Priming Self-Affirmation Reduces the Negative Impact of High Rape Myth Acceptance: Assessing Women's Perceptions and Judgments of Sexual Assault

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Abstract

Researchers have theorized and empirically shown that compared with low rape myth acceptance (RMA) individuals, those high in RMA are more likely to discount rape prevention messages. These researchers have urged the development of approaches to counteract the defensiveness and related processes that are presumed to cause such discounting. In the present research we empirically tested the effectiveness of a self-affirmation approach designed to reduce defensiveness to and increase engagement with important but potentially self-threatening information about sexual assault. Female participants classified as low or high in RMA were randomly assigned to either a self-affirmation or no-affirmation control condition and then read about a controversial case of campus sexual assault. We found support for the effectiveness of such a self-affirmation intervention for high-RMA women. Specifically, on a questionnaire administered after the exposure, affirmed high-RMA women relative to the control group reported greater endorsement of the realistic use of the "yes means yes" standard

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of consent, higher self-standards in defining consensual sexual behavior, increases in perceived knowledge of available resources for sexual assault victims, lower support of rape myths, and greater support for punishing someone convicted of sexual assault. As expected, for women low in RMA there were no significant differences in reporting on these measures between the affirmation condition and the no-affirmation condition. From an agentic perspective these results are encouraging. This approach may merit further development as part of an intervention for reducing biased processing and increasing the effectiveness of consent campaigns and other sexual violence prevention programs.

Keywords

sexual assault, sexual aggression, rape myth acceptance, defensive processing, psychological reactance, self-affirmation, sexual violence prevention programs

How people respond to reports of nonconsensual sexual interactions is influenced by a complex array of factors. In turn, this can lead different people to have significantly different perceptions of such encounters, especially when a report contains some gray areas. A recent example of this can be found in James Hamblin's (2018) discussion in *The Atlantic* of the "date gone wrong" between "Grace" and actor/comedian Aziz Ansari, which indicated that the story was playing out as a sort of Rorschach test in which responses depended on how people were primed to see the ink blot.

An important factor predicting responses to reported sexual assault is the tendency for some people to believe in common rape myths (e.g., the belief that a lot of the time, what people say is rape is actually consensual sex that they regretted afterwards; Burt, 1991; Lonsway & Fitzgerald, 1994). This was an aspect common to several of the articles covering Grace's story (Hindes & Fileborn, 2020). Whereas men accept rape myths more than women do as such beliefs can serve to justify their own sexual aggression (Burt, 1991), for some women adherence to rape myths can also serve a self-protective function by leading them to believe that only "certain other women" are likely to be victimized due to their bad behavior (if they themselves are raped, this can also prevent them from labeling it as such, see, for example, Bohner et al., 2009). Indeed, gender differences in attitudes to campaigns such as #metoo might be best characterized as dimensional differences on such ideologies rather than fundamental group differences (Kunst et al., 2019).

In a recent article Silver and Hovick (2018) present theory and findings on the obstacle of rape myth acceptance (RMA) to the success of such campaigns. Their research was designed to assess the influence of RMA on the cognitive processing of an affirmative consent campaign. Participants had been asked to review four campaign posters and assessment was made of the extent to which they processed the message. The researchers found that those with increased RMA not only had lower self-efficacy and less positive attitudes toward sexual consent-gaining, but that levels of RMA mediated the extent to which campaign messages were processed. They concluded that "perhaps the most central question resulting from these findings is how best to address or correct cognitive schemas such as RMA" (p. 509) to increase the effectiveness of interventions.

In the present article we examine the potential utility of a procedure that may increase the effectiveness of an intervention on those relatively high in RMA. We test the hypothesis that women for whom information about sexual assault may be more likely to produce defensiveness and denial, as indexed by beliefs in rape myths, will be more likely to change or correct their attitudes and beliefs when they are self-affirmed prior to receiving such information, leading to more positive outcomes.

Self-affirmation theory proposes that to maintain a positive self-image, individuals are motivated to respond to threatening information in a biased, self-serving manner, but that self-image–affirming activities reduce this defensive motivation (Sherman et al., 2000). Two previous studies have interestingly raised the possibility that self-affirmation may be effective in the context of responses to sexual assault, but unfortunately these studies had some serious drawbacks. One study focused on judgments of victim blaming when the perpetrator had or had not yet been arrested (Loseman & van den Boss, 2012). Whereas control participants blamed the victim more when the perpetrator had not been arrested, self-affirmed participants did not differ between conditions in their judgments, suggesting to the authors that self-affirmation reduces the need to blame innocent victims. Contrary to the principle that affirmations should be presented before participants engage in defensive rationalization (Cohen & Sherman, 2014), however, the affirmation occurred after the presentation of threatening information. In addition, the authors did not use the most studied experimental manipulation, which has people write about core personal values (Cohen & Sherman, 2014). A second study was a doctoral dissertation (Paquin, 2016) that reported in the abstract that self-affirmed men but not women blamed the perpetrator of a sexual assault to a greater extent than controls but in the body of the dissertation the relevant analysis is not separated by gender and the findings actually reported show no significant difference using a one-tailed *t* test but an effect approaching significance using a one-tailed

Wilcoxon test. Unfortunately, the latter test was used inappropriately here as it is suited for comparisons of dependent samples only and in this dissertation the samples were in fact independent ones. Neither of these studies accounted for the potential influence of individual difference variables such as relatively higher RMA that can lead to differences in motivational strategies, nor were participants in these studies exposed to a persuasive message as we do here.

RMA

Research has shown that variance in women's RMA can lead to differences in responding to information about sexual assault. RMA negatively predicts women's reliance on victimization risk information when making explicit risk judgments in social situations (Yeater et al., 2010). Women higher in RMA are more likely to believe that a rape victim could have avoided what happened (Kopper, 1996) and attribute more blame to the victim (Mason et al., 2004). They also perceive themselves to be less vulnerable to sexual assault (Bohner & Lampridis, 2004). Taken together, these findings suggest the possibility of RMA as a quasi-protective factor, serving to moderate the potentially self-threatening nature of messages about sexual violence.

Other studies have investigated RMA as a self-protective mechanism more directly. Bohner et al. (1993) found that women high in RMA were largely unaffected by exposure to a rape report, whereas women low in RMA showed decreases in self-esteem and positive affect. In an extension of this research, the same research group corroborated these results (Bohner et al., 1999; Bohner & Lampridis, 2004).

In sum, endorsing rape myths may function as an avoidance behavior in some women, motivating defensive strategies designed to maintain self-image, for example, "If there's a 'typical' rape victim (as described by rape myths), then to the extent that I'm atypical, I'm in little danger of being victimized." As Bohner et al. (1993) note, however, these rationalizations allow these women only "to maintain 'an illusion of control' over the threat of rape" (p. 576). We note that the immediate consequence of this for sexual violence prevention programs is that RMA may affect women's attention to and so the awareness and acceptance of important information, such as items and information on what consent looks like, the nature of victim-blaming attitudes, and available services and resources for people who experience sexual assault.

The Psychology of Self-Defense: Self-Affirmation Theory

Self-image maintenance processes can play an important role in many women's evaluative judgments of reported sexual assault. An appreciation of why

this is so can be gained by looking to theory. The motivation to believe that bad things happen to bad people (and, conversely, that good things happen to good people), or just world beliefs (Lerner & Matthews, 1967), offers one theoretical framework for understanding. The defensive attribution hypothesis (Shaver, 1970) suggests that one's reactions to threatening or otherwise negative events depends on a combination of two factors: situational and personal relevance. In this article, we investigate the role and influence of self-protective processes from the perspective of self-affirmation theory.

According to self-affirmation theory (Steele, 1988), individuals are fundamentally motivated to protect their self-image. Furthermore, as suggested by the Intertwined Model of Reactance, threatening information can activate negative cognitive schemas and emotions, resulting in a sense of lack of control, feelings of guilt and avoidance, or to backlash effects in which blame is externalized (Dillard & Shen, 2005). In the context of reported sexual assault, for those in whom priming thoughts about sexual assault is self-threatening, they may therefore be motivated to reject the information presented or to rationalize its implications. As explained above, women's endorsement of rape myths may generally be one such self-protective strategy.

When individuals can find support for self-integrity in self-affirmation, however, they can then more carefully consider threatening information and perspectives (Cohen & Sherman, 2014; Sherman, 2013). Accordingly, self-affirmation results in greater perceived control over threatening information (Reed & Aspinwall, 1998) and has been found to increase the effectiveness of health promotion campaigns (Cohen et al., 2000). Self-affirmation techniques have been shown to have physiological bases for their desired effects by buffering neuroendocrine and psychological stress responses (Creswell et al., 2005) and by activating relevant brain-reward systems (Dutcher et al., 2016).

To our knowledge, existing efforts (e.g., of sexual violence prevention programs) to educate about sexual assault have not employed techniques of self-affirmation. Because these efforts do not appear to recognize the role and impact of information-processing biases, they may be less effective or have unintended, counterproductive consequences.

It should also be noted that the effect of self-affirmation should be limited to women for whom the issue of sexual assault is personally relevant. This is because for potentially threatening information to produce defensiveness, it must have some personal relevance (Sherman et al., 2000; see also Liberman & Chaiken, 1992, personal relevance heightens defensive processing, such that high- but not low-relevance subjects process self-threatening messages in a biased fashion). Given the incidence of sexual violence and sexual assault on college campuses (e.g., Krebs et al., 2016), however, this is a concern for most undergraduate women.

The Present Study

The present study addresses whether self-affirming techniques that have been shown to reduce unhelpful thinking styles in other contexts (Cohen & Sherman, 2014) can reduce biased processing of information about sexual assault for women higher in RMA. Adherence to rape myths was established in a study presented as an unrelated study conducted 2 weeks before the primary manipulation. We used a median split to divide women into low- and high-RMA groups.

In the main experiment, participants in the intervention condition affirmed a central value by writing for 10 min about their highest-ranked value; those in the control condition wrote about their ninth-ranked value. We then exposed affirmed and non-affirmed participants to an actual case of sexual assault in the university setting, in which the defendant took off the victim's pants and underwear and touched her inappropriately, and later received a short 6-month jail sentence after being found guilty. All participants were exposed to a persuasive message in the form of a 1,500-word excerpt from the victim impact statement read at trial (e.g., "Future reference, if you are confused about whether a girl can consent, see if she can speak an entire sentence. You couldn't even do that . . . If a girl falls down help her up. If she is wearing a cardigan over her dress don't take it off so that you can touch her breasts. Maybe she is cold, maybe that's why she wore the cardigan.").

Following this, all participants answered survey questions assessing their perceptions of the victim, the perpetrator's responsibility for the sexual assault, and the fairness of the outcome at trial. We then tested for global positive effects of the intervention on conceptualization of consent, post-manipulation rape beliefs, and bystander behaviors. Similarly, we assessed perceived knowledge of procedures and resources for dealing with sexual assault, and belief that if they were sexually assaulted their school would take their case seriously and respect their rights. In view of recent research finding that greater RMA in college women is associated with lower help-seeking intentions and lower intentions to report sexual assault to the university, and also indicating that students' trust in formal supports is a critical variable to take into account (Holland, 2020), these latter factors are timely to consider.

We predicted that for high-RMA women, the self-affirmation intervention would reduce defensive responding to the information, in turn reducing reliance on a self-serving attributional bias and giving rise to a sense of personal agency through greater self-efficacy. In the intervention group we therefore expected to see, relative to high-RMA women in the no-affirmation control condition, higher personal standards in defining consensual sexual behavior, increases in perceived knowledge of available resources for sexual assault

victims, reduced endorsement of rape myths, and increased bystander behaviors. On responses to the priming materials, in the high-RMA group when affirmed than when unaffirmed we expected to see more support for the victim, greater perceived responsibility of the perpetrator for the sexual assault, and a greater willingness to acknowledge the punishment at trial was too lenient. We did not have reason to expect any significant changes in the low-RMA group by affirmation condition.

Accordingly, we used planned comparisons for each of the dependent measures in the study, because it was the most direct test of our theoretically derived hypotheses (see, e.g., Fein & Spencer, 1997). First, we used planned comparisons to examine within-group effects. We hypothesized that any significant differences across conditions would be limited to high-RMA women. An additional analysis was done using between-group comparisons, on the assumption that differences between groups in the no-affirmation control condition would be reduced or eliminated in the intervention condition due to positive changes in the high-RMA group.

Method

Participants and Design

Participants were 86 women drawn from a subject pool at a large public university in California who received partial course credit for participation in two ostensibly unrelated sessions. A total of 16 out of the 86 were excluded for lack of personal relevance. These women had indicated in the study conducted 2 weeks before the primary experimental manipulation, in a dating information survey, that they were not at all worried that they might be sexually assaulted or have sex with someone when they are unable to give consent. However, when we included the full sample in the analysis, results for the global measures were virtually unchanged and were also very similar for the case-specific measures (data not shown). The final sample was mostly heterosexual (92.6%) and ethnically diverse (33.8% Asian American; 27.7% European American; 21.5% Hispanic American; 6.2% African American; 10.8% other).

As noted above, RMA scores used to divide into high and low groups were obtained 2 weeks prior to the main study. In the main study, participants were randomly assigned to either the affirmation or control condition. The experiment therefore contained a 2 (rape myth beliefs: high vs. low) × 2 (affirmation condition: yes vs. no) between-participants factorial design. University Institutional Review Board (IRB) approval was obtained prior to data collection.

Procedure and Materials

Experimental sessions were run in individual sessions in a university lab. In the initial study, the experimenter instructed participants that the purpose of the session was to learn more about the relationship between personality traits (e.g., the big five inventory), media exposure, and sexual attitudes. The Rape Supportive Attitudes Scale, 10-item version (Lottes, 1991), was used to measure rape myth beliefs.

In the main experiment, participants were told that they would be participating in two unrelated studies in our lab: (a) a brief study designed to collect data on how well college students can express themselves in writing, related to a criterion commonly used by companies in selecting employees; and (b) a study of factors contributing to campus sexual assault.

In actuality, the writing exercise served as the affirmation manipulation. Participants were given a values scale (Harber, 1995) that has been used in other affirmation studies (Davis et al., 2016; Sherman et al., 2000) and asked to rank their values. In the self-affirmation condition, participants were told that they had 10 min to write a short essay about their top-ranked value/quality, including why this value/quality is important to them and how it makes them feel good about themselves. In the no-affirmation control condition, participants were asked to write for 10 min about their ninth-ranked value/quality, and why this might be important to the average college student. Participants were randomly assigned to conditions, and the experimenter was unaware of participants' treatment condition as the affirmation materials were placed in envelopes and randomly ordered prior to the session.

Following completion of this exercise, for the last part of the experiment, participants read about a controversial case of campus sexual assault in which the defendant denied intending to commit rape. Materials came from news reports and court records (e.g., Anderson & Svrluga, 2016; Baker, 2016; Rocha, 2016). Both parties were drunk and there had been consensual dancing and kissing. Describing himself as an "inexperienced drinker and party-goer," the defendant blamed the "party culture and risk-taking behavior" that goes along with campus life (Rocha, 2016). The materials included lengthy excerpts from the probation report in the case and a persuasive message from the victim impact statement read at trial. Among others, the case description noted that the victim's attorney had asked for a 6-year prison sentence; that, under the law, the defendant could have served up to a maximum of 14 years in prison; and that the judge had sentenced him to 6 months in jail based on a finding of "unusual circumstances" in the case, such as the fact that he was young, did not have any prior criminal convictions, was intoxicated, and did not demonstrate criminal sophistication.

A manipulation check indicated that participants were unaware that the various studies were related.

Dependent Measures

Participants first rated the victim in terms of her overall personality, which was assessed by the extent to which they agreed that each of 20 traits described her (e.g., sincere, superficial; Cronbach's α = .82). Negative traits were reverse scored. This measure has been used in other self-affirmation studies (Fein & Spencer, 1997). This was followed by a more basic measure of liking adapted from Rubin's (1973) Liking Scale, in which participants indicated the degree of victim liking (three-item scale; Cronbach's α = .82; e.g., in their opinion, is the victim of an exceptionally mature person). To reduce the data, we combined the two variables (bivariate correlation = .68) into one summary score labeled victim liking (Cronbach's α = .86).

Next, participants rated their agreement with a series of statements drawn from news reports and court records. A principled components analysis with a Varimax rotation showed that the items loaded on three different factors, which we labeled blaming the victim (two-item scale; Cronbach's α = .71; e.g., was it wrong for the defendant's attorney to ask the victim how many times she had blacked out in college), perpetrator's responsibility for the sexual assault (four-item scale; Cronbach's α = .66; e.g., was the defendant less responsible for the sexual assault because he was away from home and influenced by the campus party culture), and fairness of the outcome (three-item scale; Cronbach's α = .73; e.g., was it correct for the judge to call this an "unusual case" where the interests of justice would best be served by a reduced sentence).

For evidence of more global effects, we used questions from *The Survey of Current and Recent College Students on Sexual Assault* ("Washington Post-Kaiser Family Foundation Survey of College Students on Sexual Assault," 2015). We asked participants to indicate how realistic is the "yes means yes" standard of consent in practice when people are initiating and engaging in any sexual activity (i.e., affirmative consent), coded on a scale of 1 to 4 with 1 = *very realistic* and 4 = *not at all realistic*. Similarly, three items measured conceptualization of consent (e.g., do they think that if a person does not say "no," this establishes consent for *more* sexual activity). Cronbach's alpha for the scale was .69. We also assessed knowledge and awareness of procedures and resources for dealing with sexual assault (e.g., if a friend were sexually assaulted, would they know where to take their friend to get help). Cronbach's alpha for the three-item scale was .84. At a more personal level, participants were

asked if they were sexually assaulted, do they believe that their school would (a) take their case seriously, (b) protect their privacy, and (c) treat them with dignity and respect. Cronbach's alpha for the combined measure was .84. Three items assessed post-manipulation rape beliefs (e.g., do they think that, a lot of the time, what people say is rape is actually consensual sex that they later regretted). Cronbach's alpha for the scale was .71. Bystander behaviors were measured by four items indicating intention to intervene (e.g., if they were to see someone who looks uncomfortable and is being touched or grabbed in a sexual way, how likely would they be to speak up or help in some other way). Cronbach's alpha for this scale was .64.

Results

General Measures

Given that self-affirmation decreases defensiveness and increases perceived control, thereby reducing reliance on a self-serving attributional bias and fostering self-efficacy (Reed & Aspinwall, 1998), we predict that affirming a central value may likely have general positive effects on high-RMA women's attitudes and beliefs about sexual violence (e.g., on how to think about sexual coercion and what sexual consent is). Although the same trend might be possible for low-RMA women, we did not have reason to expect changes in this group across conditions.

How realistic is the "yes means yes" standard of consent? The planned comparison confirmed that the intervention had the greatest effect on women higher in RMA. High-RMA women were more likely when affirmed ($M = 2.00$) than when unaffirmed ($M = 2.50$) to believe that the "yes means yes" standard is realistic to use in practice, $t(1, 31) = -2.15, p < .05$, whereas women lower in RMA were unchanged across condition ($M = 2.00$, affirmed; $M = 2.08$, control), $t(1, 35) = -0.34, p = .74$. Consistent with this view, in the control condition high-RMA women were less likely than low-RMA women to back the use of the "yes means yes" standard of consent $t(1, 38) = -2.01$, ($p = .05$), but there was no difference between the two groups when affirmed $t(1, 28) = 0.00$, ($p = 1.00$).

Conceptualization of consent. In line with prediction, affirmed high-RMA women were significantly less willing to accept that consent has been established in situations where the person did not clearly agree ($M = 11.90$) than were high-RMA women in the no-affirmation control

condition ($M = 9.71$), $t(1, 31) = 2.89$, $p < .01$. Women low in RMA were unchanged across conditions ($M = 12.55$, affirmed; $M = 12.23$, control), $t(1, 35) = 0.50$, $p = .62$. From a different angle, we can see that in the control condition high-RMA women were significantly more likely than low-RMA women to believe that consent has been obtained in these situations, $t(1, 38) = 4.79$, $p < .001$. Importantly, however, in the intervention condition there was no difference between the two groups, $t(1, 28) = 0.74$, $p = .47$.

Knowledge and awareness. The analysis showed that high-RMA women reported greater knowledge and awareness of procedures and services for dealing with sexual assault when affirmed ($M = 6.05$) than when unaffirmed ($M = 8.57$), $t(1, 31) = -2.67$, $p = .01$, whereas women lower in RMA were unchanged across conditions ($M = 7.73$, affirmed; $M = 7.81$, control), $t(1, 35) = -0.09$, $p = .93$. Somewhat surprisingly perhaps, when both groups were affirmed high-RMA women tended to report greater understanding of supportive resources than low-RMA women, approaching statistical significance, $t(1, 28) = -1.72$ ($p = .09$).

If I were sexually assaulted. Planned comparison of responses indicated marginal changes by affirmation condition in the high-RMA group in beliefs that if they were sexually assaulted, their school would take their case seriously, protect their privacy, and treat them with dignity and respect. Women higher in RMA were slightly more likely when affirmed ($M = 6.47$) than when unaffirmed ($M = 7.71$) to believe that if they were sexually assaulted their school would do a good job in this area, $t(1, 31) = -1.76$ ($p = .09$), approaching statistical significance (lower scores indicate a better opinion of their school's efforts related to sexual assault). There was no effect of affirmation condition on low-RMA women ($M = 7.55$, affirmed; $M = 8.15$, control), $t(1, 35) = -0.76$, $p = .45$.

Post-manipulation rape beliefs. Although women low in RMA were unchanged across affirmation condition ($M = 13.64$, affirmed; $M = 13.85$, control), $t(1, 35) = -0.38$, $p = .71$, women higher in RMA, as hypothesized, were less likely to endorse rape myths in the intervention study if self-affirmed ($M = 13.05$) than if not affirmed ($M = 11.07$), $t(1, 31) = 3.07$, $p < .01$. Important as well, although in the control condition high-RMA women, as expected, reported higher levels of rape beliefs than low-RMA women, $t(1, 38) = 4.83$, $p < .001$, there was no difference between groups in the intervention condition, $t(1, 28) = 0.95$, $p = .35$, that is, when affirmed, both groups of women were equally likely to reject rape myths.

Bystander behaviors. Planned comparison of responses suggested no effect of the intervention on this outcome measure.

Case-Specific Measures

If self-affirmation specifically reduces the motivation in high-RMA women to respond defensively to the priming materials, then we should see in the intervention group relative to the control condition more support for the victim, greater perceived responsibility of the perpetrator for the sexual assault, and a greater willingness to acknowledge the punishment at trial was too lenient. Again, we did not have reason to expect changes in low-RMA women across conditions.

Victim liking. A priori planned comparison of responses indicated that the affirmation intervention had the greatest effect on women higher in RMA. Women higher in RMA tended to report more positive evaluations of the victim when affirmed ($M = 48.44$) than unaffirmed ($M = 55.50$), approaching statistical significance, $t(1, 30) = -1.73$, $p = .09$. Low-RMA women were unchanged across conditions ($M = 49.89$, affirmed; $M = 45.27$, control), $t(1, 33) = 1.10$, $p = .28$. Also consistent with predictions, in the control condition high-RMA women rated the victim significantly more negatively than did low-RMA women, $t(1, 38) = -3.05$, $p < .01$, whereas when affirmed there was no longer any difference between the two groups, $t(1, 25) = 0.32$, $p = .75$.

Victim blaming. Contrary to prediction, results showed only an effect for low-RMA women. They were less likely to blame the victim when affirmed ($M = 2.82$) than unaffirmed ($M = 4.19$), $t(1, 35) = -2.27$, $p < .05$.

Perpetrator's responsibility for the sexual assault. Attribution of responsibility questions, which suggested that the sexual assault was less serious for various reasons, yielded no significant results.

Fairness of the outcome. The planned comparison indicated that the intervention had the greatest effect on women higher in RMA. They were less likely to agree that under the circumstances a reduced sentence best serves the interest of justice when affirmed ($M = 13.36$) than when unaffirmed ($M = 12.00$), $t(1, 31) = 2.15$, $p < .05$. Women low in RMA were unchanged across affirmation condition ($M = 13.36$, affirmed; $M = 13.27$, control), $t(1, 35) = 0.25$, $p = .81$. A somewhat different analysis supports this same conclusion. As expected, in the control condition high-RMA women were more likely than

low-RMA women to agree with the outcome, $t(1, 38) = 2.09$, $p < .05$. There was, however, no difference between groups when affirmed, $t(1, 28) = 0.55$, $p = .58$.

Discussion

This study provides support for the benefits of self-affirmation techniques on women's responses to information about sexual assault. For many women who endorse rape myths, their beliefs may function as an avoidance behavior designed to maintain self-image. Self-affirmation, however, made it easier for these women to be less defensive about important but potentially self-threatening information, leading to increased knowledge, agency, and positive health behaviors in the target group in a number of important ways. In the intervention compared with the control condition, high-RMA women: (a) used a more stringent definition for what it means to establish consent for more sexual activity; (b) found the "yes means yes" standard of consent to be more realistic in practice; (c) decreased reported adherence to rape myths; (d) reported more knowledge and awareness of existing procedures and resources for dealing with sexual assault when it occurs; (d) were more likely to believe that sexual aggressors should be punished according to the law; (e) evidenced somewhat more positive perceptions of a sexual assault victim as measured by victim liking; (f) and tended to be more likely to believe that if they were sexually assaulted, their university would take their case seriously, protect their privacy, and treat them with dignity and respect. Using a similar analysis we can see that although without the intervention, high-RMA women differed from low-RMA women in nearly all of these instances in a way that encourages the trivialization of sexual violence and would seem to foster the perpetuation of a rape culture, there weren't any differences between the two groups when affirmed.

This study also has implications for improving the effectiveness of sexual violence prevention programs on college campuses. Importantly, evaluations suggest that only a small number of these programs are effective (Gidycz, 2018; Newlands & Donohue, 2016). Those that have shown effectiveness generally involve bystander interventions affecting bystander behaviors only (Edwards et al., 2019) or a focus on self-defense training programs for women (Senn et al., 2017).

To our knowledge, existing efforts of sexual violence prevention programs to educate about sexual assault have not employed techniques of self-affirmation. Because these efforts do not appear to recognize the role and impact of information-processing biases, they may be less effective or have unintended, counterproductive consequences. Here we suggest that many commonly used

interventions may fail in part because they may lead to defensive processing and biased judgment that is likely to undermine the goals of the intervention. This study demonstrated that one such risk factor for negative outcomes is women's RMA. Consistent with self-affirmation theory and the motivational mechanisms in defense responses to threatening information (Cohen & Sherman, 2014; Steele, 1988), our findings suggest that for women higher in RMA, affirming a central value can moderate a negative processing bias in appraisal of educational information about sexual assault, such as in defining sexual consent.

Several features of the findings support the relation of self-affirmation to perceived control over threatening information (Reed & Aspinwall, 1998) and, relatedly, of a tendency perhaps to self-handicap reported ability under ordinary conditions of self-threat (Steele & Aronson, 1995). For example, in the invention condition women higher in RMA were more likely to find unfair the outcome of a sexual assault case. Here, the intervention may have influenced these women to advocate for a more "just" result when self-affirmed because they then may have felt that they had the psychological resources to take on this challenge of inappropriately light sentences in these cases. Other results such as high-RMA women's greater endorsement of the realistic use of the "yes means yes" standard of consent and greater knowledge and awareness of available sexual assault procedures and services when self-affirmed can be similarly explained.

This is also in keeping with related theories. For example, social cognitive theory accords a central role to self-regulatory processes in the nature and function of human agency (Bandura, 1989). In this view, greater self-efficacy contributes to resilience in the face of perceived difficulties or setbacks in ordinary social realities, including heightened expectations of what one can do to affect the course of all manner of adverse outcomes affecting the individual (Bandura, 1994). Similarly, just world theory explains that it is "rational" to accept "unwarranted" outcomes as just if efforts to restore justice are blocked or seem to be unavailable goals (Lerner, 1980). Assuming, however, that self-affirmation facilitates the need to maintain a self-image as "moral, adaptive, and capable" (Sherman et al., 2000, p. 1,048), then it makes sense that self-affirmation would have motivated women higher in RMA in our study to take steps to avoid bad outcomes in the increased belief that they can make a difference through agentic action.

Despite these findings, on a measure of bystander behavior high-RMA women did not report greater intention to intervene to prevent sexual assault, indicating no effect of the affirmation on this outcome. From a theoretical perspective, this perhaps hints at the importance of distinguishing between personal and collective efficacy. The effect of self-affirmation is most

closely linked to the former (Derks et al., 2009). This is to say that self-affirmation enhances individual identity, group affirmation enhances collective identity, and they work in different ways (Derks et al., 2009). Given the association between self-affirmation, individual identity, and people's beliefs in their capabilities to exercise control over events that affect their lives (Bandura, 1995), it is perhaps understandable that with respect to other-directed behaviors such as bystander intervention, self-affirmation would fail to achieve this goal.

This may also help explain why self-affirmation failed to change high-RMA women's perceptions of responsibility for the sexual assault, especially the perpetrator's responsibility. This is because motivated information processing associated with self-affirmation is less likely to be used with respect to information about other people with whom identification is low, in that an individual's perceived influence over her environment is less in these situations.

Finally, we should caution that a number of factors might limit the usefulness of the findings. This includes a relatively small sample size ($N = 70$) and the fact that the information conveyed to participants, although important, potentially self-threatening, and having a persuasive appeal in the substance of the victim impact statement, did not have the distinct character of a typical educational intervention. On the contrary, to the extent that failed interventions may be explained partially by the perceived "preaching" nature of the interventions often used, which may be very likely to activate defensive responses and therefore reduce persuasion, using the account of the victim rather than a more traditional didactic message to induce change may have been a strength of the procedures used in the present study.

Future Directions

Here we focused on how self-affirmation relates to information about sexual assault that threatens self-image maintenance. Among others, future research might include a focus on issues of collective rather than personal self-esteem. As Derks et al. (2009) describe in their study of self- versus group affirmation, "depending on whether personal or social identity is cognitively salient, individuals will focus on either their personal welfare or the welfare of their group as a whole" (p. 192). In view of this, our focus on self-affirmation may help explain why the intervention here was largely effective within the target group on events that can be seen to affect their own lives (e.g., what constitutes sexual consent, their knowledge and understanding of resources and actions for dealing with sexual assault), but also why it was relatively ineffective in changing behaviors that were more tangential to individual identity, such as intentions to help people you do not know very well in bystander situations.

Following this logic, future studies in this area might start by affirming aspects of the collective self in women higher and lower in RMA. Then, affirmed and control participants could be examined on how they respond to information associated with group or social identities, such as identification with a sexual assault victim, attributions of blame, and bystander behaviors. If affirming a part of the self-concept of group members were to cause one to view a threat of sexual assault to another woman as a threat to self, due to the priming of a shared group identity, then this may have positive implications for these outcome measures within the target group. In some support, studies show that bystanders intend to offer more help to friends than strangers in potential party rape scenarios based on their shared social group membership (Katz et al., 2014).

Importantly, however, although this may suggest the utility of group affirmation so as to reduce the perception of difference and so to increase, for example, bystander behavior, it is complicated by the fact that in some situations group affirmation may be less effective in promoting behavior change to the benefit of the group for low-identified than high-identified group members (Derks et al., 2009). Such a distinction is relevant to the study of RMA. Compared with low-RMA women, women higher in RMA tend to have lower chronic accessibility of gender as a mode of self-construal and to see rape as happening to a distinct outgroup (i.e., potential rape victims; Bohner et al., 1999). Even though group affirmation turns the focus to the social self, it is therefore important to consider the group membership primed. For example, perhaps for sexual violence prevention programs in undergraduate settings, high-RMA women should be affirmed in their affiliation with the campus community, which may be more likely to motivate group-serving behaviors than if the collective aspects of the self to be primed were gender related. Future research might explore this issue.

Other research might explore how affirmation interventions can promote positive behaviors in sexually aggressive men. We are presently conducting preliminary studies in this area. We should note here that studies that have examined the impact of commonly used rape prevention interventions on low- vs. high-risk men tend to find these interventions to be relatively ineffective or counterproductive with high-risk men (Elias-Lambert & Black, 2016; Stephens & George, 2009), leading some to conclude that "high-risk males may require a different type of prevention program that can help change the stubborn attitudes and habits they have developed" (Elias-Lambert & Black, 2016, p. 3,229)

One complicating factor for high-risk males may be that for those in whom rape myths are deeply held beliefs and where there is little or no internal inconsistency, affirming them might possibly lead to more negative outcomes in some by decreasing evaluation apprehension of socially undesirable responses (for a

related example, see Davis et al., 2016). This point underscores the importance of using affirmation in the context of more comprehensive educational programs. Whether with women higher in RMA or with sexually aggressive men, affirmation interventions should be most effective in the context of educational efforts of some duration and intensity, which can take advantage of participants' decreased defensiveness to promote information acceptance and behavior change. Indeed, in general, one-shot or other brief interventions are unlikely to achieve lasting behavioral change. Moreover, one of the basic principles associated with effective prevention programs is that participants need to be exposed to enough of the intervention to have an effect, as measured by the quality and quantity of contact hours (Nation et al., 2003). Consistent with this notion, among sexual violence prevention researchers there has been a growing recognition for the need for such a comprehensive framework, underscored similarly by the Social-Ecological Model used by the Centers for Disease Control and Prevention, which incorporates the dynamic interplay between individual, relationship, community, and societal factors (Dahlberg & Krug, 2002).

Conclusion

In an op-ed article in the *New York Times* criticizing Aziz Ansari's accuser, opinion writer Bari Weiss (2018) wrote that she has had similar "lousy sexual encounters" but did not say anything at all about them because they were far from being sexual assault, while acknowledging that many feminists might view her response to the story as internalized misogyny. She added that if you start to hook up and do not like the way he acts, end it.

If there's anything that the Ansari accusation revealed, it is that information processing is complicated. Sometimes we pretend that our own biases do not exist. The Ansari story, for example, was notable for the number and variation of rape myths that were contained in commentators' critical responses to Grace's account (for a summary, and an analysis of how the perpetuation of rape myths in situations like this can affect our understanding of gender roles, responsibility, and sexual violence, see Hindes & Fileborn, 2020).

If the goal is contributing to the end of a rape culture and empowering women, however, there are ways to reduce bias as a factor influencing perception. Here, we used self-affirmation techniques to decrease defensive responses to important but potentially self-threatening information about sexual assault. We found that when self-affirmed, women higher in rape myth beliefs increased their self-reported awareness and acceptance of important information about sexual assault and changed their reactions to an actual sexual assault. By allowing for a decoupling of self and threat, the affirmation exercise presumably allowed cognitive processes to produce more agentic/

adaptive responses in a group of women who under normal conditions tend to exhibit a negative processing bias. This is a promising result, with positive implications for pairing educational interventions with self-affirming techniques, and particularly for changing the conversation about consent, the rape culture, and what should be normative and expected.

Declaration of Conflicting Interests

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References

Anderson, N., & Svrluga, S. (2016, June). In Stanford sexual assault case, probation officer recommended "moderate" jail term. *The Washington Post*. https://www.washingtonpost.com/news/grade-point/wp/2016/06/10/probation-officers-report-for-brock-turners-sentencing

Baker, K. J. M. (2016, June). Here's the powerful letter the Stanford victim read to her attacker. *BuzzFeed News*. https://www.buzzfeednews.com/article/katiejmbaker/heres-the-powerful-letter-the-stanford-victim-read-to-her-ra

Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, *44*(9), 1175–1184.

Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71–81). Academic Press.

Bandura, A. (1995). Exercise of personal and collective efficacy in changing societies. In A. Bandura (Ed.), *Self-efficacy in changing societies* (pp. 1–45). Cambridge University Press.

Bohner, G., Eyssel, F., Pina, A., Siebler, F., & Viki, G. T. (2009). Rape myth acceptance: Affective, behavioral, and cognitive effects of beliefs that blame the victim and exonerate the perpetrator. In M. Horvath & J. Brown (Eds.), *Rape challenging contemporary thinking* (pp. 17–45). Willan.

Bohner, G., & Lampridis, E. (2004). Expecting to meet a rape victim affect's women's self-esteem: The moderating role of rape myth acceptance. *Group Processes & Intergroup Relations*, *7*(1), 77–87.

Bohner, G., Seibler, F., & Raaijmakers, Y. (1999). Salience of rape affects self-esteem: Individual versus collective self-aspects. *Group Processes & Intergroup Relations*, *2*(2), 191–199.

Bohner, G., Weisbrod, C., Raymond, P., Barzvi, A., & Schwarz, N. (1993). Salience of rape affects self-esteem: The moderating role of gender and rape myth acceptance. *European Journal of Social Psychology*, *23*, 561–579.

Burt, M. R. (1991). Rape myths and acquaintance rape. In A. Parrot & L. Bechhofer (Eds.), *Acquaintance rape: The hidden crime* (pp. 26–40). John Wiley.

Cohen, G. L., Aronson, J., & Steele, C. M. (2000). When beliefs yield to evidence: Reducing biased evaluation by affirming the self. *Personality and Social Psychology Bulletin*, *26*, 1151–1164.

Cohen, G. L., & Sherman, D. K. (2014). The psychology of change: Self-affirmation and social psychological intervention. *Annual Review of Psychology*, *65*, 333–371. https://doi.org/10.1146/annurev-psych-010213-115137

Creswell, J. D., Welch, W. T., Taylor, S. E., Sherman, D. K., Gruenewald, T. L., & Mann, T. (2005). Affirmation of personal values buffers neuroendocrine and psychological stress responses. *Psychological Science*, *16*(11), 846–851.

Dahlberg, L. L., & Krug, E. G. (2002). Violence: A global health public program. In E. G. Krug, L. L. Dahlberg, J. A. Mercy, A. B. Zwi, & R. Lozano (Eds.), *World report on violence and health* (pp. 1–56). World Health Organization.

Davis, D., Soref, A., Villalobos, J. G., & Mikulincer, M. (2016). Priming states of mind can affect disclosure of threatening self-information: Effects of self-affirmation, mortality salience, and attachment orientations. *Law and Human Behavior*, *40*(4), 351–361.

Derks, B., van Laar, C., & Ellemers, N. (2009). Working for the self or working for the group: How personal and social self-affirmation promote collective behavior among members of devalued groups. *Journal of Personality and Social Psychology*, *96*, 183–202.

Dillard, J. P., & Shen, L. (2005). On the nature of reactance and its role in persuasive health communication. *Communication Monographs*, *72*, 144–168.

Dutcher, J. M., Creswell, J. D., Pacilio, L. E., Harris, P. R., Klein, W. M. P., Levine, J. M., Bower, J. E., Muscatell, K. A., & Eisenberger, N. I. (2016). Self-affirmation activates the ventral striatum: A possible reward-related mechanism for self-affirmation. *Psychological Science*, *27*, 455–666.

Edwards, K. M., Banyard, V. L., Sessarego, S. N., Waterman, E. A., Mitchell, J. K., & Chang, H. (2019). Evaluation of a bystander-focused interpersonal violence prevention program with high school students. *Prevention Science*, *20*, 488–498. https://doi.org/10.1007/s11121-019-01000w

Elias-Lambert, N., & Black, B. M. (2016). Bystander sexual violence prevention program: Outcomes for high- and low-risk university men. *Journal of Interpersonal Violence*, *31*, 3211–3235.

Fein, S., & Spencer, S. J. (1997). Prejudice as self-image maintenance: Affirming the self through derogating others. *Journal of Personality and Social Psychology*, *73*(1), 31–44.

Gidycz, C. A. (2018). Sexual assault risk reduction: Current state and historical underpinnings. In L. M. Orchowski & C. A. Gidycz (Eds.), *Sexual assault risk reduction and resistance: Theory, research, and practice* (pp. 3–14). Academic Press.

Hamblin, J. (2018, January). This is not a sex panic: Stories of gray areas are exactly what more men need to hear. *The Atlantic*. https://www.theatlantic.com/entertainment/archive/2018/01/this-is-not-a-sex-panic/550547/

Harber, K. (1995). *Sources of validation scale*. Unpublished manuscript.

Hindes, S., & Fileborn, B. (2020). "Girl power gone wrong": #MeToo, Aziz Ansari, and media reporting of (grey area) sexual violence. *Feminist Media Studies*, *20*, 639–656. https://doi.org/10.1080/14680777.2019.1606843

Holland, K. (2020). Correlates of college women's intentions to use formal campus supports for sexual assault. *Psychology of Violence*, *10*, 245–254. http://dx.dio.org/10.1037/vio0000240

Katz, J., Pazienza, R., Olin, R., & Rich, H. (2014). That's what friends are for: Bystander responses to friends or strangers at risk for party rape victimization. *Journal of Interpersonal Violence*, *30*(16), 2775–2792.

Kopper, B. (1996). Gender, gender identity, rape myth acceptance, and time of initial resistance on the perception of acquaintance rape blame and avoidability. *Sex Roles*, *34*(1), 81–93.

Krebs, C., Lindquist, C., Berzofsky, M., Shook-Sa, B., Peterson, K., Planty, M., Langton, L., & Stroop, J. (2016). *Campus climate survey validation study final technical report* (Bureau of Justice Statistics research and development series). https://www.bjs.gov/content/pub/pdf/ccsvsftr.pdf

Kunst, J. R., Bailey, A., Prendergast, C., & Gundersen, A. (2019). Sexism, rape myths and feminist identification explain gender differences in attitudes toward the #metoo social media campaign in two countries. *Media Psychology*, *22*(5), 818–843.

Lerner, M. J. (1980). *The belief in a just world: A fundamental delusion*. Plenum.

Lerner, M. J., & Matthews, G. (1967). Reactions to suffering of others under conditions of indirect responsibility. *Journal of Personality and Social Psychology*, *5*(3), 319–325.

Liberman, A., & Chaiken, S. (1992). Defensive processing of personally relevant health messages. *Personality and Social Psychology Bulletin*, *18*(6), 669–679.

Lonsway, K. A., & Fitzgerald, L. F. (1994). Rape myths in review. *Psychology of Women Quarterly*, *18*, 133–164.

Loseman, A., & van den Boss, K. (2012). A self-regulation hypothesis of coping with an unjust world: Ego-depletion and self-affirmation as underlying aspects of blaming of innocent victims. *Social Justice Research*, *25*, 1–13.

Lottes, I. L. (1991). Belief systems: Sexuality and rape. *Journal of Psychology & Human Sexuality*, *4*, 37–59.

Mason, G. E., Riger, S., & Foley, L. A. (2004). The impact of past sexual experiences on attributions of responsibility for rape. *Journal of Interpersonal Violence*, *19*, 1157–1171.

Nation, M., Crusto, C., Wandersman, A., Kumpfer, K. L., Seybolt, D., Morrissey-Kane, E., & Davino, K. (2003). Applying the principles of prevention: What do prevention practitioners need to know about what works. *American Psychologist*, *58*, 449–456.

Newlands, R., & O'Donohue, W. (2016). A critical review of sexual violence prevention on college campuses. *Acta Psychopathologica*, *2*, 14. https://doi.org/10.4172/2469-6676.100040

Paquin, G. J. (2016). *Can self-affirmation decrease blame toward a victim of sexual assault?* (Open access dissertations, paper 453). https://digitalcommons.uri.edu/oa_diss/453

Reed, M. B., & Aspinwall, L. G. (1998). Self-affirmation reduces biased processing of health-risk information. *Motivation and Emotion*, *22*(2), 99–132.

Rocha, V. (2016, June). Former Stanford swimmer blames "party culture and risk-taking behavior" for sexual assault. *Los Angeles Times*. https://www.latimes.com/local/lanow/la-me-ln-brock-turner-party-culture-20160608-snap-story.html

Rubin, Z. (1973). *Liking and loving: An invitation to social psychology*. Holt, Rinehart, & Winston.

Senn, C. Y., Eliasziw, M., Hobden, K. L., Newby-Clark, I. R., Barata, P. C., Radtke, H. L., & Thurston, W. E. (2017). Secondary and 2-year outcomes of a sexual assault resistance program for university women. *Psychology of Women Quarterly*, *41*(2), 147–162.

Shaver, K. (1970). Defensive attribution: Effects of severity and relevance of responsibility assigned for an accident. *Journal of Personality and Social Psychology*, *14*, 101–113.

Sherman, D. A. K. (2013). Self-affirmation: Understanding the effects. *Social and Personality Psychology Compass*, *7*(11), 834–845.

Sherman, D. A. K., Nelson, L. D., & Steele, C. M. (2000). Do messages about health risks threaten the self? Increasing the acceptance of threatening health messages via self-affirmation. *Personality and Social Psychology Bulletin*, *26*(9), 1046–1058.

Silver, N., & Hovick, S. R. (2018). A schema of denial: The influence of rape myth acceptance on beliefs, attitudes, and processing of affirmative consent campaign messages. *Journal of Health Communication: International Perspectives*, *23*(6), 505–513.

Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 261–302). Academic Press.

Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual performance of African Americans. *Journal of Personality and Social Psychology*, *69*(5), 797–811.

Stephens, K. A., & George, W. H. (2009). Rape intervention with college men: Evaluating risk status. *Journal of Interpersonal Violence*, *24*, 996–1013.

Washington Post-Kaiser Family Foundation survey of college students on sexual assault. (2015, June 12). *The Washington Post*. http://apps.washingtonpost.com/g/page/national/washington-post-kaiser-family-foundation-survey-of-college-students-on-sexual-assault/1726/

Weiss, B. (2018, January). Aziz Ansari is guilty. Of not being a mind reader. *The New York Times*. https://www.nytimes.com/2018/01/15/opinion/aziz-ansari-babe-sexual-harassment.html

Yeater, E. A., Treat, T. A., Viken, R. J., & McFall, R. M. (2010). Cognitive processes underlying women's risk judgments: Associations with sexual victimization history and rape myth acceptance. *Journal of Consulting and Clinical Psychology*, *78*(3), 375–386.

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