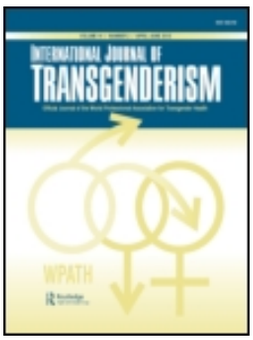

International Journal of Transgenderism

ISSN: 1553-2739 (Print) 1434-4599 (Online) Journal homepage: https://www.tandfonline.com/loi/wijt20

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To cite this article: Meredith G. F. Worthen (2016) Hetero-cis–normativity and the gendering of transphobia, International Journal of Transgenderism, 17:1, 31-57, DOI: 10.1080/15532739.2016.1149538

To link to this article: https://doi.org/10.1080/15532739.2016.1149538

Published online: 12 Apr 2016.

INTERNATIONAL JOURNAL OF TRANSGENDERISM
2016, VOL. 17, NO. 1, 31–57
http://dx.doi.org/10.1080/15532739.2016.1149538

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Hetero-cis–normativity and the gendering of transphobia

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ABSTRACT

A persistent finding in past research reifies a "gendered" cisnormative bias whereby heterosexual men (compared to heterosexual women) have been found to be overwhelmingly less supportive of transgender individuals in quantitative studies conducted in the United States and in Canada, China, Malaysia, the Philippines, Poland, Singapore, Sweden, Thailand, and the United Kingdom. I suggest that this finding reflects a synergistic relationship between "transphobia" and "homophobia" or, put another way, an overarching presence of *hetero-cis–normativity* whereby it is "normal" to be both heterosexual and cisgender and it is not normal (and therefore acceptable to be prejudiced toward) nonheterosexual and noncisgender individuals. Using this hetero-cisnormative framework in the current study, I utilize quantitative survey data from college-age students ($N = 775$; average age, 22; 78% White) at a university in the southern United States to investigate attitudes toward transgender individuals in three ways. First, I explore how hetero-cis–normative assumptions lead to gender differences in attitudes toward male-to-female and female-to-male transgender individuals. Next, I examine perspectives in opposition to hetero-cis–normativity—namely feminist identity and supportive attitudes toward lesbian, gay, and bisexual individuals—to explain why men (compared to women) have more negative attitudes toward transgender individuals. Finally, I explore how nonheterosexuals' attitudes may further elucidate the relationship between gender and attitudes toward transgender individuals. Overall results provide support for using a hetero-cis–normative framework to understand transphobia.

KEYWORDS

Attitudes; cisnormativity; gender; heterosexism; prejudice; transphobia

A persistent finding in past research reifies a gendered cisnormative bias whereby heterosexual men (compared to heterosexual women) have been found to be overwhelmingly less supportive of transgender individuals in quantitative studies conducted in the United States (Ceglian & Lyons, 2004; Nagoshi et al., 2008; Norton & Herek, 2013; Tebbe & Moradi, 2012; Walch, Ngamake, Francisco, Stitt, & Shingler, 2012; Willoughby et al., 2010; Worthen, 2012) and in Canada (Hill & Willoughby, 2005), Hong Kong (Winter, Webster, & Cheung, 2008), the Philippines (Willoughby et al., 2010), Poland (Antoszewski, Kasielska, Jędrzejczak, & Kruk-Jeromin, 2007), Sweden (Landén & Innala, 2000), Thailand (Ngamake, Walch, & Raveepatarakul, 2013), and the United Kingdom (Tee & Hegarty, 2006). For the purposes of this study, "cisgender" is a label for individuals whose personal gender identity is the same as the sex they were assigned at birth and "cisnormativity" is the assumption that it is "normal" to be cisgender (Schilt & Westbrook, 2009). "Transgender" is a label for individuals "who move away from the gender [sex] they were assigned at birth, people who cross over (*trans-*) the boundaries constructed by their culture to define and contain that gender" (Stryker, 2008a, p. 1)[1] and "transphobia"[2] legitimizes fear, hatred, disgust, and prejudicial treatment toward transgender people. *Hetero-cis–normativity* represents a hierarchical system of prejudice in which cisgender individuals are privileged above non-cisgender individuals but also, negativity, prejudice, and discrimination may be directed toward anyone perceived as noncisgender and/or nonheterosexual. In this way, hetero-cis–normativity is not only about prejudices based on cisgender assumptions (as transphobia is) but also hetero-cis-normativity represents an aversion to anything that goes against the conventions that hold that "there are two and only two genders, that gender reflects biological sex, and that only sexual attraction between these 'opposite' genders is

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natural or acceptable" (Schilt & Westbrook, 2009, p. 441; see also Kitzinger, 2005). This framework represents a synergistic relationship between transphobia and homophobia or, put another way, an overarching presence of hetero-cis–normativity whereby it is "normal" to be both heterosexual and cisgender and it is not normal (and therefore acceptable to be prejudiced toward) nonheterosexual and noncisgender individuals. Furthermore, this actively maintains not only a superiority of heterosexuals relative to nonheterosexuals but also a superiority of men relative to women (Schilt & Westbrook, 2009). In this way, both the existence of transphobia and gender differences in transphobia may actually be a symptom of hetero-cis–normativity.

Building on previous work that supports a more nuanced investigation of attitudes toward transgender individuals (Worthen, 2013), I use a hetero-cis–normative framework and quantitative survey data from college students in the southern United States to investigate attitudes toward transgender individuals in three ways. First, I explore how hetero-cis–normative assumptions may lead to gender differences in attitudes toward male-to-female (MtF) and female-to-male (FtM)[3] transgender individuals. Next, I examine how perspectives in opposition to hetero-cis–normativity—namely feminist identity and supportive attitudes toward lesbian, gay, and bisexual (LGB) individuals—may explain why men (compared to women) have more-negative attitudes toward transgender individuals. Finally, I explore how nonheterosexuals' attitudes may further elucidate the relationship between gender and attitudes toward transgender individuals.

Attitudes toward transgender individuals

While the published history of quantitative examinations of attitudes toward "homosexuals" dates back to 1971 (Smith, 1971) and for "bisexuality," 1981 (MacDonald, 1981), the first published study examining survey responses to questions about transgender individuals was conducted in 1983. Leitenberg and Slavin's (1983) study included a general attitude question about "transsexuality"[4] and "homosexuality" ("always wrong," etc.) and four specific questions about job discrimination, biological causality, and adoption (Leitenberg & Slavin 1983, p. 341). Interestingly, Leitenberg and Slavin (1983) found that, overall, "transsexuality" was more accepted than "homosexuality" in their sample of 209 female and 103 male U.S. undergraduates, 99% of whom were heterosexual (no cisgender identity data were provided). In addition, compared to men, women were found to be more supportive of "transsexuality" and transsexuals' rights (Leitenberg & Slavin, 1983). It is difficult, however, to understand these findings in the context of contemporary society more than 3 decades after the study. As Bauer et al. (2009) suggest, transgender people currently represent one of the most marginalized groups in the United States. Indeed, recent research with 6,450 transgender and gender nonconforming study participants determined that a staggering 41% reported having attempted suicide (compared to 1.6% of the general population) and 90% reported experiencing harassment, mistreatment, or discrimination in the workplace (Grant et al., 2011).

To speak to this issue, others have worked toward a more contemporary understanding of transphobia (see Appendix A for a summary of quantitative studies of attitudes toward transgender individuals). For example, Hill and Willoughby's (2005) three-part study yielded the 32-item Genderism and Transphobia scale based on Hill's (2002) research. Hill and Willoughby (2005) found higher levels of transphobia, genderism, and gender-bashing among men in their Canadian undergraduate sample and Willoughby et al. (2010) found similar results in their Canadian and Filipino student samples. In their Hong Kong study utilizing Hill and Willoughby's (2005) Genderism and Transphobia scale, Winter et al. (2008) found that among undergraduate students, men were more transphobic than women. Studies utilizing Nagoshi et al.'s (2008) nine-item Transphobia scale, developed from Bornstein's (1998) work, have also revealed higher levels of transphobia among men using U.S. undergraduate samples (Nagoshi et al., 2008; Tebbe & Moradi, 2012). Tee and Hegarty's (2006) study with students in the United Kingdom also revealed gender differences whereby men showed significantly greater opposition to transgender civil rights than women did. Likewise, men have also been found to have more-negative attitudes toward transgender individuals in a Polish college student sample (Antoszewski et al., 2007), U.S. undergraduate samples (Ceglian & Lyons, 2004; Walch et al., 2012), a Thai undergraduate sample (Ngamake et al., 2013), and in a randomly selected national sample of Swedish residents (Landén & Innala, 2000) and a national probability sample of

heterosexual U.S. adults (Norton & Herek, 2013); however in a Hong Kong population-based random sample, men and women did not differ significantly in their attitudes toward transgender individuals (King, Winter, & Webster, 2009). With the exception of Willoughby et al.'s (2010) Filipino study, which included 16 gender-variant respondents, none of these studies utilized measures to understand how the cisgender or transgender identity status of respondents relates to attitudes toward transgender individuals. In addition, the vast majority of these studies failed to adequately investigate the sexual orientation of respondents.

Attitudes toward MtF and FtM transgender individuals

Although previous studies have uncovered evidence of transphobic attitudes, most research neglects to explore differences in attitudes toward MtF and FtM individuals. In fact, early research on attitudes toward transgender people most often focused on MtF individuals (e.g., Kando, 1972) and virtually ignored FtM individuals (Green, 2005). Leitenberg and Slavin (1983) report that although they had the ability to examine differences in attitudes toward MtF and FtM "transsexuals," results for both groups were combined because there were no significant differences in their findings.[5] Furthermore, even though Hill and Willoughby's (2005) Transphobia Scale included gender-specific items that could allow for separate tests of attitudes toward MtF and FtM individuals, the researchers did not include such explorations in their published manuscript.

Although not focused specifically on prejudices, Grossman, D'Augelli, Salter, and Hubbard's (2005) study of 31 MtF and 24 FtM youth aged 15–21 showed that MtF youth experienced earlier and more-frequent prejudicial treatment than FtM youth (Grossman et al., 2005). Compared to parents of FtM youth, parents of MtF youths were more likely to have told their children to stop expressing their cross-gender behaviors and to report that their children needed counseling related to their sexual orientation (Grossman et al., 2005). Qualitative studies of workplace environments also show some differences in attitudes toward MtF and FtM individuals (Schilt & Connell, 2007; Schilt & Westbrook, 2009). Specifically, Schilt and Connell (2007) and Schilt and Westbrook (2009) found that cisgender women are more inclined to regulate FtM's behaviors while cisgender men are more likely to "police" MtF individuals in workplace environments (Schilt & Westbrook, 2009, p. 459). Thus, MtF individuals may have different experiences of prejudice than FtM individuals (see also Gerhardstein & Anderson, 2010; Schilt & Westbrook, 2014; Serano, 2007; Sánchez & Vilain, 2009). Thus, if we are to more fully understand prejudices toward transgender individuals, it could be especially informative to explore attitudes toward MtF and FtM individuals separately.

Caroll, Guss, Hutchinson, and Gauler (2012) provide an investigation of this sort, although they used a rather limited sample of 233 undergraduate students (46 men and 187 women; cis- and transgender identities not provided) enrolled in psychology courses (and receiving extra credit for participating in their study) at a moderate-sized university in the southeastern United States. In this study, students assumed the role of a peer counselor and read one of four (male, female, MtF, FtM) randomly assigned versions of an intake form completed by a fictitious peer client. Results provided interesting gender differences: men reported starkly contrasting attitudes with most negative feelings and least willingness to interact with the FtM individuals and highest willingness to interact with and least negative reactions toward MtF individuals, while women responded equally favorably to both FtM and MtF individuals.

Three additional quantitative studies have explored attitudes toward MtF individuals specifically but they do not offer specific investigations of prejudices directed toward FtM individuals. In Winter et al.'s (2008) Hong Kong study, undergraduate students reported strongly negative attitudes toward "gender variant men," what the authors described as "Anti Sissy Prejudice." In their study, there was evidence of a possible gender difference in "Anti Sissy Prejudice" (approaching statistical significance), whereby men reported higher levels of MtF prejudice than women reported. Utilizing a population-based random sample of Hong Kong citizens, King et al. (2009) examined the Chinese Attitudes Toward Transgenderism and Transgender Civil Rights scale (CATTCRS), which includes two (MtF) gender-specific prejudicial statements: "It is morally wrong for a man to present himself as a woman in public in Chinese society" and "A man who identifies as a woman is psychologically abnormal." Interestingly, their study did not reveal gender differences in attitudes toward MtF

individuals. In their international comparative study, Winter et al. (2009) examined prejudices toward "transwomen" using samples of undergraduate students enrolled at universities in seven countries (Malaysia, Philippines, Thailand, China, Singapore, the United States, and the United Kingdom). Results from this study showed that in each of the seven countries, men reported more-negative attitudes toward "transwomen" when compared to women's responses. Overall, such findings suggest that the relationships between respondent gender and attitudes toward FtM and MtF transgender individuals deserve further investigation.

Hetero-cis–normativity and attitudes toward transgender individuals

Thus far I have reviewed previous studies that have found a "gendered" pattern whereby men (compared to women) have been found to be more transphobic (e.g., Nagoshi et al. 2008; Winter et al., 2009; Worthen, 2012). In addition, there is some evidence that men may be more antagonistic toward MtF individuals than they are toward FtM individuals (e.g., Bettcher, 2007; Serano, 2007) and that transmen and transwomen are "policed" differently based on cultural presumptions about gender (Westbrook & Schilt, 2014, p. 52). Such evidence suggests that "transphobia" may actually be a symptom of hetero-cis–normativity. Put another way, it is not that men are inherently more transphobic than women but, rather, men may be more inclined to support and maintain hetero-cis–normative biases that support both a glorification of heterosexuality (and consequently a disparaging of nonheterosexuality) and a reification of a "male/female" dichotomy based on presumed biological sex or in other words, "cultural genitalia" that is often determined from an individual's gender presentation (Schilt & Westbrook, 2009, p. 441; see also Kessler & McKenna, 1978; Westbrook & Schilt, 2014). Transphobia may be a symptom of hetero-cis–normative biases because, as Schilt and Westbrook (2009) note, transphobia represents an aversion to anything that goes against the conventions that there two genders, that gender reflects biological sex, and that the only acceptable sexual attraction is between opposite genders (p. 441). Such hetero-cis–normative biases may be so pervasive that transgender people's experiences become entirely absorbed by the binaristic gender system (Schilt & Westbrook, 2009; Westbrook & Schilt, 2014). Indeed, opposition to transgender individuals' civil rights has been found to be related to heterosexism, a belief that there are only two sexes and the belief that gender is biologically based (Tee & Hegarty, 2006). In these ways, transphobia is entwined with attitudes about both heterosexuality and cisgender identity, reflecting hetero-cis–normative biases.

To better explain how these ideologies are conceptually distinct, Table 1 offers a brief description of three theoretical constructs for understanding attitudes toward transgender individuals: transphobia, cisgenderism, and hetero-cis–normativity. Transphobia has been the most commonly discussed construct created to understand attitudes toward transgender people. As with other similar "phobia" concepts (i.e., homophobia), transphobia represents fear, hatred, disgust, and prejudicial treatment toward a certain group (in this case toward transgender people). However, similar to the critiques of the term homophobia (e.g., Herek, 2004), transphobia is also limited by the fact that it typically addresses only fear of transgender people rather than capturing the embedded cultural prejudices that lead to flawed assumptions and discrimination directed toward transgender people and the transgender community in general (Lennon & Mistler, 2014). Cisgenderism offers a theoretical perspective that acknowledges cultural denigration of the wide spectrum of people's genders and bodies that do not adhere to rigid social rules about gender (Ansara & Hegarty, 2012, 2013, 2014). In comparison to transphobia, cisgenderism better "captures a greater sense of oppression that exists" and "more accurately reflects a specific and pervasive cultural and systemic ideology" (Lennon & Mistler, 2014, p. 64). In the current project, the framework of hetero-cis–normativity adds yet another dimension to the puzzle. Hetero-cis–normativity suggests that the prejudices and cultural denigration of certain people who are perceived as nonnormative are embedded in a social system that privileges both gender conformity and heterosexuality (read: anyone who is not heterosexual and cisgender is not "normal"). Utilizing a hetero-cis–normative perspective locates prejudices within a

Table 1. Three theoretical constructs for understanding attitudes toward transgender individuals.

	Transphobia	Cisgenderism	Hetero-cis–normativity
Presumptions about "normalcy"	It is "normal" to be cisgender.	It is "normal" to have a culturally assigned gender that is the same as your self-designated gender.	It is "normal" to be both cisgender and heterosexual.
Functions	Legitimizes fear, hatred, disgust, and prejudicial treatment toward certain bodies and genders (transgender people)	Delegitimizes people's own designations of their genders and bodies	Privileges heterosexual cisgender individuals and rejects transgender, gender nonconforming, and non-heterosexual individuals as legitimate
Conceptual assumptions	An aversion to anything that goes against the conventions that gender reflects biological sex.	Discriminatory ideology and behavior regarding people whose culturally assigned genders differ from their self-designated genders and people whose assumed biological sex characteristics differ from their actual bodies.	Ideological framework that represents a cultural system in which there are two and only two genders, gender reflects biological sex, and only sexual attraction between these 'opposite' genders is natural or acceptable.
Key variables of interest	attitudinal survey data (see Appendix A)	Variables uncovering biased language (i.e. misgendering, see Ansara and Hegerty, 2014)	attitudinal survey data; gender identity and sexual orientation of respondents
Indicators	Negative attitudes toward transgender people	Evidence of errors and omissions in language that don't reflect people's self-designated genders.	Negative attitudes toward transgender people, LGB people, and feminism as rooted in a cultural belief system that privileges heterosexual cisgender individuals above all
Key scholars	Hill and Willoughby (2005)	Ansara and Hegarty (2012, 2013, 2014)	Schilt and Westbrook (2009)

nexus of both gender and sexuality biases and necessarily complicates the existing infrastructure that challenges binary favoritisms.

Below, I discuss how hetero-cis–normative biases may contribute to gender differences in transphobia and attitudes toward MtF and FtM transgender individuals. Specifically, I examine how perspectives in opposition to hetero-cis–normativity—namely supportive attitudes toward LGB individuals and feminist identity—may explain why men have more-negative attitudes toward transgender individuals. Thus, the "gendered" pattern whereby men (compared to women) have been found to be more transphobic (e.g., Hill & Willoughby, 2005; Nagoshi et al., 2008; Willoughby et al., 2010) may be less about "gender" and more about hetero-cis–normativity.

Hetero-cis–normativity, transphobia, and attitudes toward LGB individuals

Unsupportive attitudes toward LGB people represent heteronormative biases. Those who believe that it is "normal" to be heterosexual believe nonheterosexuality is "abnormal" or "wrong." However, such heteronormative biases are about *more* than anti-LGB perspectives, they may also be related to cisnormative biases (Fassinger & Arseneau, 2007; Moradi, Mohr, Worthington, & Fassinger, 2009). Specifically, attitudes toward LGB and transgender individuals are connected in two ways: (1) through the erroneous notion that "transgender" is always equivalent to "LGB" identity and (2) through an irrational fear of sexual advances from noncisgender and nonheterosexual people.

Unsupportive attitudes toward LGB individuals (sometimes described as homophobic and/or biphobic attitudes, as in Eliason, 1997), although not necessarily directly associated with attitudes toward transgender individuals, may be related to a hetero-cis–normative phenomenon whereby individuals erroneously assume that all transgender individuals are "gay." Although it is true that some transgender individuals identify as gay, it is also true that some transgender individuals identify as heterosexual; however, some may conflate being transgender with being gay or may see these identities as inseparable (Valentine, 2007). For example, an individual who sees a male dressing in clothing perceived as culturally feminine or as "women's fashion" may see this person as "gay"; however, this may be a misalignment of terms. In fact, seeing a male dressing in culturally feminine or "women's fashion" (more than likely) has more to do with an individual's gender identity and less to do with the individual's sexual orientation. Even so, individuals may see transgender behavior and identify it as "gay" behavior. This could be due to the fact that some may perceive any non–gender-conforming behavior as "gay." Thus any behavior that is not "straight" is (by default) "gay"

(Worthen, 2013). This assumption may be rooted in the fact that in the United States, until the 1950s, those who today might identify with the term "transgender" were classified as "homosexual" by most of U.S. society (Weiss, 2004). Today, we sometimes see this in discussions of Brandon Teena, the American FtM transgender youth who was violently murdered in 1993 who is frequently a part of discussions involving violence against "gay" youth. Brandon Teena was described in the media as "gay" even though he identified as heterosexual (Halberstam, 2003; Valentine, 2007). Queer scholar Valentine (2002) further complicates this discussion and asks, "How do we decide which experiences count as gender and which as sexuality?" (p. 223).

When "transgender" identity is equated with "LGB" identity, the lines between transphobia and homophobia/biphobia are blurred (Valentine, 2007). Indeed, quantitative studies provide evidence of a strong relationship between transphobia, homophobia, and biphobia. For example, using North American college samples, both Hill and Willoughby (2005) and Nagoshi et al. (2008) found that their transphobia scales were significantly correlated with Wright, Adams, and Bernat's (1999) Homophobia scale. Ngamake et al. (2013) determined that Bouton et al.'s (1987) Homophobia scale was significantly related to Walch et al.'s (2012) Attitudes Toward Transgendered Individuals scale in their study of Thai undergraduates. Norton and Herek (2013) also found that unsupportive attitudes toward LGB people were related to negative attitudes toward transgender people, using data from a national probability sample of heterosexual U.S. adults ($N = 2{,}281$). Tee and Hegarty (2006) determined that Herek's (1984) Attitudes to Lesbians and Gay Men (ATLG) scale was strongly related to opposition to transgender civil rights in the United Kingdom. Using structural equation modeling, Tebbe and Moradi (2012) found that both Herek's (1984) ATLG scale and Mohr and Rochlen's (1999) Attitudes Toward Bisexuality scale were strong unique correlates of anti-transgender prejudice in the United States. Overall, these empirical findings are evidence of hetero-cis–normative biases that reject both transgender and lesbian/gay individuals.

Furthermore, the "gendered" pattern whereby men (compared to women) have been found to be more transphobic might be an artifact of men's less supportive attitudes toward LGB people and higher levels of hetero-cis–normative biases. Studies show that heterosexual men report less supportive attitudes toward LGB individuals than women report (e.g., Eliason, 1997; Hinrichs & Rosenberg, 2002; Norton & Herek, 2013; Tee & Hegarty, 2006; Worthen, 2012). Furthermore, because heterosexual men are less sensitive to gender nonconformity, heteronormative assumptions and perceptions that all gender nonconformists as "gay" are more likely (e.g., Kimmel, 2009; Kite & Whitley, 1998; LaMar & Kite, 1998; Willoughby et al., 2010). As a result, compared to women, men may be less understanding of LGB and noncisgender people. As Winter et al. (2008) note, "It is possible that men's relative antipathy toward homosexual people and transpeople may arise out of the greater investment made by men (as compared with women) in the maintenance of this broad cluster of genderist and heterosexist values; many of which homosexual and transgender people appear to contradict" (p. 671). Thus, men may be more transphobic than women because their assumptions are more likely to be hetero-cis–normative.

A second way to understand the relationship between attitudes toward LGB and transgender individuals may be grounded in an irrational fear of sexual advances from noncisgender and nonheterosexual people. Put another way, fearing sexual advances might be a root of trans-/homo-/biphobias and a reflection of hetero-cis–normativity. However, heterosexual men (compared to heterosexual women) might be more likely to fear sexual advances from noncisgender and nonheterosexual people, and this may explain men's higher levels of transphobia. Indeed, Eliason's (1997) study of 229 undergraduates found that heterosexual men felt threatened by gay and bisexual men because they were fearful that they might be solicited romantically by them. Past research shows that some heterosexual men actually locate their sexual prejudice in aversion to sexual advances from gay men (Worthen, 2013; Bortolin, 2010). In a qualitative study examining attitudes toward LGBT individuals following experiences with an ally training program, Worthen (2011) found this pattern as noted by one heterosexual man: "I would now be more comfortable talking to gay people, as long as a homosexual man doesn't try to make a move on me" (p. 340). A reaction of this type certainly indicates that aversion to sexual attraction by gay and bisexual men may be a force behind heterosexual men's prejudices.

However, as noted above, because some men may equate being gay with being transgender, such aversion to gay/bisexual attraction from men may be synonymous with aversion to transgender attraction regardless of the sexual orientation of the transgender person. As a result, heterosexual men may be more likely to be transphobic because they have greater levels of fear of sexual advances from gay/bisexual men and all transgender people. However, heterosexual men's fear of sexual advances from transgender people may also vary by the gender of the transgender person (MtF or FtM) in some important ways that may reflect hetero-cis–normative biases.

For example, although MtF individuals are living as women (in most cases), a heterosexual man may be more uncomfortable with heterosexual MtF individuals (compared to heterosexual FtM individuals) because (1) he may fear that a heterosexual MtF individual would solicit him romantically and he would not know how to politely turn her down or (2) he may fear that he would be sexually attracted to a heterosexual MtF individual without knowing that she is transgender and this may also be especially problematic to a heterosexual man because he may interpret this as "gay" sexual attraction. Indeed, Nagoshi et al. (2008) suggest that homophobia underlies heterosexual men's prejudice toward transgender individuals. Using this argument, if heterosexual men focus on the biological chromosomal sex of MtF individuals, an MtF individual would be perceived as a "man" and, thus, heterosexual men may perceive their attraction to a heterosexual MtF individual as a "gay" sexual attraction (Bettcher, 2007). Thus, fear of being "gay" may be behind heterosexual men's negative attitudes toward MtF individuals. Indeed, their need to "prove" that they are not gay and the importance of defining, defending, and "showing off" their heterosexual orientation may be a key part of some heterosexual men's masculine identity (Herek, 2002; Kimmel, 2009). Because heterosexual men may fear a sexual attraction to MtF individuals that could be perceived as "gay" sexual attraction, they perceive MtF individuals as a threat to their own heterosexual identity, and thus, heterosexual men may have especially negative attitudes toward MtF individuals. Indeed, Bettcher (2007) suggests that MtF individuals are especially at a great risk for violence because they are sometimes perceived as "deceivers" since their biological chromosomal sex does not align with their gender presentation. This "deception" can incite homophobic violence among heterosexual men who are attracted to MtF individuals but interpret this attraction as a "gay" sexual attraction once the biological sex of the MtF individual is revealed (Bettcher, 2007; Schilt & Westbrook, 2009). In this way, the homophobic need to disassociate from any "gay" sexual attraction might be related to heterosexual men's attitudes toward MtF transgender individuals.

Hetero-cis–normativity, transphobia, and feminist ideologies

By and large, feminist ideologies suggest that there should be equality between men and women (e.g., Millett, 1970; Morgan, 1996). Although historically there have been palpable tensions between feminist and transgender communities (see Salamon, 2010; Stone, 1991; Stryker, 2008a) and some feminists have been especially critical of transgender people, especially MtF individuals (e.g., Raymond, 1978), generally speaking, both transgender rights and feminism represent efforts to combat prejudices based on gender and sex (Scott-Dixon, 2006; Serano, 2007). Indeed, in her discussion of transgender history, Stryker (2008a) squarely situates "transgender feminism" in the third wave of the feminist movement (p. 3). In this way, hetero-cis–normative biases may go against both feminism and transgender rights.

Indeed, contemporary research indicates that self-identified feminists are more likely to report supportive attitudes toward transgender individuals when compared to nonfeminists (Worthen, 2012). For example, one hetero-cis–normative (and sexist, nonfeminist) perspective is that heterosexual cisgender men should be the dominant group in society. In this view, noncisgender individuals are inferior to heterosexual cisgender men (Feldblum, 2000/2001). While anyone can have hetero-cis–normative (and sexist, nonfeminist) perspectives, heterosexual men have been found to be more likely to promulgate such attitudes (e.g., Kimmel, 2009; LaMar & Kite, 1998). These assumptions may be a key reason why heterosexual men have more-negative attitudes toward transgender individuals than heterosexual women. Furthermore, heterosexual men may be especially hostile toward these groups. In their study of undergraduate students, Nagoshi et al. (2008) found that physical aggression, verbal aggression, and anger were predictive of transphobia among men but not among women. This implies that men's negative attitudes may be related to

their higher levels of hostility toward transgender individuals.

Higher levels of hostility toward transgender individuals may actually differ by MtF and FtM status in ways that may be related to hetero-cis–normative assumptions that counter feminist ideologies. For example, heterosexual men who adhere to hetero-cis–normative assumptions may feel especially hostile toward MtF individuals because they may believe that MtF individuals are relinquishing their "superior" status as biological males by becoming women (Gerhardstein & Anderson, 2010; Schilt & Westbrook, 2009; Serano, 2007). If people are relinquishing their status as males, this may suggest that men are not as valued in society. This can be seen as especially problematic because it threatens the overall "superiority" of men in society. Indeed, Winter et al.'s (2008) Hong Kong study showed that gender-variant men were subject to high levels of antipathy, a finding the authors denote as related to the overarching importance of heterosexism, male dominance, and a preference for sons in Chinese culture. In contrast, heterosexual men may view FtM individuals less negatively than MtF individuals because they may see them as having the desire to obtain a "superior" status in society by becoming men, something that heterosexual men may also value. On the flip side, heterosexual men may see FtM individuals as threatening the "superiority" of men because they are encroaching upon heterosexual cisgender men's powers in society by becoming men. On the other hand, heterosexual men may perceive FtM individuals as weak competitors in society because they are not biological males, thus they are not able to realistically threaten the power of heterosexual cisgender men (Gerhardstein & Anderson, 2010). Furthermore, nonfeminist and misogynistic perspectives can be directly tied to transphobic attitudes, particularly aimed at MtF individuals. For example, in their discussion of two instances in the U.S. media in which celebrities used overtly transphobic language trivializing MtF individuals' experiences, Riggs and Patterson (2009) articulate the relationships between transphobia and hatred of women: "Transphobia and misogyny intersect and shore one another up in complex ways that are often difficult to disentangle" (Riggs & Patterson, 2009, p. 189). Utilizing transphobic language to depict transwomen's experiences, these celebrities effectively demonstrated that belittling transwomen is also a larger critique of women in general. In this way, nonfeminist and misogynistic perspectives feed transphobia. Overall, nonfeminist perspectives that align with hetero-cis–normativity may be especially salient in heterosexual men's attitudes toward MtF and FtM transgender individuals.

Nonheterosexuals' attitudes toward transgender individuals

Thus far, I have suggested that using a hetero-cis–normative framework can help us understand gender differences in transphobia. However, there may be another important piece to the puzzle worth examining. As shown in Appendix A, many studies of attitudes toward transgender individuals fail to even report the sexual orientation of respondents. In addition, of the research that indicates the sexual orientation of respondents, previous quantitative studies of attitudes toward transgender individuals are based on extremely small samples of nonheterosexuals (ranging from 3 to 39 people). As a result, the largely documented finding that being "female" is a powerful estimator of attitudes toward transgender individuals may be an artifact of these predominantly heterosexual (or presumed to be heterosexual)[6] samples. Put another way, if we were to investigate nonheterosexuals' attitudes toward transgender individuals, the robustness of the relationship between being "female" and supportive attitudes toward transgender individuals might be reduced or even eliminated in quantitative studies.

Past studies provide some support for an investigation of this type. For example, previous research suggests that compared to heterosexuals, nonheterosexual individuals may be more likely to experience less restrictive gender roles and may also be more flexible in their attitudes about gender and sexuality (Carrington, 1999; Savin-Williams, 2005). As a result, LGB individuals may be able to empathize with transgender individuals and issues in more ways than heterosexuals can. Indeed, Worthen et al. (2012, p. 252) suggest that the stigmatization that gay and lesbian individuals feel cultivates a sense of "otherness" that allows gay and lesbian individuals to see differences between themselves and others, which may create a space for LGB individuals to empathize with transgender individuals. For example, quantitative research shows that being LGB is strongly positively related to supportive attitudes toward transgender individuals (Willoughby et al., 2010; Worthen, 2011), while qualitative research finds that lesbian women and gay

men have differing attitudes toward transgender people (Morrison, 2010; Stone, 2009; Weiss, 2004). Indeed, the concept of "homonormativity" (conceptualized as indicative of when "homosexual" community norms marginalize other kinds of sex/gender/sexuality difference, according to Stryker, 2008b, p. 147) has been introduced to explain gay and lesbian disregard for transgender experiences (see also Bryant, 2008; Duggan, 2002).

Feminism may also be reflected in LGB individuals' attitudes toward transgender issues. For example, Stone's (2009) qualitative study about transgender inclusion with 32 lesbian and gay activists revealed that unlike gay men, lesbian women often discussed their feminist ideologies, citing privilege and social justice as inherently tied to their perspectives about transgender issues. In particular, this gender difference in attitudes toward transgender issues was reflected in lesbian women's reported feminist consciousness (Stone, 2009). As a result, an exploration of LGB individuals' attitudes toward transgender individuals and their feminist ideologies might be especially informative and may help us further understand the "gender gap" in attitudes toward transgender individuals.

Current study

In the current study, I utilize a hetero-cis–normative framework to investigate gender differences in attitudes toward transgender individuals in three ways. First, I explore how hetero-cis–normative biases may lead to gender differences in attitudes toward MtF and FtM transgender individuals. Second, I examine how feminist identity and supportive attitudes toward LGB individuals (perspectives in opposition to hetero-cis–normativity) may explain gender differences in attitudes toward transgender individuals. Finally, I explore nonheterosexuals' attitudes. Specifically, the following hypotheses are investigated:

Hypothesis 1: There is a positive relationship between female identity and supportive attitudes toward transgender individuals and, more specifically, MtF and FtM individuals.

Hypothesis 2: The positive relationship between female identity and supportive attitudes toward transgender individuals is entirely mediated by the additive effects of feminist identity and supportive attitudes toward gays, lesbians, and bisexuals.

Hypothesis 3: Using a subsample of nonheterosexuals, the positive relationship between female identity and supportive attitudes toward transgender individuals is entirely mediated by the individual and additive effects of feminist identity and supportive attitudes toward gays, lesbians, and bisexuals.

Method

College students as respondents in attitudinal research

Research investigating the influence of the experience of college on students shows that along with obvious improvements in educational attainment, students who attend college experience shifts in cultural, intellectual, political, social, and religious values (Pascarella & Terenzini, 1991). Places of personal discovery, colleges offer a host of new experiences that contribute to shifts in lifestyle, attitudes, and exposure to new ideas that students experience as they arrive at their chosen institutions of higher learning (Gumprecht, 2003). Furthermore, moving away from home can serve as a catalyst for growth and change. Young adults who have previously lived at home under direct parental supervision now have the freedom to engage in new activities and free thinking. At the same time, college students with new levels of exposure to LGBT persons may begin to develop attitudes and beliefs about these persons that may coincide with their experiences in college.

College students were chosen for this research because they may represent the most "liberal" emerging generation of young people within society, and thus, they may also be at the forefront of the fight for LGBT rights. Indeed, in his review of the U.S. annual freshman surveys from 1966 to 1996, Astin (1998) found that college students reported increasing "liberalism" on issues of gay rights and gender equality. More recent studies reflect similar patterns. In a study of about 2,500 randomly selected Americans, Brake (2010) found that education level was significantly related to more liberal attitudes, especially regarding same-sex marriage. Specifically, 25% of Americans whose formal education ended with a high-school diploma supported same-sex marriage compared to 39% of people whose highest level of education was a bachelor's degree; more than 40% of people with master's degrees and PhDs supported same-sex marriage

(Brake, 2010). In addition, research shows that young people are generally more open to diversity in gender identity and sexual orientation (Savin-Williams, 2005; Zea, Reisen, & Diaz, 2003). Thus, there may be a strong relationship between formal education among young people and attitudes toward LGBT rights.

If we want to ultimately understand how to work toward inclusivity and the promotion of LGBT rights on a global scale, examining young "liberal-leaning" college populations may be one way to begin to work toward this goal. Thus, the current study takes the approach of understanding attitudes of a population that may be among the most liberal and educated within a society since these individuals may very well be at the forefront of the fight for LGBT rights.

Data and participants

The data for this project were derived from anonymous paper-and-pencil surveys completed by undergraduate students ($N = 775$; 78% White; 61% female; average age 22; 94% identified as heterosexual) enrolled in sociology classes at a large public university located in the southern United States (81% reported growing up in the South). All instructors teaching sociology undergraduate courses at the university in the spring of 2010 were contacted by the researcher and asked if they would allow the researcher to come to their classes to ask students to participate in the survey during class time. Of the 29 instructors contacted, 24 agreed to participate. During each of the 33 classroom visits, the researcher instructed students that participation was completely voluntary and that there were no incentives for students who completed the survey. Students were told that if they did not want to complete the survey, they could sit quietly and read while others completed the survey. The instructor was asked to leave the room while students completed the survey to reduce any potential biasing effects that might result from the presence of the instructor.

The university from which the sample was drawn serves as the flagship university for all the students in the state. Flagship universities receive the largest share of higher education funding in their states and have been identified as highly influential toward the intellectual climate of the city in which they are situated (Gumprecht, 2003). The university is located in what has been identified as a "typical college town" in Gumprecht's (2007) research. College students made up 27% of the population of the city (29,931 of 110,478 residents were students at the time of data collection), which suggests a potentially high level of college influence on the city's culture (Gumprecht, 2003).

Measurement

Dependent variables

The dependent variables for this project include three scales. The first scale, Attitudes Toward Transgender Individuals, comprises eight statements drawn from Hill and Willoughby's (2005) 32-item Genderism and Transphobia scale. Statements include nongender specific items, such as, "Sex change operations are morally wrong," and gender-specific items, such as, "Men who see themselves as women are disgusting." Responses ranged from strongly disagree to strongly agree on a five-point Likert-type scale, although some items were reverse coded. Higher scores indicated more positive attitudes toward transgender individuals. The second scale, Attitudes Toward MtF Trans Individuals, is a subscale and includes three statements specific to MtF trans individuals. The third scale, Attitudes Toward FtM Trans Individuals, is a subscale and includes three statements specific to FtM trans individuals. Principal-component factor (PCF) analysis (using Stata 13) was chosen to assist in the construction of these scales because this procedure allows for reducing redundancy among related variables and also assumes the presence of latent factors that are unmeasured. Furthermore, since I believed that these variables were measuring the same construct, the results from the PCF analysis provided support for the combination of several variables into the first scale, Attitudes Toward Transgender Individuals. Following the initial PCF analysis, the factor solution was optimized using orthogonal varimax rotation. Although an exact number of factors was not requested, only one factor was revealed that had an eigenvalue greater than 1. The scree plot of eigenvalues suggested a natural break between high (6.02) and low eigenvalues (ranging from .03 to .56), with the first factor accounting for the vast majority of the total variance. Although there was only one factor retained in the PCF analysis for the first scale, Attitudes Toward Transgender Individuals, the two subscales (Attitudes Toward FtM Trans Individuals and Attitudes Toward MtF Trans Individuals) were created to explore any

hypothetical differences in attitudes toward MtF and FtM individuals and directly speak to the goals and hypotheses in this study. Appendix B lists all items in the scales and the factor analyses results.

Independent variables (predictors)

Gender. Respondents were asked to choose "male" or "female." Unfortunately, there was no measure of transgender or cissexual identity available in the data set and there were no other variables available to capture gender identity, gender history, or nonbinary people's experiences. Thus, the measure of "gender" employed in this study is admittedly less than ideal. However, when faced with a forced set of response options (i.e., "male" or "female") there may be reason to believe that a majority of people choose "male" or "female" based on their current gender identity rather than their biological sex and this may be true of both transgender and cisgender people. Indeed, a 2008 U.S. nationwide study of 6,450 transgender and gender-nonconforming people (all of whom responded "yes" when asked an initial qualifying question, "Do you identify as transgender or gender nonconforming in any way?") found that when asked about their primary gender identity with multiple response options (1: male; 2: female; 3: part time as one gender, part time as another; and 4: a gender not listed here, please specify), 67% responded with "male" or "female" (Harrison, Grant, & Herman, 2012, p. 14). Thus, response options of "male" or "female" may resonate with a large majority of transgender and gender-nonconforming people. Although not an ideal measure of gender, asking respondents to indicate if they are "male" or "female" may be an approximation of gender that is appropriate for the current study because the goal of this study is to understand how self-identified gender is related to transphobic attitudes. An additional measure of transgender identity, however, would also be informative (and certainly ideal) but as Gates (2011) notes, an estimated 0.3% of adults are transgender, thus it is likely that the current study includes a small number of transgender individuals whose identities are not being adequately captured.

Feminist identity. Respondents were asked, "Do you think of yourself as a feminist?" The original survey question included four response options: (1) No, I do not consider myself to be a feminist and I disagree with feminism; (2) No, I do not consider myself to be a feminist; (3) Yes, I consider myself to be a feminist; and (4) Yes, I consider myself to be a strong feminist. Based on the distribution of responses (1 = 5%, 2 = 58%, 3 = 33%, 4 = 4%), these response options were collapsed for analysis to create a binary variable whereby those that responded with options 1 or 2 were coded as (0) and those that responded with options 3 or 4 were coded as (1) for *Feminist Identity*.

LGB attitudes. Attitudes toward gays, lesbians, bisexual men, and bisexual women were measured with Worthen's (2012) Attitudes toward LGBT People Scale. Students responded to these statements on a five-point Likert-type scale from *strongly disagree* to *strongly agree*. Higher scores indicated more-positive attitudes. Appendix C lists the scale items and the factor analyses results.

Control variables

Several sociodemographic factors should be examined in the context of attitudinal differences. As noted above, sexual orientation is related to attitudes toward transgender individuals (Stone, 2009; Willoughby et al., 2010; Worthen, 2011), although explorations of racial differences in attitudes provide mixed results. Some studies indicate that there are no significant differences between African Americans and Whites in their attitudes toward gay men and lesbian women (e.g., Herek & Capitanio, 1995; Marsiglio, 1993) and toward transgender individuals (Worthen, 2011; 2012a; 2012b), although others do find significant racial differences in attitudes (Hudson & Ricketts, 1980; Lewis, 2003; Vincent, Peterson, & Parrott, 2009; Waldner, Sikka, & Baig, 1999). Furthermore, many have found that younger age is related to more-positive attitudes toward LGBT individuals (Eliason, 1997; Kurdek, 1988; Marsiglio, 1993), although in studies using college student samples, older age has been found to be related to supportive attitudes toward transgender individuals (Worthen, 2011, 2012a, 2012b). In addition, researchers have shown that people in the southern United States hold the most-negative attitudes toward LGB people (Herek, 2002; Loftus, 2001; Seltzer, 1992) and the National Transgender Discrimination Survey found that gender-variant students experienced higher levels of harassment and violence in the South compared to those living in other regions of the United States (Grant et al., 2011). Furthermore, Worthen (2011, 2012a, 2012b, 2014) found a positive relationship between larger high school population size and supportive attitudes toward LGBT individuals among college students.

Other measures specifically related to college experiences may also affect attitudes toward transgender individuals. For example, freshmen (compared to upperclassmen) have been found to be less liberal (Pascarella & Terenzini, 1991) and less tolerant of gay men and lesbian women (Lottes & Kuriloff, 1994) and transgender individuals (Worthen, 2011, 2012a, 2012b), thus, it is important to consider how freshmen may differ from upperclassmen. Research also indicates that having a lower GPA is associated with anti-gay and antilesbian behaviors and attitudes (Rey & Gibson, 1997), although other research suggests that GPA is not significantly related to attitudes toward transgender individuals (Worthen, 2011, 2012a, 2012b). Finally, those with academic majors in humanities and liberal arts, especially those in majors that have classes concerning gender and sexuality (such as sociology), have been found to be more supportive of gay men and lesbian women when compared to students majoring in business and hard sciences (Bierly, 1985; Larsen, Reed, & Hoffman, 1980); thus, there may be a relationship between college major and attitudes toward transgender individuals.

To estimate the effects of sociodemographic factors and college experiences, several measures were utilized. First, respondents were asked which category fit them best: "homosexual," "heterosexual," or "bisexual." Respondents were also asked about their racial category. *Non-White* was coded as (1) for those responding with "African American/Black," "Asian American/Pacific Islander," "Native American/Alaskan Native," or "Other." The variable *Age* was constructed through asking respondents their birth date. *Grew Up in the South* was a dichotomous variable constructed from those answering "yes" to the question, "Would you say that you grew up in the southern United States?" *Total High School Size* was coded as (1) for those responding that their high school had more than 1,000 students and all others were coded as (0). *Freshman* was coded as (1) for freshmen and all others were coded as (0). *Current GPA* response options were coded as (1) Less than 2.0, (2) 2.0–2.49, (3) 2.5–2.9, (4) 3.0–3.49, and (5) 3.5–4.0. Respondents were also asked, "Are you currently majoring in sociology?" and were coded as (1) for *Sociology Major or Minor* if they responded with "Yes, I am a sociology major" or "No, but I am minoring in sociology" and all others were coded as (0).

Method of analysis

First, *t*-tests were utilized to examine gender differences in attitudes toward transgender individuals in Table 2. Second, OLS regressions were used to explore the relationship between the three attitudes toward transgender individuals scales and the independent (predictor) variables. In Table 3, Model 1 included *female* along with control variables. Model 2 included the addition of *feminist identity*. Model 3 included the addition of the four scales measuring *LGB attitudes*. In Table 4, the same series of models were tested using a subsample of nonheterosexuals ($N = 40$).

Results

Descriptive statistics

The total sample ($N = 775$) included more females (61%) than males (39%) and was overwhelmingly White (78%). Most respondents identified as heterosexual (94%). The average age of respondents was close to age 22,[7] and most respondents had grown up in the southern United States (81%). Results of Attitudes Toward FtM Transgender Individuals and Attitudes Toward MtF Transgender Individuals show slightly more supportive attitudes toward FtM individuals, although the difference was not statistically significant. More descriptive statistics can be found in Table 2.

t-test results

Table 2 provides *t*-test results comparing men and women and their mean scores on all variables estimated in the analyses. Women reported more-supportive attitudes on all measures of attitudes toward transgender individuals. These initial findings suggest that gender is strongly related to attitudes toward transgender individuals, with women being significantly more supportive. In addition, *t*-test results show that compared to men, women reported higher levels of alignment with feminist identity and more-supportive attitudes toward gays, bisexual men, and bisexual women (no significant gender differences were found in attitudes toward lesbians).

OLS regression results: Table 3

Table 3 provides the OLS regression results estimating the effects of *female, feminist identity*, and *LGB*

Table 2. Descriptive statistics of variables with *t*-test results.

			Total sample ($N = 775$)		Women ($N = 472$)		Men ($N = 303$)	
	Range	α	Mean	*SD*	Mean	*SD*	Mean	*SD*
Attitudes toward trans individuals	8–40	.95	25.23	8.91	27.16*	8.09	22.08	9.38
Attitudes toward MtF trans individuals	3–15	.89	9.65	3.47	10.42*	3.16	8.41	3.64
Attitudes toward FtM trans individuals	3–15	.89	10.11	3.48	10.99*	3.03	8.69	3.72
Individual items in Attitudes toward Trans Individuals scale								
Sex change operations are morally wrong.[R]	1–5		3.02	1.35	3.17*	1.32	2.76	1.37
If I found out that my best friend was changing their sex, I would freak out.[R]	1–5		2.45	1.26	2.57*	1.27	2.21	1.22
If a friend wanted to have his penis removed in order to become a woman, I would openly support him.	1–5		2.87	1.30	3.09*	1.23	2.53	1.35
Men who see themselves as women are disgusting.[R]	1–5		3.48	1.25	3.79*	1.10	2.99	1.32
Women who see themselves as men are disgusting.[R]	1–5		3.47	1.25	3.77*	1.12	2.97	1.31
I would avoid talking to a woman if I knew she had a surgically created penis and testicles.[R]	1–5		3.31	1.31	3.66*	1.13	2.74	1.40
It is morally wrong for a woman to present herself as a man in public.[R]	1–5		3.33	1.26	3.56*	1.16	2.97	1.33
It is morally wrong for a man to present himself as a woman in public.[R]	1–5		3.29	1.30	3.54*	1.17	2.88	1.38
Feminist identity	0–1		.37	.48	.48*	.50	.21	.41
LGB attitudes								
Attitudes toward gays	14–70	.94	53.38	12.37	56.04*	11.05	49.07	13.18
Attitudes toward lesbians	14–70	.93	53.97	11.57	54.35	11.92	53.14	11.05
Attitudes toward bisexual men	4–20	.78	12.54	3.69	12.90*	3.76	11.95	3.58
Attitudes toward bisexual women	4–20	.80	12.54	3.69	12.74*	3.78	12.18	3.55
Controls								
Heterosexual	0–1		.94	.24	.96*	.20	.92	.29
Gay/lesbian	0–1		.02	.12	.01	.11	.02	.13
Bisexual	0–1		.04	.18	.02*	.15	.05	.23
Non-white	0–1		.22	.41	.23	.42	.19	.39
Age	17–57		21.82	3.51	21.65*	3.64	22.17	3.41
Grew up in the South	0–1		.81	1.31	.83	.38	.78	.42
Total high school size > 1,000 students	0–1		.41	.49	.41	.49	.43	.50
Freshman	0–1		.20	.40	.21	.41	.20	.40
GPA	1–5		3.78	.95	3.88*	.95	3.65	.89
Sociology major/minor	0–1		.45	.50	.44	.50	.46	.50

*t-test results indicate that the means between men and women differ at the $p < .05$ level.
[R]This item was reverse coded to indicate higher numbers are more supportive attitudes

attitudes on the three scales of attitudes toward transgender individuals. In Model 1, female is positively related to the three attitudes toward transgender individuals scales, fully supporting Hypothesis 1. Four control variables are also significant for Model 1 (*bisexual, gay/lesbian, age*, and *total high school size*). Interestingly, the results do not differ dramatically across the three dependent variables. The R^2 values for Model 1 are relatively low (ranging from .16 to .19).

In Model 2, *feminist identity* was added and is positively related to the three attitudes toward transgender individuals scales. Although being female continues to be significant across all Model 2 results, the addition of *feminist identity* moderates the effects of being female on these three scales. As with the results for Model 1, four control variables are significant (*bisexual, gay/lesbian, age*, and *total high school size*), and the results across the three dependent variables are relatively similar to one another. The R^2 values for Model 2 are slightly higher (ranging from .23 to .25).

The four scales measuring *LGB attitudes* were added in Model 3. Interestingly, only *attitudes toward gays* and *attitudes toward bisexual men* were significantly related to the three dependent variables, while *attitudes toward lesbians* and *attitudes toward bisexual women* were not found to be significantly related to the three attitudes toward transgender individuals scales. Furthermore, with the inclusion of these four scales measuring LGB attitudes, *feminist identity* is no longer significant across the results for Model 3. In

Table 3. OLS regression results estimating the effects of being female, feminist identity, and LGB attitudes on attitudes toward trans individuals, attitudes toward MtF trans individuals, and attitudes toward FtM trans individuals ($n = 775$).

	Attitudes toward trans individuals			Attitudes toward MtF trans individuals			Attitudes toward FtM trans individuals		
	1	2	3	1	2	3	1	2	3
Female	**5.71*****	**4.38*****	**1.81*****	**2.25*****	**1.73*****	**.68*****	**2.54*****	**2.05*****	**1.04*****
Feminist identity		**4.83*****	.67		**1.85*****	.22		**1.74*****	.21
LGB attitudes									
Attitudes toward gays			**.36*****			**.15*****			**.15*****
Attitudes toward lesbians			.03			.01			.01
Attitudes toward bisexual men			**.50****			**.22*****			**.13***
Attitudes toward bisexual women			.28			.08			.11
Controls									
Bisexual	8.59***	6.74**	−.50	3.23***	2.88**	−.35	3.31***	2.54**	.01
Gay/lesbian	9.01***	7.88***	−.29	3.31***	2.88***	−.38	3.30***	2.90***	−.14
Non-white	−.50	−.74	−.15	−.15	−.24	−.00	−.17	−.25	−.02
Age	.46***	.44***	.26***	.15***	.14***	.07**	.16***	.16***	.09***
Grew up in South	−1.27	−1.01	−.51	−.48	−.37	−.20	−.43	−.33	−.17
Total high school size	1.59**	1.34*	−.37	.59*	.51*	−.18	.67**	.59*	−.06
Freshman	−1.13	−.70	.56	−.40	−.24	.26	−.44	−.28	.16
GPA	−.18	−.26	.08	−.08	−.11	.03	−.03	−.06	.08
Sociology major/minor	−.15	−.19	−.44	−.04	−.06	−.14	−.13	−.15	−.24
R^2	.17	.23	.72	.16	.22	.73	.19	.24	.68

$^{*}p < .05;^{**}p < .01;^{***}p < .001$

addition, contrary to Hypothesis 2, the effects of being female on the three attitudes toward transgender individuals scales remain significant and positive across the results for Model 3. Put another way, the additive effects of feminist identity and supportive attitudes toward gays, lesbians, and bisexual men and women do not entirely mediate the positive relationship between being female and supportive attitudes toward transgender individuals; thus, Hypothesis 2 is not supported. Similar to the results for Model 1 and Model 2, results across the three dependent variables are relatively similar to one another for Model 3; however, unlike the Model 1 and Model 2 results, only one control variable is significant: *age*. The R^2 values for Model 3 are dramatically higher than previous models, ranging from .68 to .73, indicating a good degree of fit.

OLS regression results: Table 4

Using a subsample of nonheterosexuals ($N = 40$), Table 4 provides the OLS regression results estimating the effects of *female*, *feminist identity*, and *LGB attitudes* on the three attitudes toward transgender individuals scales. Unlike the results from Table 3, some

Table 4. OLS regression results estimating the effects of being female, feminist identity, and LGB on attitudes toward trans individuals, attitudes toward MtF trans individuals, and attitudes toward FtM trans individuals for nonheterosexual subsample ($n = 40$).

	Attitudes toward trans individuals			Attitudes toward MtF trans individuals			Attitudes toward FtM trans individuals		
	1	2	3	1	2	3	1	2	3
Female	**7.51****	**6.12****	**6.15***	**2.40****	**1.92***	1.75	**3.35*****	**2.77****	**2.69***
Feminist identity		**5.74****	4.80		**2.01****	1.35		**2.40****	**2.38***
LGB attitudes									
Attitudes toward gays			−.01			.08			−.07
Attitudes toward lesbians			.29			.05			.07
Attitudes toward bisexual men			.00			.12			.09
Attitudes toward bisexual women			−.59			−.26			−.11
Controls									
Non-white	−.52	1.48	−.50	−.17	.53	−.23	−.57	−.27	−.12
Age	.01	−.14	−.16	.02	−.30	−.02	−.13	−.18	−.17
Grew up in South	−3.21	−2.40	−3.71	−1.14	−.86	−1.10	−1.50	−1.15	−1.31
Total high school size	2.52	3.25	2.01	.67	.93	.41	1.16	1.46	1.45
Freshman	.00	−.97	1.53	−.41	−.75	.39	−.08	−.48	−.15
GPA	3.43*	3.00*	2.52	1.24	1.09	.82	.96	.78	.70
Sociology major/minor	2.01	1.71	.51	.78	.68	−.04	.22	−.10	−.04
R^2	.48	.62	.64	.44	.53	.61	.46	.62	.62

$^{*}p < .05;^{**}p < .01;^{***}p < .001$

Note: Using Stata 13 command powerreg (with power equal to .7, .8), this series of power analyses yielded sample sizes ranging from 32 to 40 (depending on power) and maintaining the R^2 value.

differences do emerge in Table 4. In Model 1, being female is positively related to the three attitudes toward transgender individuals scales. Among the controls, only *GPA* is significant in the model estimating *attitudes toward transgender individuals*. The R^2 values for Model 1 in Table 4 (ranging from .43 to .46) are much higher than the R^2 values for Model 1 in Table 3 (ranging from .16 to .19).

In Model 2, *feminist identity* was added and is positively related to the three attitudes toward transgender individuals scales. As with the results for Model 1, only one control variable was significant (*GPA* in Model 2 estimating *attitudes toward transgender individuals*). The R^2 values for Model 2 are slightly higher than the R^2 values from Model 1 (ranging from .53 to .55).

In Model 3, the four scales measuring *LGB attitudes* were added. Interestingly, none of these scales were significantly related to the three dependent variables. In addition, with the inclusion of LGB attitudes, *feminist identity* is no longer significant for Model 3. Furthermore, being female is no longer significantly related to *attitudes toward MtF transgender individuals* but remains significantly related to *attitudes toward transgender individuals* and *attitudes toward FtM transgender individuals*, providing initial partial support for Hypothesis 3. Put another way, the additive effects of *feminist identity* and *LGB attitudes* appear to mediate the positive relationship between being female and supportive *attitudes toward MtF transgender individuals* but do not mediate the positive relationship between being female and supportive *attitudes toward transgender individuals* and *attitudes toward FtM transgender individuals*; thus, Hypothesis 3 is only partially supported. However, a further test (results not shown, available upon request) using Baron and Kenny's (1986) methodology shows that this mediating effect does not meet the conditions of a mediator as outlined in their work; thus Hypothesis 3 is not supported. Across the results for Model 3, no control variables were significant. The R^2 values for Model 3 are only slightly higher than in previous models, ranging from .55 to .60.

Discussion

In the past, researchers have documented a "gendered" pattern of transphobia, with men reporting less supportive attitudes toward transgender individuals than women (e.g., Nagoshi et al., 2008; Willoughby et al., 2010). Some researchers have suggested that the co-occurrence of homophobia and transphobia relates to a larger set of systems about gender (e.g., Hill & Willoughby, 2005; Winter et al., 2008); however, the majority of these quantitative studies have not adequately provided a framework that considers and evaluates a potentially synergistic relationship between "transphobia" and "homophobia," whereby an overarching presence of hetero-cis–normativity permeates attitudes about what is "normal" (to be both heterosexual and cisgender) and what is not normal (to be nonheterosexual and noncisgender). In the current study, I suggested that hetero-cis–normativity represents a hierarchical system of prejudice in which not only are heterosexual cisgender individuals privileged above all noncisgender individuals, but also negativity, prejudice, and discrimination may be directed toward transgender individuals and anyone perceived as noncisgender and/or nonheterosexual. Furthermore, I suggested that utilizing this hetero-cis–normative framework can help us better understand gender differences in attitudes toward MtF and FtM transgender individuals. I discussed these ideas by situating hetero-cis–normativity next to the existing concepts of transphobia and cisgenderism, highlighting the unique capabilities of hetero-cis–normativity in illustrating these patterns, especially in regard to gender differences in attitudes toward transgender people (see Table 1). In doing so, hetero-cis–normativity adds to and complicates the existing puzzle of prejudices related to gender and sexuality.

Overall, results from the current study do not show dramatic differences between models estimating attitudes toward "MtF" and "FtM" transgender individuals when compared to models estimating attitudes toward "transgender" individuals. Although previous studies (i.e., Hill & Willoughby, 2005; Leitenberg & Slavin, 1983) have neglected to fully illuminate differences and/or similarities in attitudes toward MtF and FtM transgender individuals in their published findings even when the variables that would allow them to do so were available, this may largely be due to the fact that there was not empirical support for examining attitudes toward MtF and FtM transgender individuals as separate constructs in previous quantitative data sets. Only a handful of quantitative studies could be located that examined attitudes toward MtF

individuals specifically, but their frameworks did not offer specific investigations of prejudices directed toward FtM individuals as a comparison (King et al., 2009; Winter et al., 2008; Winter et al., 2009). Thus, in the current study I offer a review of past literature that supports the exploration of examining attitudes toward MtF and FtM transgender individuals as separate constructs.

Although the results of the current study do not show dramatic differences in attitudes toward MtF and FtM transgender individuals, they do offer at least some support for examinations of this type. Using a subsample of nonheterosexuals in Table 4, results for attitudes toward MtF and FtM transgender individuals do differ from one another. Specifically, the effect of being female appeared to be mediated by feminist identity and LGB attitudes in the model estimating attitudes toward MtF transgender individuals, although Baron and Kenny's (1986) tests for mediation were not supported. In addition, the effect of being female was not entirely mediated by feminist identity and LGB attitudes in the model estimating attitudes toward FtM transgender individuals. These results suggest that being female may be an important predictor of attitudes toward FtM individuals but attitudes and beliefs may better explain attitudes toward MtF individuals, at least among samples of nonheterosexuals. Such differences provide some support for future quantitative research examining attitudes toward MtF and FtM transgender individuals as separate constructs that have already been investigated in qualitative studies (e.g., Schilt & Westbrook, 2009) and suggest that the respondent's sexual orientation is an important construct to consider when exploring attitudes toward FtM and MtF transgender individuals.

In addition to exploring potential differences and similarities in attitudes toward MtF and FtM individuals, the current study examined three hypotheses. The first hypothesis was fully supported: being female was related to supportive attitudes toward transgender individuals using a predominantly heterosexual sample, in line with past studies (e.g., Hill & Willoughby, 2005; Leitenberg & Slavin, 1983; Nagoshi et al., 2008; Willoughby et al., 2010; Worthen, 2012). While such results are not surprising, it is surprising that few quantitative studies have attempted to discern what factors might account for the fact that men (compared to women) are less supportive of transgender individuals. Winter et al. (2008) provide an important piece to this puzzle. In their Hong Kong study, undergraduate students reported strongly negative attitudes toward "gender variant men," what the authors described as "Anti Sissy Prejudice." "Anti Sissy Prejudice," which included statements concerned with antipathy toward MtF individuals "engaging in stereotypically cross-gendered behaviour whether by way of makeup and dress or general appearance or behaviour" (p. 675). The authors contextualize their findings in Chinese culture and suggest that men's greater antipathy toward "gender variant men" may help us understand why men have higher levels of transphobia: "Men may have a greater investment than women in the maintenance of male and female conformity, and may be most threatened by non-conformity" (Winter et al., 2008, p. 679; see also Hill & Willoughby, 2005). However, gender differences in "Anti Sissy Prejudice" did not reach statistical significance in Winter et al.'s (2008) research, while the current study does provide support for statistically significant gendered findings in attitudes toward MtF and FtM individuals. Furthermore, none of the statements in the Attitudes Toward MtF Individuals scale utilized in the current study were found to load on the "Anti Sissy Prejudice" scale in Winter et al.'s (2008) study. Thus, Winter et al. (2008) did find a specific type of prejudice geared toward MtF individuals (i.e., "Anti Sissy Prejudice") but the current study's results expand upon this research to also examine evidence of a specific type of prejudice geared toward FtM individuals and to further the investigation of MtF prejudices utilizing different statements from Hill and Willoughby's (2005) scale. Overall, the current findings show that transphobia is wrapped in a larger system of conformity to heterosexism and cisnormativity, supporting a hetero-cis–normative framework.

The second part of this investigation examined how feminist identity and supportive LGB attitudes (perspectives in opposition to hetero-cis–normativity) may explain why men (compared to women) have more-negative attitudes toward transgender individuals. Hypothesis 2 stated that the additive effects of feminist identity and supportive attitudes toward LGB individuals would fully mediate the positive effects of being female on attitudes toward transgender individuals. Surprisingly, this hypothesis was not supported. Being female remained positively related to attitudes

toward transgender individuals in Table 3. Thus, even when considering beliefs that have been found to be strongly related to attitudes toward transgender individuals (i.e., feminism and LGB attitudes in Worthen, 2012) and a variety of sociodemographic and college experiences control variables, being female was still a powerful estimator of attitudes toward transgender individuals.

However, as noted above, past quantitative studies examining attitudes toward transgender individuals have used samples composed almost entirely of heterosexuals (see Appendix A). As a result, the third part of the current study investigated nonheterosexuals' attitudes toward transgender individuals to further examine the robustness that being female has on attitudes toward transgender individuals. This examination provided partial theoretical support for Hypothesis 3, although using Baron and Kenny's (1986) test for mediation, evidence of mediation was not supported. Even so, OLS regression results provide theoretical support that it is not being female per se that is related to attitudes toward MtF individuals, but rather, feminist identity is positively related to attitudes toward MtF individuals among LGB individuals in Model 2. This finding suggests that *feminist identity* may be a more-salient predictor of attitudes toward MtF individuals than being *female* is among a subsample of nonheterosexuals. For LGB individuals especially, not only may feminist identity be about equality between men and women but also feminism may be about fighting for equality for all those who currently struggle with equal rights. In this way, it may be less about being "female" and more about being "feminist," at least when it comes to LGB individuals' attitudes toward MtF individuals.

However, this pattern only holds true for LGB individuals' attitudes toward MtF individuals, not FtM individuals. There could be two reasons for this finding. First, feminism among LGB individuals may be related to seeing MtF individuals as particularly disadvantaged because they may see them as transitioning from a position of power (as men in a patriarchal society) to a disadvantaged position as women. This perspective may lead to a positive relationship between feminist identity and supportive attitudes toward MtF individuals among LGB individuals. In contrast, attitudes toward FtM individuals continue to be related to both being "female" and "feminist" among LGB individuals. LGB men and women may differ in their opinions about FtM individuals (with women being more supportive) because lesbian and bisexual women may continue to see FtM individuals as struggling against patriarchy while gay and bisexual men may be less likely to see such struggles and, thus, may be less supportive of FtM individuals when compared to women (Serano, 2007). A second reason for this difference may be due to the small sample size. With only 40 LGB individuals, such differences may be provisional. Such results, however, do suggest the need for future research to better elucidate the relationship between being female, being LGB, being feminist, and attitudes toward MtF and FtM transgender individuals.

A final set of comparisons between Table 3 and Table 4 is needed. Specifically, the fact that attitudes toward LGB individuals as they relate to attitudes toward transgender individuals operate in systematically different ways should be underscored. For Table 3, only attitudes toward nonheterosexual men (gay and bisexual men) were found to be significantly related to attitudes toward transgender individuals. Interestingly, these patterns held strong across models predicting attitudes toward both MtF and FtM individuals, suggesting that compared to attitudes toward nonheterosexual women (lesbians and bisexual women), attitudes toward nonheterosexual men may be more salient predictors of attitudes toward transgender individuals. This may be due to the fact that compared to attitudes toward gay and bisexual men, attitudes toward lesbian and bisexual women are generally more supportive among both heterosexual men and women (Eliason, 1997; Kite & Whitley, 1998), thus attitudes toward gay and bisexual men may be a better measure of support toward transgender individuals. Put another way, since lesbian and bisexual women may be generally more accepted in society than gay and bisexual men are, those who support gay and bisexual men may also be more likely to support transgender individuals. In this way, support of gay and bisexual men may operate as measures of acceptance of diversity toward gender, sexuality, and sexual orientation, at least among samples that are predominantly heterosexual.

In sharp contrast in Table 4, no measures of attitudes toward LGB individuals were significantly related to attitudes toward transgender individuals among a subsample of LGB people. Such findings suggest that while attitudes toward gay and bisexual

men may be robust predictors of attitudes toward transgender individuals using samples that are predominantly heterosexual, such patterns do not hold true using subsamples of nonheterosexuals. In fact, very few predictors are significant in Table 4 (while many were significant in Table 3), suggesting that we may know much more about heterosexuals' attitudes toward transgender individuals than we know about nonheterosexuals' attitudes toward transgender individuals.

Limitations and future directions

Although the current study's findings are informative, a few limitations are worth noting. First, the respondents were selected from one large university located in the conservative southern United States and the sample was 78% White and youthful (average age 22). As such, the results are not generalizable and do not represent non-U.S. populations. In addition, although the current study includes the largest number of nonheterosexuals compared to previous quantitative work (see Appendix A), 40 people is typically not a large enough population to determine conclusive results with quantitative data. As a result, future studies might work toward garnering larger and more-diverse samples. Second, students were asked to indicate "male" or "female," thus, the cisgender/transgender identities of survey respondents in the current study are unknown. Although noted above that this is likely misrepresenting only a small number of individuals (Gates, 2011),[8] several researchers have pointed to significant problems with relying on categories of "male" and "female" without better measures of gender identity, potentially causing error with conflation of sex and gender identity (Ansara & Hegarty, 2012, 2013, 2014). For example, scholars (Ansara, 2010, 2012; Sausa, Sevelius, Keatley, Iñiguez, & Reyes, 2009) suggest that a more developed understanding of gender identity is necessary to provide the best services (i.e., counseling/health care) to transpeople. Indeed, in their discussion of inclusive data collection of transpeople in HIV prevention, care, and services, Sausa et al. (2009) recommend asking two questions—"What is your sex or gender?" and "What sex were you assigned at birth?"—with multiple and "fill-in" response options to understand present gender identity and history (p. 3). Unfortunately, the current study did not allow for such a nuanced understanding of gender identity. In addition, the measure for feminist identity used in the current study is limited (see Williams & Wittig, 1997), thus information about what types of feminism(s) may relate to anti-transphobic attitudes are not provided. Furthermore, the fact that the scales measuring attitudes toward MtF and FtM transgender individuals were subsets of a larger scale (Attitudes Toward Transgender Individuals) may also lead the current study's results to be less informative than, for example, a study that examines a non–gender-specific scale estimating attitudes toward transgender individuals (such as Nagoshi et al.'s, 2008, scale) and two different scales that include gender-specific items (such as two scales created from MtF and FtM items in Hill and Willoughby's, 2005, scale). As a result, the current study suggests the need for future research that can utilize better measures of gender identity, feminism, and attitudes toward MtF and FtM individuals. In addition, the complex nuances surrounding attitudes toward lesbian, gay, and bisexual people that were examined utilizing quantitative scales in the current study may be better teased out through qualitative analyses to best understand these relationships.

Finally, there is also a need to understand prejudices that may not be accurately illuminated in an analysis of prejudices directed toward MtF and FtM individuals. For example, some people may not identify with "MtF" and "FtM" labels but may prefer descriptors such as "trans" or "genderqueer."[9] As Ansara (2010) notes, myriad gender identities deserve attention but are often ignored "including genderqueer, kathoey, third gender, Two Spirit, agender, gender-free, bi-gender, tri-gender, androgyne, and macha, to name a few" (p. 177). Indeed, the importance of continuing to both examine and critique the cisgender/transgender binary as an essentialist form of cisgenderism is imperative (Ansara, 2010, 2012; Ansara & Hegarty, 2012, 2013, 2014). Thus, future studies might include scales designed to reflect this fluidity. Finally, transgender people's experiences are not adequately examined. With the exception of Willoughby et al.'s (2010) Filipino study that included 16 gender-variant respondents, no quantitative research has been offered to understand transgender, gender nonconforming, and nonbinary peoples' attitudes in relation to both gender and sexuality. Thus, future research might also investigate transgender, gender-nonconforming, and nonbinary people's lives to best elucidate

their experiences with transphobia and hetero-cis–normativity (see Lombardi, 2009; Newfield, Hart, Dibble, & Kohler, 2006; Sánchez & Vilain, 2009).

Continuing to think about gender and transphobia

The relationships between gender, transphobia, sexual orientation, and hetero-cis–normativity are far too complex to evaluate in one empirical study with college students in the United States. Considering the many layers needed to continue to develop this discussion, I point to three steps that contribute to this puzzle. First, thinking about gender in additional complex and interrelational ways is essential. While the concept of gender as a socialized performed identity is not new (West & Zimmerman, 1987), Westbrook and Schilt (2014) push this idea forward and show that in face-to-face interactions, "determining gender" is actually the response to doing gender. This framework can allow us to expand our understanding of gender identity to include the diverse gender experiences that people have. It is also necessary to note that the frequently utilized labels of "cisgender" and "transgender" and even "genderqueer" are not exhaustive of the gender experiences that people can have. As Ansara's (2010) work with individuals with nonassigned gender identities points out, limited and sometimes erroneous terms can lead to the experiences of wearing an "ill-fitting gender straight-jacket" (p. 174). Thus, thinking about gender should encapsulate the wide variety of gender experiences evident throughout diverse cultures (Amadiume, 1987; Jacobs, Thomas, & Lang, 1997; Winter et al. 2009) and the ways younger generations are categorizing and "uncategorizing" gender in ways that resonate with their lived experiences (Savin-Williams, 2005). Furthermore, the continued critique of binaristic conceptualizations of gender, especially the cisgender/transgender binary, is essential (Ansara, 2010, 2012; Ansara & Hegarty, 2012, 2013, 2014).

Second, thinking about "transphobia" utilizing critical theoretical lenses is also imperative. Scholars have pointed to multiple theoretical frameworks to dissect these relationships including "cisgenderism" (Ansara, 2010, 2012; Ansara & Hegarty, 2012, 2013, 2014; Serano, 2007) and its companion enactment of "misgendering" (Ansara & Hegarty, 2013, 2014), "genderism" (Browne, 2004, 2006), "transprejudice" (Winter et al., 2009), "trans stigma" (King et al., 2009), and "homonormativity" (Bryant, 2008; Duggan, 2002; Stryker, 2008b); and some have entwined transphobia with misogyny (Riggs & Patterson, 2009). These theoretical frameworks have common threads—namely hostility directed toward gender ambiguity, gender nonconformity, heteronormativity, and body diversity. At their root, these frameworks criticize processes that categorize certain people as nonnormative. The framework of hetero-cis–normativity I offer in this study speaks to this dialogue and provides a critical foundation for a continued effort to disentangle and confront trans-related prejudices and perspectives.

Third, thinking about the relationships between gender and sexuality will bolster our successes. In the current political climate of "alphabet soup" (Ansara, 2010, p. 187) and competing queer spaces, thinking about "gender" and "sexuality" as separate and related processes continues to be paramount, especially in the process of working toward eliminating trans-related prejudices and perspectives. For example, Hennen's (2005, 2008) work with Bear culture shows us a gender and sexuality process entwined within gay culture that emphasizes hegemonic heteronormative masculinity to address "the tenacious power of gender" in understanding sexuality (Hennen, 2008, p. 9). In addition, studies of the "womyn-born womyn" policy at the Michigan Womyn's Music Festival highlight the contentious nature of transwomen's rejection from "female-born women's-only" spaces (Browne, 2009; Stone, 2009; Valentine, 2007), thus demonstrating that perspectives about gender and sexuality can ignite controversy and shape trans-related prejudices and perspectives in multiple ways. As Valentine (2002) notes, the presence of cross-overs of gay- and trans-umbrellas and queer scholarship "show how identity categories such as "gay" or "transgender" cannot account for the complexity of people's desires, understandings of self, and experience" (Valentine, 2007, p. 132). Thus, we must consider both the separate and related processes when thinking about how "gender" and "sexuality" connect to transphobic perspectives. Using hetero-cis–normativity as a framework connects these broad areas of research and provides a springboard for future studies to continue to think critically about how to address transphobia.

Concluding remarks

In sum, the current study suggests that "transphobia" may actually be a symptom of hetero-cis–normativity.

Using this framework and a U.S. undergraduate sample, I investigated a synergistic relationship between "transphobia" and "homophobia" to understand how hetero-cis–normativity might explain documented gender differences in attitudes toward transgender individuals. Specifically, results from the current study show support for (1) studying attitudes toward MtF and FtM individuals as separate constructs, (2) examining how feminist identity and attitudes toward LGB individuals relate to attitudes toward transgender individuals, and (3) investigating nonheterosexual, transgender, and nonbinary people's attitudes toward transgender individuals. While past research has provided a foundation for examining attitudes toward transgender individuals (e.g., Hill & Willoughby, 2005; Leitenberg & Slavin, 1983; Nagoshi et al., 2008; Norton & Herek, 2013; Schilt & Westbrook, 2009), the current study demonstrates a further glimpse into the complexity behind these prejudices and suggests a need for future research that underscores how a framework of hetero-cis–normativity can help us understand attitudes toward transgender people.

Notes

1. This definition of "transgender" is limited in that it does not encapsulate the wide variety of gender diversity and gender pluralism evident in Indonesia and other parts of Southeast Asia (Davies, 2010; Peletz, 2009), North American Native American communities (Jacobs et al., 1997), and African cultures (Amadiume, 1987).
2. Although this project utilizes the terms *transphobia* and *hetero-cis–normativity*, Ansara (2012) offers *cisgenderism* (instead of "transphobia") to describe discriminatory approaches toward people's self-designated genders and body diversity (see also Ansara & Hegarty, 2012, 2013; cf. Serano, 2007). See Table 1.
3. There are limitations to the labels of "MtF" and "FtM." As Stryker (2008a) notes, "it would be more accurate to state "male-to-woman" or "female-to-man," but the fact of the matter is that nobody actually says those things (p. 21). Beyond that, some transgender people both resent and resist these "directional" labels believing them to marginalize transmen and transwomen (Stryker, 2008a, p. 21). No definitions or terminology will perfectly encapsulate trans people's experiences, thus this study is limited by the terminology utilized here.
4. Although Leitenberg and Slavin (1983) used the term "transsexual," I prefer the term "transgender" because it does not highlight biases related to those who have the ability to receive/pay for surgeries and those who do not have such resources (for further discussion of the politics and preferences related to these terms see Roen, 2002; Serano, 2007).
5. However, Leitenberg and Slavin (1983) also report no differences in attitudes toward "homosexual" men and women, a finding that has been challenged in more contemporary studies that have shown how attitudes toward gay men and lesbian women significantly differ (e.g. Worthen, 2012; Herek, 1994; 1998; Raja & Stokes, 1998).
6. Indeed, in King et al.'s (2009) study of trans prejudice in Hong Kong, the authors explicitly state their assumption of heteronormativity: "One of the limitations of this study is the lack of data on the participant's sexual orientation and gender identity conformity, which makes the heteronormativity of the participants our assumption" (p. 28).
7. The average age of survey respondents (21.82) was slightly older than the average age of all undergraduate students on this campus (21.1). Because senior undergraduate students are more likely to be interested in social justice issues when compared to freshmen (Keen & Hall, 2009), older students may be more likely to participate in a voluntary survey about college student attitudes toward various issues. In addition, these respondents were recruited from sociology courses, which are more heavily comprised of upperclassmen. For example, in the year of data collection, 71% of sociology majors were classified as upperclassmen.
8. The current study likely includes a small number of transgender, gender nonconforming, and non-binary people whose identities are not being adequately captured.
9. "Genderqueer" is a term first published by Nestle, Howell, and Wilchins (2002) that typically refers to individuals who perceive and/or describe their gender identity as neither man nor woman, or as between or beyond genders, or as some combination of multiple genders (Green, 2010). In contrast to MtF and FtM individuals who may identify with dichotomous gender structures and the desire to transition from one gender to another, genderqueer-identified individuals may reject the gender binary system an opt for more fluid conceptualizations of gender. Instead of transitioning from "him to her" as MtF individuals might prefer, genderqueer individuals might prefer to be identified with gender-neutral pronouns such as "ze" (Ansara, 2010; Davidson, 2007; Stryker, 2008a).

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Appendix A

Summary of quantitative studies of attitudes toward transgender individuals (1986–2013) by location, population, and sample information.

Author(s), Date (in order by date of publication)	Location	Population Type	Total Sample Size (*N*)	Women/Men in Sample (*N*)	Nonheterosexuals in Sample (*N*)
Leitenberg & Slavin, 1983	United States	Undergraduate Students	312	209 women, 103 men	3
Landén & Innala, 2000	Sweden	Population-Based Random Sample	668	352 women, 316 men	Not provided
Ceglian & Lyons, 2004	United States	Undergraduate Students	157	117 women, 40 men	Not provided
Hill & Willoughby, 2005	Canada	Undergraduate Students	227	140 women, 87 men	13
Tee & Hegarty, 2006	United Kingdom	Undergraduate Students	145	87 women, 58 men	Not provided*
Antoszewski et al., 2007	Poland	Undergraduate Students	300	147 women, 153 men	Not provided
Nagoshi et al., 2008	United States	Undergraduate Students	310	153 women, 157 men	6
Winter et al., 2008	Hong Kong	Undergraduate Students	203	82 women, 121 men	11
Winter et al., 2009	Malaysia, Philippines, Thailand, China, Singapore, United States, United Kingdom	Undergraduate Students	841	556 women, 285 men	Not provided
King et al., 2009	Hong Kong	Population-Based Random Sample	856	494 women, 362 men	Not provided
Willoughby et al., 2010	Canada	Undergraduate Students	180	99 women, 81 men	Not provided
Willoughby et al., 2010	Philippines	Undergraduate Students	191	140 women, 51 men**	25
Tebbe & Moradi, 2012	United States	Undergraduate Students	250	145 women, 105 men	2
Walch et al., 2012	United States	Undergraduate Students	132	98 women 34 men	13
Walch et al., 2012	United States	Undergraduate Students	231	164 women, 67 men	19
Norton & Herek, 2013	United States	Population-Based Random Sample	2,281	1,277 women, 1,004 men	100% heterosexual
Caroll et al., 2012	United States	Undergraduate	223	187 women, 46 men	Not provided
Ngamake et al., 2013	Thailand	Undergraduate Students	283	184 women, 99 men	39

*Although their research note indicates that respondents provided demographic information, including sexual orientation (heterosexual, homosexual, bisexual) and trans identity status, the authors do not provide any descriptive statistics of the sexual orientation breakdown of their sample and the single participant who identified as "transsexual" was excluded from the analysis (Tee & Hegarty, 2006).

**Willoughby et al. (2010) is the only study that utilized a measure of gender identity other than "man" or "woman." In this study, there were 16 gender variant participants.

Appendix B

Principal-component factor analyses of trans attitudinal variables for total sample and for subsample of women and men.

	Total Sample		Subsample of Women		Subsample of Men	
Attitudes Toward Trans Individuals	Factor	Uniqueness	Factor	Uniqueness	Factor	Uniqueness
1. Sex change operations are morally wrong.[R]	.86	.27	.85	.28	.88	.22
2. If I found out that my best friend was changing their sex, I would freak out.[R]	.76	.42	.74	.46	.80	.35
3. If a friend wanted to have his penis removed in order to become a woman, I would openly support him.	.83	.32	.83	.31	.81	.35
4. Men who see themselves as women are disgusting.[R]	.92	.16	.90	.18	.92	.15
5. Women who see themselves as men are disgusting.[R]	.91	.17	.90	.20	.92	.15
6. I would avoid talking to a woman if I knew she had a surgically created penis and testicles.[R]	.81	.34	.75	.43	.84	.29
7. It is morally wrong for a woman to present herself as a man in public.[R]	.92	.15	.92	.15	.93	.14
8. It is morally wrong for a man to present himself as a woman in public.[R]	.91	.17	.92	.16	.92	.16
Eigenvalue	6.02		5.83		6.18	
Variance Explained	75%		73%		77%	
Attitudes Toward MtF Trans Individuals						
3. If a friend wanted to have his penis removed in order to become a woman, I would openly support him.	.87	.24	.87	.24	.86	.26
4. Men who see themselves as women are disgusting.[R]	.92	.15	.91	.17	.92	.15
8. It is morally wrong for a man to present himself as a woman in public.[R]	.92	.16	.92	.15	.92	.15
Eigenvalue	2.45		2.45		2.44	
Variance Explained	82%		82%		81%	
Attitudes Toward FtM Trans Individuals						
5. Women who see themselves as men are disgusting.[R]	.93	.14	.91	.17	.93	.13
6. I would avoid talking to a woman if I knew she had a surgically created penis and testicles.[R]	.89	.22	.84	.29	.90	.19
7. It is morally wrong for a woman to present herself as a man in public.[R]	.91	.16	.91	.18	.93	.14
Eigenvalue	2.47		2.36		2.54	
Variance Explained	83%		79%		85%	

Note. 1. Response Options = strongly disagree to strongly agree; 2. [R]This item was reverse coded to indicate higher numbers are more-supportive attitudes; 3. Statements were pulled from Hill and Willoughby's (2005) Genderism and Transphobia Scale; 4. Although an exact number of factors was not requested, each factor analysis revealed only one factor with an eigenvalue greater than 1. Following the initial PCF analysis, the factor solution was optimized using orthogonal varimax rotation.

Appendix C

Principal-component factor analyses of LGB attitudinal variables.

	Attitudes toward gays		Attitudes toward lesbians	
	Factor	Uniqueness	Factor	Uniqueness
I wouldn't mind going to a party that included ____.	.82	.22	.72	.29
I would not mind working with ___.	.81	.22	.77	.26
I welcome new friends who are ___.	.82	.20	.80	.23
I don't think it would negatively affect our relationship if I learned that one of my close relatives was ___.	.79	.32	.76	.34
I am comfortable with the thought of two ___ being romantically involved.	.81	.31	.77	.30
I would remove my child from class if I found out the teacher was ___.[R]	.67	.54	.70	.51
It's alright with me if I see two ___ holding hands.	.83	.30	.78	.32
I would not vote for a political candidate who was openly ___.[R]	.78	.40	.74	.44
_____ shouldn't be allowed to join the military.[R]	.61	.63	.61	.60
Marriages between two ____ should be legal.	.79	.37	.74	.45
_____ are incapable of being good parents.[R]	.68	.46	.65	.45
_____ is a psychological disease.[R]	.70	.29	.66	.28
Physicians and psychologists should strive to find a cure for ____.[R]	.73	.24	.73	.20
_____ should undergo therapy to change their sexual orientation.[R]	.78	.24	.75	.21
Eigenvalue	8.13		7.46	
Variance explained	58%		53%	
	Attitudes toward bisexual men		Attitudes toward bisexual women	
Most ____ who call themselves bisexual are temporarily experimenting with their sexuality.[R]	.46	.79	.53	.71
Just like homosexuality and heterosexuality, bisexuality is a stable sexual orientation for ____.	.80	.36	.81	.34
As far as I'm concerned, ____ bisexuality is wrong.[R]	.91	.17	.90	.19
____ bisexuality is harmful to society because it breaks down natural divisions between the sexes.[R]	.89	.21	.88	.23
Eigenvalue	2.47		2.53	
Variance explained	62%		63%	

Note. 1. Response Options = strongly disagree to strongly agree; 2. [R]This item was reverse coded to indicate higher numbers are more-supportive attitudes; 3. Statements were pulled from Raja and Stokes' (1998) Modern Homophobia scale (MHS-G and MHS-L), Mohr and Rochlen's (1999) Attitudes Regarding Bisexual scale; 4. Although an exact number of factors was not requested, each factor analysis revealed only one factor with an eigenvalue greater than 1. Following the initial PCF analysis, the factor solution was optimized using orthogonal varimax rotation.