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A Sociofunctional Approach To Understanding Transphobia

Linas Mitchell
Loyola University Chicago

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BY

LINAS MITCHELL

CHICAGO, IL

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ABSTRACT

Despite widespread evidence of anti-transgender prejudice and discrimination, research has yet to determine the nature of prejudice against transgender people. This study used the sociofunctional threat approach (Cottrell & Neuberg, 2005) to examine threat perceptions (contamination threats, obstacle threats, physical safety threats, and threats to reciprocity relations) and emotional reactions (disgust, anger, fear, pity) to transgender (transgender women, transgender men, and nonbinary people) and cisgender (cisgender women, cisgender men, and bisexual people) targets. Results from an online survey suggest that transgender targets evoke higher threat perceptions and negative emotions than cisgender targets; additionally, this tended to be the case for male participants more often than female participants. These results provide more details on the negative associations that underlie transphobia, providing stepping stones for focusing future interventions.

A SOCIOFUNCTIONAL APPROACH TO UNDERSTANDING TRANSPHOBIA

Despite widespread evidence of anti-transgender prejudice and discrimination, research has yet to determine the nature of prejudice against transgender people (used in this research to refer to those whose gender differs from their sex assigned at birth). The current study is among the first empirical research to use a theory-driven approach to map transphobia and resulting discrimination. Using the sociofunctional threat approach (Cottrell & Neuberg, 2005), this research identifies the emotional reactions and threat perceptions that inform transphobia. Moreover, this research tests whether transphobia differs across transgender subgroups (i.e., transgender men, who were assigned female and identify as male; transgender women, who were assigned male and identify as female; and nonbinary people, who identify between or beyond the male/female binary).

Transgender essayists (e.g., Stone, 2006) have long suggested that transgender people disrupt traditional understandings of gender for cisgender people (i.e., those who identify with their sex as assigned at birth), and are targeted with discrimination to "defend the status quo of the existing gender system" (Bornstein, 2006, p. 237). The importance of binary gender in daily life and social structuring is clear, as everything from restrooms to sports teams, clothing to toiletries, and occupations to entertainment are demarcated as being for either men or women. These demarcations are essential not only for individuals navigating the social world, but also for businesses and corporations to market these gendered products towards targeted audiences,

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resulting in both social and economic forces motivating the maintenance of a strict, easily understandable gender binary. This binary is upheld by what Garfinkel (1957) termed "the natural attitude about gender," a naïve view that gender is a self-evident, common-sense biological reality (cited in Bettcher, 2013). This enables people to clearly demarcate gender on the basis of biological sex characteristics (particularly genitals; Bettcher, 2013), a process which transgender people disrupt. To overcome this disruption, transgender people's own gender identification is denied in favor of ideas about biological sex.

Indeed, transgender and gender-nonconforming people face ubiquitous discrimination and structural inequality (Grant, Mottet, Tanis, Harrison, Herman, & Keisling, 2011), leading to extremely elevated rates of poverty and suicide attempts. This discrimination extends across all aspects of life. Within education, 78% have been harassed, 35% physically assaulted, and 12% sexually assaulted in K-12 education, leading 15% to leave a school. Within employment, 90% have either faced workplace discrimination or remained closeted to avoid it; 47% were fired, not hired, or denied promotion because of their identity or expression; and 50% were harassed at work. In housing, 19% were refused a house/apartment, whereas 11% were evicted. In daily life, 53% have been verbally harassed in public spaces, 22% were denied equal treatment by government agencies or officials, and 19% were denied medical treatment.

As awareness of these issues has increased, there has also been a rise in legislation aimed at upholding and institutionalizing this discriminatory treatment. In 2015, state legislators proposed 21 bills aimed at limiting the rights and acceptance of transgender people; in 2016, this number climbed to 44 (Human Rights Campaign Foundation, 2016). Most of these bills were aimed at limiting access to restrooms, locker rooms, and other sex-segregated spaces. They also sought to limit transgender people's ability to receive healthcare, marry, and correct their legal

gender markers; as well as overturn nondiscrimination protections and allow refusal of public services based on religious belief. These discriminatory bills have a much broader reach than individual acts of discrimination, illustrating the importance of understanding not only what motivates overt discrimination, but also what drives support for such legislation.

Little is known about the nature of transphobia (i.e., prejudice against transgender and gender-nonconforming people) and the processes that lead to these discriminatory actions and legislations. Though transphobia is highly correlated with homophobia, Nagoshi and colleagues (2008) still found uniquely significant predictors for transphobia (e.g., authoritarianism, benevolent sexism) when controlling for homophobia, at least for women participants, who evidenced lower levels of both homophobia and transphobia than men. Tebbe and Moradi (2012) found a similar relationship between homophobia and transphobia, with homophobia strongly related to transphobia ($r = .58$ to $.68$), but with traditional gender role attitudes and need for closure maintaining unique relationships to transphobia. Tebbe and Moradi also replicated men's higher levels of transphobia than women, but found that the pattern of predictors for transphobia was similar across gender groups.

Also differentiating transphobia from homophobia is that attitudes towards transgender people are often more negative than attitudes towards sexual minorities. In a probability sample of U.S. adults (Norton & Herek, 2013), feeling thermometer ratings revealed that heterosexual respondents had negative views towards transgender people ($M = 32.01$ on a 0-100 scale); these views were significantly more negative than their views towards sexual minority groups ($M = 34.93$, $M = 38.89$, $M = 40.49$, bisexual men, gay men, bisexual women, respectively). Thus, people typically hold negative attitudes towards transgender people, but it is not clear how those attitudes relate to behavior or are distinct from attitudes towards other relevant social groups.

Several current theories of prejudice hold that prejudice is not best understood as a unidimensional negative evaluation, but rather as a combination of various cognitive appraisals and emotional reactions. For example, Glick and Fiske (1996) explain sexism as an ambivalent combination of hostile sexism (negative feeling about and stereotypes of women) and benevolent sexism (subjectively positive feelings and stereotypes that nevertheless reinforce women's subjugation). Furthermore, Fiske, Cuddy, Glick, and Xu's (2002) stereotype content model posits that outgroup appraisals vary along two primary dimensions: warmth and competence. This creates four primary appraisals and behaviors towards groups: high warmth-high competence (usually the ingroup or dominant group), who are admired and both actively and passively helped; high warmth-low competence, who are pitied and actively helped but passively harmed; low warmth-high competence, who are envied and actively harmed but passively helped; and low warmth-low competence, who are scorned and both actively and passively harmed. One study found a general belief that "transgender men and women are… mistaken about themselves and pitied for this perceived confusion and the challenges it entails" (Gazzola & Morrison, 2014). Though this pity would situate trans people in the high warmth-low competence quadrant of the stereotype content model, high rates of discrimination suggest active harm behavior, and indeed, Gazzola and Morrison found this model to be a poor fit for their data. Additionally, these studies found largely similar stereotypes for both trans men and trans women, but rates of discrimination are higher for trans women (Grant et al., 2011). This suggests that the nuances of prejudice towards various transgender groups is still poorly understood, and a two-dimensional understanding of prejudice may be insufficient to parse these differences.

Cottrell and Neuberg's (2005) sociofunctional threat approach provides an alternative way to understand multiple dimensions of prejudice. This approach adopts the evolutionary

perspective that humans, as fundamentally social creatures, are motivated to maximize the positive aspects of interaction (such as pooled resources and knowledge), while minimizing the negative outcomes (such as being attacked, cheated, or infected with disease). Thus, people ought to be attuned to ways that others may help or hinder their group's success. This results in unique perceptions of various outgroups as posing different threats to the ingroup, and measures of prejudice as merely "negative affect" mask these differences across groups.

In this sociofunctional approach, each threat is linked to functionally-relevant primary and secondary emotional and behavioral response. For example, the group "gay men," relative to "European Americans," evokes elevated threat perceptions for physical health, group values, and social coordination, and elevated emotions of disgust, anger, and pity (Cottrell & Neuberg, 2005). The sociofunctional approach has not been applied to transgender groups but can be a generative source of hypotheses regarding transphobia (Table 1 shows four threat-emotion-motivation links that may be particularly useful in understanding transphobia).

Table 1. Hypothesized links among perceived threats, emotions, and behavioral motivations.

Threat Perception	Primary Emotion	Behavioral Motivation
Contamination to ingroup ☐ *Health contagion* ☐ *Group values*	Disgust	Minimize contamination ☐ *Avoid disease* ☐ *Protect value system*
Obstacles to ingroup ☐ *Personal freedoms, rights* ☐ *Social coordination* ☐ *Trust relations*	Anger	Remove obstacle ☐ *Protect/recover freedoms* ☐ *Repair group functioning* ☐ *Minimize damage*
Physical safety of the ingroup	Fear	Protect self and others
Failed reciprocity (inability)	Pity	Return reciprocal relations

Research suggests that these perceptions of a group relate to support or opposition for relevant policies. Specific personal attitudes, such as acceptance of same-sex relationships and

willingness to be friends with a transgender person, are some of the strongest predictors of support for policies protecting LGBT civil rights (Woodford, Atteberry, Derr, & Howell, 2013); and several prejudice variables, including belief in biological gender, predict opposition to transgender-supportive policies (Tee & Hegarty, 2006). Most relevant to the current research, Cottrell, Richards, and Nichols (2010) investigated the role of emotions towards various groups and attitudes towards policies that affect them. This research found that specific emotional reactions to each group (as defined above in the sociofunctional approach) predicted social policy attitudes above and beyond measures of general prejudice; moreover, it was the hypothesized primary emotion for each group (i.e., disgust towards gays/lesbians, and anger towards Mexican immigrants, Arab Muslims, and African Americans) that most strongly related to policy attitudes (gay rights, immigration limitation, homeland security, and hurricane relief policies, respectively). Finally, these emotions mediated or partially mediated the relationships between relevant threat perceptions and policy attitudes. These results support the existence of relationships among perceived threats, emotions, and motivations for outgroup treatment.

The sociofunctional approach is of course just one theory that considers the way various cognition (such as threat perception) influences emotions. In fact, the sociofunctional approach, with the addition of evolutionary-based hypotheses, follows a common framework for understanding the role of cognitive appraisals in emotion: cognitions function as independent variables with emotion proceeding from this evaluation of personal relevance (Lazarus, 1991). However, Lazarus (1991) points out that the relationship between cognitive appraisals (of which threat perceptions are one form) and emotion is bidirectional. Cognitions may also take on the role of dependent variable, with emotions influencing subsequent appraisals of the situation; the sociofunctional approach does not account for this bidirectionality, but Pereira, Vala, and Costa-

Lopes (2010) provide evidence that threat perceptions can serve as rationalizations of existing

prejudice, suggesting that these variables are bidirectional. However, as Lazarus contends,

emotions depend upon cognitions to give rise to them, whereas cognitions can exist without

particular emotional charge. I believe this makes the threat-emotion pathway a logical starting

point for this understudied target group.

Additionally, the attributions made as to the cause of outgroup differences also influence

intergroup attitudes. For example, attributions of sexuality as resulting from nature rather than

personal choice were stronger predictors of support for same-sex unions than political or

religious ideology (Whitehead, 2014). Attributions regarding transgender people likely also play

a role in emotional reactions to them, but this aspect of cognitive appraisals is beyond the scope

of the current research.

Below I describe in greater detail my hypotheses regarding how each perceived threat is

linked to emotion for transgender groups. These hypotheses are derived deductively, based on

transgender people's experiences of discrimination, and inductively, using lay theories about

transgender people and general theories of prejudice (e.g., the sociofunctional approach).

Threat, Emotion, and Behavioral Motivation

Contamination threats arise when an outgroup is perceived to be able to contaminate the

ingroup, either literally through infectious diseases (i.e., health contagion threat) or figuratively

by polluting the ingroup's values (i.e., group value threat). Both health contagion threat and

group value threat create disgust and the motivation to avoid contamination (Cottrell & Neuburg,

2005). Supporting this prediction, Horberg, Oveis, Keltner, and Cohen (2009) showed disgust

related to approval of purity-upholding behaviors and condemnation of purity-violating

behaviors. I hypothesize that transgender groups are perceived to pose both of these forms of

contamination threat. Transgender people may pose health contagion threats, due to conflation with sexual minorities (Gazzola & Morrison, 2014) and the subsequent association with AIDS (Cottrell and Neuberg, 2005); this leads to physical disgust. Additionally, transgender groups, particularly transgender women, pose group value threats, as they threaten values associated with traditional gender roles, and this leads to moral disgust. Both of these forms of disgust lead to social distancing and avoidance, which transgender people face regularly (e.g., discrimination in employment, housing, and public accommodations; Grant et al., 2011).

Obstacle threats arise when an outgroup is perceived to pose an obstacle to the ingroup, such as threats to trust relations, social coordination, or personal freedom. The obstacle threat creates anger and a motivation to remove the obstacle (Cottrell & Neuburg, 2005). Findings from Smith and Ellsworth (1985) that anger is associated with perceptions of a high-effort response to unpleasantness evoked by another person support this prediction. I hypothesize that transgender groups are perceived to pose all three of these obstacle threat perceptions. They may be perceived to threaten trust relations as transgender people are often accused of not "really" being their gender (Reed, 2012). This argument has particularly been seen in using accusations of deception to excuse violence against trans women (Bettcher, 2013). Additionally, transgender people, particularly nonbinary people, are likely to pose a social coordination threat, as they disrupt gender as a coordinating force and deny binary gender. Finally, transgender people may be seen as posing personal freedom threats, as cisgender people may feel that their understanding of gender is being impeded upon by trans people's needs to be respected in their gender identities. These threat perceptions lead to anger, which may then manifest in the high rates of assault that transgender people, particularly transgender women, face (e.g., Grant et al., 2011).

Physical safety threats arise when an outgroup is perceived as likely to physically harm the self or valued others. Fear of harm motivates self-protection (Cottrell & Neuburg, 2005). I hypothesize that, due to arguments that transgender women endanger (cisgender) women in women's spaces (Benzie, 2004, as cited in Lombardi, 2009), trans women are perceived to pose physical safety threats. This idea has been articulated by proponents of "bathroom bills" (legislation aimed at limiting transgender people's access to restrooms that align with their gender identity), with claims that people could "use a vague idea of gender identification to go into private and intimate spaces and do harm" (Kolkhorst, quoted in Steinmetz, 2017). Though these arguments do not usually extend to other transgender groups, I predict that trans men and nonbinary people will also pose physical safety threats due to the shared, overarching categorization as "transgender." This categorization invokes feelings of fear, which then signals motivations to escape and protect the vulnerable from the source of fear. Additionally, fear is a secondary emotional reaction to various other threats that I hypothesize all transgender people to pose, and therefore will likely be elicited by all transgender groups.

Reciprocity (by inability) threats arise when an outgroup is perceived to be unable to fulfill reciprocal relations. For example, relative to European Americans, Native Americans are pitied for their perceived inability to socially and economically reciprocate. This perceived inability to reciprocate creates pity and the motivation to help and restore reciprocal relations (Cottrell & Neuburg, 2005). I hypothesize that transgender people pose reciprocity by inability threats due to, as Gazzola and Morrison (2014) found, the perception that they are confused about their gender, which then evokes feelings of pity. This may result in a motivation to have transgender people appropriately fulfill their societal roles as men or women.

Hypotheses

Accordingly, I expected all transgender subgroups to differ similarly from cisgender comparisons. However, in line with the sociofunctional model, I also expected certain subgroups to differ from others as described above. This research tested three hypotheses. Note that within these hypotheses, I use the term "gender experience" to refer to the experience of having one's gender identity affirmed or contradicted by one's gender assigned at birth. Here, it is a variable with two levels: cisgender (those who experience their gender as affirmed) and transgender (those who experience their gender as contradicted).

- Hypothesis 1 (perceived threat): transgender groups will be perceived to pose greater levels of threat (to values, physical health, social coordination and functioning, personal freedoms, trust relations, reciprocity due to inability, and physical safety, as well as general threat) than cissgender groups. Within this broad prediction, I have three more specific hypotheses.
  - H1a: Male participants will exhibit greater levels of threat perceptions toward transgender groups than female participants.
  - H1b: Transgender women will be perceived to pose greater physical safety and values threats than other groups.
  - H1c: Nonbinary people will be perceived to pose greater social coordination threats than other groups.
- Hypothesis 2 (emotion): Transgender groups will evoke greater negative emotional evaluations and greater disgust, anger, fear, and pity than cisgender groups. Within this broad prediction, I have three more specific hypotheses.

  o H2a: Male participants will exhibit greater levels of negative emotions toward transgender groups than female participants.

  o H2b: Transgender women will evoke greater fear and disgust than other groups.

  o H2c: Nonbinary people will evoke greater anger than other groups.

- Hypothesis 3 (moderated mediation): Threat perceptions will mediate the relationship between target gender experience (transgender, cisgender) and emotion. For instance, target gender experience will predict perceptions of safety threat, which will in turn predict fear. Target gender identity (man, woman, neither) will moderate the relationship between target gender experience and threat perceptions, and target gender experience and emotion (see Figure 1).
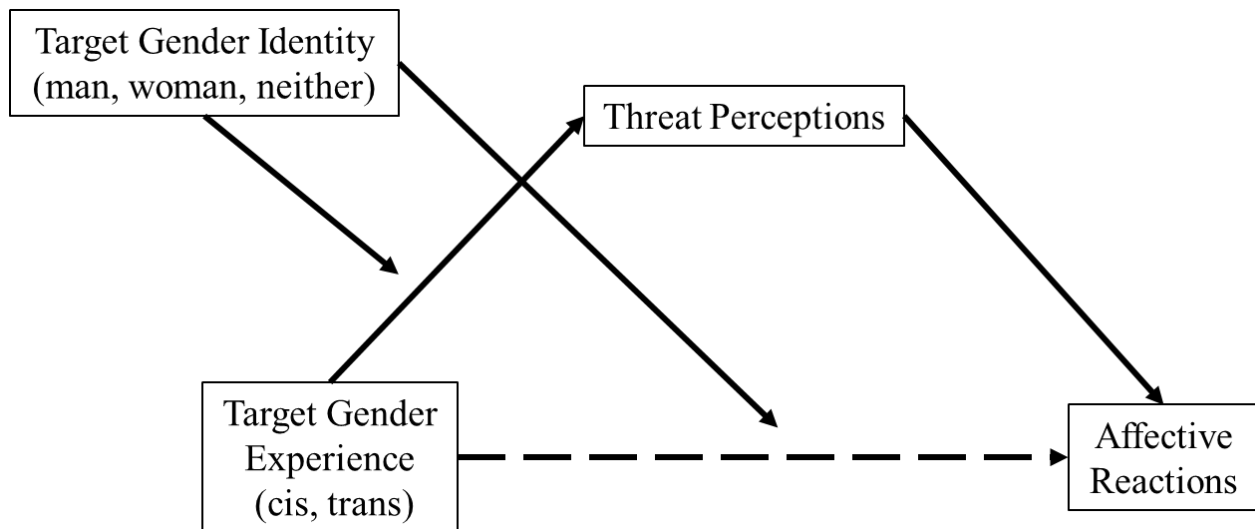
Figure 1. Predicted pattern of moderated mediation.

Method

Study Design

  This study used a 2(target gender experience: cisgender, transgender) x 3(target gender identity: man, woman, neither) x 2(participant gender: man, woman) between-subjects design.

Participants were randomly assigned to evaluate a single group, which was defined to ensure

participants had a basic understanding of the social category (see Appendix A). I compared the

perceived threats and affective reactions associated with transgender people to their cisgender

counterparts (i.e., cisgender men and women). As there is no cisgender equivalent for nonbinary

people, "bisexual people" was used as a comparison that is non-gendered (by including bisexual

people in general) and defies binary categorization by standing outside the gay-straight

dichotomy. Thus, both "nonbinary" and "bisexual" fall within the "neither" gender identity for

this study. See Table 2 to review the target groups and their classification along gender

experience and gender identity.

Table 2. Target groups by gender identity and gender experience.

Gender Experience	Gender Identity		
	Man	Woman	Neither
Cisgender	Cis man (assigned male)	Cis woman (assigned female)	Bisexual (nonspecified assignment)
Transgender	Trans man (assigned female)	Trans woman (assigned male)	Nonbinary (nonspecified assignment)

Participants

I recruited 544 participants through Amazon's Mechanical Turk (MTurk) website.

Frequently used by social science researchers, this website offers financial compensation for

people who complete short, online, studies. I excluded people for failing to faithfully complete

the study and if they did not identify with their assigned gender. Participant attention was

assessed with five possible points from three items. I excluded 137 participants (25.18%) who

scored less than four total points on attention check items, leaving 407 participants. Participants

also responded to two demographic questions: "What is your gender? [man, woman, nonbinary/genderqueer, another gender]" and "Are you transgender, nonbinary/genderqueer, or otherwise do not identify with the sex you were assigned at birth? [yes, no, unsure, do not understand]." I excluded participants who responded "nonbinary/genderqueer" or "another gender" to the first question or "yes" to the second question (N = 14, 3.44% of remaining sample), leaving a total of 393 participants.

I used G*Power 3.1 (Erdfelder, Faul, & Buchner, 1996; Faul, Erdfelder, Lang, & Buchner, 2007), a statistical prospective power software package, to estimate the appropriate sample size. Prior research (Cottrell & Neuberg, 2005) has found medium effect sizes for differences in emotional reactions across groups and medium to large effects for perceived threat differences. Thus, I used a medium effect size ($f = .25$) for the prospective power analysis. I set G*Power to estimate sample size to test for a between-subjects interaction at 95% power to find my effect with twelve groups (2 levels of target gender experience x 3 levels of target gender identity x 2 levels of participant gender). G*Power indicated that a total of 251 participants would provide adequate power to find my hypothesized effects if they indeed exist; thus, I have sufficient power to detect medium effect sizes in my hypotheses.

Measures

For the dependent measures, participants completed threat perception and affective reaction measures (based on Cottrell and Neuberg, 2005, and Cottrell, Richards, and Nichols, 2010).

Threat. For threat, participants indicated agreement with statements regarding the specific threats the group poses on a scale of 1 (strongly disagree) to 9 (strongly agree). For

general threat, I averaged the items "In general, I feel that [target group], as a group, pose a challenge to people like me" and "In general, I feel that [target group] pose problems for people like me" ($r = .88$, $p < .001$). For *threat to values*, I averaged the items "In general, I feel that [target group], as a group, possess values that directly oppose the values of people like me" and "In general, I feel that [target group], as a group, hold values that are morally inferior to the values of people like me" ($r = .78$, $p < .001$). For *threat to physical health*, I averaged the items "In general, I feel that [target group], as a group, increase the risk of physical illness for people like me" and "In general, I feel that [target group], as a group, harm the medical health of people like me" ($r = .72$, $p < .001$). For *threat to social coordination and functioning*, I averaged the items "In general, I feel that [target group], as a group, disrupt everyday social functioning for people like me" and "In general, I feel that [target group], as a group, make it difficult for things to run smoothly for people like me" ($r = .73$, $p < .001$). For *threat to personal freedoms*, I averaged the items "In general, I feel that [target group], as a group, limit the personal freedoms of people like me" and "In general, I feel that [target group], as a group, restrict the personal rights of people like me" ($r = .88$, $p < .001$). For *threat to trust relations*, I averaged the items "In general, I feel that [target group], as a group, cannot really be trusted by people like me" and "People like me cannot trust [target group], as a group" ($r = .77$, $p < .001$). For *threat to reciprocity due to inability*, I averaged the items "In general, I feel that [target group], as a group, are unable to contribute to people like me as much as they take" and "In general, I feel that [target group], as a group, need to take more from people like me than they are able to give back" ($r = .69$, $p < .001$). For *threat to physical safety*, I averaged the items "In general, I feel that [target group], as a group, endanger the physical safety of people like me" and "In general, I

feel that [target group], as a group, are physically dangerous to people like me" ($r = .85, p < .001$).

Affect. For affect, participants reported each emotion when thinking about a particular group and its members on a scale of 1 (not at all) to 9 (extremely). For *negativity*, I averaged the items "In general, how negative do you feel towards [target group], as a group?", "In general, how much do you dislike [target group], as a group?", "In general, how much do you like [target group], as a group?" (reversed), and "In general, how positive do you feel towards [target group], as a group?" (reversed) ($\alpha = .83$). For *disgust*, I averaged the items "In general, how morally disgusted are you by [target group], as a group?", "In general, how morally sickened are you by [target group], as a group?", "In general, how physically disgusted are you by [target group], as a group?", "In general, how grossed out are you by [target group], as a group?", and "In general, how physically sickened are you by [target group], as a group?" ($\alpha = .95$). For *anger*, I averaged the items "In general, how mad are you at [target group], as a group?", "In general, how angry are you at [target group], as a group?", "In general, how bitter are you towards [target group], as a group?", and "In general, how much do you resent [target group], as a group?" ($\alpha = .94$). For *pity*, I averaged the items "In general, how much do you pity [target group], as a group?" and "In general, how sorry do you feel for [target group], as a group?" ($r = .72, p < .001$). For *fear*, I averaged the items "In general, how frightened are you of [target group], as a group?", "In general, how afraid are you of [target group], as a group?", "In general, how anxious are you about [target group], as a group?", and "In general, how nervous are you about [target group], as a group?" ($\alpha = .93$).

Results

All hypothesized threat-emotion pairs correlated significantly. As predicted, negativity

correlated strongly with general threat perceptions ($r = .63$, $p < .001$). Disgust correlated strongly

with values ($r = .80$, $p < .001$) and health ($r = .60$, $p < .001$). Anger correlated strongly with

coordination ($r = .75$, $p < .001$), freedom ($r = .73$, $p < .001$), and trust ($r = .74$, $p < .001$). Pity

correlated moderately with inability ($r = .37$, $p < .001$). Fear correlated strongly with safety ($r = $

$.77$, $p < .001$). See Table 3 for inter-threat correlations and Table 4 for inter-emotion correlations.

Table 3. Correlations among threat perceptions.

	General	Values	Health	Coordination	Freedom	Trust	Inability
General	1.00	-	-	-	-	-	-
Values	.76	1.00	-	-	-	-	-
Health	.69	.64	1.00	-	-	-	-
Coordination	.86	.79	.80	1.00	-	-	-
Freedom	.82	.76	.73	.86	1.00	-	-
Trust	.81	.76	.70	.85	.80	1.00	-
Inability	.85	.72	.72	.82	.81	.77	1.00
Safety	.78	.66	.79	.81	.83	.77	.80

All ps $< .001$

Table 4. Correlations among emotional reactions.

	Negativity	Disgust	Anger	Fear
Negativity	1.00	-	-	-
Disgust	.83	1.00	-	-
Anger	.68	.76	1.00	-
Fear	.63	.74	.87	1.00
Pity	.31	.43	.35	.38

All ps $< .001$

Hypothesis 1: Values

In Hypothesis 1, I predicted that transgender groups would be perceived to pose greater

levels of threat (to values, physical health, social coordination and functioning, personal

freedoms, trust relations, reciprocity due to inability, and physical safety, as well as general

threat) than cisgender groups. I tested this hypothesis with one 2(target gender experience) x

3(target gender identity) x 2(participant gender) Analyses of Variance for each threat dependent

variable. A main effect of target gender experience indicates support for this hypothesis.

I found support for Hypothesis 1 with four of the eight threat perceptions: general threat,

values, coordination, and trust threats (see Table 5). For each of these threats, transgender targets

were viewed as posing greater threats than cisgender targets, with effects in the range of small to

medium. I did not find support for Hypothesis 1 for health, freedom, inability, and safety threats.

For each of these threats, participants viewed transgender targets and cisgender targets as posing

similar levels of threat.

Table 5. Main effects of target gender experience on threats.

	F	ηp^2	Mean (SE)	
			Transgender	Cisgender
General	5.09*	.01	3.32 (0.17)	2.78 (0.16)
Values	13.68***	.04	3.77 (0.19)	2.84 (0.17)
Coordination	4.98*	.01	3.20 (0.17)	2.69 (0.15)
Trust	6.67**	.02	3.12 (0.16)	2.55 (0.15)
Health	0.38	.001	2.65 (0.15)	2.52 (0.14)
Freedom	2.53	.010	2.95 (0.17)	2.59 (0.15)
Inability	1.48	.004	3.01 (0.16)	2.75 (0.15)
Safety	0.07	.000	2.47 (0.16)	2.53 (0.14)

Degrees freedom = 1,381
*$p < .05$, **$p < .01$, ***$p < .001$

Hypothesis 1a. In Hypothesis 1a, I predicted that male participants would exhibit greater

levels of threat perceptions toward transgender groups than female participants. I tested this with

the same ANOVAs as above, with an interaction between participant gender and target gender

experience indicating support for this hypothesis.

I found support for Hypothesis 1a with five of the eight threat perceptions (see Table 6): general threat, health, coordination, freedom, and trust threats, with small effects. Male participants perceived greater levels of these threats from transgender targets than female participants did, whereas male and female participants' perceptions of cisgender targets remained similar.

I did not find support for Hypothesis 1a for values, inability, and safety threats. For these threats, male and female participants perceived similar levels of threat for both transgender and cisgender targets. For safety threat, a significant interaction did emerge, but this was due to female participants perceiving greater safety threats from cisgender than transgender targets— particularly threats from cisgender men.

Table 6. Interaction between participant gender and target gender experience on threats.

| | | | Mean (SE) | | | |
| | | | Male Participants | | Female Participants | |
	F	ηp^2	Transgender	Cisgender	Transgender	Cisgender
General	7.63**	.02	3.83 (0.28)	2.64 (0.26)	2.80 (0.20)	2.92 (0.19)
Values	3.64	.01	4.09 (0.30)	2.67 (0.28)	3.46 (0.22)	3.01 (0.20)
Coordination	6.20*	.02	3.69 (0.27)	2.63 (0.24)	2.70 (0.19)	2.76 (0.18)
Trust	7.62**	.02	3.66 (0.27)	2.47 (0.24)	2.59 (0.19)	2.63 (0.18)
Health	7.63**	.02	3.17 (0.24)	2.50 (0.22)	2.12 (0.17)	2.55 (0.16)
Freedom	4.99*	.01	3.35 (0.27)	2.48 (0.25)	2.55 (0.19)	2.70 (0.18)
Inability	1.64	.004	3.25 (0.26)	2.71 (0.24)	2.77 (0.18)	2.79 (0.18)
Safety	4.42*	.01	2.77 (0.25)	2.38 (0.23)	2.17 (0.18)	2.67 (0.17)

Degrees freedom = 1,381
*p < .05, **p < .01, ***p < .001

Hypothesis 1b. In Hypothesis 1b, I predicted that transgender women would be perceived to pose greater physical safety and values threats than all other groups. I tested this using a One-Way Analysis of Variance with an orthogonal contrast. The target group was the independent variable with six levels (cis women, cis men, bisexual, trans women, trans men, nonbinary), and

safety and values were the dependent variables. The contrast (-1, -1, -1, 5, -1, -1) tested whether transgender women received higher ratings than all other groups. The contrast was not significant for safety, $t(387) = 1.15$, $p = .25$ (cis women, $M = 2.07$, $SD = 1.89$; cis men, $M = 3.53$, $SD = 2.40$; bisexual, $M = 2.16$, $SD = 1.80$; trans women, $M = 2.74$, $SD = 2.34$; trans men, $M = 2.28$, $SD = 1.75$; nonbinary, $M = 2.05$, $SD = 1.53$). However, the contrast was marginally significant for values, $t(387) = 1.79$, $p = .07$. Transgender women tended to pose greater values threats ($M = 3.77$, $SD = 2.73$) than other groups (cis women, $M = 2.70$, $SD = 2.01$; cis men, $M = 2.98$, $SD = 1.91$; bisexual, $M = 3.03$, $SD = 2.39$; trans men, $M = 4.09$, $SD = 2.91$; nonbinary, $M = 3.10$, $SD = 2.20$)

Hypothesis 1c. In Hypothesis 1c, I predicted that nonbinary people would be perceived to pose greater social coordination threats than all other groups. I tested this in the same manner as Hypothesis 1b, with coordination as the dependent variable. The contrast (-1, -1, -1, -1, -1, 5) tested whether nonbinary people received higher ratings than all other groups. This contrast was not significant, $t(387) = -.52$, $p = .61$ (cis women, $M = 2.41$, $SD = 1.98$; cis men, $M = 3.27$, $SD = 2.17$; bisexual, $M = 2.52$, $SD = 1.99$; trans women, $M = 3.15$, $SD = 2.33$; trans men, $M = 3.16$, $SD = 2.24$; nonbinary, $M = 2.75$, $SD = 2.00$).

Hypothesis 2: Emotions

In Hypothesis 2, I predicted that transgender groups would evoke greater negativity, disgust, anger, fear, and pity than cisgender groups. I tested this hypothesis with one 2(target gender experience) x 3(target gender identity) x 2(participant gender) Analyses of Variance for each emotion dependent variable. A main effect of target gender experience indicates support for this hypothesis.

I found support for Hypothesis 2 with four of the five emotional reactions (see Table 7): negativity, disgust, fear, and pity. Transgender targets evoked greater levels of these emotions than cisgender targets. I did not find support for Hypothesis 2 for anger, as transgender and cisgender targets evoked similar levels of anger.

Table 7. Main effects of target gender experience on emotions.

	F	ηp^2	Mean (SE)	
			Transgender	Cisgender
Negativity	18.65***	.05	3.88 (0.14)	3.04 (0.13)
Disgust	21.03***	.05	3.29 (0.17)	2.24 (0.16)
Anger	2.62	.01	2.38 (0.13)	2.09 (0.12)
Pity	38.94***	.09	3.74 (0.16)	2.37 (0.15)
Fear	8.79**	.02	2.63 (0.14)	2.09 (0.12)

Degrees freedom = 1,381
*$p < .05$, **$p < .01$, ***$p < .001$

Hypothesis 2a. In Hypothesis 2a, I predicted that male participants would exhibit greater levels of negative emotions toward transgender groups than female participants. I tested this with the same ANOVAs as above, with an interaction between participant gender and target gender experience indicating support for this hypothesis.

I found support for Hypothesis 2a only for fear: male participants reported greater fear for transgender targets than did female participants, but participants reported similar levels of fear for cisgender targets. I did not find support for Hypothesis 2a for negativity, disgust, anger, or pity (see Table 8). Male and female participants reported similar levels of these emotions for transgender targets and for cisgender targets.

Table 8. Interaction between participant gender and target gender experience on emotions.

	F	ηp²	Male Participants		Female Participants	
			Transgender	Cisgender	Transgender	Cisgender
Negativity	0.72	.002	4.12 (0.23)	3.12 (0.21)	3.63 (0.17)	3.96 (0.16)
Disgust	3.00	.01	3.60 (0.27)	2.16 (0.25)	2.98 (0.19)	2.33 (0.18)
Anger	2.48	.01	2.67 (0.22)	2.09 (0.20)	2.10 (0.15)	2.09 (0.15)
Pity	0.64	.002	3.91 (0.26)	2.37 (0.24)	3.56 (0.19)	2.37 (0.18)
Fear	7.34**	.02	2.99 (0.22)	1.95 (0.20)	2.28 (0.16)	2.24 (0.15)

Degrees freedom = 1,381
*p < .05, **p < .01

Hypothesis 2b. In Hypothesis 2b, I predicted that transgender women would evoke greater disgust and fear than all other groups. I tested this as in Hypothesis 1b, with disgust and fear as the dependent variables. The contrast (-1, -1, -1, 5, -1, -1) tested whether transgender women received higher ratings than all other groups. The contrasts were significant for both disgust, $t(387) = 2.62$, $p = .01$, and fear, $t(387) = 2.02$, $p = .04$. Transgender women evoked greater disgust ($M = 3.37$, $SD = 2.60$) and fear ($M = 2.74$, $SD = 1.98$) than other groups (Disgust: cis women, $M = 1.88$, $SD = 1.54$; cis men, $M = 2.47$, $SD = 1.93$; bisexual, $M = 2.46$, $SD = 1.94$; trans men, $M = 3.54$, $SD = 2.73$; nonbinary, $M = 2.60$, $SD = 1.91$; Fear: cis women, $M = 1.85$, $SD = 1.31$; cis men, $M = 2.79$, $SD = 2.07$; bisexual, $M = 1.82$, $SD = 1.51$; trans men, $M = 2.61$, $SD = 1.94$; nonbinary, $M = 2.19$, $SD = 1.49$).

Hypothesis 2c. In Hypothesis 2c, I predicted that nonbinary people would evoke greater anger than all other groups. I tested this as in Hypothesis 1c, with anger as the dependent variable. The contrast (-1, -1, -1, -1, -1, 5) tested whether nonbinary people received higher ratings than all other groups. The contrast was not significant, $t(387) = -.45$, $p = .65$ (cis women, $M = 1.79$, $SD = 1.44$; cis men, $M = 2.72$, $SD = 2.08$; bisexual, $M = 1.82$, $SD = 1.55$; trans women, $M = 2.35$, $SD = 1.83$; trans men, $M = 2.38$, $SD = 1.70$; nonbinary, $M = 2.11$, $SD = 1.48$).

Hypothesis 3

In Hypothesis 3, I predicted that threat perceptions would mediate the relationship between target gender experience and emotion. I also predicted that target gender identity would moderate the influence of target gender experience. Given that I did not find support for my hypotheses regarding differences in threat perceptions based on target gender identity, I omit gender identity as a moderator, testing only the mediation. This also allows for testing multiple threats as mediators within the same model when they are linked to the same emotion. Specifically, given that coordination, freedom, and trust threats are all linked to anger, I tested them as parallel mediators between target gender experience and anger. Given that health and values threats are both linked to disgust, I tested them as parallel mediators between target gender experience and disgust. As inability is the only threat linked to pity, and safety is the only threat linked to fear, I tested these with only single mediators.

I calculated the indirect effect of target gender experience on emotional reactions through threat perceptions using Hayes (2017) PROCESS macro for SPSS (Model 4). This method uses bootstrapping which can detect effects in small samples while maintaining control over the Type I error rate (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; Williams & MacKinnon, 2008). I generated 5000 samples from the original data set using sampling with replacement. Target gender experience was coded so that -1 = cisgender target and 1 = transgender target. When the confidence intervals for the indirect effect do not include zero, I conclude that the indirect effect of target gender experience on emotion through threat perception was reliable.

I did not find evidence of mediation for pity, fear, or anger (see Figures 2-4). However, I did find evidence of partial mediation for disgust, specifically through values threat (see Figure 5). Transgender targets evoked greater values threats than cisgender targets, and values threats

predicted disgust. This mediation partially accounted for the relationship between target gender

experience and disgust.

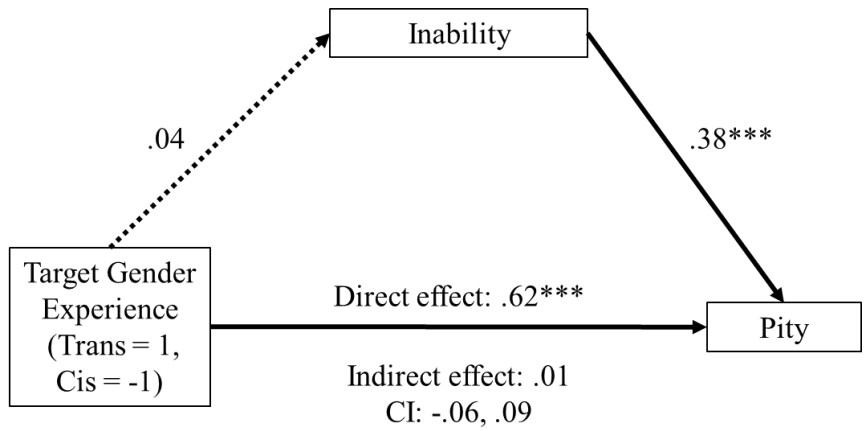
Figure 2. Inability threat does not mediate the association between target gender experience and pity.
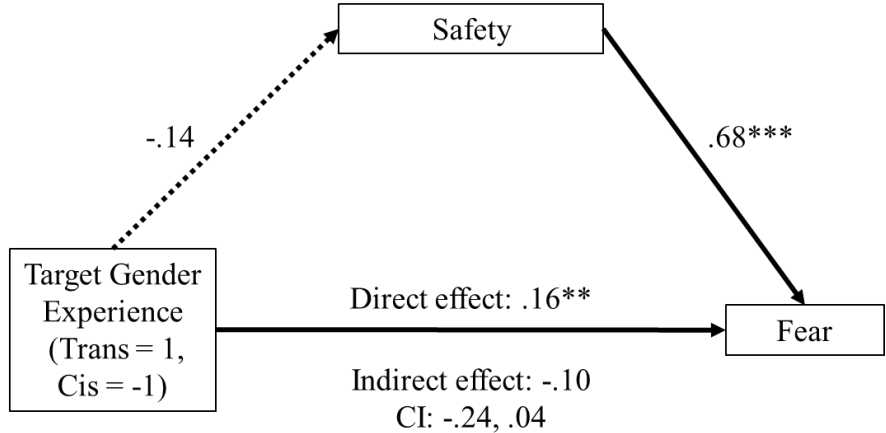***$p < .001$

Figure 3. Safety threat does not mediate the association between target gender experience and fear.
**$p < .01$, ***$p < .001$
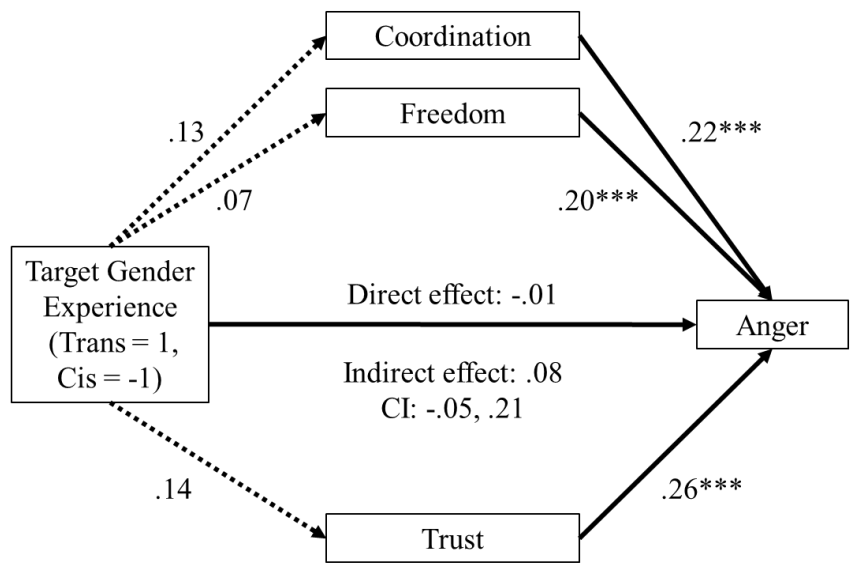
Figure 4. Coordination, freedom, and trust threats do not mediate the association between target gender experience and anger.
***$p < .001$

Figure 5. Values, but not health, threats mediate the association between target gender experience and disgust.
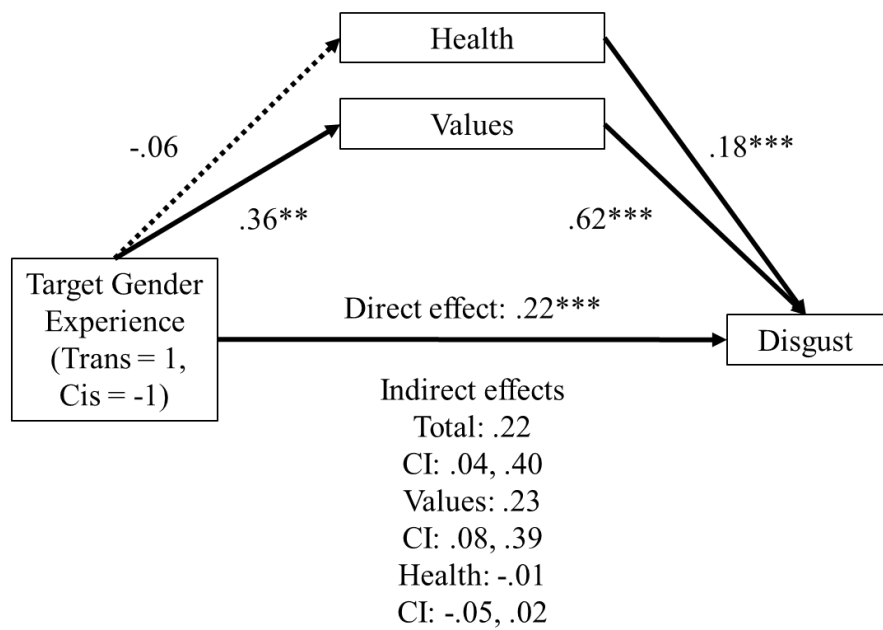**$p < .01$, ***$p < .001$

Discussion

In this study, I sought to uncover the differences in threat perceptions and emotional

reactions to transgender and cisgender targets, and investigate potential differences in

perceptions among transgender subgroups. Until now, transphobia has only been investigated in broad strokes, with little uncovered about its components. Answering these questions can uncover a more precise understanding about the predecessors of transphobic discrimination, and how this discrimination may differ for various members of the transgender community. Ultimately, the current findings support the notion that transgender targets pose different threats and evoke different levels of emotion than cisgender targets, in line with the sociofunctional threat approach (Cottrell & Neuberg, 2005). However, they do not support the predictions that these threats and emotions differ by transgender subgroup, or that threats specifically predict emotional reactions.

Considering overall differences in ratings between transgender and cisgender targets, my hypotheses were mostly supported. For threat perceptions (Hypothesis 1), transgender targets evoked greater perceptions of general threat, values threat, coordination threat, and trust threat than cisgender targets, but evoked equivalent perceptions of health, freedom, inability, and safety threats. I suspect that these differences are due to how personal and immediate these threats from transgender targets are perceived to be. The former may be seen as more general and applying to society as a whole: for example, the belief that transgender people "*hold values that are morally inferior* to the values of people like me" (value threat) does not necessarily pose an immediate threat to an individual, but instead threatens the moral standing of a community. In comparison, the latter group of threats may invite more consideration of specific actions that would confirm these threats. For example, in order to endorse that transgender people "*restrict the personal rights* of people like me" (freedom threat), participants may have tried to think of an instance when a transgender person actually restricted their personal rights. Given that only 16% of

American adults report knowing a transgender person (GLAAD, 2015), participants were likely not able to conjure these specific slights.

For emotional reactions (Hypothesis 2), transgender targets evoked more negativity, disgust, fear, and pity than cisgender targets, but equivalent levels of anger. Pity showed the strongest difference with a medium effect size, which replicates Gazzola and Morrison's (2014) findings for elevated pity for transgender men and women and confirms expected similarities to sexual minorities for disgust (Cottrell & Neuberg, 2005). The lack of difference in anger is surprising, given elevated rates of violence against transgender targets (Grant et al., 2011). However, violence in general is a rare occurrence. It is possible that transgender targets evoke anger only in a small subset of people, and that these people are the ones carrying out transphobic violence. Given existing research on the individual differences that predict transphobia, I would expect these people to be cis men who are high in sexism (Nagoshi et al., 2008; Tebbe & Moradi, 2012), authoritarianism, religious fundamentalism (Nagoshi et al., 2008; Norton & Herek, 2013), aggression proneness (Nagoshi et al., 2008), and anti-egalitarianism (Norton & Herek, 2013). Future research will be needed to determine if these predictors of transphobia also specifically predict anger and violence against transgender people.

Differences in male and female participants' ratings of transgender targets (Hypotheses 1a and 2a) were more notable for threats (in which male participants reported higher general threat, health threat, coordination threat, freedom threat, and trust threat for transgender targets) than for emotions (in which male participants were only higher on fear). This suggests that previous findings of elevated transphobia in men (Nagoshi et al., 2008; Tebbe & Moradi, 2012) may be due more to men's ideas about transgender people rather than their emotions about them. If this is the case, it may complicate prejudice reductions strategies. Work on intergroup contact

effects (Tropp & Pettigrew, 2005) shows that contact yields greater prejudice-reduction for affective rather than cognitive measures of prejudice. Cognitive aspects of prejudice, such as perceiving threats from transgender people, can be resistant to generalizations from positive contact. Thus, contact may not be a useful a solution in reducing men's elevated levels of transphobia, and strategies based on myth acceptance may be needed (e.g., Case & Stewart, 2013; see "Potential Interventions" below).

My predictions regarding differences between transgender groups were less consistently supported. By contrasts, transgender women evoked greater values threats, fear, and disgust than other groups, which conformed to my predictions based on elevated rates of transphobic discrimination for trans women (Grant et al., 2011). However, by means, transgender women were not the highest rated group for any of these threats. Transgender men were slightly higher than transgender women for values threat and disgust. It is possible that participants perceived that transgender people of their own assigned sex were a greater threat to their own values. This is similar to the "black sheep effect," wherein ingroup members are judged more harshly for transgressions than outgroup members (for review, see Marques & Paez, 1994). In this case, the greater proportion of cis women participants could have led to trans men evoking greater values threat and disgust overall.

For fear, cisgender men were rated slightly higher than transgender women. This likely relates to the results for safety threat, in which transgender women did not emerge as higher than other groups because cisgender men outstripped them. This makes sense when considering that each participant was rating potential threats about their own group. Cis women are made constantly aware of the threat to safety cis men pose (see Stanko, 1995), whereas cis men likely perceive other cis men to be the only ones capable of being a safety threat to them (e.g., Kret,

Pichon, Grezes, & Gelder, 2011). Perhaps cisgender people perceive trans women as being a greater threat to safety than they actually are (trans women were second highest in mean ratings), but not a greater threat than cis men.

Furthermore, neither of my predictions for nonbinary people (elevated coordination threat and anger) bore out. For both threats, nonbinary people were only rated higher than cisgender women and bisexual people. I suspect that participants were less familiar with the idea of nonbinary people than of binary transgender people, and may have imagined that nonbinary people continue to live as their assigned sex regardless of their identities or are indifferent to the way others gender them. Both of these interpretations would be less likely to pose a coordination threat or elicit anger. As for why cis men were elevated, I suspect that they may merely be seen as agentic targets, and therefore more capable of interfering in various ways that could evoke anger.

Thus, I found little evidence of differences between transgender subgroups. At least in the abstract, cisgender participants view transgender men, transgender women, and nonbinary people similarly. This may be due to perceptions of outgroup homogeneity, or the idea that outgroups members are more similar to one another than ingroup members are (Judd, Ryan, & Park, 1991). Perceived outgroup homogeneity seems likely given the already strong relationship between homophobia and transphobia (e.g., Nagoshi et al., 2008; Tebbe & Moradi, 2012), which reference even more distinct groups. In future work, I will use other methods that highlight the differences between transgender subgroups insofar as these differences may lead to unique reactions and treatment.

Overall, both cisgender men and women experienced greater negative emotional reactions to transgender than cisgender targets, but men were more likely than women to

experience elevated threat perceptions of transgender people. Moreover, differences between transgender groups were not always consistent across the threat and emotion thought to be associated with one another. This divergence played out in a general failure for threats to mediate the relationship between target gender experience and emotional reaction. Similarly, transgender targets did not evoke more inability threat than cisgender targets, but pity showed the largest difference between transgender and cisgender targets. Therefore, although threats and emotions are related, they are far from inseparable within this sample.

One possible explanation for the relationship between threat and emotion is that threat perceptions may function in other ways to support prejudice. Pereira, Vala, and Costa-Lopes (2010) showed that threat perceptions mediated the relationship between prejudice and policy-based discrimination by providing a way to legitimize discriminatory policies. Thus, threats may in some cases be a post-hoc justification for expressing emotions, and not everyone who experiences negative emotions may require threats to justify them. Reaching to broader models of attitude formation, the sociofunctional threat approach works with similar assumptions to Ajzen and Fishbein's (1972) theory of reasoned action, in which cognitive beliefs (in this case, threats) lead to attitudes (or emotional reactions). However, other approaches (e.g., Haidt, 2001) posit that beliefs about the target in these models are merely justifications for affective reactions that arise without clearly reasoned causes, and Lazarus also noted that the relationship between cognition and emotion is bidirectional. If the threats measured here are merely justification for negative emotional reactions, this leaves open the actual cause of these reactions. Future studies will need to reach a fuller understanding of the complex relationship between beliefs, threat perceptions, emotional reactions, and general attitudes in making up transphobia.

Potential Interventions

The relationship between negative beliefs about and negative reactions to transgender people has potentially important implications for intervening in transphobia. A handful of studies have provided the groundwork to determine which interventions are effective in reducing transphobia. Walch and colleagues (2012) found that a transgender speaker panel was more effective in reducing transphobia than a traditional lecture on transphobia, suggesting the effectiveness of intergroup contact. However, contact is not always necessary; Case and Stewart (2013) tested three interventions (a letter from a transgender person detailing his experience, a documentary showing a transgender person interacting with their family, and a myth-debunking fact sheet about transgender people). These interventions were equally effective in reducing negative attitudes and myth acceptance, but did not influence intentions to discriminate. However, Tompkins, Shields, Hillman, and White (2015) caution about solely using information (particularly pathologizing information) to reduce bias. When only provided information on "gender identity disorder," participants increased in transphobia over time, but those in the humanizing condition (who viewed a documentary about a child with "gender identity disorder" and engaged in perspective-taking writing) showed less transphobia and a greater willingness for contact with transgender people. (For links between transphobia and mental illness stigma, see Reed, Franks, & Sherr, 2015.) Brookman and Kalla (2016) offer the most definitive answer on the necessity of contact. In a canvassing experiment that invited active perspective taking, both transgender and cisgender canvassers were effective in inducing transphobia reduction that lasted several months and translated into support for nondiscrimination laws.

Perspective taking works to reduce prejudice by creating overlap between the self and the outgroup (Galinksy & Ku, 2004). Increasing links between the self an another social group via

perspective taking may actually tackle both threats and emotions at the same time, as this associates positive self-emotions with the target and reduces the extent to which the target is seen as an outgroup (and, therefore, likely to pose threats to the ingroup). If threats and emotions have an interrelated, mutually reinforcing relationship, then tackling both prongs simultaneously may provide the best method of reducing transphobia.

Strengths, Limitations, and Future Directions

This study has several strengths that contribute to the steadily-growing literature on transphobia. First, this is the only experiment to compare nonbinary people alongside trans men and trans women. Doing so provides a broader perspective on multiple facets of the transgender community. Second, this experiment uses established measures that have detected differences between various stigmatized groups in previous studies (Cook, Cottrell, & Webster, 2015; Cottrell & Neuberg, 2005), and these measures were highly reliable within the current sample. Third, the sample is likely more representative of national perceptions of transgender people than a student sample would be. I collected very little information on participants, but U.S. MTurk workers as a whole are very similar to representative samples U.S. samples. The main notable differences from representative samples is that they are younger, and older workers are more liberal than their nationally-representative counterparts (Huff & Tingley, 2015). Though there is no current data on differences in transphobia related to age, political conservatives are more likely to endorse negative attitudes towards transgender people (Norton & Herek, 2013). This suggests that this sample may have expressed somewhat lower levels of prejudice than a nationally representative sample would have, but given that much previous work on transphobia has relied on student samples (e.g., Gazzola & Morrison, 2014; Nagoshi et al., 2008; Tebbe & Moradi, 2012; Tee & Hegarty, 2006), this sample is a step toward greater representativeness.

When considering the results, it may seem concerning that the means only range from around 2 to 4 on a 9-point scale. However, Cook, Cottrell, and Webster (2015) report similar means when using these measures, with mean threat perceptions (general threat, values, and health) ranging from 1.63 to 4.03 and emotional reaction (negativity, physical disgust, and moral disgust) means ranging from 1.31 to 3.76 (for groups "atheists," "students," and a collapsed group of "gay men," "people with HIV," and "Muslims"). They found the hypothesized differences between these groups with a similar range of scores. This suggests that ratings on these measures tend to fall in the lower half of the scale, and that low threat and emotion ratings for groups in this study is not responsible for any failure to support my predictions.

The limitations of this study invite future work on this topic. Though I considered providing definitions for target groups necessary, as participants have varying levels of knowledge of the terminology used to refer to transgender people, these definitions may have also influenced participants' responses. First, "cisgender" was included as part of the group labels for cisgender men and women to balance the inclusion of an adjective for all other groups and to ensure that participants with greater awareness of transgender identities excluded their ideas about transgender targets from their responses to cisgender targets. A cursory examination of the definitions that participants provided after reporting their emotions and threat perceptions revealed that some participants were confused about the definitions for cisgender targets, misunderstanding it to be referring to transgender targets (despite the actual contents of the definition). Thus, those who did not attend to the definitions may have been responding with other target groups in mind. Second, I created the content of the definitions to be intentionally neutral, so as not to prime any valence or to give primacy to target gender identity or assigned sex. However, these neutral definitions may have ameliorated existing negative perceptions of

target groups, leading to lower perceived threats and negative emotional reactions overall. Previous research with these measures used only group labels (Cook, Cottrell, & Webster, 2015; Cottrell & Neuberg, 2005), presumably because they investigated categories that they could be sure their participants were familiar with beforehand. Thus, future research is needed to determine if neutral definitions influenced participants.

Furthermore, regardless of the participants' actual or reported levels of prejudice, this survey design does not capture the way that people actually encounter transgender people in their lives. In the context of news and mass media, transgender people may be referenced by abstract categories, but these references are unlikely to be neutral and devoid of context. They may also be told the exact transgender identity and its definition in the context of intentionally interacting with a transgender person. Otherwise, people may not even know the exact category, or the definition of that category, when they encounter transgender people, but rather recognize gender nonconformity in presentation, language use, or legal records.

This possibility of encountering transgender people through recognizing gender nonconformity provides opportunity for differences in perceptions of transgender subgroups that do not depend upon differences in attitudes about the abstract definition of the group. Transgender people of different gender identities, assigned sexes, and transition histories will likely activate different ideas about the meaning of their gender nonconformity. It is possible that differences in discrimination towards transgender subgroups may be less a result of specific attitudes about the groups, and more about how the groups are encountered due to their situations in life. For example, Lombardi (2009) reported that age of transition, degree of "outness," race, and class were all characteristics that influenced transgender people's experiences of

transphobia. Future studies should consider the impact of these and other variables (such as perceived degree of gender nonconformity) on transphobic perceptions.

In future studies, I plan to examine these potential differences through experiments that capture these real-life situations. For example, one study has used differences between legal records and presentation to explore transphobic discrimination in hiring (Reed, Franks, & Sherr, 2015). Other possibilities include manipulations of names, pronouns, and visual gender cues to capture more of the diversity in this population and provide more context for decision making. I would also like to measure social desirability and willingness to express prejudice to other groups in order to consider the extent to which cisgender participants will attempt to avoid expressing transphobia.

Conclusion

In exploring the differences in threat perceptions and emotional reactions between transgender and cisgender groups, this study yielded several notable findings. First, transgender targets evoke greater threat perceptions and, especially, more negative emotional reactions than cisgender targets. This provides nuance to previous general findings of prejudice against transgender people. Second, cis men and women are about equally likely to experience negative emotional reactions to transgender targets, but men are more likely to perceive them as posing threats. This offers an explanation for previous work that finds men exhibit more transphobia than women, and suggests that these differences are not merely of degree, but also of type, which may differentially impact intervention effectiveness. Third, I found little difference in perceptions of transgender subgroups, suggesting that at the abstract level, cisgender people view various transgender subgroups similarly, and that differences in perceptions will need to be investigating in more concrete ways. Finally, my results showed that threats and emotions are

separable within transphobia, and that efforts to reduce transphobia must consider the impact on and outcomes of both cognitive and affective aspects of prejudice. These findings add to a steadily growing literature on the composition of transphobia that will ultimately unlock new ways to increase the safety and security of transgender people's existence.

APPENDIX A

GROUP DEFINITIONS

Please think about the group **cisgender men**. This refers to someone who was labeled male at birth and identifies as a man.

Please think about the group **transgender men**. This refers to someone who was labeled female at birth and identifies as a man.

Please think about the group **cisgender women**. This refers to someone who was labeled female at birth and identifies as a woman.

Please think about the group **transgender women**. This refers to someone who was labeled male at birth and identifies as a woman.

Please think about the group **bisexual people**. This refers to someone who experiences attraction to multiple genders.

Please think about the group **nonbinary people**. This refers to someone who does not identify as a man or a woman, regardless of what they were labeled at birth.

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VITA

Linas Mitchell was born and raised in Aiken, South Carolina. Before attending Loyola University Chicago, they attended Furman University, where they earned a Bachelor of Arts in Psychology, in 2015.

While at Loyola, Linas was elected Co-Chair of Enhancing Diversity in Graduate Education (EDGE), and served on several committees, including the psychology department's Committee on Diversity Affairs (CODA) and Gender Understanding, Exploration, and Support Society (GUESS). Linas also won top quantitative presentation at the 11th Annual Graduate School Interdisciplinary Research Symposium, 2018.

Currently, Linas is continuing their education at Loyola University Chicago to achieve a doctoral degree.