.39 (1.42)	66	3.63 (1.50)	65
Women	3.43 (1.41)	64	3.93 (1.30)	56	3.63 (1.38)	60	3.70 (1.39)	60
Total	3.51 (1.42)	127	3.65 (1.43)	124	3.50 (1.40)	126	3.66 (1.44)	125

Table 6

Univariate Results for GTS (Gender-Bashing), GTS (Transphobia/Genderism), KHAS, HGIS, PAQ (Male-Valued), PAQ (Female-Valued), and PAQ (Sex-Specific Scales)

	Dependent Variables	*F (1, 235)*	*partial* η^2	*p*
Gender	GTS: Gender-Bashing	37.30	.134	.000
	GTS: Transphobia/Genderism	45.12	.154	.000
	KHAS	32.49	.118	.000
	HGIS	79.83	.250	.000
	PAQ: Male-Valued	25.93	.097	.000
	PAQ: Female-Valued	6.51	.026	.011
	PAQ: Sex-Specific	44.50	.152	.000
Social	GTS: Gender-Bashing	24.10	.091	.000
Desirability	GTS: Transphobia/Genderism	18.53	.071	.000
	KHAS	2.15	.009	.144
	HGIS	13.71	.054	.000
	PAQ: Male-Valued	16.91	.065	.000
	PAQ: Female-Valued	9.21	.037	.003
	PAQ: Sex-Specific	3.06	.012	.082

Table 7

Means and Standard Deviations for GTS, KHAS, HGIS, PAQ Scales by Gender of Participant

	Men		Women		Total	
	(n = 127)		*(n = 118)*		*(n = 245)*	
Gender	*M*	*(SD)*	*M*	*(SD)*	*M*	*(SD)*
GTS (gender-bashing)	17.38	(7.02)	13.03	(5.54)	15.29	(6.70)
GTS (transphobia/genderism)	108.75	(28.16)	86.82	(29.15)	98.19	(30.62)
KHAS	67.35	(18.73)	79.92	(16.50)	73.41	(18.74)
HGIS	158.52	(40.90)	121.03	(27.45)	140.47	(39.72)
PAQ (male-valued)	23.43	(3.97)	20.66	(4.02)	22.09	(4.22)
PAQ (female-valued)	8.16	(3.54)	7.02	(4.58)	7.61	(4.11)
PAQ (sex-specific)	16.67	(3.68)	13.22	(4.26)	15.01	(4.32)

Table 8

Zero-order Correlations between the MCSDS, GTS, the KHAS, the HGIS, the PAQ, and the Evaluations of the Transsexual Character for Men (N = 127) and Women (N =119)

Predictors	General Perceptions		Attractiveness/ Relationship Evaluations		Mental Health Evaluations	
	Men	Women	Men	Women	Men	Women
MCSDS (Social Desirability)	.20*	.11	.09	.01	.14	.21*
GTS (Gender-Bashing)	-.23*	-.16	-.22*	-.15	-.12	-.08
GTS (Transphobia/ Genderism)	-.59***	-.53***	-.52***	-.59***	-.27**	-.49***
Kite Homosexuality Attitudes Scale (KHAS)	.57***	.44***	.48***	.54***	.28**	.48***
Hypergender Ideology Scale (HGIS)	-.32***	-.38***	-.27**	-.39***	-.28**	-.17
PAQ: Male-Valued	.04	-.10	-.11	-.06	-.12	-.06
PAQ: Female-Valued	-.04	-.09	-.14	-.05	-.06	.07
PAQ: Sex-Specific	-.09	-.05	-.19*	-.11	-.01	.09

* $p < .05$. ** $p < .01$. *** $p < .001$

Table 9

Standardized ß Coefficients for the Hierarchical Multiple Regression Analyses for Evaluations of the Transsexual Character (men, n = 127; women, n =118)

Predictors	General Perceptions		Attractiveness/ Relationship Evaluations		Mental Health Evaluations	
	Men[a]	Women[b]	Men[c]	Women[d]	Men[e]	Women[f]
Social Desirability	.08	-.04	.02	-.14	.13	.21*
GTS (Gender-Bashing)	.03	.07	.10	.07	.18	.09
GTS (Transphobia/ Genderism)	-.37*	-.53**	-.49**	-.55***	-.12	-.25
Kite Homosexuality Attitudes Scale (KHAS)	.33*	-.07	.14	.12	.10	.39*
Hypergender Ideology Scale (HGIS)	.06	-.15	.12	-.04	-.19	.20
PAQ: Male-Valued	.12	-.03	-.10	.15	-.20	-.04
PAQ: Female-Valued	.11	-.11	-.10	-.01	-.05	.04
PAQ: Sex-Specific	-.05	.01	-.07	-.16	.09	.03

[a] $R = .63$, $F(8, 118) = 9.64$, $p = .000$. [b] $R = .56$, $F(8, 109) = 6.11$, $p = .000$. [c] $R = .55$, $F(8, 118) = 6.50$, $p = .000$. [d] $R = .64$, $F(8, 109) = 9.40$, $p = .000$. [e] $R = .37$, $F(8, 118) = 2.30$, $p = .025$. [f] $R = .57$, $F(8, 109) = 6.42$, $p = .000$.

* $p < .05$. ** $p < .01$. *** $p < .001$