A Dangerous Boomerang: Injunctive Norms, Hostile Sexist Attitudes, and Male-to-Female Sexual Aggression

Jennifer K. Bosson1*, Dominic J. Parrott2, Suzanne C. Swan3, Sophie L. Kuchynka1, and Andrew T. Schramm4

1Department of Psychology, University of South Florida, Tampa, Florida
2Department of Psychology, Georgia State University, Atlanta, Georgia
3Department of Psychology and Women’s & Gender Studies Program, University of South Carolina, Columbia, South Carolina
4Department of Psychology, University of South Carolina, Columbia, South Carolina

This study examined the interactive effects of injunctive norm exposure and hostile and benevolent sexist attitudes on men’s sexually aggressive responses during a behavioral analogue paradigm in which they interacted online with a bogus female partner. Heterosexual adult men (n = 201), recruited from an online sample, read fictional information regarding other men’s approval of misogynistic, paternalistic, or egalitarian treatment of women, or non-gender-relevant control information. Through a media preference survey, men then learned that their female partner disliked sexual content in films, after which they had an opportunity to send her up to 120 sec’ worth of either a sexually explicit or nonsexual film clip. Validating the online sexual aggression paradigm, men with a 1-year history of sexual assault exhibited more sexually aggressive responding during the film selection paradigm. Moreover, exposure to injunctive norm information produced a boomerang effect, such that men high in hostile sexist attitudes showed an increase in sexual aggression when confronted with paternalism and gender equality norms. Conversely, exposure to paternalism and gender equality norms suppressed the otherwise protective function of high benevolent sexism in reducing men’s sexually aggressive tendencies. The implications of these results for social norms interventions are discussed. Aggr. Behav. 9999:1–14, 2015. © 2015 Wiley Periodicals, Inc.

Keywords: sexual aggression; social norms; hostile sexism; benevolent sexism; boomerang

INTRODUCTION

Male-to-female sexual aggression is troublingly common. More than 1 in 4 women in the United States has experienced unwanted sexual contact, and unwanted sexual experiences such as indecent exposure or forced viewing of sexual photos or films are even more common (Black et al., 2011). Efforts to understand and curtail male-to-female sexual aggression focus increasingly on the role of social influence factors such as peer networks, bystander interventions, and social norms (e.g., DeKeseredy, Schwartz, & Alvi, 2000; Swartout, 2013). These social influence approaches seek to understand the situational contexts and interpersonal dynamics that give rise to sexually aggressive behavior. Inspired by such approaches, the current study was conducted with two goals in mind. First, we examine the effects of an injunctive norm intervention on men’s sexually aggressive responses using a behavioral analogue of sexual aggression. In doing so, we ask whether men respond differently to the norm intervention as a function of their hostile and benevolent sexism. Second, we seek to validate the analogue behavioral sexual aggression paradigm for use with an online sample.

INJUNCTIVE NORMS AND BEHAVIOR

The first goal of this study was to test the effectiveness of an injunctive norm intervention for reducing men’s sexual aggression. Injunctive norms convey information about what most people morally approve or disapprove of (Cialdini, Reno, & Kallgren, 1990) and, as such, they offer information about the likelihood that given actions will elicit social rewards or sanctions. Not surprisingly,
people often modify their behavior to be consistent with salient injunctive norms. For example, exposure to injunctive norms produced desirable behavior change in domains of littering (Reno, Cialdini, & Kallgren, 1993), energy consumption (Schultz, Nolan, Cialdini, Goldstein, & Griskevicius, 2007), alcohol use (Neighbors, Larimer, & Lewis, 2004), and risky sex (Herbst et al., 2007; Lewis et al., 2014). More germane to the current study, there is evidence that men’s sexually aggressive attitudes and behavior are shaped by their perceptions of relevant injunctive norms: college men’s perceptions of their peers’ attitudes about the acceptability of rape strongly predict their personal attitudes about violence against women (Swartout, 2013), and men’s perceptions of their peers’ support for sexual aggression against women predict their own sexually aggressive tendencies (Schwartz & DeKeseredy, 2000), particularly if they also endorse an external locus of control (Schmidt, Lisco, Parrott, & Tharp, 2014). Similarly, men report higher acceptance of rape myths and higher rape proclivity after exposure to information conveying high rather than low levels of rape myth acceptance among their peers (Bohner, Pina, Viki, & Siebler, 2010; Bohner, Siebler, & Schmelcher, 2006). Building on this work, in the current study we expose men to injunctive norm information regarding their peers’ approval of misogyny, paternalistic, and gender egalitarian treatment of women, and examine the effects of this norm exposure on their sexually aggressive responses.

**PSYCHOLOGICAL REACTANCE AND MEN’S HOSTILE AND BENEVOLENT SEXISM**

Despite the general effectiveness of injunctive norm information in eliciting conformity, norms can elicit paradoxical effects as well. According to reactance theory (Brehm, 1966), when people perceive that their freedoms are threatened they may resist such influence and assert autonomy by moving in the opposite direction to the perceived influence (referred to as a boomerang effect; Hovland, Janis, & Kelley, 1953). Evidence of this can be found in studies in which participants reported more frequent gambling and alcohol consumption to the extent that they perceived that their peers did not approve of these behaviors (Martin et al., 2010; Neighbors et al., 2007; Rimal & Real, 2003), and in which adolescents reported reduced intentions to eat fruit following information that their peers approved of fruit consumption (Stok, de Ridder, de Vet, & de Wit, 2014). Importantly, reactance effects following norm exposure appear strongest among those who are most likely to engage in the disapproved behavior (Campo & Cameron, 2006). To illustrate, interventions that sought to elicit empathy for female sexual assault victims produced iatrogenic reactance effects that were posited to be strongest in men who possessed risk factors for sexual aggression (e.g., Darnell & Cook, 2009; Stephens & George, 2009).

In the current study, we examine men’s hostile and benevolent sexist attitudes as possible moderators of their reactions to injunctive norm information regarding different types of male behavior toward women. According to ambivalent sexism theory (Glick & Fiske, 1996, 2001), gender relations across times and cultures are characterized by a combination of subjectively negative and positive attitudes and beliefs. Hostile sexism consists of antipathy toward women, particularly those who are seen as sexually promiscuous or insubordinate to men. Notions of hostile sexism include the beliefs that men should exert domineering control over women, and that women lack the traits necessary for high status roles. In contrast, benevolent sexism may appear subjectively positive, at least to the person holding benevolently sexist attitudes. Notions of benevolent sexism include the beliefs that women should be protected and adored, and that women possess desirable traits that render them suitable for domestic roles. However, benevolent sexist beliefs extend primarily to women who fit gender stereotypes, that is, women who perform their domestic duties and do not challenge men’s power. Thus, benevolent and hostile sexism are two sides of the same coin, representing the ambivalent nature of sexism.

Men’s hostile sexist attitudes in particular are a risk factor for sexual aggression against women. According to the confluence model (Malamuth, Linz, Heavey, Barnes, & Acker, 1995; Malamuth, Sockloskie, Koss, & Tanaka, 1991), male-to-female sexual aggression results from the convergence of two causal influences, *impersonal sex and hostile masculinity*. Of relevance here, the hostile masculinity path consists of (i) an insecure and hostile/distrustful orientation toward women, and (ii) satisfaction arising from controlling and dominating women. Numerous studies, including a 10-year longitudinal follow-up study, show strong support for this model (Hall, Teten, Degarmo, Sue, & Stephens, 2005; Malamuth et al., 1995; Martin, Vergeles, Acevedo, Sanchez, & Visa, 2005; Wheeler, George, & Dahl, 2002). Similarly, longitudinal and cross-sectional studies of intrapersonal risk factors establish that men’s hostile attitudes toward women predict self-reported perpetration of sexual aggression (e.g., Abbey & McAuslan, 2004; Calhoun, Bernat, Clum, & Frame, 1997; Christopher, Owens, & Stecker, 1993) and behavioral analogues of sexual aggression in the laboratory (Parrott et al., 2012). Importantly, men’s hostile attitudes toward women remain a strong predictor of sexual aggression after controlling for more specific attitudinal risk factors (e.g., rape myth acceptance, sexist perceptions, attitudes condoning violence: Forbes, Adams-Curtis, & White, 2004).
Based on these findings, we expect men’s hostile sexism to moderate their responses to injunctive norms. Whereas men lower in hostile sexism should conform to norms and behave in a less sexually aggressive manner when exposed to information that their peers approve of paternalistic (protective) and egalitarian treatment of women, those higher in hostile sexism may instead display a boomerang effect and heighten their sexually aggressive behavior in response to such information.

Conversely, men’s benevolent sexist attitudes may be less likely to moderate their responses to injunctive norms, at least in terms of producing a boomerang effect. Although benevolent sexism is by no means benign in its effects, it is generally uncorrelated with male-to-female sexual aggression (Abrams, Viki, Masser, & Bohner, 2003) and sexual harassment (Begany & Milburn, 2002), and it correlates negatively with self-reported perpetration of domestic violence (Allen, Swan, & Raghavan, 2009). Further, exposure to benevolent versus hostile sexism norms reduces men’s approval of male-to-female sexual aggression in hypothetical scenarios (Koepke, Eyssel, & Bohner, 2014), and high levels of benevolent sexism predispose men to endorse chivalrous attitudes toward women that, although patronizing, may nonetheless be protective of women’s safety and sexual virtue (Viki, Abrams, & Hutchison, 2003). This logic is consistent with Glick and Fiske’s (2001) analysis of the chivalrous nature of benevolent sexism and its role in offering protection to women who fulfill traditional gender roles. Thus, one possibility is that men high in benevolent sexism might display a boomerang effect opposite to that displayed by men high in hostile sexism, showing reduced levels of sexual aggression following information that their peers approve of misogynistic treatment of women. However, this theorizing is tentative in light of evidence that men’s benevolent sexism is generally uncorrelated with various forms of sexual aggression. We, therefore, treat analyses involving benevolent sexism as exploratory.

**PATERNALISM, MISOGYNY, AND GENDER EQUALITY NORMS**

Our norm manipulation exposes men to injunctive norms regarding misogynistic, paternalistic, and gender egalitarian behavior toward women. We selected these classes of behavior because they reflect common themes underlying male–female gender relations that press for differential treatment of women. Whereas misogyny norms reflect hostile sexism and thus press for angry, insulting, and disrespectful actions toward women, paternalism norms reflect the protective component of benevolent sexism that presses for considerate, chivalrous behavior toward women (e.g., Glick & Fiske, 1996, 2001). Although paternalism in general often does not bear prosocial consequences for women (Glick et al., 2000), we predicted that in the domain of sexual aggression, activating paternalism norms should press against such behavior. In contrast, gender equality is the absence of sexism. It is the notion that men and women should be treated equally in the workplace and in the domestic sphere, earning equal work for equal pay, sharing housework and childcare equally, and so on. As such, gender equality norms press for respectful and egalitarian behavior toward women.

**THE PRESENT STUDY**

This study tests the effects of an injunctive norm intervention on men’s sexually aggressive behavior as a function of their hostile and benevolent sexist attitudes. In doing so, it seeks to validate an analogue behavioral paradigm for use with an online sample. Further, because relatively little is known about predictors of male-to-female sexual assault in non-student, community samples (Widman, Olson, & Bolen, 2013), we recruited participants from Amazon’s Mechanical Turk (MTurk), an online crowdsourcing marketplace whose members tend to be older and more diverse than typical American college samples (Buhrmester, Kwang, & Gosling, 2011). Adult male participants were exposed to one of four types of injunctive norm information, and then interacted online with a bogus female partner. After learning that their female partner dislikes sexual content in movies, men chose one of two film clips—either sexually explicit or nonsexual—to send to her; they also determined the duration of the unwanted sexual material that their female partner watched. In this paradigm, sexual aggression is defined by two variables: selection of the sexually explicit film and duration of exposure, the latter of which provides a continuous measure of aggression intensity.

Research indicates that a past history of sexual assault predicts men’s selection of the sexually explicit video in this paradigm, and that men who show the sexual video believe that the woman is bothered and upset by it (see Cue Davis et al., 2014). Thus, we tested two hypotheses pertaining to the validity of the online sexual aggression paradigm: first, men’s self-reports of sexual assault perpetration will correlate with both their selection of the sexual video and the duration of the sexual video that they show to the woman. Second, men who select the sexual (vs. the nonsexual) video will expect the woman to like the video less.

The third hypothesis is that hostile sexism will moderate men’s reactions to the norm information: Whereas men lower in hostile sexism may conform to injunctive norms regarding men’s treatment of women, those higher in hostile sexism will behave in a more
sexually aggressive manner after exposure to paternalism and gender equality norms, demonstrating a boomerang effect. We also examine whether men’s benevolent sexism moderates their responses to the injunctive norm information. Finally, we measure demographic variables (race, ethnicity, age, education) for possible inclusion as covariates.

**METHOD**

**Participants**

Participants were recruited via an advertisement posted in Amazon’s Mechanical Turk (MTurk; www.mturk.com). To be eligible, MTurk workers had to identify as an exclusively heterosexual man between the ages of 18 and 50, and reside in the United States. A total of 314 eligible men completed all study materials. Of these, the first 54 received $0.55 for their participation; in response to worker comments, we increased payment to $0.75 for the remaining 263 participants. To incentivize careful attention to study materials, about halfway through data collection we began offering a $0.15 bonus to those participants who correctly recalled the norm information at the end of the study. We deleted data from 59 men who reported extreme suspicion about the existence of the female partner, and another 53 men who failed a manipulation check. The final sample thus consisted of 202 men who ranged in age from 19 to 50 (Md = 31 years) and reported an average of 15.60 (SD = 2.68) years of education. Participants identified as White (85.1%), Black (4.5%), Asian American (5.0%), Biracial (3.0%), and other (2.5%), and the majority (91.5%) were non-Latino.

1. An additional 68 men who did not identify as exclusively heterosexual completed all study materials. Because our focus is on those men who are most likely to sexually aggress against women (i.e., heterosexual men), we excluded these 68 men from analyses. However, their inclusion does not substantially alter any of our findings or conclusions.

2. Amount of compensation ($0.55, $0.75, $0.90) did not produce any main or interactive effects when treated as an independent variable (all Ps > .24). Further, treating compensation level as a covariate in primary analyses does not change any of the findings, p-levels, or interpretations reported here.

3. Participants answered (on a scale of 1 = definitely no to 7 = definitely yes) whether they felt “suspicious, or like you were being misled, about Jessica.” The percentage of people who reported extreme suspicion (=7) about Jessica (19%) is high, but not unexpected given that a large proportion of MTurk workers are experienced survey takers and are familiar with many classic behavioral science research paradigms (Paolacci & Chandler, 2014; see also Fort, Adda, & Cohen, 2011). In the current sample, the mean suspicion rating (on a scale of 1–7) was 3.51 (SD = 2.45), and 40.6% of participants scored above the scale midpoint. However, suspicion did not differ by norm condition, P > .56, nor did it correlate with any of the dependent measures, Ps > .49. Finally, treating suspicion as a covariate in primary analyses does not change any of the findings, p-levels, or interpretations reported here.

4. For exploratory purposes, we asked participants to rate the female partner’s personality along 10 trait dimensions after they rated her reactions to the video. Because these items were not relevant to our hypotheses, we do not describe them here. These items are available from the first author upon request.

**Design**

Men read one of four different injunctive norm reports that were tailored to their age group (18–34 or 35–50). Assignment to norm condition (Misogyny, Paternalism, Equality, Control) was made randomly, and hostile and benevolent sexism scores (measured at the beginning or end of the study, based on random assignment) were treated as moderators. We manipulated order of administration of the hostile and benevolent sexism scale to control for the possibility that placing it before our manipulations might create demand characteristics; because order did not moderate any effects (Ps > .19) we did not enter it in analyses.

**Procedure**

All elements of this study were approved by the Institutional Review Board at the University of South Florida. A recruitment posted in MTurk invited interested adult male workers to follow a link to the study, which was hosted by the Qualtrics platform. After giving their informed consent, participants were introduced to a study on “Adult Personality and Movie Preferences.” The first page of the survey required participants to select themselves into one of two age groups (18–34 or 35–50 years); subsequent survey materials were tailored to these age groups to ensure that all participants read norm information regarding their similar-age peers. Participants completed all materials in the order listed below. After completing study materials participants provided demographic information and then received a thorough debriefing, contact information for government sponsored mental health hotlines, and compensation.

**Measures and Manipulations**

**Ambivalent sexism inventory.** The 22-item ambivalent sexism inventory (ASI; Glick & Fiske, 1996) assesses hostile sexism, that is, angry, resentful attitudes toward women (e.g., “Women seek to gain power by getting control over men”) and benevolent sexism, that is, protective, exalting attitudes toward women (e.g., “Women should be cherished and protected by men”). All items were rated on scales of 1 (strongly disagree) to 6 (strongly agree), and we averaged them to create hostile (α = .81) and benevolent (α = .88) sexism scales. To mask our focus on gender, we preceded the ASI with a personality scale (John & Srivastava, 1999). Approximately half of participants completed the personality scale and ASI first, whereas
the remaining participants completed these scales before the Sexual Experiences Scale (see below).

**Norm manipulation.** Injunctive norm information was presented as part of a “U.S. National Opinion Survey” that ostensibly used probability sampling to poll over 1,000 men in the participant’s age bracket. To obscure our focus on gender, all participants first read about the results of surveys regarding “texting in the workplace” and “returning used purchases” before reading one of four different versions of a survey: three on “gender relations” or a fourth, control survey. In the three gender-relevant conditions, men read that 60% of men in their age bracket approved of the target behavior, which involved three specific acts conveying misogyny, paternalism, or gender equality. For example, an act of *misogyny* was “using the word ‘bitch’ in some contexts,” an act of *paternalism* was “always offering to pay when out to dinner with a woman,” and an act of *equality* was “doing half of the housework and childcare.” In the control condition, men read about their peers’ approval of “airlines increasing dining options on domestic flights.” Underneath the text, a bar graph showed 60% approval, 29% disapproval, and 11% undecided. After reading the survey results, participants responded to three filler questions about probability sampling. The specific behavioral acts representing the norms, and the rates of approval, were selected through an iterative process of revision based on feedback from members of the authors’ research labs as well as three samples of college students. See Supplementary Appendices A and B for the norm materials and summary of the pilot tests and results.

**Sexual aggression paradigm.** We modified a sexual aggression paradigm (Hall & Hirschman, 1994; Parrott et al., 2012) for use with an online sample. Participants learned that they and another MTurk worker (who was fictitious) would be paired to do an interactive film activity together. After selecting a screen name, participants were introduced to their partner (Jessica). They then rated their preferences for various types of media content (e.g., “I like movies and/or TV shows with lots of action”; “If a movie has a lot of nudity/sex, I won’t watch it”), and learned that they and Jessica would see summaries of one another’s responses. Participants then read the summary of Jessica’s responses, which indicated a strong dislike for sexual content in films. Next, participants viewed two sets of still film images accompanied by brief plot synopses. One set of images and text depicted a man and woman having sex, while the other images and text depicted a man and woman cooking together; order of presentation of the images was counterbalanced. After viewing the images, participants learned that they were selected at random to send to Jessica a 2-min clip from one of the two films. In this modified version of the paradigm, participants did not meet or interact with a physically present female confederate, nor did they observe her as she watched the film clip that they chose.

We also modified the paradigm by adding a continuous measure of the duration of the unwanted sexual material to which participants exposed the female partner. After selecting a video for Jessica to view (coded nonsexual = 0, sexual = 1), participants moved a slider along a scale ranging from 0 to 120 sec to indicate how many seconds of the chosen film Jessica would view. Instructions explained that Jessica would watch 120 total seconds’ worth of film clips, and that the participant could divide this time between the film he selected and the one he did not select however he desired. This, therefore, allowed all men—even those who did not initially choose the sexual film—to sexually aggress against their female partner. For example, if a participant chose the nonsexual video and then indicated that he wanted Jessica to watch it for 80 sec, he did so knowing that Jessica would watch the nonsexual video for 80 sec and the sexual video for the remaining 40 sec. We included this continuous measure as a potentially more sensitive index than the dichotomous choice index, and coded it so that it always reflected duration of the sexual video. Thus, for participants who chose the sexual video, duration was equal to the number of seconds they selected; for participants who chose the nonsexual video, duration was calculated as 120 minus the number of seconds they selected. See Supplementary Appendix C for additional details about the sexual aggression paradigm.

**Jessica’s reaction.** Participants responded to eight items that assessed their beliefs about how Jessica would react to the film clip that they sent: “I chose the clip that I thought my partner would prefer,” “I chose the clip that I preferred [reversed],” “I chose the clip because I believed my partner would enjoy watching it,” “I chose the clip that was most in line with my partner’s media preferences,” “I chose a clip that I did not think my partner would really like [reversed],” “Jessica likes the video I showed,” “Jessica is uncomfortable with the video I showed [reversed],” and “Jessica is upset with the video I showed [reversed].” All items were rated on scales of 1 (strongly disagree) to 5 (strongly agree). A

---

5 Men’s preferences for nudity or sex in media were uncorrelated with both choice and duration of video, Ps > .50, as well as hostile and benevolent sexism, P < .22. Nudity/sex preferences differed marginally by norm condition, P < .10, such that men exposed to control norms reported stronger nudity/sex preferences than those in the paternalism and equality conditions, Ps < .05, and they did not differ from those in the misogyny condition, P > .23. Nonetheless, covarying nudity/sex preferences in primary analyses does not change any of the findings, P-levels, or interpretations reported here.
principal axis factor analysis indicated that the eight items all loaded on a single factor that accounted for 65.8% of the total variance (all factor loadings >.40). We, therefore, averaged the items to create an internally reliable index with higher scores indicating a more positive assumed reaction on Jessica’s part (α = .91).

Sexual experiences survey short form—Perpetration (SES-P; Koss et al., 2007). The SES-P measures self-reported perpetration of sexual aggression in the past 12 months. The scale measures frequency of use of five tactics (e.g., verbal pressure, threats, force) in the perpetration of seven types of nonconsensual sexual contact (e.g., fondling, oral sex, vaginal penetration). Participants indicate the frequency (on a scale of “0” to “3 or more” times) with which they used each tactic to obtain each type of sexual contact in the past 12 months. Items were scored using the “sum of frequency of ranks” approach described by Cue Davis et al. (2014). This approach multiplies the severity rank (from 1 to 5) of each type of tactic and contact by its frequency (0–3), then sums across products to yield a total score.

Manipulation checks. Participants were asked to recall (from response options of “20%,” “40%,” “60%,” and “80%”) the percentage of men who approved of the use of five tactics (e.g., verbal pressure, threats, force) in the perpetration of seven types of nonconsensual sexual contact (e.g., fondling, oral sex, vaginal penetration). Participants indicate the frequency (on a scale of “0” to “3 or more” times) with which they used each tactic to obtain each type of sexual contact in the past 12 months. Items were scored using the “sum of frequency of ranks” approach described by Cue Davis et al. (2014). This approach multiplies the severity rank (from 1 to 5) of each type of tactic and contact by its frequency (0–3), then sums across products to yield a total score.

Suspicion probes. Participants answered several questions regarding their suspicions about the study. For example, they answered (on a scale of 1 = definitely no to 7 = definitely yes) whether they felt “suspicious, or like you were being misled, about Jessica.” Those who responded with a “7” to this item (n = 59) were removed from analyses.

RESULTS
Table I shows correlations among all variables and descriptive statistics. Of the demographic variables we assessed, only age met criteria for inclusion as a covariate (see Porter & Raudenbush, 1987) in that it correlated with one of the dependent measures, did not correlate with the independent variables (Ps > .16), and did not interact with the independent variables (Ps > .40). We therefore included age as a covariate in primary analyses. However, no significance levels or interpretations change if this covariate is excluded from analyses.

Validity of the Sexual Aggression Paradigm
Hypothesis 1 states that men’s sexual assault history will correlate with both choice and duration of the sexual video. Because SES-P scores did not differ by norm condition, F(3, 196) = 1.30, P > .26, we collapsed across norm conditions in tests of Hypothesis 1. As shown in Table I, the SES-P correlated significantly positively with both of the sexual aggression indices. However, given that SES-P scores were positively skewed (skew = 9.34), correlations are not ideal for analyzing this variable. We, therefore, dichotomized the SES-P (0 = no sexual assault, 1 = any sexual assault) for use in analyses. As predicted, SES-P status predicted men’s choice of the sexual video, χ²(1, n = 201) = 4.88, P < .03, odds ratio (OR) = 3.95, 95%CI (1.08, 14.52).

TABLE I. Descriptive Statistics and Intercorrelations Among Study Variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>2. Race</td>
<td>−.14</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>3. Ethnicity</td>
<td>−.09</td>
<td>.22 **</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>4. Education (years)</td>
<td>.11</td>
<td>.03</td>
<td>.06</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>5. Hostile sexism</td>
<td>.02</td>
<td>.02</td>
<td>−.09</td>
<td>−.13</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>6. Benevolent sexism</td>
<td>.13 **</td>
<td>.10</td>
<td>−.06</td>
<td>.06</td>
<td>.12</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>7. Video choice</td>
<td>−.11</td>
<td>−.01</td>
<td>.04</td>
<td>−.09</td>
<td>.19</td>
<td>−.05</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>8. Sex video duration</td>
<td>−.11</td>
<td>−.02</td>
<td>−.02</td>
<td>−.06</td>
<td>.22</td>
<td>.02</td>
<td>.73</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>9. Jessica’s reaction</td>
<td>.14</td>
<td>.02</td>
<td>.03</td>
<td>.04</td>
<td>−.18</td>
<td>.06</td>
<td>−.86</td>
<td>−.71</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>10. SES-P</td>
<td>−.004</td>
<td>−.05</td>
<td>−.04</td>
<td>−.10</td>
<td>.07</td>
<td>.05</td>
<td>.22</td>
<td>.20</td>
<td>.15</td>
<td>—</td>
</tr>
</tbody>
</table>

Minimum: 19 0 0 8 1 1 1 0 1 0 0 1 0 50 1 1 20 6 5.27 1 120 5 147
Mean: 32.68 0.15 0.08 15.60 3.20 3.32 0.14 27.02 4.14 1.84
Standard deviation: 8.06 0.36 0.28 2.68 1.04 0.96 0.35 42.52 1.01 12.51

Note. * P < .10; ** P < .05; *** P < .01. Race was coded 0 = White, 1 = non-White; Ethnicity was coded 0 = non-Latino, 1 = Latino; Video choice was coded 0 = non-sexual, 1 = sexual. Sex Video Duration is in seconds; higher values on Jessica’s reaction reflect more favorable reactions. SES-P = sexual experiences survey short form—perpetration. n = 201 for all variables except ethnicity (n = 200).
TABLE II. Dependent Measures Split by Norm Condition

<table>
<thead>
<tr>
<th>Dependent Measure</th>
<th>Control (n = 49)</th>
<th>Paternalism (n = 47)</th>
<th>Equality (n = 46)</th>
<th>Misogyny (n = 59)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Number/percent choosing sexual video</td>
<td>6</td>
<td>12.2</td>
<td>10</td>
<td>21.3</td>
</tr>
<tr>
<td>Sex video duration</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Jessica’s reaction</td>
<td>4.23</td>
<td>0.97</td>
<td>5.88</td>
<td>1.28</td>
</tr>
</tbody>
</table>

Note. Sex video duration is in seconds; higher values on Jessica’s reaction reflect more favorable reactions. For sex video duration, means within a row whose subscripts differ are different at $P < .05$.

Among men who reported no sexual assault in the past year, 12.6% chose the sexual video; among men who reported any sexual assault, 36.4% chose the sexual video. Similarly, men who reported no sexual assault in the past year subjected their partner to the sexual video for a shorter duration ($M = 25.31$ sec, $SD = 41.26$) than those who reported any sexual assault ($M = 56.64$ sec, $SD = 54.52$). $t(199) = 2.40, P < .02, 95\%CI_{\text{difference}} (5.63, 57.03), d = .74$. Thus, 1-year sexual assault history predicted both choice and duration of the sexual video.

Hypothesis 2 states that men who select the sexual (vs. nonsexual) video will report that Jessica likes the video more focused tests of our hypotheses using hierarchical regression (Aiken & West, 1991). In these latter tests, we created three dummy codes to reflect the four norm conditions, treating the control condition as the comparison condition in each code. Interaction terms were the cross-products of mean-centered hostile and benevolent sexism scores and each of the three dummy codes. In each analysis, we treated one type of sexism as the moderator variable and controlled for the other type of sexism. Thus, we entered the covariates (age and benevolent or hostile sexism) on step 1, mean-centered sexism scores (hostile or benevolent sexism) and the three dummy codes on step 2, and the three interaction product terms on step 3. To compute conditional effects of the norm manipulation at high and low levels of sexism, we used Hayes’ (2012) PROCESS macro (Model 1). For the sake of brevity, and because the sexual video choice measure yielded results that were similar to (though slightly weaker than) the sexual video duration results, we present the duration results below and the choice results in Supplementary Appendix D.

**Hostile sexism as a moderator.** A multiple linear regression analysis yielded a Hostile sexism × Norm interaction, $F(3, 191) = 3.15, P < .03, \eta_p^2 = .047$, that qualified main effects of hostile sexism, $F(1, 191) = 13.95, P < .001, \eta_p^2 = .068$, and norm condition, $F(3, 191) = 2.92, P < .04, \eta_p^2 = .044$. As shown in Table II, the main effect of norm condition reflected a tendency for men in the paternalism and gender equality conditions to send the sexual video for a longer duration than men in the misogyny condition.

Next, in the hierarchical regression model, entrance of the main effects on step 2 produced a significant increase in $R^2, P < .01$, and the model was significant at this step, $F(6, 194) = 3.48, P < .01$ (see Table III). Hostile sexism was a significant predictor of duration ($t = 3.28, P < .01, 95\%CI [3.70, 14.84]$), and the paternalism versus control comparison approached significance ($t = 1.79, P < .08, 95\%CI [−1.49, 31.57]$). Neither of the other two dummy codes was significant at this step, $ts < 1.64, Ps > .10$. The interaction terms entered on step 3 produced a significant increase in $R^2, P < .03$, and the full model

---

6 Sexual assault history did not interact with norm condition to predict either choice or duration of the sexual video ($Ps > .10$).
was significant, $F(9, 191) = 3.45$, $P < .01$. In the final model, the terms representing the Hostile sexism × Paternalism interaction ($t = 2.31, P < .03$, 95% CI $[2.66, 33.90]$) and the Hostile sexism × Equality interaction ($t = 2.62, P < .01$, 95% CI $[5.28, 37.22]$) were significant. The Hostile sexism × Misogyny interaction term was not significant, $t < 1$, $P > .41$.

As shown in Figure 1, the pattern of predicted values provides partial support for Hypothesis 3. Contrary to expectations, among men low in hostile sexism, we observed no conformity to injunctive norms ($bs = -4.96$ and $-6.01$, $|s| < 1$, $Ps > .59$). However, among men high in hostile sexism, we observed a boomerang effect such that those exposed to paternalism and equality norms sent the sexual video for a longer duration than those in the control condition ($bs = 33.18$ and $38.33$, $ts = 2.93$ and $3.04$, $ps < .01$). To further probe these interactions, we used the Johnson-Neyman technique (Spiller, Fitzsimons, Lynch, & McClelland, 2013) to identify the values of hostile sexism scores (out of a range of 1 to 6) at which the conditional effects of norm exposure on sexual aggression were statistically significant. Exposure to paternalism norms significantly increased sexual aggression among men with a per-item mean hostile sexism score above 3.32 ($b_{N} = 16.30$, $SE = 8.26$, $p = .05$), and exposure to equality norms significantly increased sexual aggression among men with a per-item mean hostile sexism score above 3.22 ($b_{N} = 16.63$, $SE = 8.43$, $p = .05$). Another way of thinking about this pattern is that men’s hostile sexism predicted their sexual aggression only following exposure to paternalism and equality norms, $bs > 17.29$, $ts > 2.92$, $Ps > .01$. After exposure to misogyny or non-gender-relevant norms, men’s hostile sexism was unrelated to their sexual aggression, $|s| < 1$, $Ps > .31$.

**Beneficent sexism as a moderator.** A multiple linear regression analysis yielded a Beneficent sexism × Norm interaction, $F(3, 191) = 2.77$, $P < .05$, $\eta^2_p = .042$, that qualified a main effect of norm condition, $F(3, 191) = 2.87$, $P < .04$, $\eta^2_p = .043$ (see Table II). Beneficent sexism was unrelated to duration of the sexually explicit video, $F < 1$, $P > .80$.

In the hierarchical regression model (see Table IV), entrance of the main effects on step 2 produced a marginally significant increase in $R^2$, $P < .10$, and the model was significant at this step, $F(6, 194) = 3.48$, $P < .01$. Of the predictors, only the paternalism vs. control comparison approached significance at this step ($t = 1.79, P < .08$, 95% CI $[-1.49, 31.57]$). Neither of the other two dummy codes was significant, $ts < 1.64$, $Ps > .10$. On step 3, the interaction terms produced a significant increase in $R^2$, $P < .05$, and the full model

### Table III. Hierarchical Regression Output for Hostile Sexism and Norm Condition Predicting Duration of Sexual Video

<table>
<thead>
<tr>
<th>Variable</th>
<th>Step 1</th>
<th></th>
<th>Step 2</th>
<th></th>
<th>Step 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$</td>
<td>$SE(B)$</td>
<td>$\beta$</td>
<td>$B$</td>
<td>$SE(B)$</td>
</tr>
<tr>
<td>Age</td>
<td>–0.60</td>
<td>0.38</td>
<td>–1.1</td>
<td>–0.59</td>
<td>0.36</td>
</tr>
<tr>
<td>Benevolent sexism</td>
<td>1.43</td>
<td>3.16</td>
<td>.03</td>
<td>0.47</td>
<td>3.08</td>
</tr>
<tr>
<td>Hostile sexism</td>
<td>9.27</td>
<td>2.82</td>
<td>.23**</td>
<td>15.04</td>
<td>8.38</td>
</tr>
<tr>
<td>Paternalism vs. control</td>
<td>13.86</td>
<td>8.46</td>
<td>.14</td>
<td>–3.41</td>
<td>7.93</td>
</tr>
<tr>
<td>Egalitarianism vs. control</td>
<td>–3.41</td>
<td>7.93</td>
<td>–.04</td>
<td>–3.20</td>
<td>7.82</td>
</tr>
<tr>
<td>Misogyny vs. control</td>
<td>–3.41</td>
<td>7.93</td>
<td>–.04</td>
<td>–3.20</td>
<td>7.82</td>
</tr>
<tr>
<td>Hostile sexism × paternalism vs. control</td>
<td>18.28</td>
<td>7.92</td>
<td>.21†</td>
<td>21.25</td>
<td>8.10</td>
</tr>
<tr>
<td>Hostile sexism × egalitarianism vs. control</td>
<td>6.02</td>
<td>7.32</td>
<td>.08</td>
<td>6.02</td>
<td>7.32</td>
</tr>
<tr>
<td>Hostile sexism × misogyny vs. control</td>
<td>1.28</td>
<td>4.54**</td>
<td>.10</td>
<td>1.28</td>
<td>4.54**</td>
</tr>
</tbody>
</table>

**Note.** †$P < .10$; *$P < .05$; **$P < .01$.

---

Fig. 1. Predicted values for duration of sexual video reflecting the Hostile sexism × Norm condition interaction. Note. Low and high values of hostile sexism represent $±1$ standard deviation from the scale mean ($M = 3.20, SD = 1.04$). Predicted values are calculated with age and benevolent sexism included in the model as covariates.

*Aggr. Behav.*
TABLE IV. Hierarchical Regression Output for Benevolent Sexism and Norm Condition Predicting Duration of Sexual Video

<table>
<thead>
<tr>
<th>Variable</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE(B)</td>
<td>β</td>
</tr>
<tr>
<td>Age</td>
<td>−0.60</td>
<td>0.36</td>
<td>−.11</td>
</tr>
<tr>
<td>Hostile sexism</td>
<td>8.91</td>
<td>2.81</td>
<td>.22**</td>
</tr>
<tr>
<td>Benevolent sexism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paternalism vs. control</td>
<td>0.47</td>
<td>3.08</td>
<td>.01</td>
</tr>
<tr>
<td>Egalitarianism vs. control</td>
<td>15.04</td>
<td>8.38</td>
<td>.15†</td>
</tr>
<tr>
<td>Misogyny vs. control</td>
<td>13.86</td>
<td>8.46</td>
<td>.14</td>
</tr>
<tr>
<td>Benevolent sexism × paternalism vs. control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benevolent sexism × egalitarianism vs. control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benevolent sexism × misogyny vs. control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F for ΔR²</td>
<td>6.27**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. †P < .10; * P < .05; ** P < .01.

was significant, F(9, 191) = 3.31, P < .01. In the final model, the terms representing the Benevolent sexism × Paternalism interaction (t = 2.07, P < .04, 95% CI [0.96, 38.57]), the Benevolent sexism × Equality interaction (t = 2.65, P < .01, 95% CI [5.90, 40.24]), and the Benevolent sexism × Misogyny interaction (t = 2.11, P < .04, 95% CI [1.04, 32.04]) were all significant.

As shown in Figure 2, among men high in benevolent sexism, those exposed to paternalism norms (b = 33.77, t = 2.77, P < .01) and equality norms (b = 36.66, t = 3.04, P < .01) sent the sexual video for a longer duration than those in the control condition. The Johnson-Neyman technique revealed that exposure to paternalism norms significantly increased sexual aggression among men with a per-item mean benevolent sexism score above 3.40 (out of a range of 1–6; b_{jn} = 16.34, SE = 8.29, p = .05), and exposure to gender equality norms significantly increased sexual aggression among men with a per-item mean benevolent sexism score above 3.41 (b_{jn} = 16.63, SE = 8.43, p = .05). In contrast, exposure to misogyny norms did not influence sexually aggressive behavior among men high in benevolent sexism relative to those in the control condition (b = 12.26, t = 1.14, P > .25). Among men low in benevolent sexism, however, exposure to misogyny norms marginally significantly reduced their sexually aggressive tendencies relative to control norm exposure (b = −19.47, t = −1.77, P < .08). Exposure to paternalism and equality norms did not influence the duration of sexual video sent by men low in benevolent sexism (bs = −4.18 and −7.61, [t] < 1, P > .51). Considered another way, men’s benevolent sexism significantly negatively predicted their sexual aggression tendencies only in the control condition, b = −14.08, t = −2.31, P < .03. Following exposure to any gender-relevant injunctive norms, however, men’s benevolent sexism was unrelated to their sexual aggression, [t] < 1.43, P > .15.

DISCUSSION

It is a truism in social psychology that social behavior reflects a combination of internal “person” factors and the external pulls and presses imposed by situational contexts (Lewin, 1935). We pursued the current project with this interactionist assumption in mind. Specifically, we asked whether men who differ in their hostile and benevolent attitudes toward women would exhibit different reactions to social norm information that pushed for misogynistic, paternalistic, or egalitarian treatment of women. Another goal was to validate a laboratory sexual aggression paradigm for use with online samples.
Our first two predictions pertained to the construct validity of the modified sexual aggression paradigm. We found consistent evidence that this paradigm is a valid tool for use with online samples. Men’s 1-year past history of sexual assault predicted both their decision to send their female partner an unwanted, sexually explicit video, and the length of time for which they subjected her to this material. Furthermore, men who showed the sexual (vs. nonsexual) video indicated that Jessica would not like the video, and that it would make her upset and uncomfortable. These findings are consistent with what other researchers have found when using this paradigm (Cue Davis et al., 2014). Importantly, the paradigm demonstrated good construct validity here despite the possibly compromised realism of the online environment. In past iterations of this paradigm, men either met a female confederate (Hall & Hirschman, 1994) or watched a woman via closed-circuit television (Parrott et al., 2012). In contrast, men in the current version learned that they were paired with a partner whom they never saw. Any concerns that this modification may have undermined men’s engagement are allayed by our evidence that men who were expected to exhibit more sexually aggressive responding did in fact do so.

Next, we predicted that men’s hostile sexist attitudes would moderate their reactions to injunctive norm information conveying peer approval of different types of behavior toward women. As a related research question, we asked if men’s benevolent sexist attitudes would also moderate their reactions to the norm information. To test these ideas, we exposed men to information indicating that a majority of their similar-age peers approved of either misogynistic behavior (e.g., using the word “bitch”), paternalistic behavior (e.g., offering to pay for a woman when out on a date), or egalitarian behavior (e.g., splitting childcare and housework evenly), and then measured their decision to subject their partner to an unwanted sexual experience. We found partial support for hypotheses pertaining to hostile sexism. Among men lower in hostile sexism, the norm manipulation unexpectedly had no effect on their sexually aggressive behavior. Conversely, among men higher in hostile sexism, the expected boomerang effect emerged such that exposure to peer approval of paternalism and gender equality increased men’s sexual aggression relative to the control condition. These findings indicate that injunctive norms that press for positive treatment of women may yield iatrogenic and dangerous consequences among a subset of men. As such, the current results join a growing body of evidence indicating that men characterized by relevant traits (e.g., low empathy, high hostile sexism, psychopathy) show a greater likelihood of sexual aggression and less concern about women’s well-being following messages intended to increase concern and empathy (e.g., Darnell & Cook, 2009; DeGue et al., 2014; Stephens & George, 2009).

Regarding the role of benevolent sexism in men’s reactions to the norm manipulation, several interesting patterns emerged. Most notably, among men in the control condition, those high in benevolent sexism (when controlling for hostile sexism) exhibited less sexual aggression than those low in benevolent sexism. Indeed, men in the control condition who scored one standard deviation above the mean on benevolent sexism exposed Jessica to the sexually explicit video for a shorter duration of time (≈27 sec) than any other participants. This finding is consistent with the notion that benevolent sexism can serve a protective function (Viki et al., 2003). Interestingly, however, exposure to any of the three gender relevant norms wiped out this association between men’s benevolent sexism and their sexually aggressive responding. Next, among men high in benevolent sexism, those exposed to paternalism and gender equality norms displayed more sexual aggression than those in the control condition, whereas those exposed to misogyny norms did not differ from control. Thus, men high in benevolent sexism did not demonstrate a boomerang effect by decreasing their sexual aggression after exposure to misogyny norms. Only men low in benevolent sexism showed (marginally significantly) lower sexual aggression after exposure to misogyny norms, a pattern that is difficult to interpret.

Considered in conjunction with the findings for men’s hostile sexism, a trend emerges: exposure to injunctive norms that press for protective or egalitarian treatment of women yields higher levels of antisocial behavior toward women both for men high in hostile sexism and those high in benevolent sexism, but in different ways. For men high in hostile sexism, paternalism and gender equality injunctive norms appear to increase sexually aggressive behavior above baseline (control); for those high in benevolent sexism, these norms instead seem to suppress the otherwise protective function of high levels of benevolent sexism in reducing men’s sexually aggressive behavior. Because the current study’s questions pertaining to men’s benevolent sexism were exploratory, however, we hesitate to draw firm conclusions about these findings. Nonetheless, these results suggest a strong need for further research into the role of benevolent sexist attitudes and injunctive norms in male-to-female sexual aggression.

**Directions for Future Research**

Social and peer norms are believed to be a key determinant of sexual aggression (e.g., Banyard,
Moynihan, & Plante, 2007; Tharp et al., 2013); thus, sexual aggression interventions that utilize social norms education are gaining popularity on U.S. college campuses (Gidycz, Orchowski, & Berkowitz, 2011; Stewart, 2014). Although our participants were not college students, our findings should still have relevance for understanding individual differences in men’s reactions to interventions that offer injunctive norm information. Specifically, our results indicate that a subset of men reacts to paternalism and gender equality norms by increasing enactment of harmful sexual assault-related behavior. In the current sample, moreover, this subset constitutes roughly half of participants. The harmful effects of paternalism and gender equality norm exposure became statistically significant at per-item mean hostile sexism scores of around 3.2–3.3 (on a 1–6 response scale), and approximately 47% of our sample scored at least that high on hostile sexism. Note also that these hostile sexism scores are very close to the average hostile sexism score reported by male college students in Glick et al.’s (2000) cross-cultural survey.7 Thus, exposure to paternalism and gender equality injunctive norms may yield boomerang effects in a substantial proportion of men. It is, therefore, very important for future research to examine the factors underlying reactance so that effects like these can be avoided.

To this end, some work suggests that reactance in response to persuasive health messages reflects a combination of negative cognitions (e.g., disagreement with the message) and anger (Dillard & Shen, 2005). Similarly, Darnell and Cook (2009) found that men high in hostile sexism reported less empathy for women victims of street harassment in response to a persuasive message about the harmful impacts of harassment on women. Thus, future research should seek to uncover the specific causes of men’s negative emotional and cognitive reactions to prosocial injunctive norms. One possibility is that any perceived pressure to change one’s behavior or beliefs activates angry cognitions and reduces empathy, which then increases the likelihood of aggressive behavior via a host of associative mechanisms (Anderson & Bushman, 2002). This interpretation would suggest that any persuasive messages pushing for pro-social treatment of women may increase sexual aggression among men who are high in hostile sexism.

Another possibility, however, is that men high in hostile sexism are especially likely to become angry when exposed to messages that contain violations of traditional male gender role norms. This possibility is consistent with theorizing in the sexual prejudice literature, which argues that some forms of anti-gay aggression reflect anger elicited by men who are perceived as flouting male role norms (Parrott, 2009; Parrott, Peterson, Vincent, & Bakeman, 2008). In the current study, the messages that yielded heightened levels of aggressive responding among men high in hostile sexism were those that described men’s approval of paternalistic and equitable actions toward women. Because men high in hostile sexism are generally mistrustful and resentful toward women, they may perceive paternalism and equality norms as inconsistent with male gender role norms of antifemininity, toughness, and status. After all, men who open doors and pull out chairs for women may be perceived as pandering to women’s romantic desires, whereas those who advocate for gender equality may be perceived as giving up their rightful claims to dominance over women. If so, the aggressive responding of men high in hostile sexism may reflect attempts to reinforce gender norms that prescribe men’s dominance and superiority over women. This interpretation would suggest that persuasive messages promoting pro-social treatment of women should increase such aggression among men high in hostile sexism only insofar as these messages are perceived as undermining cherished male gender role norms.

On a related note, it will be important for future research to disentangle the mechanisms that drive men’s reactions to paternalism versus equality norms. Although these norms produced very similar effects on men’s behaviors in the context of this brief experiment, they reflect very different attitudes about gender relations in the world outside of the laboratory. Whereas protective paternalism is a component of benevolent sexism that reinforces the patriarchal gender hierarchy by casting women as weak, vulnerable, and needful of men’s protection, gender equality is an attitude that undermines the gender hierarchy by respecting women’s autonomy as self-determined individuals who deserve treatment and opportunities equal to men’s. If reminders of these two norms produce similar effects on men’s immediate behaviors, the assumptions that fuel these norms could hardly be more different. Future research should thus identify the different processes that drive men’s reactions to these classes of norms.

**Strengths and Limitations**

One strength of this work is our use of a behavioral index of sexually aggressive responding. Although critics may note that the sexual aggression paradigm is not a perfect representation of actual sexual assault (see

---

7 Note that Glick et al. (2000) calculated scores based on a 0–5 response scale.
ACKNOWLEDGMENT

The authors thank Ruschelle Leone for developing the sexually explicit and non-sexual stimulus materials for use in the sexual aggression paradigm.

REFERENCES


Cue Davis et al., 2014), we counter that this paradigm is a methodologically rigorous, reliable, and valid behavioral analogue that allows researchers to bypass self-reports and the obvious problems they present. Furthermore, our demonstration of this paradigm’s effectiveness for use online points to the feasibility of reaching wider samples than are possible in standard laboratory research. This leads to another strength of this work, our use of an online community sample of men. As others have noted, because much of the research on male-to-female sexual assault is conducted on college campuses, relatively little is known about the antecedents and risk factors for sexual assault among community samples of men (Widman et al., 2013). The current study thus adds to a growing body of research on sexual assault risk factors among adult, non-college men.

One limitation of this work is the ineffectiveness of the norm manipulation in decreasing sexual aggression among men low in hostile sexism. It is possible that the peer group we used—similar-aged male residents of the U.S.—was too broadly defined to constitute a meaningful reference group for our participants. Work that establishes the power of injunctive norms to shape men’s sexual assault attitudes and behavior often defines “peer groups” as proximal, salient in-groups such as close friends (e.g., Schwartz & DeKeseredy, 2000; Swartout, 2013) or other students at one’s university (e.g., Gidycz et al., 2011; Stewart, 2014). Perhaps the success of injunctive norm interventions hinges on maximizing the perceived similarity between message recipients and the peers whose approval or disapproval these messages convey.

**Summary and Conclusions**

Male-to-female sexual aggression is a serious public health problem with widespread negative consequences for women’s emotional and physical health. Unfortunately, most prevention programs do not effectively reduce or prevent sexually aggressive behavior over the long term (DeGue et al., 2014). In contrast, social influence approaches represent a promising avenue because they capitalize on powerful and fundamental needs for social approval and belonging. However, injunctive norm interventions are not a panacea, as the current findings indicate. Despite the growing popularity of such interventions on college campuses, there is also a growing body of research indicating the potential dangers of exposing people en masse to messages that push for pro-social treatment of women. The current findings indicate that a subset of men may become more aggressive in response to such messages. Future work should prioritize identifying the mechanisms underlying these boomerang effects.


Injunctive Norms and Sexual Aggression


**Supporting Information**

Additional supporting information may be found in the online version of this article at the publisher’s web-site.