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Can You Turn a Good Egg Rotten? Examining The Effects of Audience Inhibition on Bystander
Behavior for Sexual Aggression

by

RUSCHELLE M. LEONE

Under the Direction of Dominic J. Parrott, PhD

ABSTRACT

The current study examined the extent to which the presence of misogynistic peers, relative to a non-misogynistic peers, obstructs bystander intervention behavior for sexual aggression among men, and how men's tendency to appraise as stressful situations that conflict with traditional male gender norms (i.e., masculine gender role stress; MGRS) influences state fear following an audience manipulation and inhibits bystander behavior. Undergraduate men completed a novel laboratory paradigm for bystander intervention for sexual aggression. Data provided support for some, but not all hypotheses. Findings indicated (1) the presence of misogynistic peers increased the odds of not intervening in SA and (2) higher levels of MGRS significantly increased the rate of bystander behavior among non-misogynistic, but not misogynistic, peers. Clinical and research implications are discussed.

INDEX WORDS: Bystander intervention behavior, Masculinity, Male peers, Sexual aggression

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INHIBITION ON BYSTANDER BEHAVIOR FOR SEXUAL AGGRESSION

by

RUSHELLE M. LEONE

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Arts

in the College of Arts and Sciences

Georgia State University

2015

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Ruschelle M. Leone
2015

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August 2015

DEDICATION

This thesis is dedicated to my mother, Rosalie Leone, and grandmother, Vita Leone, who always demonstrated how to be a strong woman, and taught me that the right thing and the popular thing are not always the same.

ACKNOWLEDGEMENTS

First, I would like to acknowledge my advisor Dr. Dominic Parrott for his continuous support and guidance both with this project and my graduate training. His patience, support, encouragement, and experience have been invaluable through each stage of this process. I am grateful for his mentorship. I would also like to thank the other members of my thesis committee, Dr. Kevin Swartout, for his thoughtful feedback and his statistical guidance, and Dr. Robert Latzman, for his insightful comments, questions, and suggestions. Additionally, I would like to thank all the members of the Behavioral Science Lab for their help with data collection including my confederates Jesse Irvin, Brock Lamm, Adam Richard, Megan Schmidt, Olivia Subramani, Austin Theodore, and Antione Wesson. Finally, I would like to thank my family Rosalie Leone, Vita Leone, and Jessica Lukas for their unwavering love and encouragement, and Lisa Hecht for her support and friendship.

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1 INTRODUCTION

“All the goodness of a good egg cannot make up for the badness of a bad one.”

Charles A. Dana, U.S. Journalist, Author, and Government Official

“We need more men with the guts to stand up and say abusive behavior is abusive behavior, and it’s not right, and it doesn’t make me less of a man to point that out.”

Jackson Katz, Ph.D., Educator, Author, and Anti-Sexist Male Activist

In August of 2012, two members of the Steubenville, Ohio high school football team sexually assaulted a high school girl. The girl was carried to various parties throughout the night while as many as fifty bystanders looked on, with some documenting the events via social media. Although a witness reported telling one of the perpetrators to, “Just stop – wait till she wakes up if you’re going to do any of this stuff,” nothing more was done to intervene after the man responded, “It’s alright. Don’t worry,” (Macur & Schweber, 2012). The reasons behind why none of the bystanders intervened are perplexing. However, what is more alarming is the shocking number of similar stories in the news. In 1983, a 21-year-old woman was gang-raped at a tavern by four men while patrons looked on (Pateakos, 2009). In 2002, after witnessing a group of men gang-rape a 15-year-old girl, bystanders said they did not intervene for fear of being called “wusses” (Carlson, 2008). In October 2009, a young woman in Richmond, California was sexually assaulted for nearly 2 ½ hours in a school courtyard during a homecoming dance. As many as twenty students looked on; none of them intervened (Vega & Wang, 2009).

Without question, male-to-female sexual aggression is an alarming problem, especially among college populations, with research estimating that approximately 25% (Fisher, Cullen, & Turner, 2000) to 50% (Abbey, McAuslan, & Ross, 1998; Messman-Moore & Brown, 2006;

Spence-Diehl, 1998) of women experience some form of sexual aggression (SA) victimization during their college years. While the blame for SA should ultimately rest on the perpetrators, bystanders can play an important role in prevention, as they are often present in places SA is likely to occur (e.g., bars, parties). It is estimated that a bystander is present in approximately one-third of reported sexual assaults (Planty, 2002). Accordingly, a host of bystander intervention programs exist that aim to prepare bystanders to intervene in male-to-female sexually aggressive situations (Banyard, Moynihan, & Plante, 2007; Coker et al., 2011; Gidycz, Orchowski, Berkowitz, 2011; Katz, 1995). These programs are founded primarily upon research that examines bystanders in emergency situations (e.g., Fischer et al., 2011). As a result, evidence for their application to SA prevention is limited. Moreover, a recent meta-analysis suggests research examining the effectiveness of bystander intervention programming for SA has mainly focused on bystander attitudes (e.g., rape myth acceptance), rather than bystander behavior (Katz & Moore, 2013).

While a large body of research examining bystanders in emergency situations suggests that the situation in which an event takes place plays a key role in bystander behavior (for a review, see Fischer et al., 2011), less research has examined individual-level factors that influence behavior. Comparatively, research on the situation in which bystanders of SA witness an event is still somewhat limited. Moreover, existing studies of bystanders of SA have primarily emphasized individual level factors (e.g., bystander self-efficacy) that may influence bystanders' decision to intervene against SA (Banyard, Plante, & Moynihan, 2005; Brown & Messman-Moore, 2010; Gidycz et al., 2011). Thus, the aim of the current study was to examine how both the situation in which a SA act takes place and individual level factors may influence bystander behavior. Specifically, the present study examined: (1) the extent to which the presence of

misogynistic peers – termed a misogynistic audience – relative to a non-misogynistic audience, obstructs bystander behavior among men, and (2) how men’s tendency to appraise as stressful situations that conflict with traditional male gender norms influences a state fear following an audience manipulation and inhibits bystander intervention behavior.

1.1 How Do Bystanders Make Decisions?

Latané and Darley (1968) were the first to examine bystanders in emergency situations in response to the brutal rape and murder of Kitty Genovese, in which it was originally reported at least 38 individuals witnessed the event, but failed to intervene. In their classic laboratory paradigm, a participant is either alone or in the presence of others when they witness an ostensible emergency. In this particular study, participants overheard a confederate having an epileptic seizure over an intercom. Participants were lead to believe either they were the only person to hear it, or that either one or four other participants heard it as well. Results revealed participants were most likely to help if they were alone, and decreasingly likely to help as the number of other bystanders increased. Latané and Darley (1968) posited that if an individual believes they are the only person available to intervene, they feel a great deal of responsibility to act. However, when others are present, responsibility is diffused among bystanders. They termed this phenomenon *the bystander effect*. The bystander effect is a well-studied phenomenon in which the presence of others reduces the likelihood that an individual will help in either an emergency (e.g., Fischer, Greitemeyer, Pollozek, & Frey, 2006) or non-emergency situation (e.g., Freeman, Walker, Bordon, & Latané, 1975; Hurley & Allen, 1974).

One well-accepted theory of bystander behavior posits that the bystander effect can best be understood through the decision-making model of bystander behavior (see Table 1; Latané & Darley, 1970). In this model, there are five stages a bystander must go through in order to

intervene: the bystander must (1) notice the event, (2) interpret it as an emergency, (3) develop a feeling of personal emergency, (4) decide how to help, and (5) choose to act. However, bystanders may be ineffective in helping due to barriers that are present at each of these steps. First, a bystander may be distracted when an event is taking place, and thus fail to notice the event. Second, an individual may notice the event, but fail to interpret it as a high-risk situation in which intervening is necessary. Next, an individual may fail to take responsibility to act. An individual may feel less responsibility for various reasons. For example, as previously noted, the amount of responsibility an individual feels to intervene decreases as the number of bystanders increases (Darley & Latané, 1968). Fourth, individuals may have a skills deficit that inhibits them from deciding on how to help in an event. Finally, the decision to act may be influenced by an audience inhibition barrier. An individual may experience anxiety about how other bystanders would interpret their behavior if they were to intervene, and thus decide not to act. For example, research indicates that individuals who perceive a group norm of social responsibility (i.e., people should help one another) are more likely to display helping behaviors than those who do not perceive a group norm of social responsibility (Gottlieb & Carver, 1980).

Table 1. The Decision-Making Model of Bystander Intervention Behavior (Latane & Darley, 1970)

Step	Barrier	Influences
1. Notice event	Failure to notice	Noise
2. Interpret as emergency	Failure to identify as high-risk	Ambiguity regarding consent
3. Take responsibility	Failure to take responsibility	Diffusion of responsibility
4. Decide how to help	Failure to act due to skills deficit	Action ignorance
5. Choose to act	Failure to act due to audience inhibition	Social norms running counter to intervention

1.2 Masculinity-Relevant Situation Factors That Inhibit Bystander Behavior

Audience inhibition, or the phenomenon in which an individual does not intervene in a situation because doing so runs the risk of embarrassment (Latané & Nida, 1981), may stem from local norms that contradict intervention (Rutkowski et al., 1983; Schwartz & Gottlieb, 1980). Traditional male gender norms encourage bystander behaviors that may be viewed as heroic or chivalrous (Eagly & Steffen, 1986). For example, rescuing a child from a burning building may be viewed as a courageous act and affirming to a man's masculinity by reinforcing gender role norms (e.g., men are strong). However, in relation to bystander behaviors against SA, interfering against another man's "sexual conquest" is often viewed as the opposite of heroic (Carson, 2008; Fabiano, Perkins, Berkowitz, Linkenback, & Stark, 2003). More specifically, social norm theory regarding SA prevention suggests men underestimate peers' discomfort with sexist behavior and this misperception may keep men from intervening against SA (Berkowitz, 2003; Fabiano et al., 2003). Consistent with his view, prior research suggests peer attitudes on SA (e.g., support of SA) may be a more significant predictor of bystander behavior than personal attitudes (e.g., rape myth acceptance; Brown & Messman-Moore, 2010). Taken together, these findings suggest men may be inhibited to intervene against SA due to perceived audience norms that reflect misogyny.

Societal expectations to live up to traditional male gender roles and male gender solicitation are critical pieces to SA prevention. One recent study asked men if they thought intervening in a gang-rape would cause them to lose respect from their peers (Carlson, 2008). Participants responded with various comments ranging from, "Oh definitely... Because I entered another man's territory," to "Basically, if they tried to stop it, you know it would be over for them... They'd be viewed as too sensitive." Similarly, men often do not intervene against SA for

fear of being negatively appraised (Burn, 2009; Carlson, 2008). Collectively, these findings suggest that men's expectation of negative evaluation from the audience outweighs both the victim's need and the bystander's personal beliefs.

Because men are more likely to engage in SA at bars and parties than other contexts (Flack et al., 2007; Harford, Wechsler, & Muthen, 2003), it is important to examine how audience norms in these situations may hinder bystander behavior. While many bystander intervention programs focus on confronting male bystanders' traditional views of masculinity and misogynistic attitudes (e.g., Gidycz et al., 2011; Katz, 1995), little research has experimentally examined how the presence of these views among others during a sexually aggressive event (e.g., at a fraternity party) may inhibit bystander behavior. Research examining bar and college party settings suggests men in these environments feel free to be sexually assertive and aggressive (Cunningham, 1989). Further, misogynistic discourse in these settings is well accepted and is expressed via terms like "slut" and "bitch" (Anderson, 2008). Importantly, prior research suggests men are more likely to engage in SA in settings in which misogynistic attitudes are prevalent (e.g., Boswell & Spade, 1996). Due to masculine gender norms and social expectations found in bar and college party settings, men are more likely to engage in sexual encounters that would be discouraged in other contexts such as classrooms (Thompson & Cracco, 2008). Accordingly, determinants of bystanders' reactions in the aforementioned contexts warrant research. Perhaps bystander behavior is inhibited when a sexually aggressive act takes place in the presence of a misogynistic audience.

1.3 Individual Level Factors That Inhibit Bystander Behavior

Early research on the bystander effect consistently showed that individuals were less likely to intervene in a variety of situations if other bystanders were present (Bickman, 1971;

Latané & Darley, 1970; Latané & Rodin, 1969; Schwartz & Clausen, 1970; Solomon, Solomon, & Stone, 1978). However, this research failed to examine how individual level factors may facilitate or inhibit bystander behavior. More recent research has revealed inconsistencies in the extent to which helping behavior is determined by the context of the situation and/or individual level factors. While some research has failed to find any individual level correlates of helping behavior (Gilovich & Eibach, 2001; Ross 2001, Ross & Nisbett, 1991), some studies suggest individuals high in masculinity (Tice & Baumeister, 1985) and embarrassibility (Zoccola, Green, Karoutsos, Katona, & Sabini, 2011) may be less likely to exhibit helping behaviors in certain contexts. Perhaps the inconsistencies stem from prior research focusing on the wrong individual level predictors associated with bystander behavior (Sabini, Siepmann, & Stein, 2001). Further, a host of recent research suggests that a combination of situational factors and individual level factors are pertinent to bystander behavior in a wide variety of contexts (e.g., Christy & Voigt, 1994; Penner, Dovidio, Piliavin, & Schroeder, 2005).

Although prior research that examined the effect of Situation x Individual interactions on bystander behavior is somewhat inconsistent, findings suggest both the situation in which an event takes place and the individual differences among bystanders warrant further investigation. Accordingly, it is important to examine the individual level factors that influence how individuals respond to audience inhibition. In relation to bystanders of SA, prior research suggests individual level factors such as rape myth acceptance (Banyard & Moynihan, 2011; Banyard et al., 2007), bystander self-efficacy (Banyard & Moynihan, 2011; Parrott et al., 2012), and perceptions of peer norms (Brown & Messman-Moore, 2010) are associated with bystander behavior. Consequently, many bystander intervention programs focus on reconstructing individual level factors, such as the way men view masculinity (e.g., Katz, 1995).

1.3.1 Masculine gender role stress (MGRS)

Specific to the social inhibiting factors examined in the present study (i.e., misogynistic audience), one individual level factor that may be related to bystander responses is MGRS, or men's tendency to experience negative psychological and physiological effects from their attempts to meet gender-relevant standards (Eisler & Skidmore, 1987; Eisler & Skidmore, & Ward, 1988). It is important to differentiate MGRS from the construct of masculinity, which reflects characteristics that are deemed social desirable for men (Bem, 1981; Spence & Helmreich, 1978). MGRS, on the other hand, reflects the cognitive appraisals of thoughts, behaviors, or environmental events as stressful (Eisler & Skidmore, 1987). Although MGRS is related to beliefs about masculinity, it is a unique construct that assesses the stress one experiences in response to trying to conform to masculinity. Research suggests MGRS predicts negative psychosocial and somatic consequences in men such as increased anger, increased anxiety, and poorer health benefits (Eisler, Skidmore, & Ward, 1998). It has been identified as a risk factor for male-to-female intimate partner violence (Jakupcak, Lisak, & Roemer, 2002; McDermott & Lopez, 2013; Moore et al., 2010) and sexual aggression (Malamuth, Linz, Heavey, Barnes, & Acker, 1995; Smith, Parrott, Swartout, & Tharp, In Press). Thus, this individual level factor may be an important inhibiting factor for bystander behavior.

While all men may experience some state stress when attempting to meet gender relevant standards, men high in trait masculine gender role stress may be especially prone to stress following gender role threats. Indeed, research has revealed that gender relevant threatening feedback from a female intimate partner was related to significantly more negative attributions, negative affect, and endorsement of verbal aggression in men high, relative to those low, in MGRS (Franchina, Eisler, & Moore, 2001). Perhaps this is because manhood, compared to

womanhood, is a precarious social status that is difficult to earn and easy to lose (for a review, see Vandello & Bosson, 2012). Men who experience high levels of stress in relation to gender-relevant threats may act in ways that restore their status as a man. Indeed, experimental research has revealed that men experience anxiety following gender-relevant threats (Vandello, Bosson, Cohen, Burnaford, & Weaver, 2008), which in turn leads them to take measures to reestablish or demonstrate their masculinity (Bosson & Vandello, 2011; Bosson, Vandello, Burnaford, Weaver, & Wasti, 2009; Cohn, Seibert, & Zeichner, 2009). Certainly, intervening against SA may threaten one's masculinity, because other men may attack the bystander for "unmasculine" behavior. Extant research suggests men's willingness to intervene against SA is inhibited by perceptions of other men's willingness, such that men are less likely to intervene if they perceive other men as unlikely to intervene (Fabiano et al., 2003). Further, due to social pressures that discourage men from appearing weak, masculinity plays an important role in men's decision-making process by inhibiting them from intervening against SA (Carlson, 2008). Collectively, findings suggest that men's bystander behavior may be determined by how they believe others will perceive them, and this effect will be particularly strong for men who are predisposed to experience stress when attempting to live up to gender-relevant standards.

1.3.2 Affective response to audience inhibition

One variable that may be associated with the final step in the decision-making model, choosing to act, is state affect. Although little prior research has examined the role of state affect in bystander behavior, extant literature has established a negative correlation between negative affect and helping behavior (Weiner, 1980). Only two studies have examined affective states and bystander intervention. Specifically, results suggest sympathetic concern for a person in danger and personal discomfort (e.g., worry) are positively associated with bystander's willingness to

intervene (Penner & Fritzsche, 1993; Penner et al., 2005), while anxiety about confidence to intervene against SA was an inhibiting factor for bystander behavior in men (McMahon & Dick, 2011). Perhaps, individuals may experience heightened negative affect before engaging in bystander behavior if the audience present is threatening to their status as a man. A recent qualitative study found SA is an uncomfortable topic for men to address with peers due to their fear of being perceived as “weak” or “gay” by other men (McMahon & Dick, 2011). This finding was supported by an experimental study that measured the cognitive accessibility of concepts related to anxiety following a gender-relevant threat (Vandello, Bosson, Cohen, Burnaford, & Weaver, 2008). Participants completed a bogus test that measured knowledge on stereotypical masculine and feminine behaviors. Participants were then given the results of their test that ostensibly stated they either scored well for their gender (i.e., gender affirming feedback), or scored similar to that of the opposite gender (i.e., gender threatening feedback). Following this feedback, participants were asked to do a word completion task in order to measure the cognitive accessibility of concepts related to anxiety. Results revealed that threatened men, relative to threatened women and gender affirmed men and women, scored higher in cognitive accessibility of anxiety words.

1.4 Limitations of Current Research for Bystander Intervention Programing

While bystander intervention programs for SA are founded upon an extensive social psychological literature spanning 45 years, evidence for their application to SA has yet to be firmly established. In relation to the decision-making model of bystander behavior (Latané & Darley, 1970), programming efforts aim to teach men how to (1) notice a SA event, (2) interpret it as a high-risk situation, (3) take responsibility when others may be present, (4) decide how to help given their known skill set, and (5) choose to act. For example, the Green Dot program

(Coker, et al., 2011) first exposes college students to a motivation speech introducing the idea of bystander behaviors against SA. The aim of this speech is to build awareness of SA on college campuses and portray bystander intervention as a simple activity. Next, individuals attend a session designed to equip students with the skills to become proactive, effective bystanders against SA. This session includes small groups where participants are trained to recognize risky situations where a sexual assault may take place by informing participants of common patterns of perpetrators. While the Green Dot program, like many other programming methods, addresses all five steps in the decision-making model of bystander behavior, the fifth barrier (i.e., failure to act due to audience inhibition) may be the most difficult barrier for men to overcome, specifically under certain contexts in which social norms run counter to intervention (Burn, 2009). Perhaps audience inhibition is a more common barrier for men because they are more likely to use direct methods of intervening (e.g., getting in the middle of a fight; Darley & Latané, 1970), whereas women are more likely to use indirect methods (e.g., calling 911; Carlson, 2008). However, one major limitation of bystander intervention programming is the insufficient attention to the audience in which a sexually aggressive act may take place, given that this barrier may be the most difficult to overcome.

Research examining bystander intervention for SA has primarily focused on bystander *attitudes* (e.g., rape-myth acceptance) rather than actual bystander *behaviors* (e.g., bystander intervention against a sexual assault), with few exceptions (Coker et al., 2011; Gidycz et al., 2011; Harari, Harari, & White, 1985; Parrott et al., 2012). Although these programs have been effective in reducing individual level variables associated with SA such as rape myth acceptance (Banyard & Moynihan, 2011; Banyard, et al., 2007) and perceptions of peer norms supportive of sexual coercion (Banyard & Moynihan, 2011; Brown & Messman-Moore, 2010), there is little

research to support how these variables help facilitate effective bystander behavior of SA. Further, prior research suggests that programming efforts to reduce SA on college campuses have not been very successful (Lonsway et al., 2009), perhaps due to the lack of evidence in support of the presumed link between the aforementioned bystander attitudes and actual bystander behavior. Specifically, programming efforts continue to focus on individual-level factors, but they have yet to address situational factors, such as audience effects. However, before intervention programs can address audience effects, researchers must first better understand the characteristics of an audience that inhibit bystanders of SA and the mechanisms of action by which these effects happen.

1.5 Overview of the Present Study and Hypotheses

No current measures or laboratory paradigms assess how bystander behaviors are inhibited by various environmental contexts. Prior research suggests perceived peer attitudes towards SA are a significant predictor of one's willingness to intervene (Brown & Messman-Moore, 2010); however, research has yet to examine how the audience in which a SA act takes place may influence or inhibit bystander behavior. For example, individuals may be inhibited in contexts where audience norms reflect misogyny (e.g., school football team's party where the captain is notorious for objectifying women). On the other hand, individuals may feel empowered to intervene against SA in contexts where audience norms reflect non-misogynistic view (e.g., college party hosted by the president of a women's studies club).

As reviewed, both situation and individual level factors contribute to bystander behavior, and thus the present study seeks to examine both factors in relation to SA. Specifically, the present study aims to examine the extent to which a misogynistic audience inhibits bystander behavior. Because previous research suggests gender-relevant threats elicit anxiety, state fear

was examined before and after exposure to a misogynistic audience. Further, because masculine gender role stress reflects individual differences in the extent to which men may experience anxiety following a gender-relevant threat, the moderating effect of dispositional masculine gender role stress on the relation between exposure to a misogynistic audience and changes in fear was examined.

To address these aims, a laboratory paradigm in which men had the opportunity to intervene in a female's unwanted sexual experience—in the presence of misogynists or non-misogynistic peers—was utilized. Bystander intervention behavior was operationalized by the amount of time it took participants to intervene. Based on the reviewed literature, the following hypotheses were advanced:

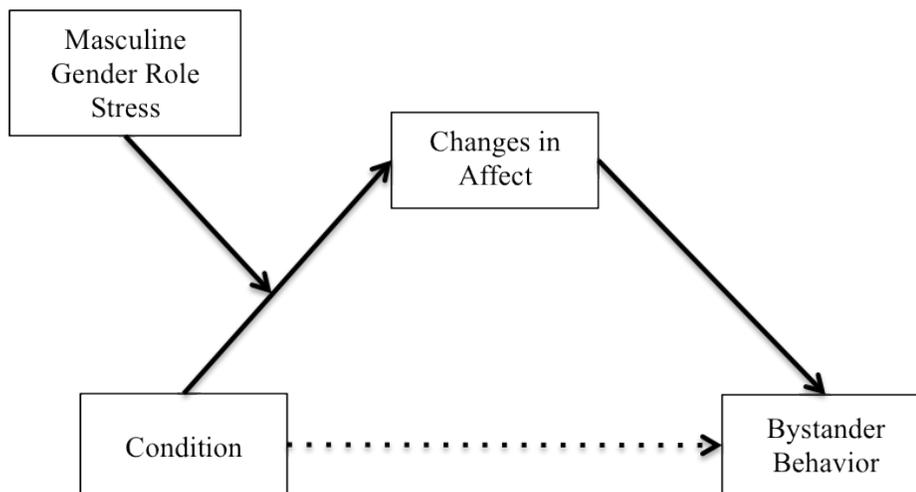
Hypothesis 1. Condition (i.e., misogynistic audience, non-misogynistic audience) will be associated with bystander intervention behavior. Specifically, men in the misogynistic condition will be less likely to intervene compared to those in the non-misogynistic condition. Additionally, among individuals that may intervene, individuals in the misogynistic condition will take longer to intervene compared to those in the non-misogynistic condition

Hypothesis 2. The relationship between condition and changes in fear will be moderated by MRGS. Specifically, exposure to the misogynistic, relative to the non-misogynistic, audience condition will be associated with increased levels of fear among high, but not low, MGRS men.

Hypothesis 3. Changes in fear will be associated with bystander intervention behavior. Specifically, greater increases in fear will be associated with less of a likelihood to intervene and slower intervention times among those who may intervene.

Hypothesis 4. The effect of condition on bystander intervention behavior will be mediated by changes in affect, and this indirect effect will be greater among men high in MGRS relative to men low in MGRS. See Figure 1 for moderated mediation model.

Figure 1. Hypothesized Moderated Mediation Model



2 METHOD

2.1 Participants

Participants were 159 self-identified heterosexual undergraduate men between the ages of 18 and 35 years old. Participants were recruited from the Georgia State University's SONA System, an online participant pool of undergraduate students enrolled in Introduction to Psychology courses. Students responded via an online scheduling system to a two-part research study entitled "Gender, Emotion, and Foreign Media Attitudes." Only participants who reported being male, between the ages of 18 and 35 years old, and self-identified as heterosexual during a prescreening questionnaire on SONA were eligible to participate. Participants completed a battery of questionnaires (Session 1) and participated in a separate experimental session (Session 2). All participants received course credit for their time. Of these men, 16 men did not show up

for Session 2. As described in detail in the results section (see *Selection of Participants*), 29 men were excluded from analyses for selecting the sexually explicit film to show a female confederate. Four participants were removed due to technical difficulties and six were not deceived and thus removed from analyses. This resulted in a final sample of 104 participants ($M_{\text{age}} = 20.10$, $SD = 2.73$). The racial composition of this sample consisted of 32.7% Caucasians, 28.8% African Americans, 28.8% Asian, 8.7% who identified with more than one race, and 1% who refused to answer. The sample had an average of 14.51 ($SD = 2.07$) years of education and approximately 95% had never been married. This study was approved by the university's Institutional Review Board prior to data collection.

2.2 Experimental Design

The present study used a mixed experimental correlational design and included one categorical predictor (audience condition) and two continuous predictors (dispositional masculine gender role stress, state changes in fear). The 143 participants who completed Session 2 were randomly assigned to one of two experimental conditions: *misogynistic audience* ($N = 71$) or *non-misogynistic audience* ($N = 72$).

2.3 Materials

2.3.1 Demographic form

This form obtained information such as age, self-identified sexual orientation, race, relationship status, and years of education.

2.3.2 Need to Belong Scale (NBS; Leary, Kelly, Cottrell, & Schreindorfer, 2006)

This 10-item self-report measure assesses participants' desire to be accepted by others and seek opportunities to belong to social groups. Participants rate items on a 1 (*strongly*

disagree) to 5 (*strongly agree*) scale, with higher scores reflecting a greater need to belong. Sample items include: “I want other people to accept me,” and “I try hard not to do things that will make other people avoid or reject me.” Individuals with a higher need to belong have been shown to be more likely to go along with others (De Cramer & Leonardelli, 2003). Thus, it was deemed prudent to assess this construct in order to control for potential confounds with masculinity-based motivation to conform to group norms during the bystander task. This scale has demonstrated good reliability in previous studies with Cronbach’s alpha ranging from .78 to .83 (Pickett, Gardner, & Knowles, 2004; Mellor, Stokes, Firth, Hayashi, & Cummins, 2008). An alpha reliability of .82 was obtained in the present sample.

2.3.3 Masculine Gender Role Stress Scale (MGRSS; Eisler & Skidmore, 1987)

This 40-item self-report measure assesses men’s tendency to appraise as stressful situations that conflict with traditional male gender norms. Participants rate items on a scale from 0 (*not at all stressful*) to 5 (*extremely stressful*), with higher scores reflecting more dispositional masculine gender role stress. This scale assesses a range of situations that elicit stress such as: being perceived as having feminine traits, admitting that you are afraid of something, letting a woman take control of the situation, having others say that you are too emotional, and being unable to perform sexually. Although masculine gender role stress is related to masculine ideologies, this scale is a unique construct that can be measured globally (Walker, Tokar, & Fischer, 2000). Specifically, rather than measuring beliefs about masculinity, this scale assesses the stress one experiences in response to trying to conform to masculinity. This scale has good psychometric properties, with Cronbach coefficients in the low .90s (Eisler, Skidmore, & Ward, 1988). An alpha reliability of .93 was obtained in the present sample.

2.3.4 Positive and Negative Affect Schedule Expanded Form (PANAS-X; Watson & Clark, 1994)

The PANAS-X consists of a checklist of mood descriptors that assesses dimensions of affect (i.e., positive and negative) as well as numerous distinct emotions (e.g., fear, sadness). A shortened 22-item version was administered that assessed participants' in-the-moment experience of positive affect (e.g., active, interested), negative affect (e.g., hostile, guilty), and fear (e.g., afraid, scared). For the purpose of the present study, only the six item fear subscale was analyzed. Participants are asked to "indicate to what extent you *feel* this way right now, that is, *at the present moment*" on a 1 (*very slightly or not at all*) to 5 (*extremely*) scale. The fear subscale has strong internal consistency ($\alpha = .87$), which was consistent with the present sample (Time 1 $\alpha = .81$, Time 2 $\alpha = .83$).

2.4 Laboratory Analogue of Bystander Behavior for Sexual Aggression

This study utilized a novel laboratory paradigm to examine bystander intervention for sexual aggression and was based on both classic bystander paradigms and a well-validated sexual aggression paradigm. Classic bystander paradigms expose participants to an ostensible emergency, either alone or in the presence of others, and then assesses whether and/or how quickly participants intervene (Latané & Darley, 1968). The present paradigm applies this basic methodology to a validated sexual imposition paradigm (Hall & Hirschman, 1994). In the traditional sexual imposition paradigm, a male participant engages in a media-rating task in which he fills out a self-report measure that ostensibly assesses his preferences pertaining to the media. Participants then receive a media rating profile from a female confederate, which explicitly states her strong dislike of sexual content in the media. Next, the participant views two film clips that depict a nonsexually explicit or sexually explicit scene. The participant is asked to

select one film to show the female confederate and informed that he will be able to view the female via closed circuit television as she watches the film he selected. Sexual aggression is operationalized by subjecting the female to the sexually explicit film. Evidence for the validity of this paradigm was demonstrated by correlations between selection of the sexually explicit film and prior sexual aggression perpetration (Hall, DeGarmo, Eap, Teten, & Sue, 2006; Hall & Hirschman, 1994; Parrott et al., 2012).

In line with classic bystander paradigms, the subjection of the female confederate to the sexually explicit film represents the ostensible emergency to which participants are exposed and can intervene to prevent SA. In the present laboratory analogue, participants are informed they are participating in a media-rating task with three other men and a female (i.e., sexual imposition paradigm; Hall & Hirschman, 1994). Following the procedures for this paradigm outlined above, all participants watch the female watch the sexually explicit film clip—regardless of their individual choice—and have the opportunity to stop the film. Bystander intervention is operationalized as the time in seconds it takes participants to stop the video.

2.5 Procedure

The present study was completed on two separate days. During Session 1, participants presented to the laboratory and provided informed consent. Next, participants completed the questionnaire battery and demographic form. Upon completion, the experimenter confirmed participants' appointment date and time for Session 2 and thanked them for their participation in Session 1.

Upon arrival to the laboratory for Session 2, participants were greeted by an experimenter in the lobby. In order to disguise the true aims of the study and reinforce the presence of other participants, two of the four confederates (i.e., two males) were also seated in the lobby and

greeted by the experimenter with the participant present. Additionally, the experimenter pointed out the confederates' experimental rooms while on the way to the participants' private testing room. Participants were then seated in an 8 x 10 foot room. Participants were provided an informed consent form, told the purpose of the study was to examine gender, emotion, and attitudes about foreign films, and provided with an overview of the experimental procedures. The experimenter then ostensibly left to check on the other participants and administered the PANAS-X to establish a baseline measure of affect. After completing this measure, the experimenter informed participants that the majority of their future communication would be via an intercom to ensure all participants received the same instructions at the same time.

Participants completed a media-rating questionnaire on their computer using Direct RT 2006 software (Jarvis, 2006). This questionnaire was comprised of 15 questions that ostensibly assess media preferences. Participants answered questions such as, "I am a fan of 'reality' TV shows," on a nine-point Likert scale ranging from "1" *strongly disagree* to "9" *strongly agree*. After completion of the media-rating task, the experimenter informed participants that their answers were summarized into a "media profile." The male participants' profiles were then shown on the female confederate's computer; conversely, her profile was shown to all four male participants (i.e., the participant and three male confederates) on their respective computers. The female's profile explicitly stated that she does not like to watch sexually explicit material.

Next, participants viewed descriptions and still images from a sexually explicit and nonsexually explicit foreign film on their computer. The sexually explicit film description stated that the majority of the four-minute film featured a male and female engaging in consensual sexual intercourse involving kissing, foreplay, and implied intercourse in numerous sexual positions. Three pictures depicting sexually explicit scenes from the film clip were displayed.

The nonsexually explicit film clip description stated that the majority of the four-minute film depicted a man and a woman cooking a meal together. Three pictures depicting nonsexually explicit scenes from the film clip were displayed. The order in which each film's still images and description was counterbalanced. Participants viewed each film's still images and description for at least 30 seconds before they were given the option to advance to the next screen.

Participants were then asked to select the film clip they wanted the female confederate to view by selecting the film clip on their computer. Participants were informed that the film clip the female confederate viewed would be determined by randomly selecting one of the four male participants' choices. Thus, participants were led to believe that there was at least a 25% chance that their selection would be shown to the female confederate.

After selection of the film clip, the experimenter informed all participants over the intercom that the men were to meet in the participant's room for the next part of the study. Three male confederates entered the participant's room, followed by the female confederate who "accidentally" entered the wrong room. Immediately after she exited the room, the confederates engaged in scripted comments commensurate with the randomly determined condition. Specifically, as soon as the female confederate left the room, the lead confederate set the norm for the group based on the experimental condition (i.e., *misogynistic audience*, *non-misogynistic audience*) by either making an objectifying or non-objectifying comment about the female, respectively. The other two male confederates made statements of agreement. Then, in the *misogynistic audience* condition, the lead confederate stated that he chose the sexually explicit film to show the female. The other two confederates each stated that they also chose this film. In the *non-misogynistic audience* condition, the lead confederate stated that he chose the

nonsexually explicit film to show the female. One other confederate stated that he also chose this film, while the other confederate said he chose the sexually explicit film. It was necessary for at least one confederate to choose the sexually explicit film clip in order for the sexually explicit film to have been “randomly selected” among the four men’s choices (see *Appendix* for scripts).

Once the conversation concluded, the experimenter entered the room and told participants (and confederates) that the sexually explicit film was randomly selected and would be shown to the female confederate. They were informed they would view the female on their computer screen via a webcam as she watched the film clip and could stop the video at any time by pressing the enter key on the keyboard. Additionally, a small sign was hung below the monitor stating “PRESS THE ENTER KEY TO STOP THE VIDEO.” The participant was seated in front of the desk, while all confederates were seated out of reach of the keyboard. While the film was ostensibly prepared to show the female confederate, participants (and confederates) were asked to fill out the second PANAS-X. This allowed for examination of changes in fear following the deception manipulation in which the audience norms were manipulated. The participant and three male confederates then watched the female view the sexually explicit film clip via an ostensible webcam. The female’s face remained neutral throughout the duration of the film. Once the video was either stopped by the participant or ended, the experimenter asked all participants to return to their rooms.

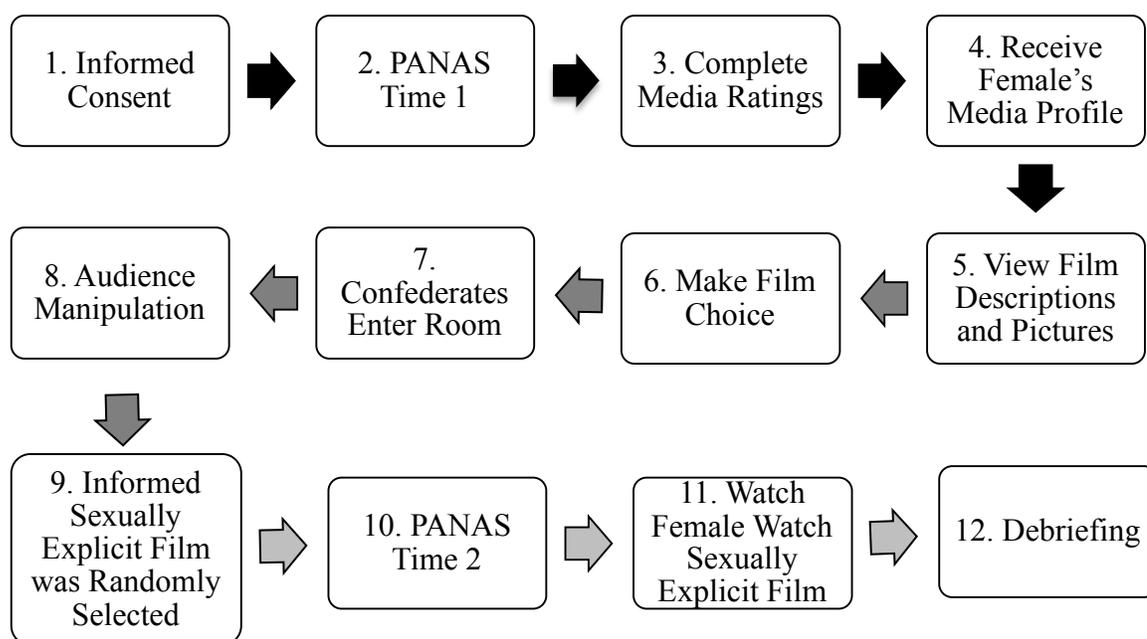


Figure 2. Procedure for Session 2.

2.6 Debriefing

In order for the sexual aggression and bystander behavior data to be valid, it was important that participants did not believe the study was examining sexual aggression or bystander behavior. Furthermore, it was important for participants to believe all confederates were actually participants and not a part of the deception manipulation. The success of the deception manipulations was confirmed by asking participants to discuss verbally whether or not they thought the task was a good measure of people's beliefs about themes in the media. Participants were also asked to describe their overall impression of the male and female confederates during the task.

During the debriefing, participants were told that the true purpose of the study was to examine whether or not they stopped the film. They were also informed that all other participants

in the study were actually confederates and the discussion they had with other males regarding the video choice was scripted in order to examine how the presence of other men influence their decision when and if to stop the film. The experimenter then addressed any comments or concerns. Participants were thanked for their time and compensated

3 DATA REDUCTION

3.1 Need to Belong Scale

This variable was derived from the total score on the NBS.

3.2 Masculine Gender Role Stress

This variable was derived from the total score on the MGRSS.

3.3 Changes in Fear

Changes in fear were computed for both administrations (i.e., before the laboratory analogue, after audience manipulation) of the *fear* subscale on the PANAS-X. Changes in fear were computed by subtracting the total score before the laboratory analogue from the total score after the audience manipulation, such that higher scores reflect a greater increase in *fear*.

3.4 Bystander Intervention Behavior

Bystander behavior was assessed during the Laboratory Analogue of Bystander Behavior for Sexual Aggression. A continuous variable was created using the time in seconds it took participants to stop the video. In order to allow to the proper analysis of count data (see *Analytic Strategy* below), these data were reverse coded such that a score of zero indicated no bystander intervention behavior and higher scores indicated faster intervention.

4 RESULTS

4.1 Deception Manipulation Check

To verify deception, the experimenter asked participants to discuss verbally whether or not they thought the task was a good measure of people's beliefs about themes in the media. Participants were also asked to describe their overall impression of the male and female confederates during the task. The main criteria for exclusion were participants' beliefs that the other participants were confederates and that the task was a measure of bystander intervention for sexual aggression. Eight participants endorsed the belief that the other participants were confederates and were removed from analyses. Finally, none of the participants indicated becoming aware of the study's aims following completion of their questionnaires in Session 1.

4.2 Data Preparation

4.2.1 *Selection of participants*

In the present study, bystander behavior is most clearly assessed among men who behaviorally designate themselves as bystanders outside of the group context. Put another way, bystander behavior is most clearly assessed among men who do not voluntarily enter into a sexually aggressive interaction prior to exposure to any group influence. This subgroup of men is operationally defined by their selection of the nonsexually explicit film clip during the individual choice. Thus, in the present study, only participants who selected the nonsexually explicit film as their individual choice were included in analyses. Of the 143 participants who completed Session 2, 29 participants (~20%) selected the sexually explicit film to show to the female confederate and were thus removed from subsequent analyses. Additionally, four participants had technical difficulties and eight participants were not deceived (see deception

manipulation check above). Removal of these participants from subsequent analyses resulted in a final sample of 104 participants.

4.2.2 Preliminary analyses

Descriptive statistics and bivariate correlations for pertinent study variables were computed for the experimental sample and are displayed in Table 2. A significant association was detected between audience condition and bystander intervention time. This correlation indicated that men in the non-misogynistic condition intervened slower than men in the misogynistic condition. Random group assignment was expected to produce an equal distribution of pertinent demographic and dispositional variables across experimental groups. To confirm this assumption, a series of one-way ANOVAs were conducted with pertinent demographic characteristics (e.g., age, years of education, yearly income) and study variables (i.e., MGRS, NBS) across groups. Additionally, a series of chi-square analyses were conducted to test the relationship between categorical demographic variables (i.e., race, marital status) and the experimental groups. No significant group differences were detected.

4.2.3 Changes in fear

A 2 (Audience Manipulation) x 2 (Time) mixed model ANOVA with time as the repeated measure and fear as the dependent variable was conducted. No significant main effects or interaction were detected. Thus, results failed to detect a significant change in fear from Time 1 ($M_{\text{per item}} = 1.44$, $SD = .57$) to Time 2 ($M_{\text{per item}} = 1.46$, $SD = .60$; $F(1, 103) = .06$, $p = .815$). Despite this null effect, hypotheses were tested using the change in fear variable.

Table 2. Descriptive Statistics and Intercorrelations

Variable	Descriptives			Correlations				
	<i>M</i>	<i>SD</i>	range	1.	2.	3.	4.	5.
1. Need to Belong	30.51	7.64	10-50	—	-0.07	0.16	0.16	0.03
2. Audience Condition	—	—	—	—	—	-0.02	-0.14	-.26*
3. Change in Fear	0.08	3.21	0-29	—	—	—	0.09	-0.04
4. MGRS	90.31	94.82	0-200	—	—	—	—	-0.03
5. Intervention Time	33.77	66.24	0-240	—	—	—	—	—

Note. $n = 104$; Audience Condition 0 = non-misogynistic, 1 = misogynistic; MGRS = Masculine Gender Role Stress; * $p < .01$.

4.3 Analytic Strategy

In the current study, bystander intervention was operationalized as the time (in seconds) it took participants to stop the sexually explicit video being shown to the female. In order to allow for the proper analysis of count data (see below), these data were reverse coded such that a score of zero indicated no bystander intervention behavior and higher scores indicated faster intervention ($M = 33.77$, $SD = 66.24$). Preliminary data analyses revealed these data were significantly skewed (skewness = 1.76, $SE = .24$, $p < .001$; kurtosis = 1.64, $SE = .47$, $p > .001$). Root square transformations did not correct this problem (skewness = 1.42, $SE = .24$, $p < .001$; kurtosis = .26, $SE = .47$, $p < .005$). Additionally, the data exhibited a large number of zeros (i.e., no intervention, see Figure 3).

Given the significant skewness of bystander intervention time and the preponderance of zero scores, the use of linear models was deemed inappropriate. Typically, Poisson regression is used to analyze non-normally distributed data; however, the present data violated the major

assumptions on which the Poisson model is based. Specifically, the equidispersion criterion was not satisfied, in that the data were overdispersed because the conditional variance of the dependent variable (i.e., seconds of video expired before intervention) exceeded the conditional mean of the dependent variable (Misogynistic Audience: $\text{var}(X) = 2001.17$, $M = 16.24$; Non-Misogynistic Audience: $\text{var}(X) = 6118.68$, $M = 50.00$). One way to deal with overdispersion is to model data using a negative binomial model, which has an extra dispersion parameter that allows more flexibility and more accurate modeling of zeroes (Land, McCall, & Nagin, 1996; Loeys, Moerkerke, Smet, & Buysse, 2012). However, because the current data has a preponderance of zeros (i.e., participants who did not intervene), the extra dispersion parameter estimated within the negative binomial regression may not fully account for variability among individuals (Swartout, Thompson, Koss, & Nu, In Press).

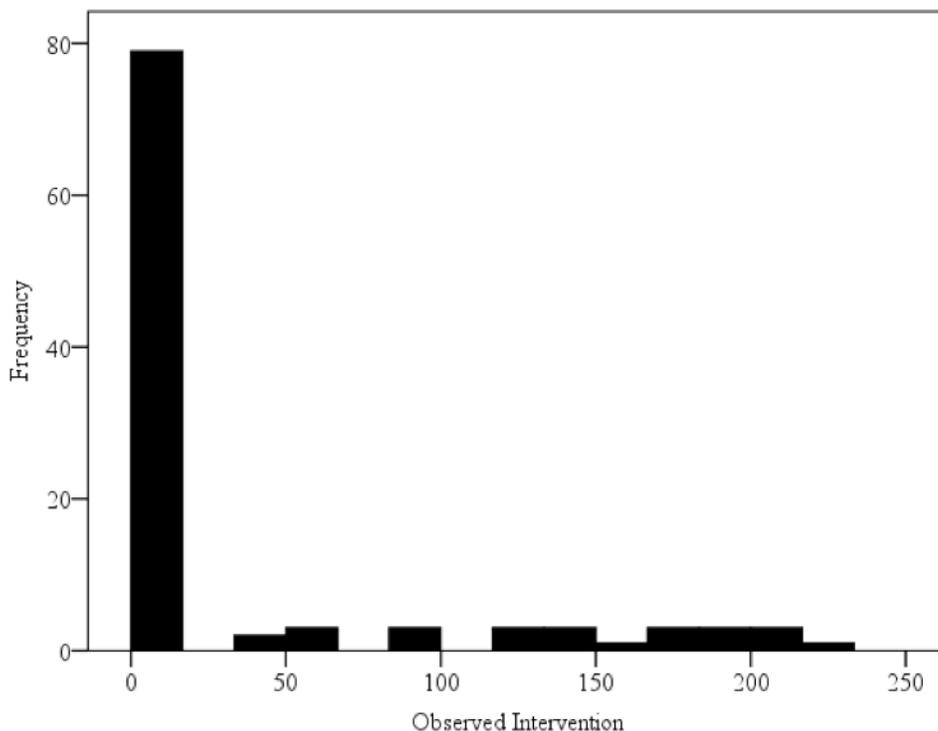


Figure 3. Distribution of Observed Bystander Intervention. Note: Scores of zero indicate participants in not intervene. High scores indicate quicker intervention times.

In order to overcome the aforementioned limitations, a zero-inflated negative binomial (ZINB) model was computed. ZINB models account for excessive zeros and assume that data come from two distinct populations; in this case, men that might intervene and men that might not intervene. ZINB models yield binary logistic and count regressions that are estimated simultaneously. The binary logistic model discriminates individuals who may intervene in SA from those who may not intervene in SA (i.e., true zero group). In essence, this model answers the question: What factors influence the odds of being classified in a group of individuals who may not intervene versus a group of individuals who may intervene? The count model uses data from participants not classified in the true-zero group; thus, it only uses data from participants who may intervene in SA based on the logistic portion of the model (Atkins & Gallop, 2007). This model assesses variables that predict rate of intervention and in essence, answers the question: What factors influence the rate of intervention among individuals classified in the group that may intervene?

Data were modeled using *Mplus* v. 7.3 (Muthén & Muthén, 1998-2010). Prior to analyses, audience condition was dummy coded (misogynistic audience = 1, non-misogynistic audience = 0). Standardized scores are reported for all predictor variables ($M = 0$, $SD = 1$). Need to belong was entered as a covariate in all models. All models used maximum likelihood estimation with robust standard errors and corrected model statistics (MLR). In order to interpret the relationship between the predictors and outcome, all coefficients are exponentiated and interpreted in terms of incidence rate ratio (IRR) for the count models (i.e., negative binomial portion) and odds ratio (OR) for the logistic models. Unlike traditional modeling, these approaches do not use fit statistics. However, the fit of multiple models may be compared using the Akaike Information Criterion (AIC) which is calculated as $(-2 * \mathcal{L}) + 2 * p$, where \mathcal{L} indicates

the model loglikelihood value and p indicates the number of model estimated parameters, with lower scores indicating a better fitting model. All hypotheses in which bystander intervention is the outcome variable were first tested using zero-inflated negative binomial regression models. Models with significant results, as well as the final hypothesized model, were then modeled using negative binomial regression and model fit is compared. Models in which changes in fear (which was normally distributed) was the outcome variable were tested using traditional OLS regression and were modeled in *MPlus*. In general, a well-fitting model is indicated by a nonsignificant chi-square test statistic ($p > .05$), root mean square error of approximation (*RMSEA*) below .05, and a standardized root-mean-square residual (*SRMR*) below .08 (Kline, 2010).

In accordance with Muller, Judd, and Yzerbyt (2005), the hypothesized moderated mediation model was tested by computing five separate regression models (Table 2). Hypothesis 1 posited that bystander intervention reaction times would be longer among men in the misogynistic condition, relative to the non-misogynistic condition. To test this hypothesis, two separate zero-inflated negative binomial regression models were conducted (i.e., Model 1a, Model 1b). In Model 1a, the criterion variable (i.e., bystander behavior) was regressed on the predictor (i.e., audience condition). In Model 1b, the criterion variable (i.e., bystander behavior) was regressed on the predictor (i.e., audience condition), the moderator (i.e., masculine gender role stress), and their interaction. Significant interactions were then explicated using the procedures outlined by Aiken and West (Aiken & West, 1991).

Hypothesis 2 posited the relationship between condition and changes in fear would be moderated by MRGS. Specifically, exposure to the misogynistic, relative to the non-misogynistic, audience condition would be associated with increased levels of fear among high,

but not low, MGRS men. To test this Hypothesis, a path analysis was conducted to examine the moderating role of MGRS on the relation between audience condition and changes in fear. In Model 2, the mediating variable (i.e., changes in fear) was regressed on audience condition, masculine gender role stress, and their interaction. Residual variances were fixed to one for both audience condition and MGRS.

Hypothesis 3 posited changes in fear would be associated with bystander behavior. Specifically, greater increases in fear would be associated with longer bystander intervention reaction times. To test this hypothesis, two separate zero-inflated negative binomial regression models were computed (i.e., Model 3a, Model 3b). In Model 3a, bystander behavior was regressed on changes in fear. In Model 3b, bystander behavior was regressed on changes in fear, audience condition, masculine gender role stress, the Audience Condition X Masculine Gender Role Stress interaction term, and the Changes in Fear X Masculine Gender Role Stress interaction term. In order to demonstrate moderated mediation, the effect of audience condition must be significant (Model 1b), while the effect of Audience Condition X Masculine Gender Role Stress interaction term must not be significant (Model 1b). In addition, effects of the Audience Condition X Masculine Gender Role Stress interaction term (Model 2) and changes in fear (Model 3b) must be significant.

Hypothesis 4 posited that the effect of condition on bystander behavior would be mediated by changes in affect and that this indirect effect would be greater among men high in MGRS relative to men low in MGRS. To test this hypothesis, a zero-inflated negative binomial regression model and a negative binomial regression model were computed and model fit was compared. In addition to simultaneously estimating the effects described in Models 2 and 3b, the

indirect effect of fear and the Audience Condition X Masculine Gender Roles Stress interaction on bystander behavior was modeled.

Table 3 Regression Models for Variables Predicting Bystander Intervention Behavior

Model 1a	Model 1b	Model 2	Model 3a	Model 3b
DV: Bystander Behavior	DV: Bystander Behavior	DV: Changes in Fear	DV: Bystander Behavior	DV: Bystander Behavior
<i>Audience Condition</i> *	<i>Audience Condition</i> *	Audience Condition	<i>Changes in Fear</i> *	<i>Changes in Fear</i> *
	MGRS	MGRS		Audience Condition
	Audience Condition X MGRS	<i>Audience Condition X MGRS</i> *		MGRS
				Audience Condition X MGRS
				Changes in Fear X MGRS

Note: * indicates variables that must be significant to demonstrate moderated mediation

4.4 Regression Analyses

4.4.1 Effects of audience condition on bystander intervention behavior (Model 1a)

A ZINB was conducted with 7 parameters (see Table 4). In line with Hypothesis 1a, the logistic portion of the ZINB model suggested audience condition predicted membership in the true-zero group ($OR = 3.30, p = .016$). Stated alternatively, on average, being in the misogynistic audience condition decreased men's odds of intervening by 70%. The negative binomial portion of the model suggested Audience Condition did not significantly predict intervention time ($IRR = 1.26, p = .199$). A negative binomial regression ($AIC = 473.61$) was conducted to compare model fit. Results revealed the ZINB model fit the data better as evidenced by a lower AIC value ($AIC = 415.21$).

Table 4. Zero-Inflated Negative Binomial Model for the Effects of Audience Condition on Bystander Intervention Behavior

	<i>Predicting intervention time</i>				<i>Predicting membership in the true zero group</i>			
	<i>B</i>	<i>SE</i>	<i>Z</i> Statistic	<i>IRR</i>	<i>B</i>	<i>SE</i>	<i>Z</i> Statistic	<i>OR</i>
Need to Belong	-.05	.09	-.54	.95	-.07	.21	-.33	.93
Audience	-.23	.18	-1.29	.79	1.20	.50	2.42*	3.30

Note. Audience Condition 0 = non-misogynistic, 1 = misogynistic. * $p < .01$.

4.4.2 Effects of audience condition, MGRS, and Audience Condition X MGRS on bystander intervention behavior (Model 1b)

A ZINB model was conducted with 11 parameters (see Table 5). In line with Hypothesis 1b, the logistic portion of the model indicated that audience condition predicted membership in the true-zero group ($OR = .28, p = .012$), indicating that being in the misogynistic audience condition decreased men's odds of intervening by 72%. The count portion of the model revealed a significant conditional main effect of MGRS ($IRR = 1.43, p < .001$) on intervention time. Contrary to Hypothesis 1b, a significant Audience Condition X MGRS interaction ($IRR = .72, p = .002$) was detected. Prior to probing the interaction, a negative binomial regression ($AIC = 476.88$) was conducted to compare model fit of the omnibus model. Results revealed the ZINB model fit the data better as evidenced by a lower AIC value ($AIC = 419.23$). Examination of simple slopes revealed that the relation between MGRS and intervention time was significant and positive among men in the non-misogynistic condition ($IRR = 1.43, p < .001$) and non-significant among men in the misogynistic condition ($IRR = 1.04, p = .570$). In other words, a one-unit increase in MGRS generally corresponded with intervention that came 39% faster for men in the non-misogynistic condition compared with men in the misogynistic condition (See *Figure 4*). Thus, among men who are predicted to intervene based on the logistic model, those

who experience higher levels of MGRS intervened faster in the non-misogynistic, but not misogynistic, condition.

Table 5. Zero-Inflated Negative Binomial Model for the Effects of Audience Condition, MGRS, and Audience Condition X MGRS on Bystander Intervention Behavior

	<i>Predicting intervention time</i>				<i>Predicting membership in the true zero group</i>			
	<i>B</i>	<i>SE</i>	<i>Z Statistic</i>	<i>IRR</i>	<i>B</i>	<i>SE</i>	<i>Z Statistic</i>	<i>OR</i>
Need to Belong	-.09	.10	-.90	.92	-.13	.22	-.57	.88
Audience	-1.84	.08	-1.41	.16	-1.28	.51	-2.50*	.10
MGRS	.04	.07	.57*	1.43	.33	.38	.59	.80
Audience X MGRS	-.32	.10	3.14*	.72	-.12	.49	0.28	.89

Note. MGRS = Masculine Gender Role Stress; Audience Condition 0 = non-misogynistic, 1 = misogynistic; * $p < .01$.

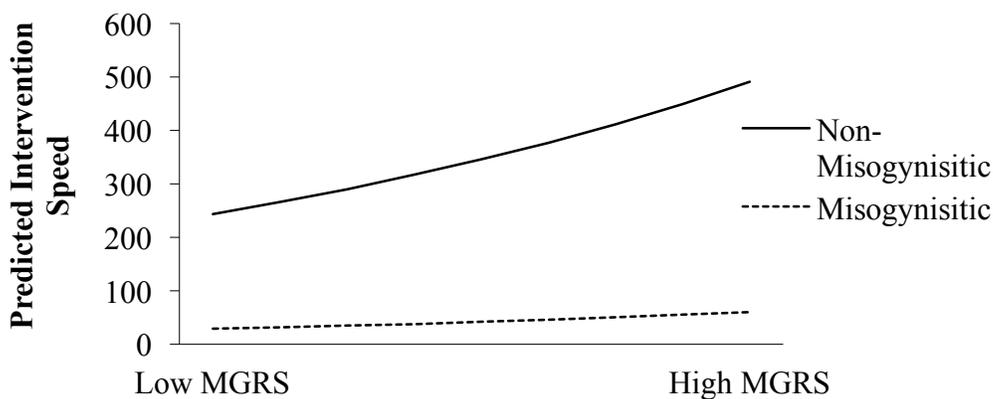


Figure 4. Moderating effects of audience condition on the relation between masculine gender role stress and rate of intervention among men predicted to intervene.

Note: MGRS = masculine gender role stress. Higher intervention scores indicate quicker intervention; zero indicates no intervention.

4.4.3 Effects of audience condition and MGRS on fear (Model 2)

This model fit the data well ($\chi^2 = 3.16$, $df = 2$, $p = .206$; $RMSEA = .075$; $SRMR = .038$).

The effects of audience condition ($\beta = -.06$, $p = .975$), MGRS ($\beta = .23$, $p = .700$), and the Audience Condition X MGRS interaction ($\beta = .001$, $p = .970$) on fear were not significant.

4.4.4 Effects of fear on bystander intervention behavior (Model 3a)

A ZINB model was conducted with 7 parameters. The logistic portion of the ZINB model did not support fear as a predictor of membership in the true-zero group ($OR = .87$, $p = .582$).

The negative binomial portion of the model suggested the effect of fear was not significant ($IRR = .88$, $p = .141$).

4.4.5 Effects of audience condition, MGRS, and fear on bystander intervention behavior (Model 3b)

A ZINB model was conducted with 15 parameters. The logistic portion of the ZINB model failed to detect significant predictors for membership in the true-zero group. The negative binomial portion of the model suggested the conditional effect of audience condition ($IRR = .36$, $p = .009$) and the Audience Condition X MGRS interaction ($IRR = 3.82$, $p = .044$) remained significant. However, the effects of MGRS ($IRR = 1.06$, $p = .542$), fear ($IRR = .78$, $p = .107$), and the Fear X MGRS interaction ($IRR = 1.36$, $p = .590$) on bystander behavior were not significant.

4.4.6 Final moderated mediation model

A ZINB model was conducted with 21 parameters (see Table 6). The logistic portion of the ZINB model failed to detect significant predictors of membership in the true-zero group. The negative binomial portion of the model suggested the effects of audience condition ($IRR = .98$, $p = .975$), MGRS ($IRR = 1.08$, $p = .700$), and the Audience Condition X MGRS interaction ($IRR =$

1.00, $p = .970$) on fear were not significant. The conditional effect of audience condition ($IRR = .36, p = .009$) and the Audience Condition X MGRS interaction ($IRR = 1.01, p = .018$) remained significant. However, the effects of MGRS ($IRR = 1.06, p = .542$), fear ($IRR = .79, p = .107$), and the Fear X MGRS interaction ($IRR = 1.00, p = .574$) on bystander behavior were not significant. There were no significant indirect effects ($p = .970$). A negative binomial regression ($AIC = 781.97$) was conducted to compare model fit. Results revealed the ZINB model fit the data better as evidenced by a lower AIC value ($AIC = 723.72$).

Table 6. Zero-Inflated Negative Binomial for Final Moderated Mediation Model

<i>Predicting changes in fear</i>								
	<i>B</i>	<i>SE</i>	<i>Z</i> Statistic	<i>IRR</i>				
Need to Belong	.13	.13	1.01	1.14				
Audience	-.02	.29	-.03	.98				
MGRS	.07	.19	.39	1.08				
Audience X MGRS	.00	.01	.04	1.00				
<i>Predicting intervention time</i>				<i>Predicting membership in the true zero group</i>				
	<i>B</i>	<i>SE</i>	<i>Z</i> Statistic	<i>IRR</i>	<i>B</i>	<i>SE</i>	<i>Z</i> Statistic	<i>OR</i>
Need to Belong	-.13	.10	-1.21	.88	-.11	.23	-.48	.89
Audience	-1.01	.39	-2.62**	.36	.99	1.37	.72	2.70
MGRS	.06	.01	.61	1.06	.14	.33	.42	1.15
Audience X MGRS	.01	.004	2.37*	1.01	.004	.05	.23	1.00
Fear	-.24	.15	-1.61	.79	-.05	.70	-.06	.96
Fear X MGRS	.00	.001	.56	1.00	.00	.002	-.19	1.00

Note. MGRS = Masculine Gender Role Stress; Audience Condition 0 = non-misogynistic, 1 = misogynistic; * $p < .05$; ** $p < .01$

5 DISCUSSION

Bystander intervention programming is one promising prevention strategy for reducing sexual aggression among college students (DeGue et al., 2014). While these programs are founded on an extensive social psychological literature spanning 45 years (for a review, see

Fischer et al., 2011), there is little empirical evidence supporting the extension of these findings to SA. Moreover, with few exceptions (e.g., Coker et al., 2011; Parrott et al., 2012; Kleinsasser, Jouriles, McDonald, & Rosenfield, In Press), research has primarily examined individual-level correlates of *bystander intentions* (e.g., bystander efficacy) for intervening in SA, rather than *actual bystander intervention behavior*. Further, a recent meta-analysis suggests bystander intervention programs have a stronger impact on attitudes and behavioral intentions than *actual bystander behavior* (Katz & Moore, 2013). As such, there is a clear need for empirical research to identify predictors of actual bystander intervention behavior to better inform bystander intervention programming. Moreover, while early research that examined the bystander effect mainly focused on situational factors that inhibited intervention (e.g., Latané & Darley, 1969), little research has examined how certain situational factors influence bystander behaviors specific to SA. As such, the aim of the present study was to examine how both situational factors in which SA occurs and individual-level factors influence actual bystander behavior. Specifically, the present study examined: (1) the extent to which the presence of misogynistic peers – termed a misogynistic audience – relative to non-misogynistic peers, obstructs bystander behavior among men, and (2) how men’s tendency to appraise as stressful situations that conflict with traditional male gender norms (i.e., MGRS) influences changes in state fear following an audience manipulation to influence bystander intervention behavior.

Given the low base rates of bystander intervention, the prediction of actual bystander behavior requires analytic approaches that can handle non-linear distributions. The present study was the first to utilize such an approach to analyze bystander behavior. Specifically, zero-inflated models were computed to examine predictors of bystander intervention. The logistic model of this analysis assumes data come from two distinct populations: (1) men who may

intervene to prevent SA and (2) men that may not. Simultaneously, a binomial model uses data from participants classified as men who may intervene in SA and examines predictors of intervention speed. Collectively, these analyses were able to determine (1) which factors influence the odds of being classified in a group of individuals who may not intervene versus a group of individuals who may intervene, and (2) which factors influence the rate of intervention among individuals classified in the group that may intervene.

In line with these goals, the present study advanced four hypotheses. First, it was hypothesized men in the misogynistic condition would be less likely to intervene compared to those in the non-misogynistic condition. Additionally, among individuals that may intervene, individuals in the misogynistic condition would take longer to intervene compared to those in the non-misogynistic condition. Second, it was hypothesized that exposure to the misogynistic, relative to the non-misogynistic, audience condition would be associated with increased levels of fear among high, but not low, MGRS men. Third, it was hypothesized that increases in fear would be associated with a lower likelihood to intervene and longer intervention times. Fourth, it was hypothesized that the effect of condition on bystander intervention would be mediated by changes in fear, and this indirect effect would be stronger among men high in MGRS relative to men low in MGRS.

Although hypotheses were largely not supported, some significant findings emerged. Overall, findings indicated (1) the presence of misogynistic peers increased the odds of not intervening in SA (*Hypothesis 1*), and (2) higher levels of masculine gender role stress significantly increased the rate of bystander behavior among non-misogynistic, but not misogynistic, peers; finally, men among non-misogynistic peers who were low in MGRS intervened the slowest. Hypotheses 2, 3, and 4 were not supported.

Classic bystander research demonstrated that the audience present when witnessing an event may influence bystander intervention (Latané & Darley, 1968; Latané & Darley, 1970). In line with this work, the present results demonstrate that the presence of misogynistic peers decreases the likelihood of intervening by 70%. This is not surprising given sociological theory and research suggesting college men are expected to behave in sexist ways and disrespect women in order to be positively evaluated by other men (Kimmel, 2008). Further, in the collegiate male culture, social norms call for men to “remain silent” about their own feelings regarding sexism or sexually aggressive behavior, despite their own discomfort with other men’s behavior (Berkowitz, 2002; Kimmel, 2008). Additionally, social norms theory suggests an individual’s behavior is influenced by inaccurate perceptions of how other individuals think and act (Perkins & Berkowitz, 1986). Indeed, men’s perceptions of what they believe other men, but not women, will do when witnessing SA predicts their own willingness to intervene in SA (Fabiano et al., 2003). Consistent with this work, men in the current study individually decided not to expose a female to an unwanted sexual experience. However, when in the presence of other men who endorse SA, they were more likely to “remain silent,” and not intervene.

The overarching hypothesized moderated mediation model posited that the effect of condition on bystander intervention would be mediated by changes in affect, and this indirect effect will be greater among men high in MGRS relative to men low in MGRS. In accordance with Muller, Judd, and Yzerbyt’s (2005) method for testing moderated mediation, it was expected the interactive effects of audience condition and MGRS would not predict bystander intervention. Contrary to the hypothesized moderated mediation model, results demonstrated that among men who were predicted to intervene based on the logistic model, those participants who were exposed to misogynistic peers intervened at the same rate regardless of their level of

MGRS and slower than participants who were exposed to non-misogynistic peers. In other words, among men who are likely interveners and exposed to misogynistic peers, MGRS does not influence speed of intervention. It may be that for these men, being in the presence of men who appear to condone sexual violence is enough to inhibit intervention regardless of any gender role stress men may, or may not, experience.

On the other hand, results demonstrated that higher levels of masculine gender role stress significantly increased the rate of bystander behavior among non-misogynistic, but not misogynistic, peers. Although somewhat perplexing and unexpected, this finding demonstrates how men's appraisal of stress when trying to conform to masculinity may encourage men, *who would likely intervene in SA events*, to intervene faster when among peers who appear discourage SA behavior. It may be that when men are in the presence of non-misogynistic peers, intervening in SA may be viewed as a heroic or chivalrous act with the potential to be rewarded. Indeed, traditional male gender norms encourage heroic bystander behavior (Eagly & Steffen, 1986). Although theory and research indicates intervening in SA may be the opposite of heroic (Carlson, 2008, Fabiano et al., 2003), this may only be true in certain social environments. Perhaps in environments in which intervention is viewed as a prosocial behavior and in line with perceived expectations of masculine behavior, men who feel stress about conforming to masculinity may feel more empowered to intervene and a greater sense of urgency to intervene "heroically." Indeed, recent research suggests high MGRS may promote bystander behavior among men who adhere to the masculine norm that men should obtain social status (Leone, Parrott, Swartout, & Tharp, In Press). Conversely, men who do not experience stress associated with gender conformity may not feel pressure to "act manly," and thus may feel less pressure to

intervene. It may be that these men are inhibited from bystander behavior at an earlier stage of the decision making model (e.g., taking responsibility).

Results did not support the hypotheses that (1) the relation between audience condition and changes in fear will be moderated by MGRS, (2) changes in fear will be associated with bystander intervention, and (3) the effect of condition on bystander behavior would be mediated by changes in affect and that this indirect effect would be greater among men high in MGRS relative to men low in MGRS. This is not surprising given preliminary analyses that demonstrated participants' self-reported fear did not significantly change following the audience manipulation. Although prior research indicates men report fear of being perceived as unmanly if they intervene in sexual violence (Burn, 2009; Carlson, 2008), the self-report measure of fear used in the present study may not have been able to capture this for several reasons. For instance, this measure of fear may have been too broad or, put another way, not sensitive to changes in the acute experience of fear in response to a gender-relevant situation. Further, some men are socialized to be "fearless" (e.g., Goodey, 1997). As such, men may lack insight into their feelings of fear or they may be hesitant to report these feelings. Additionally, it may be that the audience manipulation did not provoke feelings of fear in men, but rather anxiety. Although these emotions are overlapping states centering on a threatening stimuli, fear is often elicited by a definite threatening stimulus whereas anxiety is often in anticipation of a threatening, unknown stimulus (for a review, see Öhman, 2008). It may be that men experience anxiety, rather than fear, when faced with a SA in the presence of misogynistic men because they are unsure of the social repercussion of intervention behavior (e.g., being viewed as "unmanly"). More research is needed to determine if and how affective states differentially influence bystander intervention in various social environments.

5.1 Limitations

Several limitations of the present study merit discussion. First, the definition of bystander intervention behavior in the present study was limited to one social situation. Men witnessed an unwanted sexual experience with an exclusively male audience. Certainly this may mirror some real-life contexts; however, there exists myriad social situations in which SA may occur. For example, it remains unclear how misogynistic peers may influence bystander intervention behavior if females or non-misogynistic peers are also present. Additionally, in both experimental conditions, no one in the audience “spoke up” to encourage intervention. It may be that having another individual present that expresses distress about another man’s behavior may promote intervention behavior. Moreover, both the bystanders and victim of SA were strangers. Although individuals report that they are more likely to help friends than strangers (Bennett, Banyard, & Garnhart, 2014; Katz, Paziienza, Olin, & Rich, In Press), it remains unclear how bystanders, particularly men, may react in situations involving friends, strangers, or acquaintances when in various environmental contexts (e.g., in the presence of misogynistic peers). Further research should seek to examine these differences.

Second, the present study did not assess intervention behavior when men were alone. It is well-established that individuals are less likely to intervene if others are present than when they witness an event alone. Thus, it is expected that men would be more likely to intervene alone than when in the presence of other men, regardless of the social environment. However, it remains unclear if among men who may intervene, intervention time would vary based on whether they were alone or among other men. Next, the present study consisted of only college students all of who were taking introductory psychology courses at an urban university in metro-Atlanta. As such, results may not be generalizable to all colleges or the general population.

Moreover, it is noted that the sample consisted of a large portion of African American and Asian students and is not representative of all college populations. Finally, the present study only assessed for one type of bystander behavior. It is important to note that when witnessing SA, bystanders may react in a variety of ways. For example, individuals may intervene indirectly (e.g., asking a friend for help) or directly (e.g., asking a female if she needs help). Additionally, instead of intervening, individuals may also encourage the perpetrators behavior or join in on the assault (e.g., Graham et al., 2013). More research is needed to elucidate if and how different bystander behaviors vary as a function of different social environments.

5.2 Clinical and Research Implications

The present study is one of the first attempts to examine the effects of audience inhibition—specifically the presence of a misogynistic audience—and individual level-factors on bystander intervention behavior for sexual aggression. A novel paradigm was used to examine actual bystander behavior, rather than proxies of bystander behavior (e.g., bystander intentions). Collectively, results highlight the importance of examining environmental contexts in which SA may occur in order to better understand factors that may inhibit or encourage bystander intervention. Many bystander intervention programs teach individuals how to recognize risk factors for SA and ways in which they may intervene. However, the present results highlight the importance of teaching men how to intervene in specific environment contexts (i.e., in the presence of misogynistic peers). It is clear that there is social pressure, particularly surrounding the notion of masculine behavior, which inhibits intervention. Programming efforts should continue to address the social pressure men may experience to remain silent and not intervene.

Second, findings highlight the importance of gender-specific barriers to intervention. While bystander intervention programs prepare both men and women how to become active

bystanders when witnessing SA, many programs target men individually given the unique barriers to intervention men face (e.g., Katz, 1995). As such, these data indicate that it is important for programming efforts to discuss the role of masculinity in bystander intervention behavior, especially in contexts in which masculine norms promote the devaluation of women. Programming efforts should encourage men to intervene in these contexts and provide them to skills to intervene in do so. Additionally, social norms that encourage sexually aggressive behavior should continue to be targeted.

The present study is the first to utilize count-based analytic methods to accurately estimate the effects of situational and individual level factors on bystander intervention behavior. This type of modeling was utilized given the low rates of bystander intervention, which is consistent with prior empirical research examining the bystander effect. Researchers have recently called for the use of these analytic methods when examining the effects of risk and protective factors of frequency of sexual aggression data (Swartout et al., 2014). The present study demonstrates the value in extending these methods to bystander intervention research.

5.3 Concluding Summary

Although bystander intervention programs have been identified as a promising prevention strategy for SA prevention (DeGue et al., 2014), a recent meta-analysis suggests bystander intervention programs have a stronger impact on attitudes and behavioral intentions than *actual bystander behavior* (Katz & Moore, 2013). As such, there is a clear need for empirical research to identify predictors of actual bystander intervention behavior to better inform bystander intervention programming. The present study is one of the first attempts to address both the situational and individual level-factors that may influence bystander intervention behavior specific to SA. Results highlight the inhibiting effect of misogynistic peers on bystander

intervention behavior for SA. Additionally, findings demonstrate how MGRS may differentially influence the rate of intervention among individuals predicted to intervene. Although this present study adds to the current literature on bystander intervention behavior for SA, it also calls attention to the need for more research to examine situational and individual-level predictors that predict *actual bystander intervention behavior*, rather than just bystander intentions.

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APPENDIX

Appendix A

Confederate Scripts

Misogynistic Audience

Three male confederates enter participants' individual testing room. A few moments after they are seated, the female confederate "accidentally" enters the doorway of the testing room and remain standing. She will not physically enter the room.

Confederate 2: Do you guys know how long this is supposed to last?

Confederate 1: I think an hour.

Female confederate opens the door.

Female Confederate: Am I supposed to be in here? Do y'all know?

Lead Confederate: No, I think you were supposed to stay in your room.

Female Confederate: Oops, sorry!

(Female confederate leaves the doorway and closes the door)

Lead Confederate: Man, I'd hit that.

Confederate 1: Hell yeah.

Confederate 2: (laughs) Yeah, she was hot!

Lead Confederate: I'm glad I picked sex clip to show her, I bet she's gonna enjoy that one.

Confederate 2: Me too. I can't wait to see her face.

Confederate 1: Yeah, I picked the sex one too.

Non-misogynistic Audience Condition

Three male confederates enter participants' individual testing room. A few moments after they are seated, the female confederate "accidentally" enters the doorway of the testing room and remain standing. She will not physically enter the room.

Confederate 2: Do you guys know how long this is supposed to last?

Confederate 1: I think an hour.

Female confederate opens the door.

Female Confederate: Am I supposed to be in here? Do y'all know?

Lead Confederate: No, I think you were supposed to stay in your room.

Female Confederate: Oops, sorry!

(Female confederate leaves the room and closes the door)

Lead Confederate: Man, that girl looks just like my roommate's sister.

Confederate 1: Oh yeah?

Confederate 2: (laughs) Are you sure it isn't your roommate's sister?

Lead Confederate: No no, she goes to some culinary institute. If she's anything like my roommates sister she'll like the food clip I picked to show her.

Confederate 2: Yeah, I picked that one too. She'll like that one.

Confederate 1: Oh, I didn't, I picked the sex one.